FINAL ENVIRONMENTAL IMPACT REPORT

WEST LATHROP SPECIFIC PLAN

Prepared for the

CITY OF LATHROP, CALIFORNIA

by

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TABLE OF CONTENTS

PART I

EXECUTIVE SUMMARY
FINAL EIR RESPONSE TO COMMENTS

INTRODUCTION

The Final EIR (FEIR) for the proposed West Lathrop Specific Plan consists of the entire Draft EIR, written comments submitted to the City of Lathrop regarding the Draft EIR and the City's responses to the comments contained in this "Response to Comments" document. Based on the written comments received, where the need for corrections or minor additions have been accepted by the City, the changes are provided in this Executive Summary and as responses to written comments in Part II. All responses to comments have been prepared by Robert E. Grunwald, AICP, ASLA, President of Grunwald & Associates, City & Environmental Planning Consultants, of Sacramento, California. Mr. Grunwald was assisted by Mark Crane, Principal of the Crane Transportation Group, Dr. John Little of Sycamore Environmental Consultants (biological resources), Dr. Richard Pollack (air quality), L.A. Moldenhauer, Principal of Moldenhauer Engineering Company, and John Cone, Principal of Urban Economics and Planning Systems. All responses have been reviewed by, and reflect the official position of, appropriate City staff.

The Draft EIR (DEIR) was circulated for 45 days for public review and comment as prescribed by law. Written public comments were received by Pam Carder, Director of the Lathrop Community Development Department.

In addition to this FEIR, the City will prepare and adopt a Mitigation Monitoring Program (MMP). The MMP sets forth the short-, medium- and long-range responsibilities of the City of Lathrop (acting as Lead Agency), various agencies at federal, state and local levels (acting as Responsible or Trustee Agencies), and private organizztions and individuals for implementing the mitigation measures identified in the Draft and Final EIRs. The MMRP will be available for public review at the offices of the Lathrop Community Development Department in City Hall, 16775 Howland Road, Suite #1, Lathrop.

ORGANIZATION OF COMMENTS AND RESPONSES

Letters of comment received by the City of Lathrop on the Draft EIR are responded to in Parts II-IV in the order listed below. Each Comment Letter is numbered in the upper right-hand corner of the first page of comment. Each Comment Letter requiring a response is followed by the response. Where more than one topic is commented upon, the comments are identified by a letter (A,B, etc.) in the left-hand margin of the page, with corresponding letters identifying the appropriate response.

Where similar comments have been received by more than one party, reference is made to the initial response to avoid redundant responses. Generally, comments on the Specific Plan are responded to only where such comment is relevant to environmental concerns that are consistent with the purposes of the EIR and CEQA.

ORDER OF COMMENT AND RESPONSE

State, Federal and Regional Agencies and/or Their Representatives

1. Governor's Office of Planning and Research [no response required]
2. California Department of Transportation
3. California Department of Fish & Game
4. California State Lands Commission
5. California Department of Conservation
6. Department of the Army, Corps of Engineers, Sacramento
7. U.S. Department of the Interior, Fish and Wildlife Service, Sacramento
8. San Joaquin Valley Unified Air Pollution Control District
9. San Joaquin Regional Rail Commission

Local Agencies and/or Their Representatives

10. San Joaquin County Local Agency Formation Commission
11. San Joaquin County Administrator
12. San Joaquin County Department of Public Works
13. San Joaquin County Community Development Department
14. City of Stockton
15. City of Manteca
16. City of Tracy
17. Tracy Public Schools
18. Banta Elementary School District [no response required]
19. South San Joaquin Irrigation District
20. Reclamation District No. 17

Private Organizations and Individuals

21. Morrison & Foerster
22. Mossdale Associates
23. Land Utilization Alliance
24. San Joaquiin County Farm Bureau Federation
25. Eric Parfrey
26. Georgianna Reichelt

SUMMARY OF CHANGES AND ADDITIONS TO THE EIR

Changes to the text of the Draft EIR (DEIR), including additional or modified mitigation measures, are provided below in the order in which the topic involved first appears in Parts II - IV of this document. Three figures are provided at the end of Part I to assist the reader in visualizing proposals of the Specific Plan referred to in the FEIR. "Figure I-1, Local Setting" shows proposals of the Specific Plan area in relation to the cities of Lathrop, Manteca and Tracy; "Figure I-2, Land Use Diagram" shows the land use and circulation proposals for the entire West Lathrop Specific Plan area; and Figure I-3, "Land Use - Stewart Tract Alternative E" shows a conceptual arrangement of more specific types of land use for Stewart Tract. Figure I-2 was prepared to bridge the gap in visual presentation between broad scale proposals of the General Plan and the conceptual arrangement of proposals shown on Figure I-2.

Comment Letter No. 2 - California Department of Transportation

A. The following statements are added as an Introduction to the top of pIV-21 of the DEIR:

1. Original proposals of the Specific Plan with respect to the assumed roadway network, traffic circulation, and project phasing of transportation infrastructure improvements which assume long-term use of the Mossdale/Manthey interchange have not been found to be feasible or capable of implementation because of failure to meet adopted freeway design standards and the hazards introduced by winter fog.

2. Proposals of Project (formerly referred to in the DEIR as Alternative E) do include freeway access tentatively approved by Caltrans and phased roadway improvements serving Stewart Tract which are feasible, based on the level of analysis presented in the Draft EIR.

B. The following mitigation measures are added to DEIR page I-13:

Measure # 7: The alignment of Golden Valley Parkway recommended by Caltrans westerly of the Southern Pacific Railroad across Stewart Tract is accepted and is shown as part of the Alternate E land use and circulation proposals which have become part of the Project. It is anticipated that the Parkway will be constructed between Gold Rush Boulevard (Louise Avenue interchange) and the Paradise Road interchange sometime between 2005 and 2017.

Measure #8: It is agreed that the Louise Avenue interchange will require complete reconstruction to handle the projected traffic volumes; the existing Project Study Report (PSR) will need to be revised to include the new loop ramps; and, Federal Highway Administration (FHWA) approval will be required.

Measure #9: Interstate 5 will need to widened to at least eight lanes plus auxiliary lanes north of Highway (SR) 120.

Measure #10: The I-205/Paradise interchange needs further refinement to reflect proposals of the Tracy Circulation Master Plan which utilize the existing two-lane bridge as a frontage road for the expressway, with the interchange located 1,500 feet to the west. This concept allows full access control, with Paradise Road serving existing farms in the area. This interchange potentially would be a locally funded project, subject to FHWA and CTC discretionary approval for the new access. The City of Lathrop will work with the City of Tracy to develop the PSR/CAR funding plan and project development/construction schedule so that traffic impacts are adequately mitigated.

B.2 The following clarification is made to the discussion of Stewart Tract, DEIR page II-7:

Gold Rush Boulevard will be constructed from the Louise Avenue interchange during Phase 1 development as the primary means of access to Stewart Tract.

B.7 The following clarification is made to the discussion of the Development Concept, DEIR page II-23:

It is to be noted that the full extension of Golden Valley Parkway from Gold Rush Boulevard southerly and westerly through Stewart Tract to the Paradise Road interchange is a critical element of the Project's off-site circulation system.

B.8 The extension of Yosemite Avenue from S.R. 120 across the San Joaquin River to the Mossdale interchange as shown on Figure II-5, DEIR page II-25 has been deleted from the plan maps depicting Project land use and circulation for Stewart Tract.

B.9 The following language is added to the discussion of park-and-ride facilities in para. 2, DEIR page II-28:

The project developer and the City will also explore the feasibility of locating a fourth park-and-ride facility in close proximity to the I-5/Louise Avenue interchange.

B.10 The following clarification is made to the discussion of development phasing, DEIR page II-29:

It is anticipated that Manthey Road will be converted to one-way northbound from Stewart Tract to Mossdale Village upon the extension of Golden Valley Parkway from Mossdale Village to Stewart Tract.

B.15 Corrections have been made to traffic volumes shown in Table III-10, DEIR page III-59 to reflect more up-to-date volumes as reported in the State Volume Book published by Caltrans.

B.19 The first sentence at the top of DEIR page IV-25 pertaining to "Impacts" is revised as follows:

"1. Development proposed under the West Lathrop Specific Plan ~~and the actions of Caltrans to drop its previous proposals for freeway lane improvements~~ poses significant potential for creating traffic problems on the freeway system and on the local arterial street and county road systems serving the south-central part of San Joaquin County as well as other parts of Lathrop. *Project impacts on freeway sections will be exacerbated as the result of an interruption in Caltrans' previous schedule for making lane improvements caused by Federal and State funding constraints that have emerged since adoption of the General Plan in 1991.* The most significant ..... and air pollution. **[significant]**".

B.25 Figures V-9, -10, -14 and -15 in the DEIR have been changed to reflect ramp design acceptable to Caltrans.

B.34 Figure V-15, DEIR page V-78 is changed to indicate that the existing freeway system would require the following lane additions to provide mostly acceptable PM peak hour operations:

I-205:	An additional two lanes each direction.
I-5 north of S.R. 120:	An additional lane in each direction plus auxiliary lanes between interchanges.
I-5 from I-205 to S.R. 120:	An additional lane each direction plus two new northbound lanes across the San Joaquin River.
S.R. 120:	An additional lane each direction.

Comment Letter No. 3 - California Department of Fish and Game

All of the comments of the Department concern additions and changes to the Habitat Management Plan which have since been made, and do not require any changes to the DEIR.

Comment Letter No. 4 - California State Lands Commission

No changes required.

Comment Letter No. 5 - California Department of Conservation

G. Table III-1, DEIR page III-23, has been rearranged to indicate that causative faults are listed by increasing distance away from Lathrop, as shown on the next page.

TABLE III-1

MAJOR FAULTS POTENTIALLY AFFECTING THE LATHROP PLANNING AREA

FAULT	Distance From Lathrop (Miles)	Maximum Probable Quake[1]	Maximum Credible Quake[2]	Recurr. Interval (Years)	Maximum Intensity of Max Cred. Quake [local]	Years of Historic Damaging Quakes[3]
San Andreas Zone	60	7.8-8.5	8.25-8.5	300, 140	VIII-IX	1838 1906 1989
Green Valley-Concord	48	6.70	6.5-7.25	319	VII-VIII	1955
Hayward	42	7.25	7.0-7.5	264	VIII-IX	1836 1868
Calaveras	36	6.75	6.75-7.3	150	VIII-IX	1861
Antioch	34	6.60	5.75-6.6	--	VII-VIII	1889? 1965
Ortagalita	24	6.70	6.70	10,000	VII-VIII	None Known
San Joaquin	24	6.60	Unknown	1,083	Unknown	None Known
Greenville	22	6.80	6.90	>10,000	VI-VIII	1980
Midway	20	6.30	6.30	2,651	VII-VIII	None Known
Midland	22	--	7.00	Unknown	VIII-IX	1889?
Foothills Zone	18	6.80	6.00	>10,000	VIII-IX	1975

SOURCE: Abstracted and modified from Table 4.38, **Draft EIR, San Joaquin County Comprehensive Planning Program,** Baseline Environmental Consulting, June, 1990

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1 Maximum probable earthquake is the maximum earthquake that appears to be reasonably expected within the next 100-year period.

2 The maximum credible earthquake is the maximum earthquake that might reasonably occur under the conditions presently known.

3 Those years followed by question marks (?) are estimated.

Comment Letter No. 6 - Corps of Engineers

No changes required.

Comment Letter No. 7 - Fish and Wildlife Service

Mitigation measure No. 14 is added to the list of measures, DEIR, page V-29, as follows:

14. The City hopes to participate with other local jurisdictions as part of a county-wide effort to develop a regional wildlife habitat management program. If a county-wide effort does not materialize, the City will cooperate to the extent that its jurisdiction may apply.

Comment Letter No. 8 - SJV Unified Air Pollution Control District

A. The reference to burning on the project site under Mitigation 1.n, DEIR page V-90 is deleted.

B. Mitigation 1.p referring to street sweepers, DEIR page V-90 is changed to reflect District regulations that prohibit the use of dry street sweeping equipment. In addition, the mitigation measures listed on page V-90 are concluded with the following statement:

Dust emissions related to construction shall be addressed in accordance with SJVUAPCD regulation VIII, which pertains to fugitive dust/PM_{10}. Rules 8010, 8020, 8030, 8040, 8060 and 8070 contain relevant discussion involving stabilizing exposed surfaces which could generate dust, cleaning exposed surfaces and machinery and avoiding situations which can result in excessive dust generation. Project development will be required to adhere to al such regulations. Since these regulations are required by regulation, they are not technically mitigation measures. The term "mitigation measures" implies actions beyond those which are already covered by applicable regulations of the District.

Measures pertaining to the control of emissions from construction vehicles and equipment would include:

- Adjusting the engines of diesel-powered equipment to reduce NO_x emissions; and maintaining existing gasoline-powered equipment in tune per manufacturers specifications.
- Developing a comprehensive construction activity management plan to minimize the amount of large construction equipment operating during any given time period.
- Reducing CO, ROG and NO_x emissions from equipment by avoiding unnecessary idling.
- Using materials with a low ROG content to limit emissions from adhesives, clean-up solvents, paint and asphalt paving materials used for project construction.

C. Wording pertaining to open burning in Mitigation 2, DEIR page V-91, is deleted as follows:

During construction, mitigation measures ~~(except burning)~~ should be monitored by the .....air quality permits.

D. Mitigation measures j. and k. are added to the list at the top of DEIR page V-93, as follows:

j. Electrical outlets are to be provided in residential garages and carports suitable for re-charging electric vehicles.

k. Fleet vehicles (two or more) operated by commercial uses such as hotels, motels, and theme parks will be equipped for operation on alternative fuels such as natural gas.

G. Mitigation measure 2.i,DEIR page V-93, pertaining to requirements for obtaining permits to operate from the District is deleted.

H. Additional mitigation measures are added to the list, DEIR page V-93, as follows:

3. **Land Use/Design Measures:** Commercial land use centers on Stewart Tract will be designed to accommodate a variety of complimentary uses that will meet the needs of residents and tourists on-site. Proposals of the Specific Plan call for meeting the majority of convenience-goods and shopping goods needs on-site.

4. **Parking lot design measures:**

   a. In requiring off-street parking facilities for individual projects, it is the intent of the City to require only that number of spaces that reasonably may be necessary for the use or combination of uses proposed. Where more than one use is provided as part of a single commercial complex, the number of parking spaces determined will reflect the multiple patronage that can result from a single parking space. An example is provided by the characteristics of shopping center patronage.

   b. Parking lots will be designed to provide for convenient exit from parking lots to the street system without delays otherwise associated with restricted access.

   c. In connection with measure 4.b, above, parking lots will be sized and distributed so as to avoid as much as possible the creation of large expanses of parking area.

5. **Subdivision/Commercial Site Design Measures:**

   a. Project design provides for multiple and/or direct pedestrian access between complimentary land uses throughout the project.

   b. Project design provides for efficient movement of vehicles throughout the site.

   c. All uses shall be without reasonable walking distance (i.e., 1/4 mile) of transit facilities.

6. **Infrastructure Improvement Measures:**

   a. Project design provides for safe and direct access to residential, commercial and recreation areas via bicycles. Commercial and employment centers will provide facilities for the safe storage/parking of bicycles, and for locker room and shower facilities for those bicycling or walking to work or engaging in healthful exercise routines during the day.

   b. Bus stop improvements will include facilities for protection from the elements and seating.

   c. Park and ride lots will be provided at locations north and west of the project, and close to the multi-modal transportation center on Stewart Tract.

   d. The City will require the direct or indirect provision of pre-school day care services for large commercial establishments such as theme parks and regional shopping.. Indirect provision implies participation in day care services at a location central to the employees of more than one establishment.

7. **Operational Measures/TDM:**

   a. Implement a rideshare/vanpool program for medium- and large-sized employers.

   b. Provide preferential parking for carpool/vanpool/electrically operated and alternatively fueled vehicles.

c. Develop agreements with businesses to implement compressed work schedules of various lengths to reduce total traffic generation during the work week.

d. Assure the availability of on-site shops and services to employees.

e. Provide commuter information areas and tourist information centers at locations convenient to employees and tourists.

8. **Area Source Measures:**

a. During site plan or subdivision review by the City of all residential projects, encourage energy conservation measures beyond those currently required by State law, including, but not limited to the following:

- Solar or low emission water heaters.
- Energy efficient appliances.
- Shade trees to reduce solar loads.
- Low sodium parking lot lights.
- Building orientation and passive solar design.
- Use of light colored roofing materials.

b. During site plan review of all non-residential projects, encourage energy conservation measures beyond those currently required by State law, including but not limited to the following:

- Solar/low emission water heaters.
- Central water heating systems.
- Energy efficient AC controls.
- Insulated windows.
- Parking structure ventilation.
- Light control and energy efficient lighting.
- Light colored roofing materials.
- Extra wall and attic insulation.

In addition to the foregoing responses to comments, the following amendments and corrections to the DEIR are included:

1. The discussion of Air Quality Planning and Control on pp. III-32 and -33, and of significance criteria on p. III-35 are superseded by corresponding discussion on pp. V-85 through V-89.

2. The pollutant emission thresholds in the table at the top of p. V-89 are replaced as follows, based on data provided by Dave Stagnaro, Environmental Planner, SJVUAPCD [telephone communication with Dr. Richard Pollack, 6/19/95]:

Pollutant	BACT Threshold	Offset Threshold
CO	550 lbs./day	550 lbs./day
TOG	2 lbs./day	55 lbs./day
No_x	2 lbs./day	55 lbs./day
So_x	0 lbs./day	150 lbs./day
PM_{10}	2 lbs./day	80 lbs./day

3. Estimates of CO concentrations provided in Table V-15, DEIR page V-95 are revised as shown on the next page of this document. As described in greater detail below, there will not be any CO violations under the West Lathrop Specific Plan as proposed, or under any other scenario previously examined.

At the September 22, 1995 meeting with Mr. David Stagnaro, Environmental Planner with the SJVUAPCD, Mr. Stagnaro suggested that the District's Atmospheric Modeler (Mr. Jim Sweet) be consulted regarding two particular details of the modeling procedures -- background concentration and persistence factor. As a result of this suggestion, several phone conversations with Mr; Sweet resulted in the following:

1. Mr. Sweet agreed with the procedures used to estimate background concentrations for the DEIR, except the use of the persistence factor. He pointed out that the persistence factor (essentially the ratio between the second highest 8 hour average value and the second highest 1 hour average value) measured at the closest monitoring station (Hazleton in Stockton) was 0.57 and recommended that this value be used in place of the urban default estimate of 0.7 that was used in preparing CO projections for the DEIR.

2. In order to understand the significance of this change, it must be understood that the CO modeling is performed for the worst case single hour, i.e. an hour involving both peak hour traffic and worst case meteorological conditions. The 8 hour average is derived from the 1 hour average by multiplying the 1 hour average by a persistence factor (in this case 0.57).

3. The original modeling used an overly conservative persistence factor of 0.7, as recommended by Caltrans in its Air Quality Technical Analysis Notes for urban conditions in which specific monitoring data are unavailable. Mr. Sweet' analysis of the Hazleton data, even when utilizing the Caltrans procedures, suggested a persistence factor of 0.57. While this factor is still conservatively based, it is not as extreme as the original factor applied. As a consequence, predicted 8 hour average CO concentrations are reduced by about 19% from the values reported in the DEIR. The 1 hour concentrations remain unaffected. The resulting 8 hour concentrations, while still conservatively based on worst case traffic and meteorology, results in there not being any violations of CO standards under any scenario for the future of West Lathrop.

TABLE V-15

CARBON MONOXIDE CONCENTRATIONS AT INTERSECTION CURBSIDE RECEPTORS

Revised to Reflect Comments by SJV Unified APCD Staff, September-October 1995

Total: Sum of CALINE4 Value + Background

Intersection	Averag	Exist	2005 No proj	2005 Alt. E	2017 No proj	2017 Alt. E	2025 No proj	2025 Alt. E
I5NB/Louise	1-hour	9.9	10.0	14.1	10.6	13.1	10.1	12.4
	8-hour	5.6	5.7	8.0	6.0	7.4	5.8	7.1
I5SB/Louise	1-hour	6.6	9.7	14.6	8.8	12.7	9.9	13.6
	8-hour	3.8	5.5	8.3	5.0	7.2	5.7	7.8
Manthey/Louise	1-hour	3.4	6.5	14.1	7.0	9.2	7.5	11.9
	8-hour	1.9	3.7	8.0	4.0	5.2	4.3	6.8
I5 SB/I205 Ramp	1-hour	3.0	6.0	6.0	6.0	6.1	6.0	6.0
	8-hour	1.7	3.4	3.4	3.4	3.5	3.4	3.4
SR120 Off/Mossdale	1-hour	3.0	6.0	6.0	6.0	6.1	6.0	N/A
	8-hour	1.7	3.4	3.4	3.4	3.5	3.4	N/A
Golden Valley/Mossdale	1-hour	3.0	6.0	6.0	6.0	6.6	6.0	N/A
	8-hour	1.7	3.4	3.4	3.4	3.8	3.4	N/A
Circle/Mossdale	1-hour	3.0	6.0	6.0	6.0	6.6	6.0	N/A
	8-hour	1.7	3.4	3.4	3.4	3.8	3.4	N/A
Gold Rush/Circle	1-hour	3.0	6.0	7.8	6.0	8.6	6.0	9.3
	8-hour	1.7	3.4	4.4	3.4	4.9	3.4	5.3
CO Background	1-hour	3.0	6.0	6.0	6.0	6.0	6.0	6.0
	8-hour	1.7	3.4	3.4	3.4	3.4	3.4	3.4

Note that no violations of CO standards are predicted at any location under any scenario.

Comment Letter No. 9 - San Joaquin Regional Rail Commission

No Changes Required.

Comment Letter No. 10 - San Joaquin County LAFCO

The City of Ripon is hereby added to the list of cities in the last para. On p II-11 of the Draft EIR

Comment Letter No. 11 - San Joaquin County Administrator

No change required.

Comment Letter No. 12 - S.J. County Department of Public Works

A.2&3 Mitigation measure 2.a at the top of DEIR page V-44 pertaining to the need for a waste transfer station on Stewart Tract is deleted.

C.1 The following language pertaining to impact on groundwater summarizes that included in the response to Comment Letter No. 12 on page III-11 of this Final EIR:

Impact on Groundwater. Testing on groundwater aquifers within Stewart Tract was conducted during the summer of 1995, and continues in the fall. Results obtained to date indicate that at least one aquifer can be used as an alternate source of domestic water. Testing on water drawn from the aquifer depth of 96' - 116' have shown that the existing groundwater quality and quantity estimates appear to be satisfactory for domestic water supply. Continued testing is being conducted to verify earlier findings and to explore deeper aquifers. [Memorandum from Ted Zaferatos, Century West Engineering, 9/22/95]

Preliminary reports indicate that the aquifer can produce up to 1,500 gpm from one well, and that the addition of another aquifer at the 120' - 140' depth can produce up to 2,500 gpm. Water quality tests thus far have shown very low amounts of almost all organic contaminants and non-detectable amounts of various organics.

C.2 The following language is a summary of that added to the subsection describing the Proposed Flood Control System, DEIR page V-18:

Removal from the 100 Year Floodplain. The east bank of the San Joaquin River was reconstructed several years ago to protect lands east of the river, between French Camp Slough and Wathall Slough. This levee project fully protects the existing City of Lathrop from a 100-year+ frequency flood event, while slightly increasing the volume and elevation of floodwaters that could be expected on Stewart Tract and other lands west of the San Joaquin River under existing conditions.

Stewart Tract levees are Corps of Engineers project levees. If a 100-year event did occur, about 40,000 acre feet of water would be spread downstream to other areas of the Delta that most likely would already be in a flooded condition. This flooded area would involve about 500 square miles, with a flooded area volume of about 5.6 million acre-feet. Removing Stewart Tract from this volume would increase the pool of Delta flooding at the most by about 0.1 to 0.2 of a foot. A preliminary analysis of the flood conditions around Stewart Tract during a 100-year flood event indicates that a minimum freeboard of 4'-5' appears to exist along both sides of the San Joaquin River. If the Delta flood pool were to increase by 0.1 to 0.2 feet as the result of Stewart Tract being (100-year) flood protected, the backwater affect in the San Joaquin River opposite the Project would also increase by the same 0.1-0.2 feet. This will not impact the minimum three foot freeboard required by FEMA, and therefore will not have an adverse impact on the ability of the levee along the east side of the river to protect the urban and agricultural areas extending from Weston Ranch on the north to the south end of Lathrop.

The levee along the north side of Old River ranges from about one to four feet lower than the opposite levee which protects Stewart Tract. Therefore, even without additional Stewart Tract levee improvements, the Old River north levee will most likely fail first during a 100-year flood event. Consequently, additional improvements to Stewart Tract levees will not worsen the already deficient levee system along the north side of Old River beyond the conditions that already exist. FEMA flood maps indicate that the area southwest of Paradise Cut will have a 100-year flood elevation of about 20 feet. If Stewart Tract were to flood, it would have a flood elevation of about 18'. To the north of Old River, along Roberts Island, the flood elevation is seven feet. Therefore, if Stewart Tract were to be flood protected for a 100-year flood event, the displaced floodwaters will move northwesterly toward the center of the Delta and would not tend to increase the height of flooding southwest of Paradise Cut.

Comment Letter No. 13 - S.J. County Community Development Department

No changes required.

Comment Letter No. 14 - City of Stockton

B.2 The full list of impacts and mitigation measures pertaining to wastewater management was omitted from Part I of the DEIR because Part I is intended as an Executive Summary. However, a summary of the more important impacts and mitigation measures is added below for consistency:

Impacts Identified in the DEIR, pp V-14,-15,-16:

1. Long-range sewerage capacity for the West Lathrop planning area requires wastewater management facilities that do not currently exist. Any new system(s) must meet the waste discharge requirements established by the California Regional Water Quality Control Board.

2. A matter of concern is whether additional treatment and disposal capacity is to be made available for Lathrop at the Manteca wastewater treatment facility.

3. The ultimate location of treatment and disposal facilities needed to serve West Lathrop development may have important site-specific adverse physical impacts on the environment, including potential for up-set (odor), adverse visual character, and potential adverse effects on the quality of the San Joaquin River, its immediate tributaries and its fisheries.

4. If an effluent storage reservoir is used for either short-term or long-term disposal of effluent to the land, the reservoir may require substantial acreage (long-term) and a prominent visual location (short-term).

5. A potential exists for health hazards from reclaimed effluent sprayed onto golf courses and other landscaped open space.

6. The treatment process for any facilities located within the Lathrop planning area will generate biological solids requiring disposal.

7. Land disposal of effluent from interim plant facilities will require sufficient acreage reasonably close to the treatment plant, regardless of its location.

Mitigation Measures Identified in the DEIR, pp V-14.-15,-16:

1&2.a. Accommodating Lathrop's needs at the Manteca wastewater treatment facility is consistent with State policy and the intent of the Clean Water Grant Program under which plant construction was originally financed and authorized. If treatment capacity can be added for Lathrop, there would be fewer

potential environmental consequences than would result from constructing one or more facilities to be managed separately by the City of Lathrop or connection to the Stockton plant.

1&2.b. Current limitations on the availability of land for effluent disposal at the Manteca facility may be satisfied in part by utilizing agricultural lands north of Yosemite Avenue both east and west of McKinley Avenue for the purpose.

1&2.d. Future development under the West Lathrop Specific Plan shall not be permitted until adequate sewerage system facilities can be assured at the time of occupancy and/or operation of new developments.

1&2.e. Treated effluent is to be reused to the greatest extent feasible, for landscape and crop irrigation.

1&2.f. If adequate wastewater management facilities are not available in time to serve first phase development of Stewart Tract and Mossdale Village, then affected developers may, at their own expense, construct interim wastewater management facilities that are compatible with long-range wastewater management plans of the City of Lathrop.

1&2.g. With the exception of the Manteca and Stockton regional facilities, all wastewater management facilities located within or connecting to sewage sources operating within the city limits of Lathrop shall be operated by the City of Lathrop.

1&2.i. As Stewart Tract develops in phases over the time, a significant portion or portions of Stewart Tract will continue to be farmed and irrigated with treated effluent, and appropriate landscaping in developed areas will be irrigated with treated effluent when the quantities of effluent become sufficiently large to assure the feasibility of wastewater reclamation.

3.a. The alternatives being examined by the City of Lathrop for the location of wastewater treatment and disposal facilities shall be examined as to their site-specific environmental impacts; mitigation measures shall be applied to the selected location which are capable of eliminating all potential significant effects or of reducing such effects to acceptable levels.

3.b. Any alternative providing for a plant site within the Lathrop planning area will require a site for the temporary detention of influent in the event of a plant upset involving influent bypass of the treatment system. Design to the highest standards will minimize the possibility of treatment bypass.

3.c. The potential for off-site odors from the treatment plant shall be addressed by utilizing odor avoidance design of treatment facilities, primarily at the headworks and trunk line conveyance facilities.

4. If land disposal of effluent is required to meet the long-term needs of Stewart Tract, land toward the westerly end of the Tract would be most appropriate for the purpose given the phasing proposals for development under the Specific Plan.

5. The potential for health hazards from spraying reclaimed effluent to landscaped areas will be avoided by meeting State standards for such disposal under Title 22 of the California Administrative Code.

6. Sludge will require disposal to an approved site. Options include landfill, spreading or discing on agricultural lands, or composting.

7. Either permanent or temporary sites for land disposal of effluent will require adherence to State standards. Effluent disposal needs for an interim plant may be achieved by utilizing lands available on Stewart Tract, between either railroad and freeway. Another possibility may be agricultural pastures along the McKinley Avenue corridor north of Yosemite Avenue.

B.7 The fourth line in the opening paragraph under Urban Design, DEIR page IV-18 is hereby corrected to read as follows:

> "Appendix I] specified that the issue is ~~ehther theb~~ whether the proposal would result in the ~~creatrion~~ creation of an ...."

Comment Letter No. 15 - City of Manteca

No changes required.

Comment Letter No 16 - City of Tracy

No changes required.

Comment Letter No. 17 - Tracy Public Schools

No changes required.

Comment Letter No. 19 - South San Joaquin Irrigation District

No changes required.

Comment Letter No. 20 - Reclamation District No. 17

A. Reclamation District No. 17 is added to the list of permitting agencies with respect to levee encroachments in Mossdale Village

Comment Letter No. 21 - Morrison and Foerster

No changes required.

Comment Letter No. 22 - Mossdale Associates

No changes required.

Comment Letter No. 23 - Land Use Alliance

No changes required.

Comment Letter No. 24 - S.J. County Farm Bureau

No changes required.

Comment Letter No. 25 - Eric Parfrey

No changes required.

Comment Letter No. 26 - Georgianna Reichelt

No changes required.

Summary of "Exhibit A - Year 2005 and 2025 Traffic Projections, Impacts and Mitigation Measures Under the Project".

The list of impacts and mitigation measures No. 1-3 on ppV-59 through V-62, and Nos. 15-19 on pV-80 of the Draft EIR is replaced as follows: [Note that strike-out language indicates deletions and italics indicate new or revised language].

Year 2005 Base Case + Project Conditions:

Impact 1: ~~The proposed Mossdale interchange design does not meet Caltrans or Federal Highway Administration (FHWA) design criteria. The criteria include minimum interchange spacing between freeway-to-freeway interchanges, and new surface street interchanges are required to be two miles in rural areas and one mile in urban areas; new interchanges not providing connections to all freeway travel directions are avoided, as are surface street ramp connections to freeway-to-freeway connections. [significant]~~ *This impact is no longer relevant with the proposals of Alternate E. All Project access in the year 2005 via the Louise Avenue interchange will be in accordance with Access Alternative* E, *as shown on Figures V-5 and -6 and Figures V-17 and -18 in Response to Comment Letter No.2 of the Final EIR .*

Mitigation 1: ~~This would require State II Project Study Report (PSR) improvements for the interchange (pluis and additional southbound off-ramp .....of the Technical Appendix.~~ *No mitigation is required.*

Impact 2: Project area traffic would result in unacceptable freeway operation along the following freeway segments (above and beyond Base Case conditions), as follows: **[significant]**

a. For the weekday PM peak hour, Project traffic would increase V/C ratios by more than 1% on all freeway segments experiencing unacceptable operations with Base Case traffic. *PM peak hour Project traffic would also increase eastbound volumes on S.R. 120 (from I-5 to the Yosemite interchange) to borderline capacity operations.* [See revised Figure V-4 of Draft EIR in Response to Caltrans Comments, p II-19 of Final EIR]

b. ~~For the Saturday AM peak hour, eastbound I-205 operations would be unacceptable from west of the MacArthur Drive interchange to the new off-ramp serving Stewart Tract; and north-bound I-5 operations would be unacceptable from the proposed Mossdale loop on-ramp to the I-5/SR 120 diverge at the San Joaquin River.~~

Mitigation 2: The following freeway widening would be required to provide acceptable freeway operation for Base Case (without Project) traffic conditions, *and it would also provide acceptable operation for "with Project" conditions with the one exception cited below after item c :*

a. Widen I-205 to eight lanes.
b. Widen I-5 northbound (I-205 to SR 120) to 5 lanes across the San Joaquin River.
c. Widen I-5 north of SR 120 to 8 lanes.

The possible exception is that S .R. 120 from I-5 to the Yosemite interchange may require widening from 4 (up) to 6 lanes due to the Project, based upon projected volumes and freeway capacities accepted by Caltrans.

Impact 3: The Louise Avenue intersections with I-5 north- and southbound ramps would both be operating at unacceptable levels with the addition of Project traffic and geometrics sufficient to accommodate Base Case traffic ~~(See Table V-9)~~ (See Table A-1 of this Exhibit A to the Final EIR). **[significant]**

Mitigation 3: The Louise Avenue intersections with I-5 north- and southbound ramps should be improved as presented on Figure V-6 (as revised on pII-21 of Response to Caltrans Comments). *Improvements are the same as those planned for Phase 2 in the Project Study Report for the Louise Avenue interchange.*

Year 2025 Base Case + Project Conditions

Impact 15: ~~Alternative A~~ Project traffic would result in unacceptable PM peak hour operation of LOS E along the following freeway segments: (See revised Figure V-15 of Draft EIR in Response to Caltrans Comments, p II-22 of Final EIR) **[significant]**

a. SR 120 eastbound from I-5 to the Yosemite Avenue interchange.
b. I-5 northbound from ~~Louise Avenue~~ *S.R. 120* to Lathrop Road.
c. Eastbound I-205, from west of MacArthur Drive to the Paradise Road interchange, would have its V/C ratio increased by more than 1%.
d. Eastbound I-205 from Paradise Road interchange to I-5 (borderline capacity operation).

Mitigation 15: TDM measures will be required for Project employment uses, and fair-share contributions toward freeway improvements should be imposed. ~~However, the impact will be so severe as to require an alternative land use configuration as described under Mitigation 14, above.~~

All Project on-site roadways would be operating at acceptable levels of service if designed with the number of lanes shown on Figure V-17 *(as revised -- see Figure V-18, p II-24 of this FEIR).* ~~However, this would require widening Golden Valley Parkway through the Project site.~~

~~**Impact 17:** Golden Valley Parkway would operate at an unacceptable level of service through the Project site (Stewart Tract and Mossdale Village) as a 6-lane expressway with the addition of Project traffic. [significant]~~

~~**Mitigation 17:** Widen Golden Valley Parkway from six to eight lanes through the Project site.~~

All on-site intersections would be operating at acceptable levels ~~(see Table V-11)~~, with the exception of Golden Valley Parkway/Gold Rush Boulevard ~~and Golden Valley Parkway/Mossdale Boulevard~~.

Impact 18: The Golden Valley Parkway at-grade intersection with Gold Rush ~~and Mossdale~~ Boulevard would be operating at unacceptable levels, even with maximum lane improvements. **[significant]**

Mitigation 18: Provide grade separation and interchange treatment at the Golden Valley Parkway intersection with Gold Rush ~~and Mossdale~~ Boulevard. Adequate right-of-way should be retained for ~~both~~ *this* improvement.

Intersections requiring signalization within the Project area are presented in Figure V-17 *(as revised -- see p II-24 of this FEIR).* The Project would provide significantly increased traffic volumes off-site at other locations within the City of Lathrop.

Impact 19: The following roadway locations would experience significant impacts due to Project traffic: **[significant]**

~~a. Lathrop Road, from Harlan Road to McKinley Avenue, would have its V/C ratio increased by more than 1% at locations already experiencing unacceptable operation as a 4-lane arterial roadway.~~

a. Louise Avenue, from Harlan Road to 5th Street, would have its V/C ratio increased by more than 1% at locations already experiencing unacceptable operation as a 4-lane arterial roadway.

~~c. Golden Valley Parkway, from Lathrop Road to Roth Road, would have its V/C ratio increased by more than 1% at a location already experiencing unacceptable operation as a 6-lane expressway.~~

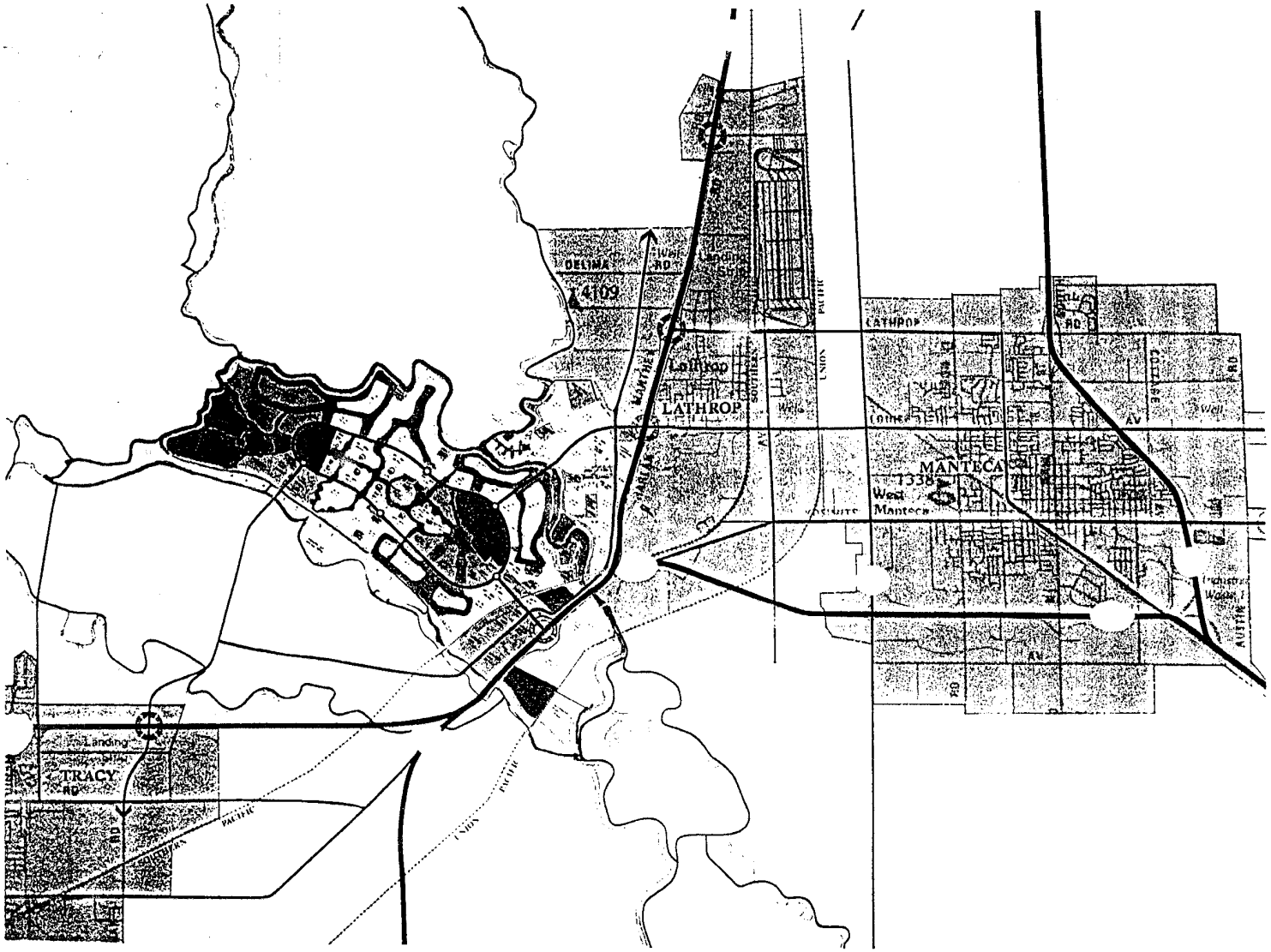
Mitigation 19: The Project should provide for a fair-share contribution of traffic impact fees toward widening ~~these three~~ *this* roadway.

Effect of Project Mitigation:

The above Project mitigation measures will mitigate Project impacts on the freeway system.to less than significant levels by assuring acceptable levels of service within the West Lathrop planning area and on the freeway system as generated by the Project. However, unavoidable significant cumulative traffic impacts on the freeway system (i.e., including impacts generated by other projects within and outside of the region which will contribute to regional traffic demand in future years) will remain.

FIGURE I-1

LOCAL SETTING



LEGEND

STEWART TRACT

- RECREATION COMMERCIAL (C-REC)
- RESORT COMMERCIAL (C-RSRT)
- FREEWAY COMMERCIAL (CH)
- VILLAGE COMMERCIAL (CV)
- REGIONAL COMMERCIAL (CR)
- RESIDENTIAL LOW (R-L)
- RESIDENTIAL MEDIUM (R-M)
- RESIDENTIAL HIGH (R-H)
- PUBLIC (P)
- RESOURCE CONSERVATION/ OPEN SPACE (RCO)

MOSSDALE VILLAGE

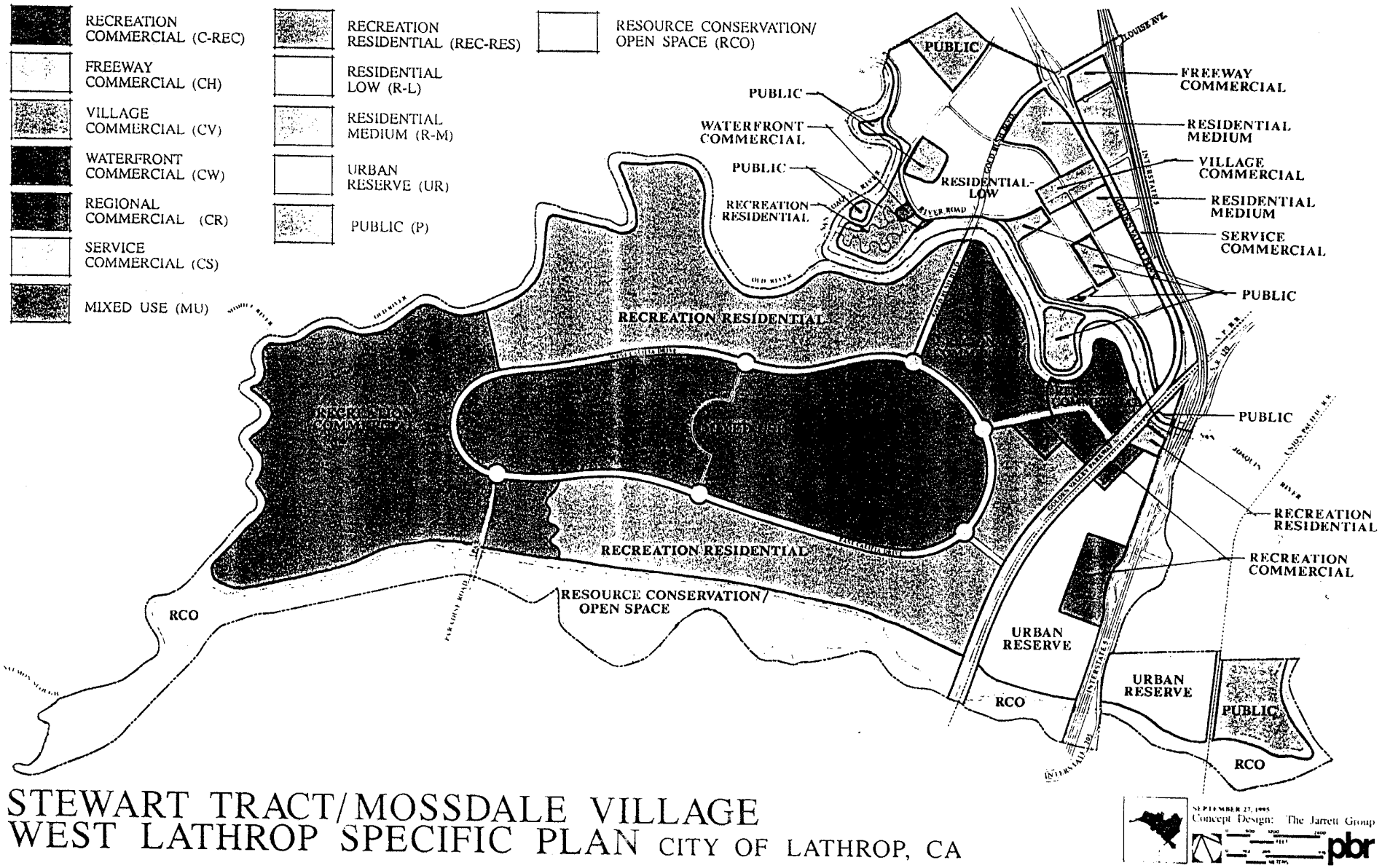
- RESIDENTIAL LOW (R-L)
- RESIDENTIAL MEDIUM (R-M)
- SERVICE COMMERCIAL (CS)
- FREEWAY COMMERCIAL (CH)
- WATERFRONT RESORT COMMERCIAL (CW)
- RECREATION COMMERCIAL (C-REC)
- VILLAGE COMMERCIAL (CV)
- PUBLIC (P)

STEWART TRACT/MOSSDALE VILLAGE WEST LATHROP SPECIFIC PLAN CITY OF LATHROP, CA

FEBRUARY 6, 1995
Concept Design: The Jarrett Group
pbr

FIGURE I-2

LAND USE DIAGRAM



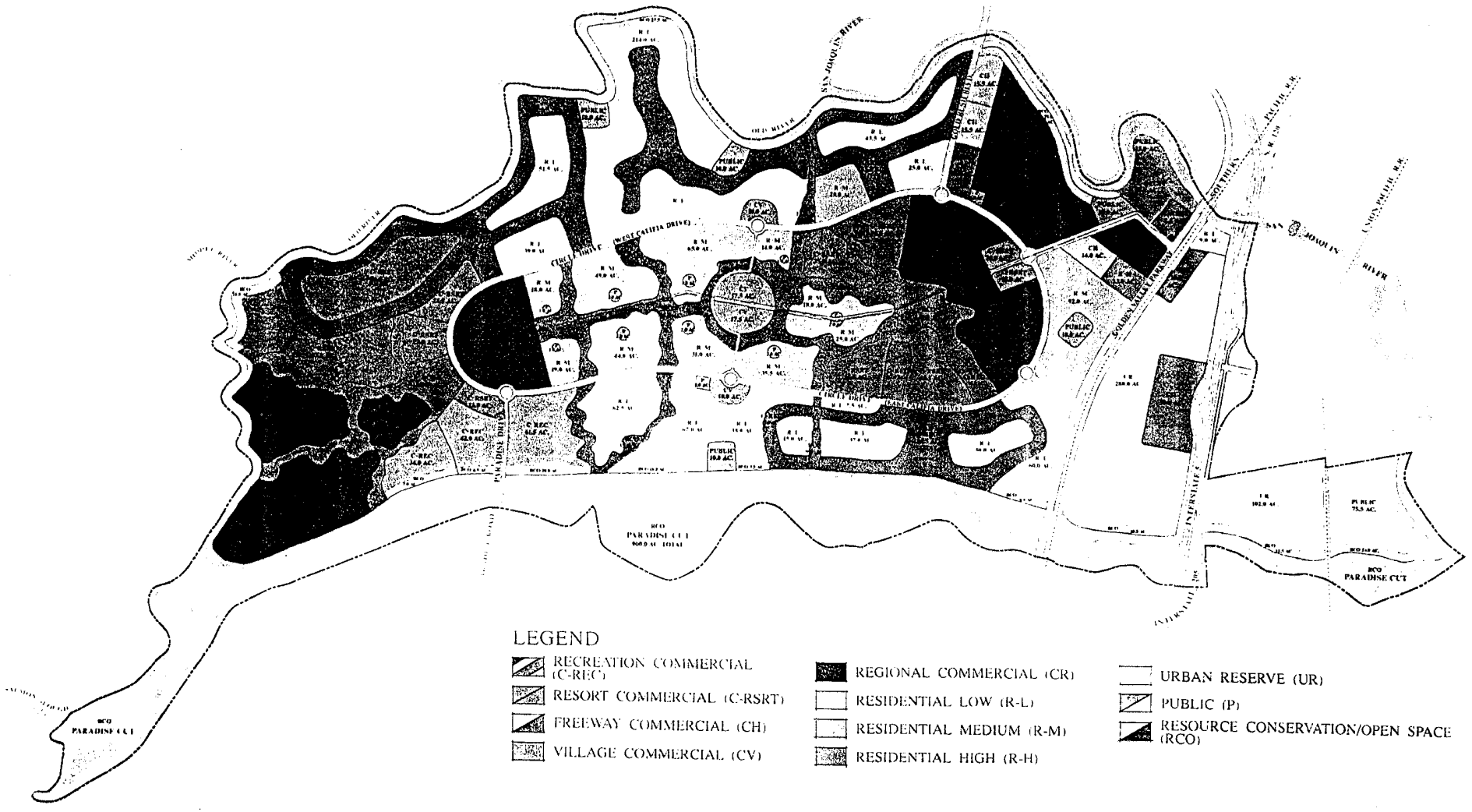
STEWART TRACT/MOSSDALE VILLAGE
WEST LATHROP SPECIFIC PLAN CITY OF LATHROP, CA

Concept Design: The Jarrett Group

pbr

FIGURE I-3

LAND USE

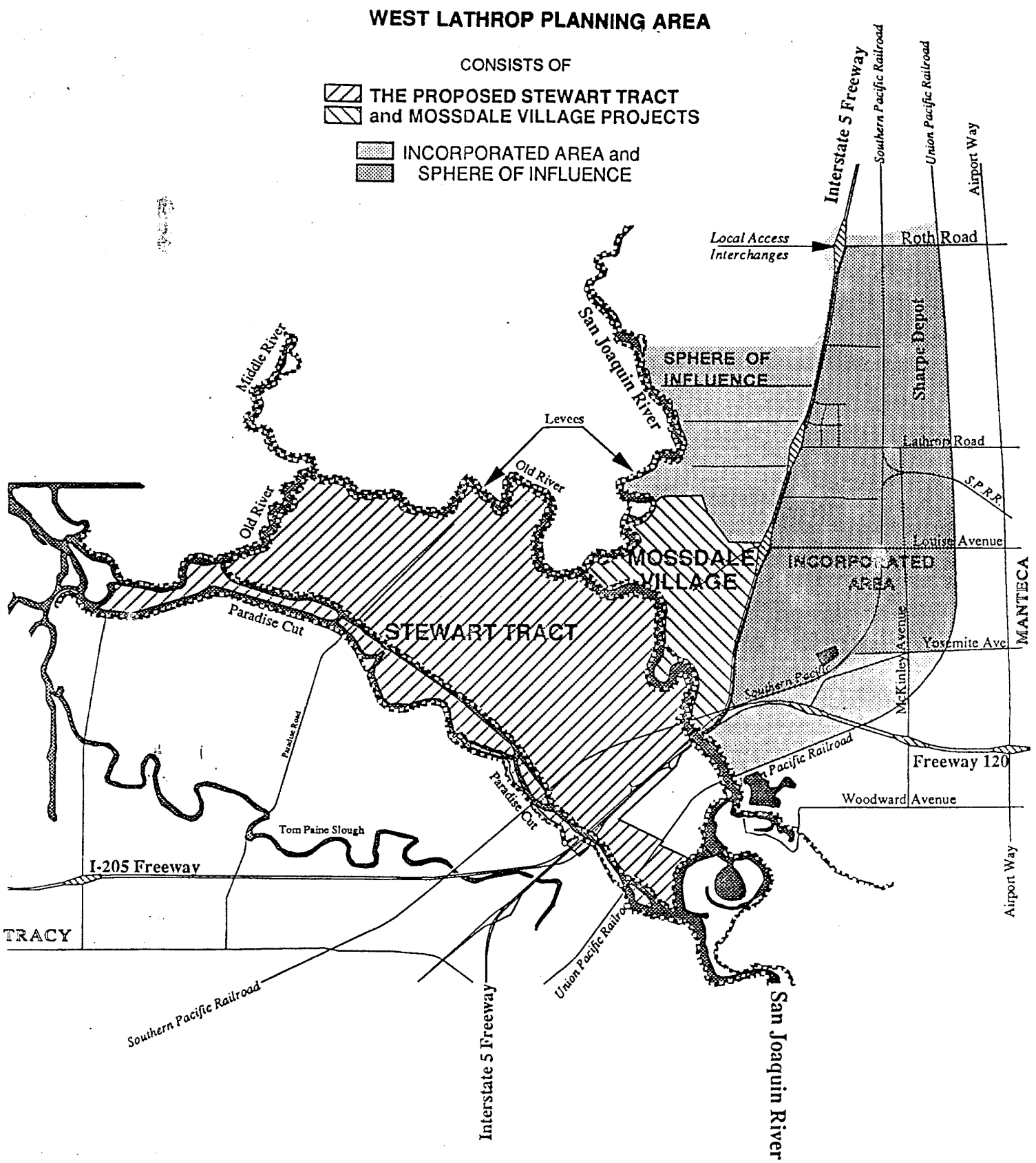


STEWART TRACT ALTERNATIVE E
WEST LATHROP SPECIFIC PLAN CITY OF LATHROP, CA

JUNE 26, 1995
Concept Design: The Tarren Group

pbr

FIGURE III-2


WEST LATHROP PLANNING AREA
CONSISTS OF
THE PROPOSED STEWART TRACT
and MOSSDALE VILLAGE PROJECTS
INCORPORATED AREA and
SPHERE OF INFLUENCE
Interstate 5 Freeway
Southern Pacific Railroad
Union Pacific Railroad
Airport Way
Local Access
Interchanges
Roth Road
SPHERE OF
INFLUENCE
Sharpe Depot
San Joaquin River
Middle River
Levees
Old River
Old River
Lathrop Road
S P R R
Louise Avenue
MOSSDALE
VILLAGE
INCORPORATED
AREA
MANTECA
Paradise Cut
STEWART TRACT
Yosemite Ave
McKinley Avenue
Southern Pacific
Freeway 120
Paradise Road
Paradise Cut
Woodward Avenue
Tom Paine Slough
I-205 Freeway
TRACY
Southern Pacific Railroad
Interstate 5 Freeway
Union Pacific Railroad
San Joaquin River
Airport Way

PART II

RESPONSE TO COMMENTS BY STATE, FEDERAL AND REGIONAL AGENCIES

STATE OF CALIFORNIA - BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048 (1976 E. CHARTER WAY)
STOCKTON, CA 95201
(209) 948-7773

COMMENT LETTER NO. 2

August 21, 1995

File 10-SJ-5-13.99
City of Lathrop
DEIR West Lathrop
Specific Plan
SCH #93112027

Ms. Pam Carder
City of Lathrop
Planning Division
16775 Howland Road, Suite 1
Lathrop, CA 95330

RECEIVED
AUG 2 1 1995
Ans'd.....

Dear Ms. Carder:

Thank you for the opportunity to review the Draft Environmental Impact Report and Alternative E for the West Lathrop Specific Plan. As a result of our review Caltrans comments are attached.

We wish to express our appreciation to the City of Lathrop Planning and Public Works staff, the Project Manager for the Gold Rush City project and the EIR consultant team for their extensive and productive efforts to work with Caltrans to address the major transportation issues involved with the Gold Rush City project. Through these efforts we believe that significant progress has been made to address some of the most complex access issues and off-site transportation improvement needs related to the project. We particularly appreciate efforts by the City and Gold Rush City representatives to provide detailed information concerning the basis for the transportation and circulation studies for this project.

It should be noted that in the past week Caltrans has received further information from Crane and Associates identified as the West Lathrop Area Plan, Technical Appendices I, II and III. Caltrans will be making further comments on these documents once we have had a chance to review them.

Thank you for the opportunity to review and comment on the DEIR. We look forward to receiving a copy of the Final Environmental Impact Report as well as the Financing Plan, Monitoring Plan, staff report and conditions of approval when available. If you have any questions regarding this review, please contact Chris Sayre of my staff at (209) 948-7142.

Sincerely,

DANA COWELL, Chief
Transportation Planning
Branch B

Attachments

cc: Barton Meays

Detailed Comments - West Lathrop Specific Plan

Our Traffic, Engineering and Planning Departments have reviewed the project plans and offer the following comments:

A. General Comment

The original Specific Plan (not including Alternative E) contains land use and circulation alternatives which assumed access to the Stewart Tract via an improved Mossdale/Manthey interchange from I-5. This assumed point of freeway access has been the subject of several meetings between Caltrans, the City and Gold Rush City representatives and considerable study and conceptual design work by the Gold Rush transportation consulting team. From the time of Caltrans' re-involvement in the Gold Rush City project in January of this year we have consistently indicated that development of an acceptable and technically feasible interchange improvement at this location as called for in the Specific Plan would be difficult and there was no clear or promising approach to resolving the inherent problems included with this proposed access upgrade. Issues concerning freeway operations (effecting I-5, 205 and SR 120), workable design and meeting State and Federal design standards and access policies were key considerations. After all parties considered the issues at length, including various design concepts, no feasible option was developed which was deemed worthy of detailed freeway operations analysis. A feasible option was not found (also see Caltrans' previous correspondence on this subject including our letter to Gold Rush City representatives dated June 14, 1995). Based on this finding Alternative E was developed as an alternative way to provide access to the Stewart Tract.

Based on this considerable work as described above, statements in the DEIR need to be added which indicate that freeway access, the assumed roadway network, traffic circulation, project phasing of transportation infrastructure improvements, all as related to assumed access through the Mossdale/Manthey interchange as included in the original Specific Plan and analyzed as part of the EIR have not been found to be feasible or implementable. No workable option which would allow freeway access as depicted in the Specific Plan has been developed. Statements also need to be added indicating that Alternative E, which was added as a supplement to the Specific Plan does include freeway access and phased roadway improvements serving the Stewart Tract which is feasible based on the level of analysis presented in the DEIR.

B. Transportation/Circulation/Traffic, Mitigation Measures, Page I-13

- Golden Valley Parkway needs to connect from Louise Avenue south along the west side of the Southern Pacific Railroad then west to Paradise Road, connecting to the I-205/Northern Expressway proposed by the City of Tracy.

- Louise Avenue IC will require a total reconstruction to handle the projected traffic volumes. The existing Project Study Report will need to be revised to include the new loop ramps. FHWA approval is required.

- Interstate 5 will need to be widened to 8 lanes plus auxiliary lanes north of Highway 120. The auxiliary lanes have been included as part of the Lathrop area mitigation identified in the Louise Avenue PSR, but not the mainline widening.

- I-205/Paradise IC needs further refinement. The Tracy Master Plan uses the

existing two lane bridge as a frontage road for the expressway and the Ic is 1500 feet to the west. This concept allows full access control for the expressway and leaves the existing farms with Paradise Road as their local access. This interchange would be a locally funded project and would require Federal approval for the new access. The City of Lathrop and Tracy need to develop the PSR/CAR funding plan and project development/construction schedule so that traffic impacts are adequately mitigated.

1. Figure II-2, Page II-5. The map shows a new Mossdale interchange, however this interchange does not agree with the City of Lathrop's General Plan map. It does not meet Caltrans interchange spacing policy. See Caltrans General Comments on this subject.

2. Page II-7. First paragraph indicates Manthey Road will be used for "several years" to provide access to Stewart Tract from the I-5 Louise Avenue interchange during Phase I development of the Stewart Tract. Our understanding of infrastructure development relative to project phasing is that Gold Rush Blvd. will be built very early in Phase One of Stewart Tract to provide primary access for Phase I uses. If this understanding is not correct our comment is that this needs to occur early as the primary access to Stewart Tract. For Specific Plan Alternative E this will be a necessity, which will effect phasing of Mossdale Villages and render Manthey Road as not significant to circulation for Phase One Stewart Tract or to circulation/development of early phases of Mossdale Villages. Note on page II-19 Gold Rush Blvd. extensions and Golden Valley Parkway are not indicated to occur until Phase II and Area II access from the Mossdale/Manthey interchange and Mossdale Blvd. which by previous comment Caltrans has indicated has not been found to be feasible.

3. Table II-2, Page II-9. Manthey Road will become northbound access across the San Joaquin River to serve the gravel mining trucks. Stewart Road to be cut at the SPRR to prohibit traffic from the major development from access to the old hook ramp interchange. Please include in DEIR.

4. Page II-10. An alternate location for the Golden Valley Parkway should be on the west side of the SPRR. See Alternative E.

5. Levee System, Page II-12. The proposed levee system along the SPRR will hold water in the area between I-5 and SPRR. There is a large bridge under I-5 to pass flood waters from the east side of I-5 that may overflow the river in the area. An interchange using this bridge may be under water and unusable for access under certain flooding conditions.

6. Figure II-4, Page II-18. Shows highway commercial (CH) and the on loop interchange improvement that cannot be approved. Alternate E appears to resolve this issue. The parking for the transit station should not be shown as CH zoning.

7. Page II-23, Paragraph 5. Reference to Golden Valley Parkway should be modified to indicate that prior to build-out of this project, the expressway will be constructed as a central part of the circulation system needed to support the Gold Rush project under future conditions. In other words the full linkage of this expressway extending to Paradise Road is a critical element of the projects off-site circulation system.

8. Figure 5, Page II-25, and as included in Alternative E of the West Lathrop Specific Plan: Figure 5 of the DEIR and figures and text of Alternative E show a future connection of Yosemite Road across the San Joaquin River and connecting to SR 120. Per Caltrans'

previous discussion and comments (see letter to Daryl Foreman of May 9, 1995) concerning Alternative E this future extension of Yosemite Road would not be acceptable because of the addition and access movements it would create at the existing Mossdale/Manthey ramps at I-5. As noted in other portions of the DEIR and Alternative E the assumed capacity of these existing ramps will already be reached without including any additional traffic from a Yosemite Road extension. The extension needs to be removed from the DEIR and Alternative E within the context of this Specific Plan.

This extension could be considered in the future in the context of removing the existing Mossdale/Manthey ramps as is assumed in the existing Lathrop General Plan.

B9. Page II-28, Paragraph 2: Notes that under Alternative E Park and Ride lots have been relocated, in comparison with original Specific Plan. It is suggested that as a mitigation measure leasing of parking spaces to be developed as part of proposed highway commercial land uses at the Louise Avenue interchange for park and ride purposes be explored.

10. Page II-29, Development Phasing: Text and corresponding figures need to indicate at what point Manthey Road will be converted to one-way northbound in order to adhere to the capacity of the existing I-5 Mossdale/Manthey interchange.

11. Figure II-6, Page II-31. What is the CS zoning identified along I-5? As a note, right of way for highway improvements including auxiliary lanes and branch connection to Highway 120 parallel to existing I-5 may be needed in the future. This should be noted as part of the urban reserve designation (Phase 4, Area 2).

12. Figure II-7, Page II-32. The area along the east side of the SPRR has been reduced to urban reserve except for the parking lot to support the transit station.

13. Planned Roadway Improvements, Page III-7. The widening of I-205 from 4 to 6 lanes between Tracy and I-5 is not identified in the San Joaquin COG Regional Transportation Plan as tentatively programmed in the 2000-2005 year.

14. Figure III-5-D, Page III-17. Unacceptable LOS is based on what criteria or factors?

15. Table III-10, Page III-59. Interstate 5 volumes are lower than what is shown in the State Volume Book. This needs to be corrected.

16. Freeways, Project Mitigation, Page IV-21, (B) 1d. It is premature to assume State and federal funds from the State Transportation Improvement Program would be used to help pay for the Golden Valley Parkway, particularly with the additional indicated need to widen I-205 to 8 lanes, widen I-5 in the Mossdale area and north, improve SR 120 to address future traffic with no funds currently identified in COG's RTP to accomplish these improvements which will be needed in the same time frame as the Parkway. However, it could be included as part of the CMP network and the countywide fee program.

17. NOISE, Project Mitigation, Page IV-15. The mitigation of noise from I-5 is not likely with service commercial buildings. A sound wall should be studied and installed by the adjacent housing development. This is an elevated section of freeway with a lot of truck traffic.

18. Page IV-22. A Statement of Overriding Consideration will be required because cumulative traffic cannot be mitigated.

19. Pages IV-21 and IV 25. Re: Caltrans dropping previous proposals for freeway lane improvements. This description is inaccurate and needs to be corrected. The need for these improvements remains and is still considered by Caltrans as long range freeway projects. However, these improvements were seen at the time of the 1990 General Plan and remain today as conceptual long range improvements with no funding commitment and no currently identified funding source. Additionally, in 1991 changes in federal statute required Regional Transportation Plans (as prepared by SJCOG in this County) to be funding constrained, and the 1994 Plan did not identify these projects described here and as project mitigation as within what could be built given anticipated State and federal funds available and other competing priorities. To indicate that significant impacts will occur because Caltrans has "dropped" these proposals is not correct.

20. Page IV-26, Item 3C: Although ER recognize efforts included in the Specific Plan concerning balanced land use and alternative transportation strategies Caltrans does not agree with the statement in the last sentence of this mitigation measure. See our comments concerning mitigation beginning with Section V-69.

21. Figures V-3, V-5, V-7, V-9 and V-11: It does not seem correct that peak hour volumes on I-205, I-5 and SR 120 would drop or remain virtually unchanged when going from base case to the addition of Project Alternatives at 2005 and 2017. Similar is true for Figure V-19 (Alternative E). This needs to be addressed. This is also true in comparing 2017 base case and 2025 base case (Figure V-14) where again mainline volumes on I-205 and segments of I-5 with assumed substantial improvements are lower that 2017 conditions.

22. Base Case + Project Conditions, Impacts 1 and 2, Page V-59. Mitigation #1 is not clear. Is it to widen Louise Avenue to 6 lanes with retaining walls under the I-5 bridges? Mitigation #2 improvements are partly due to proposed development. Fair Share cost should be included in the local traffic fees.

23. Figure V-6, Page V-61, Alternative A is not a feasible access alternative. Please see our general comments on this subject.

24. Page V-62. Mitigation #3 would add 2 lanes under I-5 and widens Louise Avenue from 2 lanes to 6 lanes west of I-5 for 2005 traffic.

25. Pages V-67 71,77 and 78. Note. ramps shown are not acceptable to Caltrans.

26. Page V-69 Mitigation #7, Unfunded freeway widenings.

b) Widening I-205 to 10 mainline lanes is probably unrealistic. This adds to the importance of the proposed Golden Valley Parkway, planned to help handle projected traffic volumes.

c) Widening I-5 to 10 lanes is possible. However, auxiliary lanes are necessary between the interchanges at Highway 120 and Louise Avenue. Additional widening will likely include HOV. There needs to be fair share funding responsibility from the West Lathrop Planning Area.

e) The 14 lane concept has been studied as a 10 lane freeway with parallel collector roads for traffic between I-205 and Highway 120. There needs to be fair share funding responsibility from the West Lathrop planning area.

3.27. Page V-69 and following regarding mitigation: Fair share funding participation by the Gold Rush City project based on this projects traffic loadings on I-205, I-5 SR 120 and Golden Valley Parkway in comparison overall future traffic on these facilities needs to be specifically referenced as mitigation responsibilities of this project in the DEIR. This includes widening I-205 from 6 to 8 lanes, improvements on I-5 and freeway connections on the Mossdale area, widening I-5 to at least 8 lanes north of the San Joaquin River, and widening SR 120 to 6 lanes. For this purpose, the DEIR needs to specifically identify the impacts of this project to the State Highway System with an indication possibly based on projects percentage or its projected volumes of traffic, of its potential contribution to future traffic loadings on the system.

Although it is understood that projected future conditions on the State Highway System will result in adverse impacts, development of this project contributes to these future conditions at both partial and full build-out and the need for improvements to the highway system (along with other strategies) to partially mitigate and decrease the impact on this system. As was also previously indicated the level of improvements needed to partially mitigate these impacts are not included for development using State and federal funds in the current SJCOG RTP (a funding constrained document) and are very unlikely to be fully covered in the '96 update of this document. On a technical level this will also help to address items such as the decrease in mainline northbound traffic in future years under the Alternative A build scenario.

It is also recognized that the development of the Golden Valley Parkway from Paradise Road to north of Louise Avenue is included as part of this projects transportation network and that the projects proportionate responsibility to build this facility needs to be considered in determining its involvement in future improvements to the State Highway System. Suggest this analysis be done focusing on Alternative E. Caltrans is available for further consultation with the City and Gold Rush City representatives on this issue.

28. Regarding improvements at the I-5/Louise Avenue interchange and the future I-205/Paradise interchange, these projects should be assumed to be fully funded at the local level with no involvement of State and federal funds.

29. Only a 2017 PM peak hour model run appears to be included for Alternative E (ie. no 2025 run which would be comparable to other Specific Plan alternatives). We believe that a 2025 PM peak hour model run is warranted and would be particularly beneficial in determining project build-out level impacts on the CMP network, including the State Highway System. For example, the 2017 model run did not include the extension of Golden Valley Parkway to Paradise Road and the Middle Road Expressway assumed in Tracy's Urban Management Plan. It is further suggested that this analysis is warranted based on the changes in traffic volumes on the regional system for the 2017 run when comparing Alternative E with Alternatives A1 and C. This is also revelant when considering the land use changes between the existing Specific Plan and Alternative E as noted on pages II-26 and 27 and the significant transportation network improvements assumed in Alternative E, Phase IV for Stewart Tract.

30. Figure V-10, Page V-71. The ramps shown are not appropriate mitigation (again refer to our General Comments).

31. Figure V-13, Page V-75. This is a significant sized project requiring new bridges and freeway widening for I-5. Mitigation should include 8 lanes for Louise Avenue with 2 lane on loop ramps. The old PSR concept of large retaining walls under the abutments needs to be restudied. Replacing the existing I-5 bridges should be considered.

32. Page V-76, Impact #14, Caltrans Design Manual Interchange Spacing requires two miles from freeway to freeway interchange to a local access interchange. The Mossdale IC does not meet the spacing criteria.

33. Page V-76: The 2025 analysis notes that the assumed future network includes substantial freeway improvements which have no funding commitment or funding source. It is not clear why mitigation measures which would include participation in regional freeway improvements are not included for the 2025 with project conditions. It appears such mitigation measures, would be applicable as with 2017 conditions. Please explain.

34. Figure V-15, Page V-78. It is necessary to call attention to the significant freeway widening assumed for 20 years growth. The number (8) on a freeway link should be revised to show 4 lanes of widening needed to support future traffic on I-205.

35. Figure V-17, Page V-82. Mossdale on loop shown is not appropriate as per our General Comments. Golden Valley Parkway interchange appears to close to the I-5/Louise Avenue interchange.

36. Page V-97, Alternative E shows 2 lane on loops at I-5/Louise Avenue and no new Mossdale ramps. What happens to the existing Stewart Tract street across the SPRR to the Manthey Rd./I-5 ramps?

37. Figure V-19, Page V-99, The Golden Valley Parkway may need to extend to Paradise Interchange earlier than 2017 to reduce I-5/I-205 impacts and impacts from Louise Avenue.

38. - A Transportation Monitoring Program should be developed prior to submittal of the first development permit. Participation by Caltrans shall be included in the provisions of the Transportation Monitoring Program.

The Transportation Monitoring Program shall serve as a means of comparing projected and actual traffic volumes, identifying current LOS conditions, and evaluating planned transportation improvements and planning studies. Trigger points and progress toward implementation of the required transportation improvements should also be identified and reviewed.

Should traffic impacts of the project be found during the annual monitoring to be significantly different from those projected, Caltrans would like to have the ability to monitor any changes and the flexibility to request changes in assumptions and methodology used, such as trip generation rates.

39. - The DEIR does identify some strategies which reduces travel demand and provides alternative transportation modes, such as park and ride lots, transit services and a multi-modal transportation facility. While this is beneficial and a key feature of the future system, it is not shown how such services would be developed, and operated and their timing for development and how they would be paid for. To make these stronger mitigation measures, these issues should addressed in enough detail in the EIR to see how they would be provided.

40. - Any highway related mitigation which plans the involvement of federal funds (such as state/local jointly funded projects) which will require any form of federal action on routes likely to be in the National Highway System will be required to be included in SJCOG's FTIP and must be consistent with SJCOG's Regional Transportation Plan (RTP).

41. The mitigation improvements will have to be found in conformance with the San Joaquin Valley Air Quality Attainment Plan before they can proceed beyond the programming stage.

42. The reference to the RTP and FTIP as a funding constrained document and the above comments would also pertain to public transportation projects where federal funds are anticipated.

RESPONSE TO COMMENT LETTER NO. 2 - California Department of Transportation

A. General Comments. The recommendation is accepted. Since utilizing the existing Mossdale/Manthey interchange as a primary point of freeway access to the project is not acceptable to Caltrans, the following statements are hereby added to the EIR:

1. Original proposals of the Specific Plan with respect to the assumed roadway network, traffic circulation, and project phasing of transportation infrastructure improvements which assume long-term use of the Mossdale/Manthey interchange have not been found to be feasible or capable of implementation because of failure to meet adopted freeway design standards and the hazards introduced by winter fog.

2. Proposals of Specific Plan Alternate E do include freeway access tentatively approved by Caltrans and phased roadway improvements serving Stewart Tract which are feasible, based on the level of analysis presented in the Draft EIR.

B. Mitigation Measures, page I-13. The following mitigation measures are hereby added to the summary for Transportation/Circulation/Traffic on Page I-13 of the Draft EIR. As with other traffic improvements, the project applicant will be responsible for its fair share contribution toward the following mitigation measures.

Measure # 7: The alignment of Golden Valley Parkway recommended by Caltrans westerly of the Southern Pacific Railroad across Stewart Tract is accepted and is shown as part of the Alternate E land use and circulation proposals which have become part of the Project. It is anticipated that the Parkway will be constructed between Gold Rush Boulevard (Louise Avenue interchange) and the Paradise Road interchange sometime between 2005 and 2017.

Measure #8: It is agreed that the Louise Avenue interchange will require complete reconstruction to handle the projected traffic volumes. Accordingly, Caltrans' existing Project Study Report will need to be revised to include the new loop ramps; and, Federal Highway Administration (FHWA) approval will be required.

Measure #9: Interstate 5 will need to be widened to at least eight lanes plus auxiliary lanes north of Highway (SR) 120.

Measure #10: Plans for the I-205/Paradise interchange should be coordinated with proposals of the Tracy Circulation Master Plan which utilize the existing two-lane bridge as a frontage road for the expressway, with the interchange located 1,500 feet to the west. This concept allows full access control, with Paradise Road serving existing farms in the area. This interchange potentially would be a locally funded project, subject to FHWA and CTC discretionary approval for the new access. The City of Lathrop will work with the City of Tracy to develop the PSR/CAR funding plan and project development/construction schedule so that traffic impacts are adequately mitigated.

B.1. Figure II-2, Page II-5. Figure II-2 is for the Specific Plan as originally proposed, but which has been superseded by Alternative E. Under Alternative E, the existing Mossdale interchange will continue to be used for limited access to adjacent lands (without change) even though not a point of access for the majority of Stewart Tract development west of the railroad under the Specific Plan as amended with Alternate E.

B.2 Page II-7. The comment that Gold Rush Boulevard will be part of the first phase of development of Stewart Tract east of the Southern Pacific Railroad tracks is correct, as reflected in Alternative E, Figure 7. It should be understood, however, that the statement that Manthey Road would continue to be used for several years refers to its short-term use during construction activities as Gold Rush Boulevard is being designed and constructed.

B.3 Table II-2, Page II-9. Caltrans recommendation to include reference to continued use of Manthey Road to serve gravel mining trucks, and that Stewart Road is to be discontinued at the S.P. Railroad is accepted. These proposals have been made a part of the Specific Plan (as shown by Alternate E, Figure II-5, Page II-25 of the Draft EIR and to be included in the consolidated Specific Plan document).

B.4 Page II-10. Golden Valley Parkway has been relocated to the west side of the SP Railroad under Alternative E. [See discussion of the Alternative E development concept, 5th paragraph, Page II-23 of Draft EIR.]

B.5 Levee System, Page II-12. The large bridge referred to is a part of the existing Mossdale interchange configuration. The elevation of the underside of the bridge is well above the projected 100 year flood elevations proposed for the rehabilitated levee system on Stewart Tract. We agree, however, that the interchange may become unusable under certain flooding conditions.

B.6 Figure II-4, Page II-18. The phasing proposals of Figure II-4 are for the Specific Plan as originally proposed, but which has been superseded by the proposals of Alternative E. The Figure is being changed for publication of the consolidated Specific Plan which includes land use and circulation proposals of Alternative E.

B.7 Page II-23, Paragraph 5. The comment regarding the importance of constructing Golden Valley Parkway as a central part of the circulation system in support of Stewart Tract development is accepted. Extension of the Parkway to a Paradise Road interchange sometime between 2005 and 2017 has been included as further mitigation of commercial land use proposals under Alternative E. [See Exhibit "A" pertaining to further analyses conducted for Alternative E based on traffic projections for additional horizon years (e.g., 2025)].

B.8 Figure II-5, Page II-25. The recommendation to delete the Yosemite Avenue interchange connection to the Mossdale interchange as part of the Specific Plan because it would overload the traffic capacity of the Mossdale interchange is accepted. This extension would be considered in the future (as proposed by the General Plan) only in the context of removing or modifying the existing Mossdale/Manthey interchange ramps.

B.9 Page II-28, Paragraph 2. As recommended, the potential for leasing parking spaces at commercial uses near the Louise Avenue interchange for park-and-ride use will be explored.

B.10 Page II-29, Development Phasing. In order to adhere to the capacity of the existing I-5 Mossdale/Manthey interchange, Manthey Road is anticipated to be converted to one-way northbound from Stewart Tract to Mossdale Village upon the extension of Golden Valley Parkway from Mossdale Village to Stewart Tract (See Exhibit A of this document)

B.11 Figure II-6, Page II-31. The CS zoning within Mossdale Village along I-5 is to accommodate the Service Commercial use designated by the General Plan and Specific Plan which will have

its access from existing Manthey Road. The need to accommodate I-5 right-of-way improvements in this area in the future is accepted, and will be incorporated into the final version of the Specific Plan document.

B.12 Figure II-7, Page II-32. The comment is not quite correct. The area along the east side of the SP Railroad (under Alternative E) has been reduced to urban reserve except for the parking lot in support of the transit station, and the 50 acre farmers' market which has been sized to be accommodated within the allowable peak hour traffic volume established by Caltrans for continued (but limited) use of the Mossdale/Manthey interchange.

B.13 Page III-7, Planned Roadway Improvements. It is agreed that the proposed I-205 widening from 4 to 6 lanes between Tracy and I-5 should be added to the list of projects tentatively programmed in the San Joaquin COG Regional Transportation Plan for the 2000-2005 period.

B.14 Figure III-5-D, Page III-17. Unacceptable LOS criteria are those as defined in Transportation Research Board (TRB) Circular 212, and as accepted by the FHWA and Caltrans. These criteria range from LOS A to LOS F, and are included in Exhibit "A" as part of this Final EIR. Unacceptable freeway operation (LOS E or F) was based upon a capacity of 1,850 vehicles per lane per hour.

B.15 Table III-10, Page III-59. Existing I-5 traffic volumes consistent with the State Volume Book have been incorporated into the revised Table III-10 which is attached to this response to Caltrans comments. The corrected ADT data for I-5, S.R. 120 and I-205 indicates that existing highway traffic noise levels in the Project vicinity would have been predicted to be approximately 1.5 to 2.2 dB higher than indicated by the incorrect data used in the original Table III-10 on page III-59 of the Draft EIR. This difference is considered generally to be below the threshold of perception by the human ear. Nevertheless, if the correct Caltrans counts had been used, the findings of noise impacts and associated mitigation measures described in the Draft EIR would not have changed. This is because the project-related noise impacts were assessed based on the increase in traffic noise that would result from the Project. That increase would effectively be the same regardless of which ADT volumes were used to establish baseline conditions. Furthermore, Project development constraints will be defined by the future traffic noise environment in the Project vicinity, rather than existing noise levels.

B.16 Freeways, Project Mitigation, Item 1d., Page IV-21. Regardless of current conditions affecting available levels of State and Federal funding, this mitigation measure recognizes the City of Lathrop's responsibility to contribute its fair-share of the funding required for extending Golden Valley Parkway as a facility parallel to I-5 and I-205 beyond its future City limits. The measure also reflects that a State, Federal and COG fair-share funding responsibility will exist even if funds are not available at the time they are needed. The City agrees that Golden Valley Parkway should be made part of the CMP network and the countywide road mitigation fee program.

B.17 Noise, Project Mitigation, Page IV-15. While service commercial structures may not adequately attenuate the effects of freeway noise on nearby future residential development within Mossdale Village, the Draft EIR provides for adequate shielding by barriers at the time when final grading and plans and project design elements for residential projects are known. [See mitigation measure #2, page V-40.]

B.18 Page IV-22. Agreed. As noted on page IV-22 of the Draft EIR: "To the extent that cumulative traffic impacts on the freeway system may not be reduced to acceptable levels, statements of overriding considerations will be required. . ."

B.19 Pages IV-21 and IV-25. The inaccuracy of the statements cited that significant impacts will occur because Caltrans has "dropped" certain proposals for long-range freeway improvement is accepted. The first paragraph on page IV-21 does not require change, since reference is only made in the last sentence of the paragraph that anticipated impacts under the Specific Plan will be greater if the freeway improvements listed are not constructed. However, the first sentence in the first paragraph at the top of page IV-25, Item 1 under "Impacts", is revised as follows:

> "1. Development proposed under the West Lathrop Specific Plan ~~and the actions of Caltrans to drop its previous proposals for freeway lane improvements~~ poses significant potential for creating traffic problems on the freeway system and on the local arterial street and county road systems serving the south-central part of San Joaquin County as well as other parts of Lathrop. *Project impacts on freeway sections will be exacerbated as the result of an interruption in Caltrans' previous schedule for making lane improvements caused by Federal and State funding constraints that have emerged since adoption of the General Plan in 1991.* The most significant ..... and air pollution. **[significant]"**

B.20 Page IV-26, Item 3.c. Caltrans does not agree with the last sentence under 3.c., that the high Stewart Tract employment rate will create favorable conditions for achieving a good jobs/housing balance in the Lathrop area, resulting in no additional significant impacts to commute activity on Interstate 580 over the Altamont Pass. By way of explanation, the last sentence under Item 3.c. is correct for the Altamont Pass only, based on COG modeling results. These results take into account the reduced peak direction commuter flow (westbound in the AM/eastbound in the PM) that would occur due to the large park-and-ride lot adjacent to the existing Mossdale/Manthey interchange.

B.21 Figures V-3,-5,-7,-9 and -11. The statement that peak hour volumes on the indicated freeway segments would drop or remain unchanged under Project conditions as compared to base case conditions is supported by the following:

1. The provision of the improved Mossdale interchange along I-5 as proposed in the original Project (without Alternative E) would be expected to attract traffic from developments on the west side of I-5 north of Gold Rush Boulevard that formerly had utilized the Louise Avenue/Gold Rush Boulevard interchange with I-5. This is particularly the case for peak direction traffic during times of freeway congestion.

2. With provision of the Paradise interchange and direct access to the west end of Stewart Tract, the vast majority of Specific Plan traffic destined to/from the west on I-205 would be expected to use Paradise Road for Project access rather than using I-205 (east of Paradise) and I-5 to access the Louise Avenue interchange.

3. The Project's employment areas will attract a certain number of commuters now working in Tracy or to the west of the Altamont Pass from the local freeway network, and in particular from I-205 and from I-5 south of the Louise Avenue interchange. The large employment base of the Project will provide an important employment alternative for San Joaquin Valley residents who will reside north and east of the Project.

~~alternative for San Joaquin Valley residents~~ who will reside north and east of the ~~Project.~~

B.22 Base Case + Project Conditions, Impacts 1 and 2, Page V-59. Mitigation measure #1 is intended to indicate that the number of lanes that will be determined by the Stage II Project Study Report. Fair share costs are called for in the last paragraph under Impact 2 on page V-59.

B.23 Figure V-6, Page V-61. The infeasibility of Alternate A has been recognized and substituted with Alternate E. The discussion of Alternate A is for the project as originally proposed, which was changed in favor of Alternative E as described at the end of Part II and evaluated at the end of Part V of the Draft EIR.

B.24 Page V-62. Figure V-6 shows the correct geometrics for the 2005 horizon year.

B.25 Pages V-67,-71,-77, and -78. The comment that the ramps shown are not acceptable to Caltrans is accepted. With entirely new model runs for 2005 and 2015, Figures V-4, -5 and -6 for 2005 have been replaced, and those for 2017 are replaced with those for 2025. The changed figures (and figure numbers) are attached at the end of this response to Caltrans comments

B.26 Page V-69. See responses to B.20 and B.21, above.

B.27 Page V-69 and following regarding mitigation. The key phrase in the Draft EIR regarding Project funding responsibility for freeway improvements is "fair-share". The City recognizes that impacts caused by the Project require mitigation by the Project. However, to the extent that future adverse conditions occur as the result of regional traffic unrelated to the Project, full funding for improvements needed to off-set regional traffic impacts are beyond the responsibility of the City and the Project. Further analysis of future conditions under Alternative E are provided in the attached Exhibit "A". [See also reference to the CMP and countywide fee program as mitigation under B.16, above.]

B.28 Regarding improvements at the I-5/Louise Avenue and I-205/Paradise Interchanges. The comment is noted and accepted. Full local funding for these projects is assumed.

B.29 Need for Additional Peak Hour Model Runs for Alternative E. Additional runs have been conducted as recommended. The results are shown in Exhibit "A" attached to this document. In brief, the results of 2025 PM weekday peak hour model runs for Base Case + Alternative E show that (without mitigation) unacceptable levels of freeway operation would occur northbound along I-5 between Lathrop Road and Louise Avenue, and between Louise Avenue and S.R. 120, both eastbound and westbound along SR 120 between I-5 and Yosemite Avenue, northbound onto I-5 from eastbound I-205 and eastbound along I-205 from Tracy to the Paradise Road interchange. For non-peak hours of the day, acceptable levels are expected to prevail. Under these conditions, mitigation at the Louise Avenue interchange will require looped ramps in the northwest and southeast quadrants. It is also important to note that Year 2025 traffic impacts under Alternative E will be somewhat less than those described in the Draft EIR.

B.30 Figure V-10, Page V-71. It is agreed that the Mossdale/Manthey interchange ramps shown are no longer valid. However, the Commentor is reminded that Figure V-10 presents 2017 requirements under the Project as originally proposed (with full use of the Mossdale/Manthey interchange), whereas the Project now substitutes Alternative E which assumes very limited use of the existing Mossdale/Manthey interchange in the future.

B.31 Figure V-13, Page V-75. The Commentor is reminded that improvements required to the Louise Avenue interchange under Project Alternative B as shown on Figure V-13 are no longer valid, and have been replaced with Alternative E.

B.32 Page V-76, Impact #14. The comment that the Caltrans Design Manual standards for interchange spacing require two miles between a freeway-to-freeway interchange and a local access interchange is accepted.

B.33 Page V-76. The regional freeway improvements required as mitigation under the 2017 horizon year would also apply to the 2025 horizon year. The Project will also participate in 2025 regional freeway improvements.

B.34 Figure V-15, Page V-78. The comment is accepted. Based upon the number of freeway lanes assumed in operation for 2025 conditions, the existing freeway system would require the following lane additions to provide mostly acceptable PM peak hour operations:

I-205:	An additional two lanes each direction.
I-5 north of S.R. 120:	An additional lane in each direction plus auxiliary lanes between interchanges.
I-5 from I-205 to S.R. 120:	An additional lane each direction plus two new northbound lanes across the San Joaquin River.
S.R. 120:	An additional lane each direction.

B.35 Figure V-17, Page V-82. Again, this comment is for an alternative that is no longer proposed. Alternative E is now the Project.

B.36 Page V-97. Under Alternative E, the existing Stewart Road connection from the Mossdale/Manthey interchange across the S.P. Railroad is closed. However, the crossing is maintained for access from development west of the railroad tracks to the transit parking area.

B.37 Figure V-19, Page V-99. The comment is accepted. Under Alternative E as proposed (see Exhibit "A" to this report), an earlier date for extending Golden Valley Parkway to the Paradise Road interchange is assumed. The exact time frame will be based upon results of a yearly monitoring program.

B.38 Transportation Monitoring Program. The recommendations are accepted. A monitoring program for freeway, interchange and roadway improvements is being included in the overall Mitigation Monitoring Program developed for the entire Project.

B.39 Strategies for Reducing Travel Demand. The remote park and ride lots described for Alternative E will be provided under Phased development of Stewart Tract, with at least one lot provided under Phase 1 of Stewart Tract development; the multi-modal transit station on Stewart Tract will be provided during Phase 1 development; a requirement for a more

defined commitment to transit services is described on page V-100 of the Draft EIR, and a more detailed description of this commitment is provided in the consolidated Specific Plan document which establishes Alternative E as the Project. The Project will be held responsible for those fair-share costs associated with Project impacts.

B.40 Inclusion of Proposed Highway Improvements in the SJCOG FTIP, Consistent with the SJCOG Regional Transportation Plan. The comment is accepted.

B.41 Conformity with SJV Air Quality Attainment Plan. The requirement for conformity with the Air Quality Attainment Plan is understood.

B.42 References. The comment that reference to the RTP and FTIP as a funding constrained document, and the comments under B.41, above, also pertain to public transportation projects where federal funds are anticipated, is understood.

TABLE III-10

FHWA TRAFFIC NOISE PREDICTION MODEL INPUTS
West Lathrop Planning Area

ROADWAY/SEGMENT	ADT		Day/Nite %	% Medium Trucks	% Heavy Trucks	Speed (mph)
	Existing 1993 Weekday	Existing Saturday				
Interstate 5:						
1. Roth Rd. to Lathrop Rd.	62,000		70/30	3.0	16.9	65
2. Lathrop Rd. to Louise Ave.	61,000		70/30	3.0	16.9	65
3. Louise to SR 120	62,000		70/30	3.0	16.9	65
4. SR 120 to I-205	95,000		70/30	2.7	13.6	65
5. South of I-205	29,500		70/30	3.7	19.3	65
State Route 120:						
6. Yosemite Ave. to I-5	44,500		70/30	2.9	15.5	60
Interstate 205:						
7. I-5 to MacArthur Rd.	65,000		70/30	3.2	14.9	60
Lathrop Road:						
8. Manthey Rd. to I-5	370	670	83/17	2.0	3.0	30
9. East of I-5	5,950	5,250	83/17	2.0	3.0	35
Louise Avenue:						
10. Manthey to I-5	490	1,400	83/17	2.0	3.0	30
11. East of I-5	7,850	10,500	83/17	2.0	3.0	35
Manthey Road:						
12. Roth to Lathrop	550	750	83/17	2.0	3.0	40
13. Lathrop to Louise	270	370	83/17	2.0	3.0	40
14. Louise to Stewart Rd.	350	770	83/17	2.0	3.0	40
15. South of Stewart Rd.	230	500	83/17	2.0	3.0	40
Paradise Road:						
16. Delta to Canal	170	350	83/17	2.0	3.0	45
17. Canal to Arbor	230	480	83/17	2.0	3.0	45
18. Arbor to I-5	150	360	83/17	2.0	3.0	45
Roth Road:						
19. Manthey to I-5	550	700	83/17	2.0	3.0	30
20. East of I-5	4,700	1,650	83/17	2.0	3.0	35
Stewart Road:						
21. West of Manthey	170	410	83/17	2.0	3.0	

Note: The corrected ADT data for I-5, S.R. 120 and I-205 shown above indicates that existing highway traffic noise levels in the Project vicinity would have been predicted to be approximately 1.5 to 2.2 dB higher than indicated by the incorrect data used in the original Table III-10 on page III-59 of the Draft EIR. This difference is considered generally to be below the threshold of perception by the human ear. Nevertheless, if the correct Caltrans counts had been used, the findings of noise impacts and associated mitigation measures described in the Draft EIR would not have changed. This is because the project-related noise impacts were assessed based on the increase in traffic noise that would result from the Project. That increase would effectively be the same regardless of which ADT volumes were used to establish baseline conditions. Furthermore, Project development constraints will be defined by the future traffic noise environment in the Project vicinity, rather than existing noise levels.

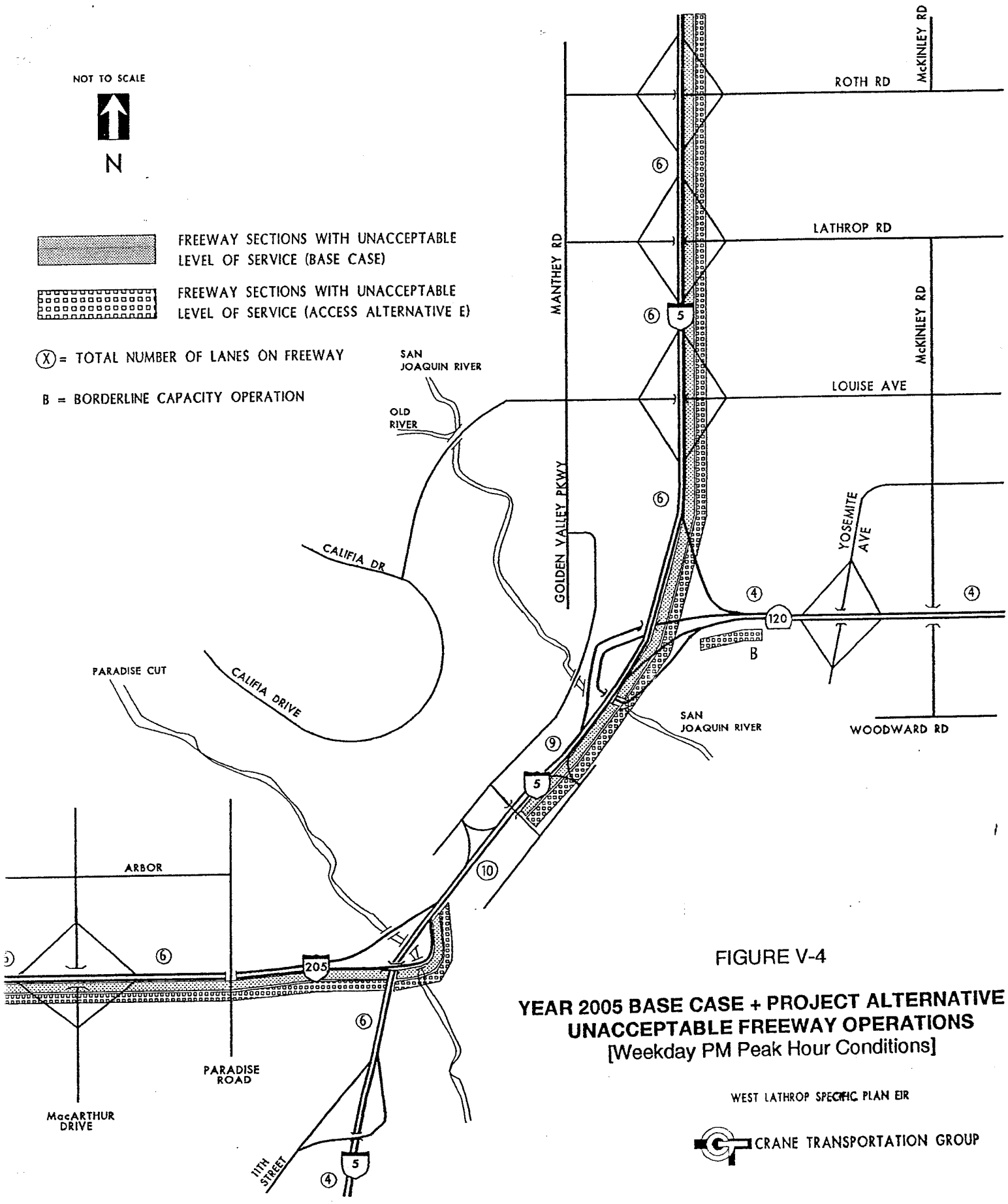


FIGURE V-4

YEAR 2005 BASE CASE + PROJECT ALTERNATIVE E
UNACCEPTABLE FREEWAY OPERATIONS
[Weekday PM Peak Hour Conditions]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

FIGURE V-5

2005 BASE CASE + PROJECT ALTERNATIVE E VOLUMES

[Weekday PM Peak Hour Conditions]

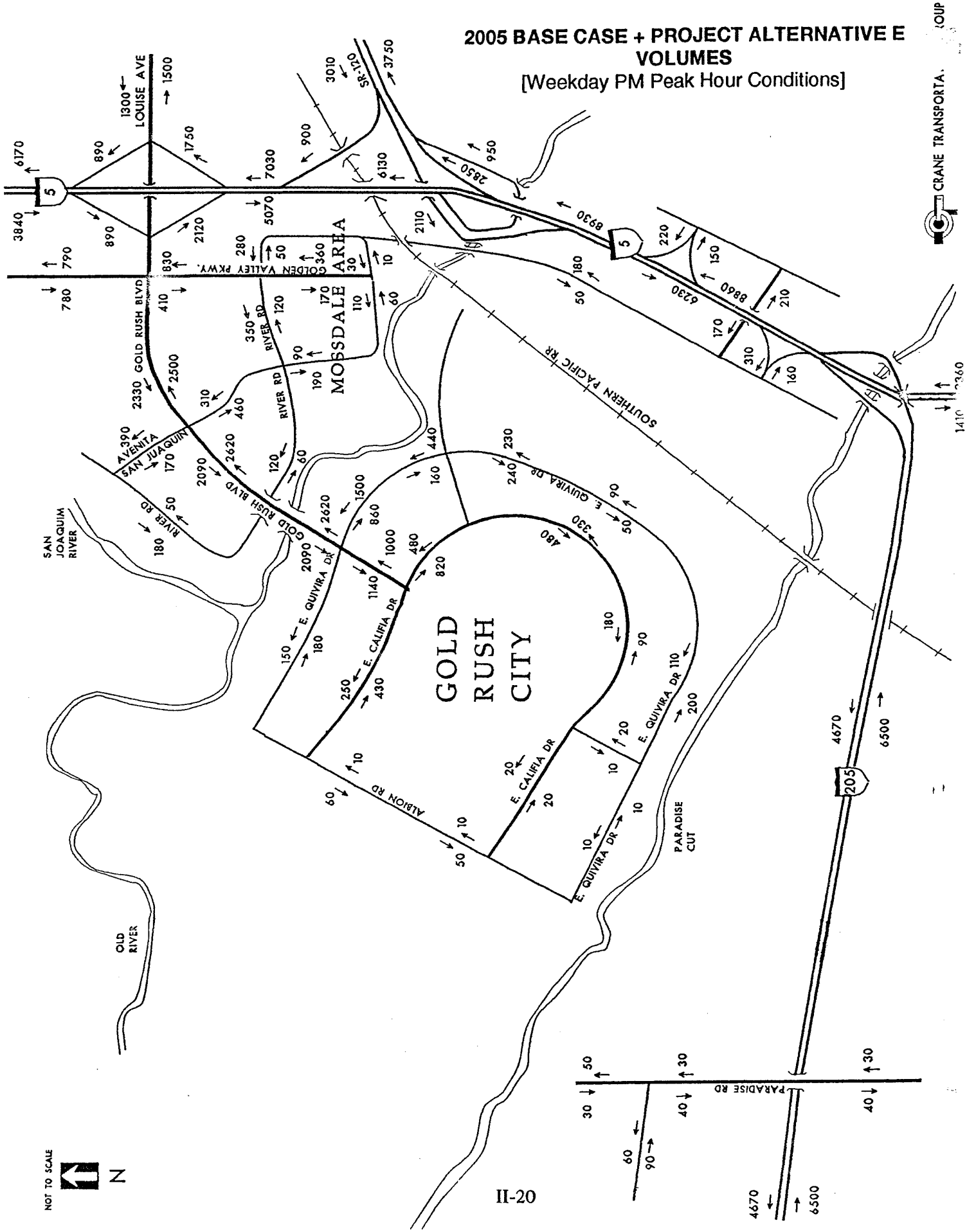
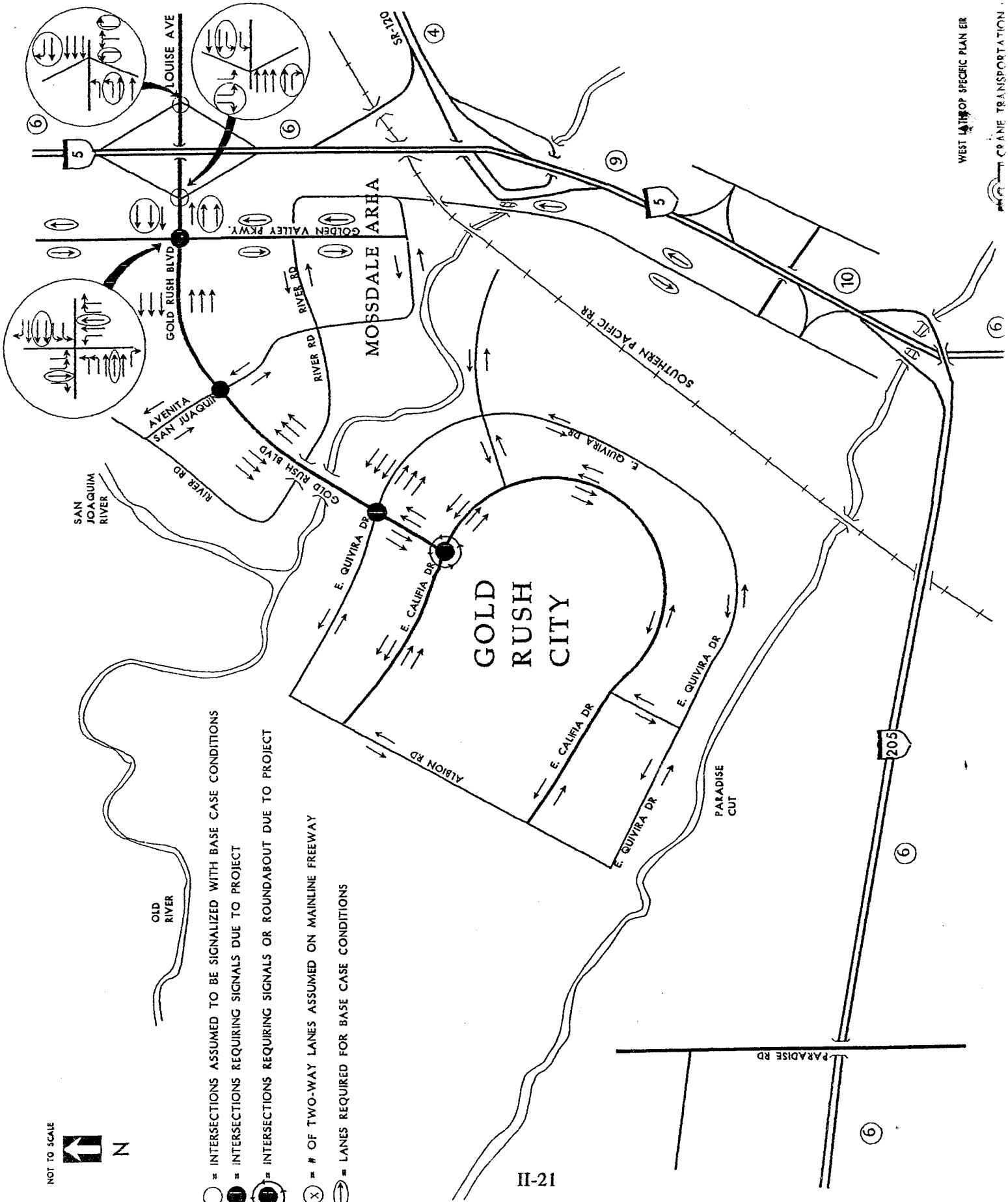


FIGURE V-6

YEAR 2005 PROJECT ALTERNATIVE E, SIGNAL REQUIREMENTS, INTERCHANGE IMPROVEMENTS AND LANE REQUIREMENTS



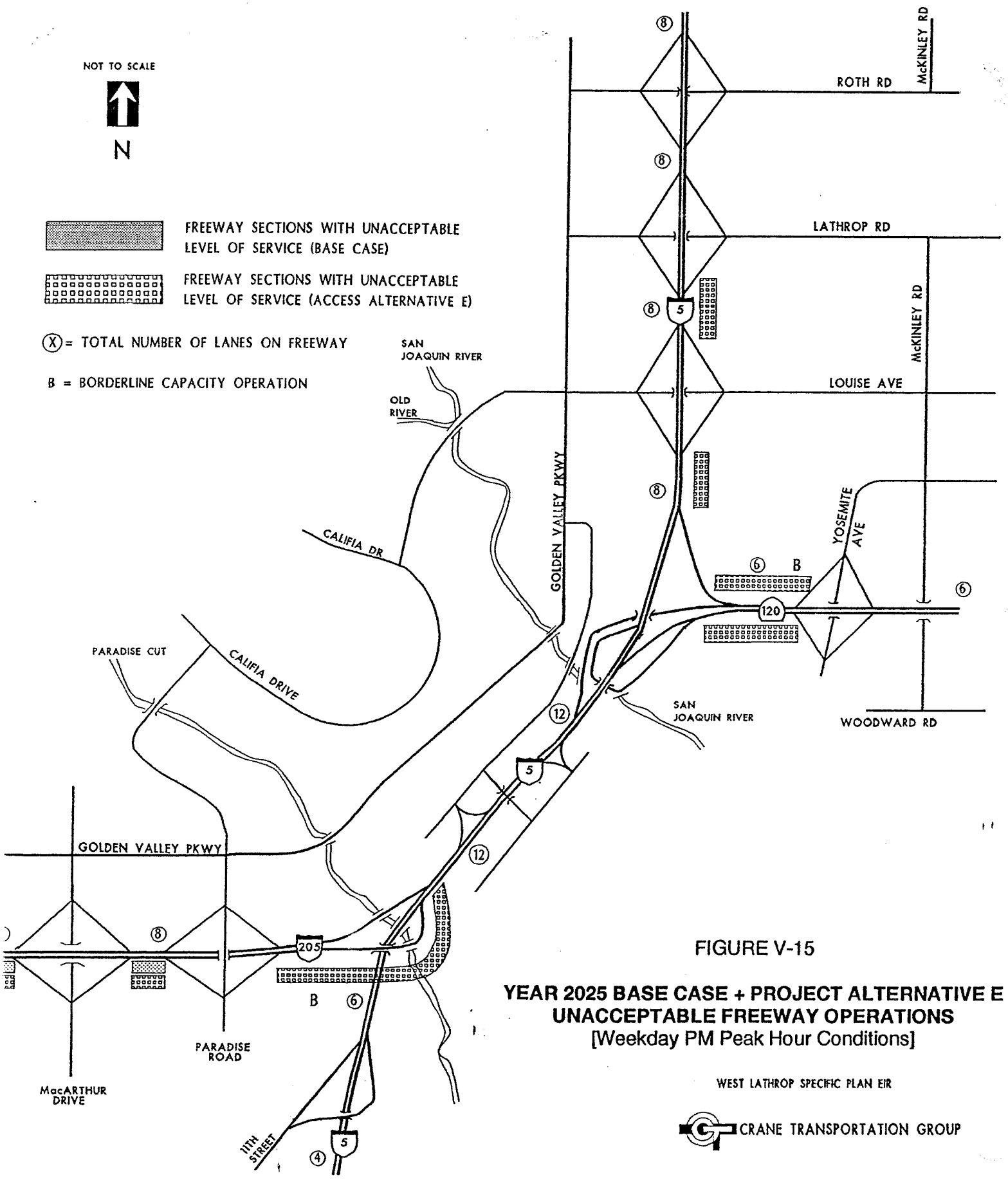


FIGURE V-15

YEAR 2025 BASE CASE + PROJECT ALTERNATIVE E
UNACCEPTABLE FREEWAY OPERATIONS
[Weekday PM Peak Hour Conditions]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

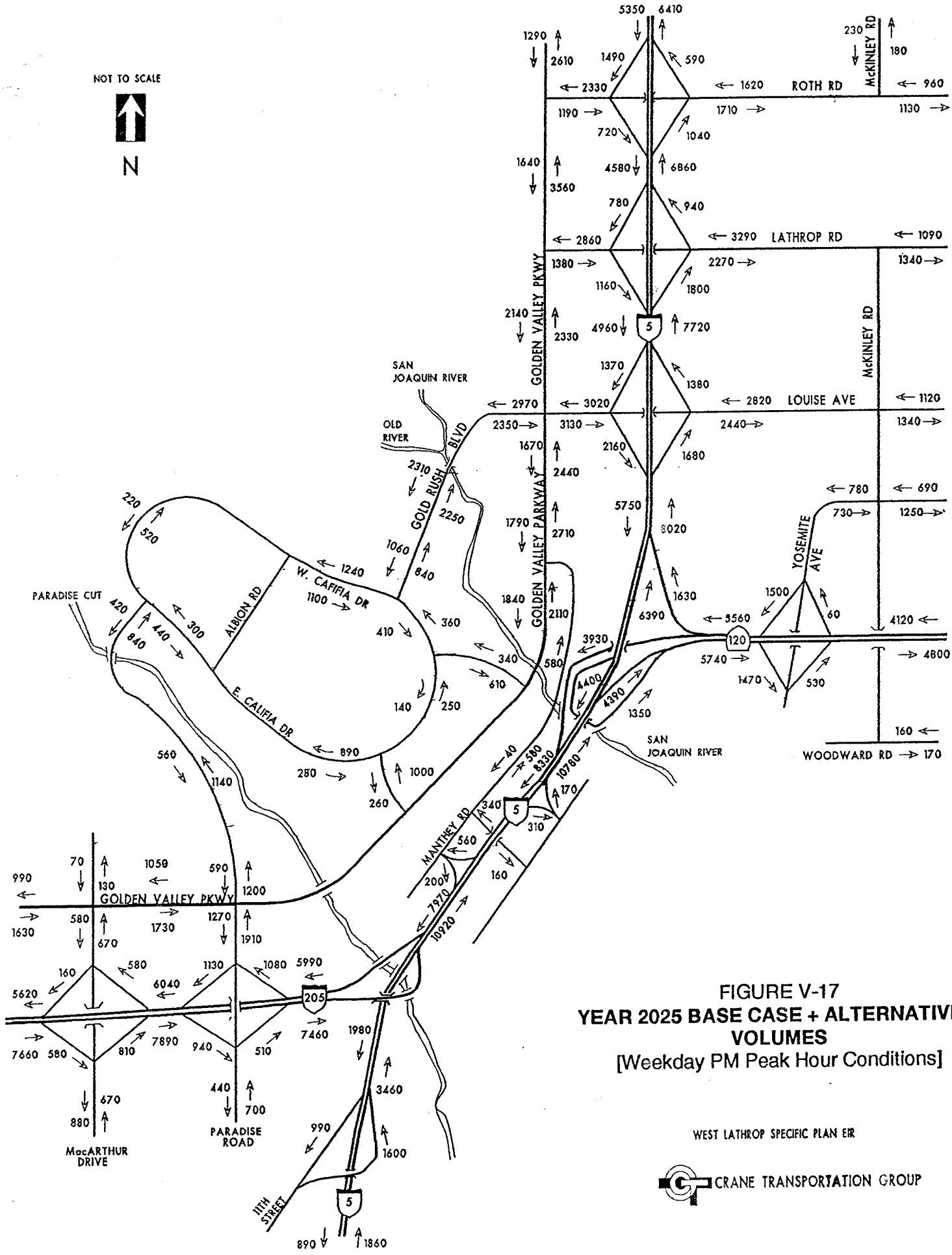


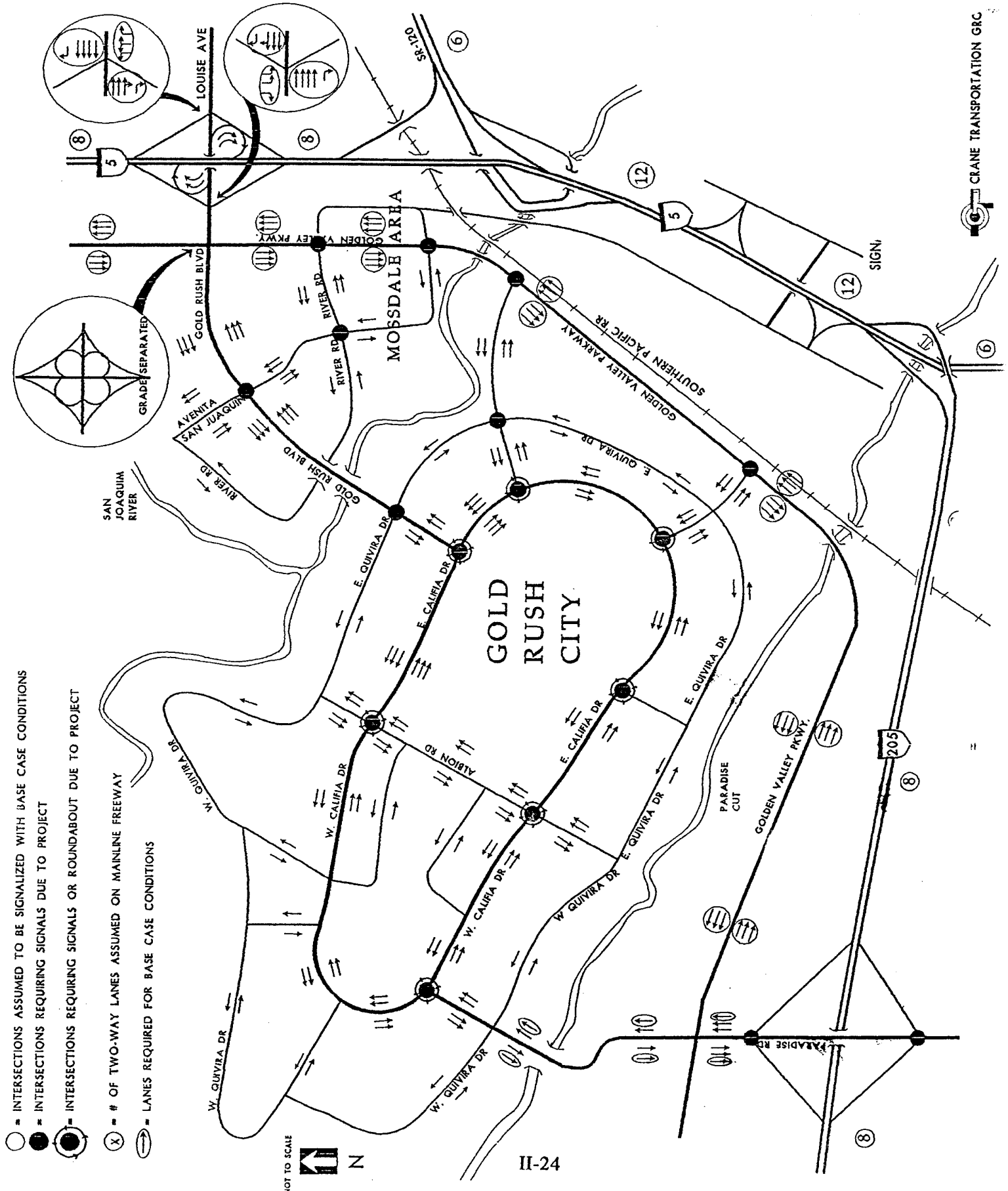
FIGURE V-17
YEAR 2025 BASE CASE + ALTERNATIVE E VOLUMES
[Weekday PM Peak Hour Conditions]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

FIGURE V-18

YEAR 2025 PROJECT ALTERNATIVE E, SIGNAL REQUIREMENTS INTERCHANGE IMPROVEMENTS AND LANE REQUIREMENTS



STATE OF CALIFORNIA—THE RESOURCES AGENCY

COMMENT LETTER NO. 3

DEPARTMENT OF FISH AND GAME
EGION 2
.701 NIMBUS ROAD, SUITE A
RANCHO CORDOVA, CA 95670
(916) 358-2888

RECEIVED
AUG 10 1995
Ans'd.....

August 8, 1995

Ms. Pam Carter
City of Lathrop
Planning Division
16675 Howland Road, Suite #1
Lathrop, California 95330

Dear Ms. Carter:

The Department of Fish and Game has reviewed the draft Environmental Impact Report (EIR) for the West Lathrop Specific Plan SCH# 93112027. The project consists of a Specific Plan and associated documents, including a Habitat Management Plan (HMP) that will enable development of 7,000 acres in Stewart Tract and Mossdale Village planning areas of the West Lathrop Planning Area. The project is located southwest of Lathrop in San Joaquin County.

The draft EIR for the West Lathrop Specific Plan identifies several significant impacts to fish and wildlife resulting from the proposed project. The principal means of mitigating these impacts to "less-than-significant" is through the implementation of the proposed HMP. Throughout our comments regarding Lathrop's General Plan (1991), we expressed concern that there would be significant impacts to sensitive species, particularly the State-listed threatened Swainson's hawk (Buteo swainsonii) and that mitigation of these impacts may be difficult.

A. While the proposed HMP contains many elements that are designed to off-set the project's impact's to fish and wildlife, the HMP is inadequate in several areas. These deficiencies must be addressed before impacts to fish and wildlife are reduced to a level that is less than significant. Areas where the HMP is inadequate include the following:

1. - The HMP only addresses Phase 1 of the project and does not address the complete project. The HMP should be revised to include adequate mitigation for the entire project.

2. - The HMP does not include sufficient detail regarding the terms and conditions of potential conservation easements (i.e. easement language). If conservation easements are to be used as a mitigation technique, then the HMP should be revised to contain the details of an effective conservation easement that is acceptable to DFG. We have attached conservation easement language which has been pre-approved by our legal office for your information.

3. - The HMP fails to provide sufficient detail regarding the specifics of "habitat enhancement". The HMP should contain a menu of enhancements that would be used on mitigation lands.

4. - The HMP fails to include a proposed funding mechanism, such as used to fund infrastructure, so that mitigation is provided as each increment of the project is developed.

5. - The HMP fails to provide a means to fund the on-going management of the mitigation lands. The HMP should be revised to include the details of a funding mechanism for on-going management.

6. - The HMP refers to either a per-acre mitigation ratio for developed lands versus protected lands, or the collection of a fee. The fees quoted in the HMP do not appear to include sufficient funding to both acquire the necessary habitat protections and also fund enhancement and on-going management. The HMP should be revised to include the economic basis for a fee that is sufficient to acquire, enhance, and manage mitigation lands, or simply require that mitigation must be secured as lands.

Thank you for the opportunity to review this project. We look forward to working-out the details of an effective HMP with you. Please feel free to contact Mr. Dan Gifford, Associate Wildlife Biologist, telephone (209) 369-8851 or, Ms. Cindy Chadwick, Environmental Services Supervisor, telephone (916) 358-2921.

Sincerely,

L. Ryan Broddrick
Regional Manager

Attachment

cc. Mr. Dan Gifford
Mr. Dave Zezulak
Ms. Cindy Chadwick
Department of Fish and Game
Rancho Cordova, California

RESPONSE TO COMMENT LETTER NO. 3 - California Department of Fish and Game

A. The Departmental response suggests that the Habitat Management Plan (HMP) is deficient with respect to the following:

A.1 The HMP does not address the complete project. Based on subsequent meetings with DFG, the HMP has been revised to address the complete project.

A.2 Inadequate Conservation Easement Language. The HMP has been updated to include a Memorandum of Understanding between DFG and the City. Attached to the Memorandum of Understanding is a Management Authorization that contains a sample conservation easement grant.

A.3 Insufficient Detail Regarding Habitat Enhancement. The Management Authorization included in the HMP now contains a menu of habitat enhancement measures.

A.4&5 Failure to Include Funding Mechanisms. Funding mechanisms were proposed in the HMP, but the approach to funding has been revised based on subsequent meetings with DFG. Provisions for the funding of the dedication, operation and maintenance of habitat management lands are now included in the HMP.

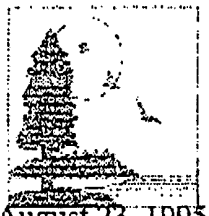
A.6 Assuring the Required Mitigation Ratio. Following meetings with DFG, the HMP has been revised to require that mitigation lands be secured.

STATE OF CALIFORNIA

COMMENT LETTER NO. 4

CALIFORNIA STATE LANDS COMMISSION

GRAY DAVIS, *Lieutenant Governor*
KATHLEEN CONNELL, *Controller*
RUSSELL S. GOULD, *Director of Finance*



EXECUTIVE OFFICE
100 Howe Avenue, Suite 100-
Sacramento, CA 95825

ROBERT C. HIGHT, *Executive Officer*
(916) 574-1800 Fax (916) 574-1810
California Relay Service from TDD Phone 1-800-735-2922
from Voice Phone 1-800-735-2929

August 23, 1995

Mr. James T. Burroughs
Projects Coordinator
The Resources Agency
1416 Ninth Street, Room 1311
Sacramento, CA 95814

Attention: Nadell Gayou

Ms. Pam Carder
City of Lathrop
16675 Bowland Road, Suite #1
Lathrop, CA 95330

Dear Mr. Burroughs and Ms. Carder:

Staff of the State Lands Commission (SLC) has reviewed the West Lathrop Specific Plan for the City of Lathrop, SCH #93112027. Based on this review, we offer the following comments.

Under the California Environmental Quality Act (CEQA), the City is the Lead Agency and the SLC is a Responsible and/or Trustee Agency for any and all projects which could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the navigational easement.

A. SLC JURISDICTION

By way of general background, upon admission to the Union in 1850, California acquired nearly 4 million acres of sovereign land underlying the State's navigable waterways. Such lands include, but are not limited to, the beds of more than 120 navigable rivers and sloughs, nearly 40 navigable lakes, and the 3 mile wide band of tide and submerged land adjacent to the coast and offshore islands of the State. These lands are managed by the SLC.

The SLC holds its sovereign interest in these lands subject to the Public Trust for commerce, navigation, fisheries, open space, and preservation of natural environments, among others. The SLC is particularly concerned with the natural resources and public recreational opportunities of lands under its jurisdiction.

Shortly after becoming a State, California was also granted Sections 16 and 36 (2 square miles), or lands in lieu thereof, out of each township (36 square miles) then held by the federal government. The lands, classified as "School Lands," were given to the State to help support public education. While many of the School Lands were sold off over the years, the State retains an interest in approximately 1.3 million acres of mostly desert and forest lands. State legislation has mandated that revenues from these school lands accrue to the State Teachers Retirement System. The SLC also has jurisdiction and authority over School Lands and lieu lands.

The SLC has jurisdiction and authority over all ungranted tidelands, submerged lands, and the beds of navigable rivers, sloughs, lakes, etc. The SLC has an oversight responsibility for tide and submerged lands legislatively granted in trust to local jurisdictions (Public Resources Code Section 6301). All tide and submerged lands, granted or ungranted, as well as navigable rivers, sloughs, etc. are impressed with the Common Law Public Trust.

The Public Trust is a sovereign public property right held by the State or its delegated trustee for the benefit of all the people. This right limits the uses of these lands to waterborne commerce, navigation, fisheries, open space, recreation, or other recognized Public Trust purposes. A lease from the Commission is required for any portion of a project extending onto State-owned lands which are under its exclusive jurisdiction.

Based on the above, some of the facilities discussed in the Specific Plan conceptually may require SLC approval. When such projects are proposed for development plan review, please contact Duncan Simmons at (916) 574-1820 concerning the Commission's specific discretionary interest.

Thank you for the opportunity to comment on this DEIR, and we look forward to receiving a copy of the FEIR when it is available for public review.

Sincerely,

Betty Eubanks

MARY GRIGGS for
Environmental Services Section
Division of Environmental Planning and Management

cc: Dwight E. Sanders
Duncan Simmons
OPR

RESPONSE TO COMMENT LETTER NO. 4 - California State Lands Commission

A. SLC Jurisdiction. The EIR consultant has met with Duncan Simmons, of the Commission staff, concerning the Commission's jurisdiction. The City recognizes that some of the facilities proposed by the Specific Plan adjacent to the San Joaquin River and Old River may require approval by the State Lands Commission. When such projects are submitted for development review, they will be referred to the State Lands Commission for review and approval as appropriate.

COMMENT LETTER NO. 5

State of California **THE RESOURCES AGENCY**

M E M O R A N D U M

To : Project Coordinator
Resources Agency

Date: August 11, 1995

Ms. Pamela Carder
City of Lathrop
Planning Department
16675 Howland Road, Suite #1
Lathrop, California 95330

RECEIVED
AUG 1 5 1995
Ans'd.....

From : **Department of Conservation**
Office Of Governmental and Environmental Relations

Subject: Draft Environmental Impact Report (DEIR) for the West Lathrop Specific Plan - SCH# 93112027

The Department of Conservation (Department) has reviewed the DEIR for the West Lathrop Specific Plan. The Department monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act. It also has special expertise in evaluating geologic and seismic hazards and mineral resources. The Department offers the following comments:

Land Conservation

A. The Department's Office of Land Conservation reviewed the above referenced project. The Specific Plan is for the development of Gold Rush City, a theme park center, Commercial, Recreation and Housing complex and Mossdale Village, a residential village containing commercial and public support facilities. The development of Gold Rush City will convert 5,800 acres of productive prime agricultural land, currently enrolled in Williamson Act contracts. The development of Mossdale Village will convert 1,160 acres of productive prime agricultural land, currently enrolled in Williamson Act contracts.

B. While the DEIR provides some information on agricultural impacts, and cumulative loss of value of agricultural production, the information is scattered throughout the document. Since these two developments will have severe impacts on agricultural land in the area, we recommend that an agricultural section be included in the Final Environmental Impact Report (FEIR) to incorporate agricultural information and data in one place and facilitate finding this information with ease.

C. In addition, since most of the development area is under the Williamson Act, information should be provided on the Williamson Act, and the impacts of the development on adjacent agricultural and Williamson Act contracted lands. The significant cumulative effect on agriculture and Williamson Act contracted land should be included with transportation, traffic and air quality as an regional impact on Page VII-1 of the Specific Plan FEIR.

D. The types and value of agricultural crops should be included as a table, along with better information on the economic value of the multiplier effect as a yearly total per crop. Agricultural crop value information provided on page IV-8 (B) 2 is scarce. As a guide, several samples of agricultural data from other environmental report documents have been included.

E. The impacts on Williamson Act contracted land is not adequately assessed, and should include a discussion of the effects that termination of Williamson Act contracts would have on nearby properties also under contract. Information identifying the number, acreage, type and location of Williamson Act contracts should also be included.

F. Additional mitigation measures and alternatives that would lessen farmland conversion impacts should be addressed. Mitigation measures could include directing urban growth to lower-quality soils in order to protect prime agricultural land, increasing densities or clustering residential units to allow a greater portion of the planning area to remain in agricultural production, and adopting a farmland protection program that utilizes such land-use planning tools as transfer of development rights, purchase of development rights or conservation easements, and farmland trusts. Phasing of development is not a typical mitigation of development impacts.

Seismic Hazards

G. The Division and Mines and Geology (DMG) reviewed the DEIR for geologic and seismic hazards. The following comments are offered:

1. The information presented on seismicity and active faults (pages III-21 through III-23) relies on the 1990 Draft of the San Joaquin County Comprehensive Plan. However, significant new work has been published since 1990 and the County material does not reflect current knowledge of the seismotectonic setting of the northern San Joaquin Valley. For instance, the regional seismicity of the Lathrop area is dominated by the blind-thrust fault system on the west margin of the San Joaquin Valley, rather than the right-lateral strike-slip faulting of the distant San Andreas Fault System.

2. To assist the City of Lathrop, the DMG has prepared a one-page concise bibliography of pertinent geology and seismology publications that pertain to Lathrop. This custom bibliography will be valuable to Lathrop, not only for the present West Lathrop Specific Plan, but for future EIR preparation. Also included are a simple fault map with epicenters of historical earthquakes, and a fault segmentation map so it will be evident that the Coast Range — Central Valley (CR-CV) blind-thrust fault system is indeed a significant seismotectonic structure.

3. It is recommended that the Environmental Impact Report for the West Lathrop Specific Plan consider a design earthquake on the Coast Range-Central Valley (CR-CV) fault zone of moment magnitude Mw 6.7 at a distance of about 20 to 22 km from West Lathrop (depending on where the center of "west" Lathrop is located). We suggest that fault distances should be computed in kilometers from Lathrop, rather than miles from Stockton.

4. Earthquake magnitudes for various faults can be reliably adapted from reports by Wakabayashi and Smith (1994), Ake and others (1992), and Volpe and others (1992). Alternately, simple probabalistic hazard maps which homogenize all seismogenic sources for 0.3 and 1.0 second spectral acceleration for 50 and 250 year intervals can be obtained directly from BSSC (1991); see maps 6, 8, 10, and 12.

5. It is suggested that Table III-1 be rearranged so that the causative faults are listed by

increasing distance away from Lathrop. The first fault listed would be the Coast Range - Central Valley fault zone. This is the design-basis fault that will render the highest ground motion in Lathrop, so it is of highest relevance.

6. Structures planned for the West Lathrop Specific Planning area should include a geotechnical evaluation of static and dynamic bearing capacity of low-density silty peat deposits, including determination of Site Coefficients from 1994 UBC Table 16-J of Type S_2, Type S_3, or Type S_4 if significant peat deposits are found in subsurface sampling. The most efficient method to characterize the softness or firmness of the subgrade in the saturated peat deposits of West Lathrop is for the engineering geologist to determine the shear-wave velocity.

7. We suggest that the City of Lathrop consider the use of UBC Seismic Zone 4 design criteria, as outlined in Chapter 16 of 1994 UBC.

8. We suggest that the EIR recommend (for various future projects) that a geotechnical analysis be performed for seismically-induced liquefaction, inferred from soft, saturated silts and peat deposits in the San Joaquin River delta area.

The Department appreciates the opportunity to comment on the DEIR. If you have further questions regarding land conservation, phone Kenneth E. Trott, Office of Land Conservation, at (916) 324-0589. For geology and seismology questions contact Robert H. Sydnor, Senior Engineering Geologist, Division of Mines and Geology, at (916) 323-4399 or 327-0807. If I can be of assistance, please phone me at (916) 445-8733.

Jason R. Marshall
Acting Assistant Director
Office of Governmental and Environmental Relations

Enclosures

cc: Kenneth E. Trott, Office of Land Conservation
Robert H. Sydnor, Division of Mines and Geology

RESPONSE TO COMMENT LETTER NO. 5 - California Department of Conservation

A. Summary of the Project. Not all of the 1,160 acres of Mossdale Village land area or of the 5,800 acres of Stewart Tract land area is under Williamson Act contract. [See Figure III-6, Page III-20 of the Draft EIR.]

B,C,E Impacts of Converting Agricultural Land to Urban Use. These comments concern the land use issues associated with agricultural land conversion. Impacts of the Project relating to agricultural land conversion and mitigation measures associated with those impacts are discussed on pages I-4 through I-5, IV-7 through IV-8, V-1 through V-3 and VII-5 of the Draft EIR. As noted on page I-4, the incremental annual increase over 20-30 years of nearly 7,000 acres for urban use under the Specific Plan, of which about 5,800 acres is currently in productive agricultural use, is a significant unavoidable impact of the Project. As also noted on page I-4, while the total annual value of the loss of field crops and orchards involved is minor as compared to total County losses that can be expected over the same time period from such conversion, the cumulative impact becomes significant over time.

As noted on page VII-5 of the Draft EIR, notwithstanding the policies and proposals of the Lathrop General Plan and the West Lathrop Specific Plan that seek to confine urban expansion, there is always a risk that nearby agricultural lands eventually could be targeted for urban expansion. However, the impacts of development on Stewart Tract on adjacent Williamson Act contract lands should be minimal because Stewart Tract is physically separated from other land by way of waterways and levees. The same is true of development within Mossdale Village with the exception of certain agricultural lands to the north. These adjacent agricultural lands, however, are already committed to urbanization by virtue of being within the City's General Plan and Sphere of Influence.

D. Agricultural Crop Information. With respect to the agricultural crop losses to be experienced over time, the Commentor is directed to the Footnote # 1 on page IV-8 which identifies the data source used in calculating the economic effects of agricultural crop losses over the life of the Project. In view of the discussion of the basic land use issues associated with agricultural land conversion provided in the General Plan EIR in 1991, and the statements of overriding consideration approved by the Lathrop City Council in certifying the General Plan EIR, the discussion on the subject provided in this Specific Plan EIR is adequate.

F. Additional Mitigation Measures and Alternatives. Mitigation measures relating to agricultural land conversion are set forth in Parts IV and V of the DEIR, and include a full range of measures to gradually phase development to reduce or eliminate impacts until full buildout of the Project. This will avoid the fracturing or fragmentation of the urban pattern and provide for the gradual outward conversion of agricultural lands. Additional mitigation measures are proposed to reduce potential conflicts at the agricultural-urban interface as development occurs by maintaining temporary open space corridors between the advancing line of urbanization and the receding line of agricultural operations.

This comment suggests that a "mitigation measure" could include directing urban growth to lower-quality soils in order to protect prime agricultural land. This comment amounts to a suggestion that off-site alternatives be considered, since the Project site includes approximately 5800 acres of productive agricultural land. The Draft EIR does in fact analyze a number of off-site alternatives on pages VI-10 through VI-12.

The comment also suggests mitigation measures that would increase densities or clustering residential units to allow a greater portion of the planning area to remain in agricultural production and adopting a farmland protection program that utilizes such land-use planning tools as transfer of development rights, purchase of development rights or conservation easements, and farmland trusts.

The commentor is referred to Section VI of the Draft EIR ("Alternatives to the Proposed Project"), which analyzes two alternatives for reducing the area of urban expansion (that would correspondingly increase the acreage that would remain in agricultural use) and several alternatives to design proposals for the Specific Plan (including alternative design proposals that create a more compact development pattern). As noted in the Draft EIR, these alternatives would result in many of the same impacts of the proposed Project, but would not satisfy project objectives as well as the proposed Project.

As stated on page VI-24 of the Draft EIR, there does not appear to be any compelling environmental reasoning in support of the conservation-oriented alternative unless a meaningful amount of agricultural land could also be preserved under the alternative. While it may be argued that saving any agricultural acreage from urban development is better that not saving any agricultural acreage at all, it can also be argued that Stewart Tract agriculture is marginal in its productivity as compared to the much more highly productive soils of the Delta nearby. The Project proposes to protect and maintain agricultural operations as Stewart Tract develops over the next 30 years. In the long-term, however, the confined levee system that protects the Stewart Tract also make it extremely difficult to support very long-term agricultural operations in such a confined relationship to the commercial recreation attractions and related housing that will dominate the development pattern on Stewart Tract.

In addition, the City is implementing land use planning tools that will preserve agricultural lands. For example, the HMP that will be adopted by the City prior to approval of the Specific Plan provides that the 900-acre Paradise Cut portion of the Project site and off-site lands will be preserved (through dedication or acquisition of conservation easements) at a ratio of 0.5 acres of mitigation lands for every 1.0 acre of Swainson's hawk foraging habitat on the Project site converted to unsuitable uses. These mitigation lands will largely be maintained as agricultural lands with crop types such as alfalfa, other hay, pasture, tomatoes, sugar beets, cereal grains, and other row crops that provide foraging habitat for the Swainson's hawk.

G. Seismic Hazards. The latest seismic information developed by the Division of Mines and Geology will be considered by the City of Lathrop in the process of reviewing projects proposed under the Specific Plan. The specific Bibliography of pertinent geologic and seismological publications relating to West Lathrop provided by the Division in its comments is most appreciated. With respect to Comment G.7, the City of Lathrop is now classified as being within Seismic Zone 3 by the UBC, as in other areas within the County. Table III-1 of the Draft EIR has been rearranged as suggested by the Division. This only changes the order in which causative faults are listed based on distance from Lathrop. It is recognized that when foundation and structural designs are prepared, the City will require that competent seismological engineering firms be retained for facilities design, with the work to be reviewed with consultants familiar with recent data and conclusions regarding the West San Joaquin Valley Earthquake Studies and potential seismic action that could affect the Lathrop area. Special thanks are extended to Mr. Robert H. Syndor, Senior Geologist, for providing an understanding of the potential for earthquakes.

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

REPLY TO
ATTENTION OF

July 18, 1995

Regulatory Branch (199500412)

City of Lathrop
Planning Division
16775 Howland Road, Suite 1
Lathrop, California 95330

Dear Gentlemen:

A. This concerns your proposed West Lathrop Specific Plan for Stewart Tract and Mossdale Village located in Townships 1 and 2, Ranges 5 and 6, M.D.B. & M., San Joaquin County, California. Our review of your draft E.I.R. indicates that the project will have features that are not properly authorized under a Nationwide permit, as you have indicated in paragraph 1a on page V-30 of your E.I.R. We believe that the proposed development will have a substantial effect upon the aquatic environment and may require an Environmental Impact Statement, prior to the issuance of a Department of the Army permit for new levees and channels that would be contiguous to the Sacramento/San Joaquin River Delta.

B. Additionally, work in waters of the Delta may have an adverse effect upon critical habitat of the Delta smelt, a federally listed threatened species. Compliance with the federal Endangered Species Act would need to be accomplished prior to issuance of federal permits for work in those waters.

If you have any questions, please write to the Regulatory Branch, Attn: Sacramento/San Joaquin Delta Office, at the letterhead address, or telephone (916) 557-5250.

Sincerely,

Jim Monroe, P.E., Esq.
Chief, Sacramento/San Joaquin
Delta Office

RESPONSE TO COMMENT LETTER NO. 6 - Corps of Engineers

A. Possible Requirement for an EIS. The possibility of National Environmental Policy Act ("NEPA") review for a given project that may have the potential for adverse impact on the aquatic environment is recognized. This has been discussed with Corps staff on several occasions over the past two years. The Specific Plan has been designed to avoid impacts on waters of the United States to the maximum extent possible. For example, improvements to existing levees would not affect wetlands or waters of the United States (except for levee improvements relating to the proposed marina discussed below) because all levee rehabilitation for Stewart Tract will be limited to the landside of the existing levees without affecting the riverside of the levees. Land use proposals that have been made a part of the Specific Plan avoid the need for setback levees and channel widening.

To the extent any specific Project improvements (e.g., bridge crossings) would have the potential to affect waters of the United States, they will be approved only after complying with the Corps of Engineers' Section 10 and Section 404 processes, which generally require impacts to be avoided or minimized and for compensation to be provided resulting in the effective reduction of impacts to a less-than significant level. The City is committed to these goals. At this point in the planning process, however, it is too early to determine what, if any, effects on waters of the United States will result from implementation of the Specific Plan because the specific design of Project improvements is as yet undetermined. As soon as the specific impacts can be determined, appropriate environmental review will be conducted.

For example, the need for further environmental review for the proposed marina is recognized. However, as stated on page V-50 of the Draft EIR, the "economic and environmental feasibility of the proposed marina development is too uncertain at this point to permit full environmental evaluation." Consequently, environmental analysis for the marina cannot occur until such time that a specific proposal is submitted for review to the City of Lathrop and to the various agencies of County, State and Federal government having a permitting responsibility for marina projects."

B. Potential Adverse Effects on the Delta Smelt. The importance of protecting habitat of the Delta Smelt is reflected in the discussion of Project impacts on fisheries, beginning on page V-31 of the Draft EIR. Compliance with the federal Endangered Species Act will be required for any improvements that may affect critical habitat of the Delta smelt.

Please note that a jurisdictional wetland delineation of the Specific Plan study area was performed and assigned a Corps of Engineers regulatory number (#199300669), via a verification letter dated January 3, 1994.

COMMENT LETTER NO. 7

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Sacramento Field Office
2800 Cottage Way, Room E-1803
Sacramento, California 95825

RECEIVED
AUG 2 3 1995
Ans'd.....

IN REPLY REFER TO:

In Reply Refer To
PPN 1799

August 23, 1995

Pam Carder
City of Lathrop
Community Development Department, Planning Division
16775 Howland Road Suite One
Lathrop, California 95330

Subject: Draft Environmental Impact Report for West Lathrop Specific Plan, City of Lathrop Community Development Department, San Joaquin River, Old River and Paradise Cut, San Joaquin County, California

Dear Ms. Carder:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Impact Report (DEIR) for the West Lathrop Specific Plan dated July 1995, regarding a proposal to develop Stewart Tract, and Mossdale Village, a residential community with supporting public facilities.

These comments are intended to assist you in your review of the proposal, and will not take the place of any formal comments that may be required under the provisions of the Fish and Wildlife Coordination Act.

A. GENERAL COMMENTS

The DEIR evaluates the City of Lathrop's West Lathrop Specific Plan. Full development of the Plan would result in the loss of approximately 7,000 acres of habitat, including habitat for special status species. The DEIR has identified that implementation of the Specific Plan would result in a significant loss of biological resources.

1. The City of Lathrop and the applicants should consider the restoration potential of the islands as an alternative to the proposed project as land in the Delta is being impacted by a variety of impact pressures. This area is bordered by Paradise Cut one of the few areas left in the Delta with Great Valley Oak Riparian Forest remaining and contains a Valley Elderberry Longhorn Beetle mitigation/preservation area. Caswell State Park, on the San Joaquin River is southeast of the site. If restored and enhanced for wildlife, the project area could provide a corridor for wildlife moving from the Delta to the State Park area.

2. This project is not water dependent and could be accomplished in an area with less habitat value and less restoration potential. Any development in the Delta contributes to the cumulative effects of loss of open space adjacent to watercourses, increase risk of pollution of waterways, increased congestion and erosion from boats and human intrusion. Boating activity and boat wakes has been identified as responsible for increased levee erosion and loss of near-shore and shore-line vegetation. Any increase in boating activity as a result of this project will contribute to the significant cumulative effects that boating activity is currently having on the Delta's waterways.

As presented in the DEIR, in order to reduce habitat losses and impacts to a less than significant level, the City of Lathrop will develop a multi-species

wildlife Habitat Management Plan. The Service supports this concept, but recommends that the Plan establish specific dates and milestones for the completion of the Habitat Management Plan. However, even with the development of a habitat management plan, it is unlikely that losses of the magnitude proposed by the project will be mitigated to levels of less than significant. This is particularly true for wetland habitats and for State and Federal sensitive or listed endangered/threatened species. The Service recommends avoidance of both wetland and sensitive species habitats. It is our observation that mitigation for these habitats is rarely fully successful and it is often more cost and time effective to avoid sensitive habitats than to mitigate for their loss.

3. Under provisions of the Fish and Wildlife Coordination Act, the Service advises the U.S. Army Corps of Engineers (Corps) on projects involving dredge and fill activities in "waters of the United States", of which wetlands and some riparian habitats are subcategories. Since portions of this proposal may ultimately require a Corps permit, the Service will subsequently be involved under the Coordination Act. When reviewing Corps public notices, the Service generally does not object to projects meeting the following criteria:

1. They are ecologically sound;

2. The least environmentally damaging reasonable alternative is selected;

3. Every reasonable effort is made to avoid or minimize damage or loss of fish and wildlife resources and uses;

4. All important recommended means and measures have been adopted, with guaranteed implementation to satisfactorily compensate for unavoidable damage or loss consistent with the appropriate mitigation goal; and

5. For wetlands and shallow water habitats, the proposed activity is clearly water dependent and there is a demonstrated public need.

The Service may recommend the "no project" alternative for those projects which do not meet all of the above criteria, and where there is likely to be a significant fish and wildlife resource loss.

4. When projects impacting waterways or wetlands are deemed acceptable to the Service, we recommend full mitigation for any impacts to fish and wildlife. The Council of Environmental Quality regulations for implementing the National Environmental Policy Act (NEPA) define mitigation to include: 1) avoiding the impact; 2) minimizing the impact; 3) rectifying the impact; 4) reducing or eliminating the impact over time; and 5) compensating for impacts. The Service supports and adopts this definition of mitigation and considers the specific elements to represent the desirable sequence of steps in the mitigation planning process. Accordingly, we maintain that the best way to mitigate for adverse biological impacts is to avoid them altogether.

5. Because of their very high value to migratory birds, and their ever-increasing scarcity in California, our mitigation goal for wetlands (including riparian, riverine, and vernal pool wetlands) is no net loss of in-kind habitat value or acreage (whichever is greater). Our mitigation goal generally for oak woodlands and riparian habitats is also no net loss of in-kind value or acreage.

6. Given the presence of federally listed species in the planning area, the City must address the regulatory requirements of the Endangered Species Act of 1973, as amended (Act), to remain in compliance with this statute.

Initiation of a conservation planning process under section 10(a) of the Act would help ensure a consistent and effective approach to reconciling the habitat requirements of listed species with the City's need for future growth. As discussed in the DEIR, suitable habitat for the federally listed endangered garter snake occur in the planning area.

7. We recommend that the DEIR and Specific Plan include a mitigation measure for State and Federal listed species which requires project proponents to secure authorization from the Service [under section 10(a) of the Act] and the California Department of Fish and Game (under section 2081 of the State Fish and Game Code, which closely parallels that Federal permitting process) on projects that may take State or federally listed species prior to City approval of project proposals. If the City does not intend on initiating a habitat conservation plan for State and federally listed species within the planning area, or requiring project proponents to obtain necessary authorization from the Service or the Department, the final EIR should document how the City would comply with the State and Federal regulatory requirements for protecting endangered and threatened species.

B. SPECIFIC COMMENTS

1. Page IV-14, item 2e. Creation of new habitat. As mitigation, the project will create enhanced and new habitat along recreation and open space corridors within Stewart Tract and Mossdale Village. Effective mitigation should replace the habitat value which is lost to development. Mitigation areas should not be part of recreational areas such as parks, parkways or golf courses, but should be preserved as open space with restricted access. It is inappropriate to consider multi-use areas within intensively developed areas as mitigation. Therefore, this mitigation does not compensate for loss of habitat value.

2. Page V-22, item 1, impacts. Loss of Riparian Vegetation. It is stated on page I-8 that levees along Old River, the west bank of the San Joaquin River and the east bank of Paradise Cut around the entire tract may require reconstruction and strengthening for flood control. The applicant states that there will be no impact to riparian vegetation on the outboard side of the levees, therefore no mitigation is proposed. Although there may be no direct physical effects, the levee improvements will likely decrease the value of the riparian vegetation as wildlife habitat due to the temporary disturbance from construction and permanent disturbance from increased use of the newly developed project area. Considering that approximately 2% of historical riparian habitat remains in the Central Valley and the expected cumulative impacts of the proposed development, planned mitigation is inadequate.

3. Page V-25, Impacts 2a,b. There are approximately 33 raptor nests on or surrounding Stewart Tract and Mossdale Village. In addition, over 5,000 acres of foraging habitat will be impacted. Mitigation for loss of Swainson's hawk foraging and nesting areas should be finalized and approved by the Service and California Department of Fish and Game prior to finalizing the Specific Plan.

4. Page V-24, Swainson's Hawk. It should be noted that recent observations and evidence suggests that there may be a year-round resident population of Swainson's Hawks in the Delta.

5. Page V-30, 1a. We recommend that the applicant apply for an individual permit for the project.

C. SUMMARY

The proposed project area contains a large number of acres of fish and wildlife habitat which, as a result of the project, would be modified or lost. It is Service policy to recommend that significant natural resources, particularly wetlands, be avoided so that mitigation/compensation is not needed or is much reduced. We recommend that the City enter into an agreement between the Service and the California Department of Fish and Game, at the earliest opportunity, to develop a regional wildlife habitat management program. Without the incorporation of this measure and the other measures identified in the DEIR to reduce natural resource impacts, significant losses to the natural resources will occur within the project area.

If you have any further questions regarding these comments, please contact Janice Gan (Wetlands Branch) at (916) 979-2113.

Sincerely,

for Joel A. Medlin
Field Supervisor

cc: Reg. Dir. (ARD-ES), Portland, OR
Reg. Mgr., CDFG, Region 2

RESPONSE TO COMMENT LETTER NO. 7 - Fish and Wildlife Service

A. GENERAL COMMENTS.

The Draft EIR identifies expected or potential impacts on specific biological and wetland resources, including:

- Loss of Swainson's hawk foraging habitat.
- Potential loss of Swainson's hawk and other raptor nest trees.
- Loss of 0.46 acres of riparian vegetation surrounding the pond on Stewart Tract.
- Potential loss of up to 35 Mexican elderberry shrubs or clumps of shrubs that occur on Stewart Tract and Mossdale Village.
- Potential loss of one White-tailed kite nest.
- Jurisdictional wetlands (as verified by the Corps of Engineers: 10.97 acres on Stewart Tract (consisting of a degraded canal adjacent to Stewart Road, and a freshwater pond, and 2.57 acres on Mossdale Village (consisting of scrub wetland vegetation adjacent to the San Joaquin River).

Mitigation measures have been proposed that will reduce these impacts to less-than-significant.

A.1 Restoration Potential of Stewart Tract. The Project reflects the City's commitment to restoration and enhancement of wildlife habitat. Currently, Stewart Tract is almost entirely devoted to agricultural use which precludes almost all habitat value except as foraging habitat for the Swainson's hawk. Approximately 900 acres of Paradise Cut along the southwesterly boundary of Stewart Tract will be dedicated to wildlife management into perpetuity, creating the wildlife corridor recommended by the Service.

The Valley Elderberry Longhorn Beetle mitigation/preservation area referred to in the Service's comments is not located in Paradise Cut. It is located on the north side of Stewart Tract, along the east side of the San Joaquin River, west of Mossdale Landing. However, Paradise Cut could become a mitigation site for elderberry shrubs affected by construction of the Project. The only known population of Riparian brush rabbit is at Caswell State Park. The Project applicant has expressed interest in working with the Department of Fish and Game to attempt to establish a population of Riparian brush rabbit in Paradise Cut.

A.2 Land Use Issues; Habitat Management Plan. As noted in the response to Comment A of Comment Letter 6, the need for further environmental review for activities that would result in increased boating activities, such as the proposed marina, is recognized. However, as stated on page V-50 of the Draft EIR, the "economic and environmental feasibility of the proposed marina development is too uncertain at this point to permit full environmental evaluation. Consequently, environmental analysis [for the marina] must be postponed until such time that a specific proposal is submitted for review to the City of Lathrop and to the various agencies of County, State and Federal government having a permitting responsibility for marina projects."

The Habitat Management Plan (HMP) for Paradise Cut and off-site mitigation lands will be adopted prior to approval of the Specific Plan and will be implemented concurrently with the development of the Project. The HMP has been prepared specifically for the loss of Swainson's hawk foraging habitat, and does not address specific mitigation measures for other biological or wetland resources. The creation of the 900 acre Paradise Cut management preserve will also

benefit many other species of wildlife that currently do not occur or are not resident in Paradise Cut because of lack of suitable habitat and on-going agricultural operations.

The wetlands habitat in the Project area are not pristine. The canal on Stewart Tract is used primarily to drain agricultural water off Stewart Tract into Paradise Cut. Nevertheless, this channeled drainage is considered as waters of the U.S. because it appears to have formerly been a shallow intermittent creek. The pond on Stewart Tract is surrounded on all sides by tilled agricultural land. A narrow band of riparian habitat (0.46 acres) occurs around the pond. Mitigation for wetland features will be described in a wetland mitigation and monitoring plan prepared in accordance with current Corps of Engineers Guidelines. This plan will be submitted to the Corps, USF&W Service, EPA and the Department of Fish and Game for review and comment.

The Mexican elderberry shrubs on Stewart Tract and Mossdale Village exist primarily as isolated shrubs or clumps of shrubs that have become established on or near the base of levees. These do not form a 'population' of plants, nor are they located within existing riparian habitat. At best, they may provide marginal habitat for the VEL Beetle. Regardless, full mitigation for these shrubs is proposed as part of the Project in accordance with current Service Guidelines.

A.3 Responsibilities of the Service under the Fish & Wildlife Coordination Act. The City acknowledges the responsibilities of the Service as described.

A.4 Mitigation Defined. The comment is noted. The City intends to fulfill its obligation to state and federal resource management agencies to mitigate as necessary for Project-related impacts in accordance with the policies of these agencies.

A.5 Mitigation Goals for Wetlands. The goal of the Service for no net loss of in-kind habitat value with respect to wetlands (including riparian, riverine and vernal pool wetlands), and for oak woodlands and riparian habitats is noted. The Project meets or exceeds this goal to the extent required by Federal and State law.

A.6 Federally Listed Species. The Draft EIR addresses federally-listed species and the regulatory requirements of the Endangered Species Act of 1973, as amended [see pp. V-23 through V-29]. The City intends to remain in compliance with this Act as it applies to the Project.

As noted in the Draft EIR, Giant Garter snakes (GGS) have never been reported from any location within the Tracy or Union Island USGS quads, nor were they detected during 10 days of intensive searching. Farm operations which occupy much of the Delta region within these quads are inherently unfriendly habitats to most forms of terrestrial wildlife. In addition, under maintenance agreements established by the Corps of Engineers on Stewart Tract, levee berms surrounding the Tract are required to be maintained free of most vegetation.

Vegetation control currently consists of discing, burning, and use of herbicides. The levees, channel banks and irrigation canals are, therefore, regularly 'sanitized', meaning that vegetation is removed by one or more of several methods. The majority of sanitization is accomplished by means of controlled burns, with plowing utilized in some areas. Burns are conducted in late summer to early autumn and result in reduction or elimination of foraging cover for small mammals and reptiles. These actions serve to reduce the establishment of mammal burrows and hibernacula that could be used as overwintering sites for GGS. Within the Specific Plan area, the

only areas that could support a prey base for GGS are Paradise Cut and a small area of Mossdale Village adjacent to the San Joaquin River. As stated previously, preservation and enhancement of Paradise Cut will benefit GGS if it migrates into the area via the San Joaquin River or Old River.

A.7 Authorizations Required by the Service under the Endangered Species Act. As noted above, the Draft EIR addresses federally-listed species and the regulatory requirements of the Endangered Species Act of 1973, as amended [see pp. V-23 through V-29]. The City intends to remain in compliance with this Act as it applies to the Project. Permit requirements of Federal and State law and local ordinance applicable to the Project have been identified and included in the Mitigation Monitoring Program for the Project published separately.

B. SPECIFIC COMMENTS

B.1 Page IV-14, Item 2e. Under the Habitat Management Plan that will be adopted by the City prior to approval of the Specific Plan, all development of suitable Swainson's hawk foraging habitat within the Project site will be mitigated by the preservation of other suitable habitat -- either on-site in Paradise Cut or off-site -- at a ratio of 0.5 acres of mitigation land to 1.0 acres of suitable foraging habitat converted to unsuitable uses. On- and off-site mitigation lands will be dedicated and managed exclusively for the purpose of habitat preservation and enhancement. While the Service may not consider landscaped areas and recreation corridors, including lakes, as suitable off-set, these measures become a 'bonus' to enhancing the habitat features of the Project as a whole.

B.2 Page V-22, Item 1. The Service takes the position that "although there may be no direct physical effects, the levee improvements will likely decrease the value of the riparian vegetation as wildlife habitat..." due to temporary disturbance during construction and permanent disturbance from increased use on the inboard side of the affected levees. The City respectfully disagrees with this position. Since all work on the levees will occur on the inboard side, temporary disturbance on the outboard side of the levees is not likely to occur. Levee reconstruction will provide a substantial additional buffer of space between the top of the levees and the toe of the levees on the inboard (development) side. Extensive cross sectional diagrams are provided in the Specific Plan document showing the greater width of open space planned for various sections of the levee system. The comment of the Service also ignores the significant contribution that will be made by enhancing Paradise Cut for wildlife management on a permanent basis, creating "riparian" vegetation where little or no such vegetation currently exists.

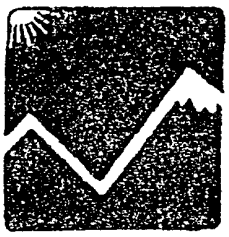
B.3 Page V-25, Impacts 2a and 2b. The City will not certify the EIR until DFG has approved the HMP and all parties have signed the Memorandum of Understanding (MOU). DFG (and not the Service) has responsibilities for Swainson's hawk, which is a State but not a Federal listed species.

B.4 Swainson's Hawk. The probability of there being a year-round population of Swainson's Hawk in the Delta is known by the City. As a matter of principle in protecting the species, the establishment and expansion of a year-round population is to be encouraged.

B.5 Page 30, 1a. The comment is understood. An individual Section 404 permit will be sought if more than 10 acres of jurisdictional wetlands would be filled.

C. SUMMARY. The recommendation that an appropriate agreement be developed among the City, the California Department of Fish and Game and the Service to develop a regional wildlife habitat management program is accepted. The City hopes to participate as part of a county-wide effort which is truly regional in character. Of course, even if a county-wide effort does not materialize, the City will cooperate with DFG and the Service as required by law.

COMMENT LETTER NO. 8



San Joaquin Valley Unified Air Pollution Control District

August 21, 1995

RECEIVED
AUG 21 1995
Ans'd.....

Pam Carder
City of Lathrop
Planning Division
16775 Howland Avenue, Suite One
Lathrop, CA 95330

SUBJECT: DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WEST LATHROP SPECIFIC PLAN

Dear Ms. Carder:

The San Joaquin Valley Unified Air Pollution Control District (District) appreciates the opportunity to review the Draft Environmental Impact Report for the West Lathrop Specific Plan and offers the following comments:

As mentioned in the DEIR, the development of the West Lathrop Specific Plan Area will result in a substantial huge share of air pollution in the San Joaquin Valley Air Basin. Specifically, emissions of ozone precursors could jeopardize attainment of federal standards and/or maintenance of attainment if it is reached. In addition, emissions realized from this project could play a part in keeping the San Joaquin Valley Air Basin from reaching the State of California's health based ozone standard.

Buildout of this project also predicts through modeling that state and federal standards for carbon monoxide will be exceeded (Alt. B & E). The San Joaquin Valley was designated as attainment for this pollutant on November 9, 1994. In addition, the District is seeking a formal CO attainment designation from the EPA. Every feasible option to keep this eventuality from occurring should be explored and then implemented.

PM_{10} emissions from this project are also of major concern to the District. Especially since the 2-1/2 tons per day of emissions does not include any stationary source estimates. Because the District is nonattainment for the state and federal standards for PM_{10} the mitigation proposed should be reviewed for any possible improvements.

David L. Crow
Executive Director/Air Pollution Control Officer
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Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
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A. Page V-90, Mitigation Measure N: Burning of this type is prohibited by the District's Open Burning Rule. This measure should be deleted.

B. Page V-90, Mitigation Measure P: Dry street sweepers are prohibited by District Regulation VIII. Sweeping operations must be accompanied by application of water. Please change wording to conform to Regulation VIII requirements.

C. Page V-91, Section 2: Delete wording pertaining to open burning.

D. Page V-92, Mitigation Measure E: This measure will have to be made more clear and detail added so that an exact commitment is determined.

E. Page V-92, Mitigation Measure A: Complete elimination of wood stoves would be considered a sufficient mitigation here, since EPA Phase II Certified stoves are a requirement of District Rule 4901.

F. Page V-93, Mitigation Measure G & H: In order for these measures to be considered true mitigation the efficiency of these appliances will have to exceed those required by law (Title 24, etc.).

G. Page V-93, Mitigation Measure I: This is not a mitigation measure since permitting IC engines at 50 bhp and above is a requirement.

H. Page V-93, Effect of Mitigation Measures: Although the magnitude of the air emissions from this project overwhelm the mitigation proposed, additional feasible mitigation is available and should be included in this EIR. Project Consultants were advised during an informal consultation meeting that the level and diversity of mitigation proposed in this DEIR would have to be over and above virtually all other projects reviewed by the District to date.

For this reason, I am suggesting that the parties interested in this project have a meeting (via conference call or in person) to discuss additional, specific mitigation to be applied to the West Lathrop Specific Plan Area.

I. The following sections on the District's guidelines for general plans and State of California's energy guidelines are presented to identify some of the areas that can be discussed for inclusion in the West Lathrop Specific Plan.

The District's Air Quality Guidelines for General Plans calls for local action from every city and county in the San Joaquin Valley to achieve health-based air quality standards. The Guidelines state that only a cooperative approach can protect the health of our citizens and of our economy.

In addition, the Guidelines recognize that the cities and counties control the comprehensive planning and development process. As members of transportation authorities and congestion management agencies, local jurisdictions also work together to coordinate land use and transportation programs. The general plans, congestion management programs, and implementation measures they adopt can and should reflect a commitment to clean air.

Why Cities and Counties Should Adopt
Air Quality Elements or Their Equivalent

- The current air quality in the Valley adversely affects the health and welfare of the citizens of your community.
- If we are unsuccessful in implementing long range programs to reduce emissions from mobile sources, job producing stationary sources must fill the gap.
- If valley air quality programs apply inadequate effort toward attaining air quality standards, federal sanctions may be imposed that limit stationary source expansion and withhold highway funds.
- Local government's authority over land use decisions comes with the responsibility to minimize air quality impacts of new development.

Program Benefits

- Lower infrastructure costs (roads, sewer, water)
- Lower public service costs (police, fire, road maintenance)
- More efficient transit service (higher fare box ratios/less subsidization of transit, better service)
- Comprehensive planning costs less and streamlines the permit process
- Improved mobility for non-drivers (elderly and children)

J. Policy B.1.2 of the California Energy Commission's Energy Aware Planning Guide policy entitled "Going Beyond State Building Energy Standards" supports this energy conservation measure. Suggested general (specific) plan language in the guide is as follows:

- The City shall adopt new building efficiency practices (standards) for commercial, industrial, and residential buildings to reduce energy and water consumption below the amounts which would be used if the buildings only complied with the existing state standard.

- Within one year (of specific plan adoption), the City shall implement a program to offer incentives for new developments that are more energy efficient than state energy standards at the time the building permit is issued. Incentives may include reduced permit fees or expedited permit processing. Through an annual awards program the City could recognize outstanding projects.

Environmental Benefits: Reducing building energy demand will reduce air pollutant emissions from power plants and natural gas equipment in homes. For example, the South Coast Air Quality Management District estimated that building energy efficiency improvements would reduce emissions of nitrous oxides by 7-11 tons per day, representing 3-5% of NO_x emissions from stationary sources.

K. The District recommends that the following objective/policy combination be included in the West Lathrop Specific Plan policies to mitigate air pollution:

Objective 1a — To accurately determine and fairly mitigate the local and regional air quality impacts of projects proposed in the WLSP area.

Policy 1 — The City of Lathrop shall determine project air quality impacts using analysis methods and significance thresholds recommended by the SJVUAPCD.

Projects analyzed in sufficient detail to determine air quality impacts in an EIR or negative declaration could be exempt from further analysis during subsequent approvals. For projects where insufficient details were known at the time the EIR was prepared, the analysis should be focused on specific impacts not previously addressed.

Policy 2 — The City of Lathrop shall ensure that air quality impacts identified during the CEQA review are consistently and fairly mitigated.

Policy 3 — The City of Lathrop shall ensure that all air quality mitigation measures are feasible, implementable, and cost effective.

Policy 4 — The City of Lathrop shall identify the cumulative transportation and air quality impacts of all general plan amendments approved during the previous year.

Policy 7 The City of Lathrop shall work with neighboring jurisdictions and affected agencies to address cross-jurisdictional and regional transportation and air quality issues.

Policy 8 The City of Lathrop shall consult with the San Joaquin Valley Unified Air Pollution Control District during CEQA review for all discretionary projects not previously reviewed by the District.

Policy 9 The City of Lathrop shall coordinate with other jurisdictions and other regional agencies in the San Joaquin Valley to establish parallel air quality programs and implementation measures (trip reductions ordinances, indirect source programs, etc.)

Discussion: This policy seeks to provide a level playing field for all jurisdictions in the Valley. Also, large regional employers prefer uniform programs so compliance is the same at all employment sites.

Policy 10 The City of Lathrop shall work to reach an equitable tax sharing agreement with San Joaquin County to avoid the fiscalization of land use decisions.

Objective 1d To educate the public on the impact of individual transportation, lifestyle and land use decisions on air quality.

Policy 17 The City of Lathrop shall work to improve the public's understanding of the land use, transportation, and air quality link.

Policy 18 The City of Lathrop shall encourage local public and private groups to provide air quality education programs.

Toxic and Hazardous Emissions

Issues: Public concern over exposure to toxic and hazardous emissions has never been greater. Past siting decisions for industrial and residential development have created conflicts where none should have existed. Providing appropriate areas for all types of development can minimize conflicts and promote economic growth.

Goal 3: **Minimize exposure of the public to toxic air contaminants and noxious odors from industrial, manufacturing, and processing facilities.**

Policy 27 The City of Lathrop shall require residential development projects and projects categorized as sensitive receptors (hospitals, schools, convalescent homes, etc.) to be located an adequate distance from existing and potential sources of toxic emissions such as freeways, major arterial, industrial sites, refuse transfer or disposal sites and hazardous material locations.

Policy 28 The City of Lathrop shall require new air pollution sources such as, but not limited to, industrial , manufacturing, and processing facilities to be located an adequate distance (based on pollutant dispersion characteristics, site orientation, prevailing winds [wind rose] etc.) from residential areas and other sensitive receptors.

Fugitive Dust/PM_{10}

Issues:

The San Joaquin Valley is classified as a serious nonattainment area for PM_{10} (particulate matter 10 microns or less in diameter) under federal criteria. Because of this classification, the District is subject to a series of federal mandates aimed at achieving federal PM_{10} standards.

These include the adoption of contingency measures by February 8, 1996 and implementation of Best Available Control Measures (BACM) by February 8, 1997. Control efforts for sources under the jurisdiction of cities and counties can significantly reduce these emissions.

Goal 4: **Reduce particulate emissions from sources under the jurisdiction of the City of Lathrop.**

Policy 29 The City of Lathrop shall work with the SJVUAPCD to reduce particulate matter emissions from construction, grading, excavation, and demolition to the maximum extent feasible.

Policy 30 The City of Lathrop shall require all access roads, driveways, and parking areas serving new commercial and industrial development to be constructed with materials that minimize particulate emissions and are appropriate to the scale and intensity of use.

Policy 31 The City of Lathrop shall reduce PM_{10} emissions from City maintained roads to the maximum extent feasible.

L. **Air Quality Benefits:**

Relatively simple measures can reduce PM_{10} emissions from construction activities 20 to 74 percent. Periodically applying water to sites can reduce PM_{10} emissions by 45 to 90 percent (EPA 1988). Planting and maintaining vegetation on medians and shoulders can greatly reduce PM_{10} emissions from these sources. EPA developed measures and commensurate Emission reduction efficiencies are listed in Table IV-1 of the Air Quality Guidelines.

This specific plan area is subject to District Regulation VIII (Fugitive Dust Prohibitions). The purpose of Regulation VIII is to reduce the amount of fine particulate matter (PM_{10}) entrained into the ambient air from man-made sources. Specifically, the Rules within Regulation VIII that apply to your project are: Rule 8010 (Administrative Requirements), and Rule 8020 (Construction, Demolition, Excavation, and Extraction Activities).

Rule 8030 (Handling and Storage of Bulk Materials), Rule 8060 (Paved and Unpaved Roads) and Rule 8070 (Parking, Shipping, Receiving, Transfer, Fueling, and Service Areas) may apply to this project.

The attached Synopsis highlights many of the requirements contained within Regulation VIII. The Synopsis is not meant to be all inclusive, but it can be a useful compliance aid in the field and office alike. Please refer to Regulation VIII for specific requirements.

Thank you for the opportunity to review and comment on the West Lathrop Specific Plan DEIR.

Sincerely,

David J. Stagnaro
Environmental Planner
Northern Region

APCD REF# N950257

via fax

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT
Regulation VIII Fugitive Dust/PM_{10} Synopsis

Section	Applicability	Requirements/Implementation
Rule 8010 Administrative Requirements		
2.0	*Applicability:* This regulation applies to specified outdoor man-made sources of fugitive dust for the purpose of attaining health-based standards for fine particulate matter (PM_{10}). Effective Date of Regulation VIII Rules: December 10, 1993. (For the purpose of this regulation *visible dust emissions* is defined as: visible dust of such opacity as to obscure an observer's view to a degree equal to or greater than an opacity of 40% (40%), for a period or periods aggregating more than three minutes in any one hour, except as set fourth in Rule 8030, 5.1.)	
4.0	*Exemptions: (All Regulation VIII Rules)* Actions required by law to protect the environment; current District permitted activities with PM_{10} control measures greater than or equal to this regulation; public health & safety emergency operations lasting less than 30 days; vegetative reduction required by a Federal, State or local agency for fire prevention; and activities conducted above the elevation of 3000 feet, or during freezing conditions.	
5.1	Chemical Stabilizing Agents.	Must meet ARB/EPA acceptability and air/water quality standards.
5.4	Dust Palliative and Asphalt Paving.	Shall comply with other applicable District Rules (i.e. Rule 4641)
Rule 8020 Construction, Demolition, Excavation, Extraction		
2.0	*Applicability:* Any construction, demolition, excavation, extraction, water mining related disturbances of soil, and the initial construction of landfills prior to commencement of landfill operations.	
4.0	*Exemptions:* Land preparation for agriculture; activities approved prior to the effective date of this Rule; blasting activities; maintenance or remodeling activities of less than 10,000 square feet or 50% of building area; renovation of ground water recharge basins; and solar drying & harvesting of sedimentary calcium carbonate precipitates. Compliance with Section 5.1 of this rule is not required where soil moisture or natural crusting is sufficient to limit visible dust emissions.	
5.1	All disturbed areas of a construction site, including storage piles, not used for seven or more days.	Effective stabilization of visible dust emissions (40%) utilizing water, chemical stabilizer/suppressant, or vegetative ground cover.
5.2	On-site unpaved roads and off-site unpaved access roads.	Effective stabilization of visible dust emissions (40%) utilizing water, or a chemical stabilizer/suppressant.
5.3.	Land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities.	Effective control of fugitive dust emissions utilizing the application of water, or by presoaking.
	Operation of wrecking balls or wrecking equipment.	All exterior surfaces of a building up to six stories in height shall be wetted during demolition.
5.4	Public paved roads, shoulders, and access ways adjacent to the site.	Limit or promptly remove any accumulation of mud or dirt. Recommended use of paved aprons, gravel strips, or wheel washers. The use of blower devices for the removal of accumulations is prohibited. The use of dry rotary brushes is prohibited, except where preceded or accompanied by wetting to limit dust emissions.
Rule 8030 Storage, Handling and Transport of Bulk Materials		
2.0	*Applicability:* Outdoor handling/storage of bulk material emitting visible dust. Additional requirements may apply if compliance with this Rule requires the installation or modification of equipment under existing District permit.	
4.0	*Exemptions:* Conditions where moisture content of the material is sufficient to limit visible dust emissions; agricultural harvesting, open air drying, handling or storage of baled, cubed, pelletized, long-stemmed or pre-cleaned material; timber harvesting; dust free materials; materials less than 250 cubic yards; and materials subject to damage by wetting.	
5.1	Transport of bulk materials in an outside area for a distance of twelve feet or greater with the use of a chute or conveyor device.	Chute/conveyor must be fully enclosed, or spray equipment wets materials to limit visible dust emissions (20% opacity) as defined in District Rule 4101-Visible Emissions, or materials conveyed are washed, separated, or screened to remove PM_{10}.
5.2	Materials transported by vehicle, except on site.	Requirements of Rule 8020, 5.4 apply. Wet material to limit visible dust emissions (40%), or provide at least six inches of freeboard space from the top of the transport container, or cover the container.
5.3	Outdoor storage of materials greater than 250 cubic yards.	Effective stabilization of visible dust emissions (40%) utilizing water, or a chemical stabilizer/suppressant within seven days after the addition or removal of materials.

RESPONSE TO COMMENT LETTER NO. 8 - SJV Unified Air Pollution Control District

GENERAL COMMENTS IN LETTER OF TRANSMITTAL

2nd Paragraph. The Comment refers to mention in the Draft EIR that "..... the development of the West Lathrop Specific Plan Area will result in a substantial huge share of air pollution in the San Joaquin Valley Air Basin." This is incorrect. The DEIR never states that the Project will result in a "substantial huge" share of air pollution in the San Joaquin Valley Air Basin.

SPECIFIC COMMENTS

A Page V-90, Mitigation 1.n, Referring to Burning Mitigation measure 1.n on page V-90 of the Draft EIR states that burning on the Project site will be prohibited. The District's comment that burning of this type is prohibited by the District Open Burning Rule is consistent with this mitigation measure. Nonetheless, since this measure is already required by District regulations, the reference to prohibiting burning on the Project site will be deleted as a mitigation measure from the Draft EIR.

B. Page V-90, Mitigation 1.p, referring to Street Sweepers. The wording will be changed to reflect District regulations which prohibit the use of dry street sweeping, and which require the application of water during sweeping. In addition, the mitigation measures listed on Page V-90 will be concluded with the following:

> Dust emissions related to construction shall be addressed in accordance with SJVUAPCD regulation VIII, which pertains to fugitive dust/PM_{10}. Rules 8010, 8020, 8030, 8040, 8060 and 8070 contain relevant discussion involving stabilizing exposed surfaces which could generate dust, cleaning exposed surfaces and machinery and avoiding situations which can result in excessive dust generation. Project development will be required to adhere to all such regulations. Since these provisions are required by regulation, they are not technically mitigation measures. The term "mitigation measures" implies actions beyond those which are already covered by applicable regulations of the District.
>
> Measures pertaining to the control of emissions from construction vehicles and equipment would include:
>
> - Adjusting the engines of diesel-powered equipment to reduce NO_x emissions; and maintaining existing gasoline-powered equipment in tune per manufacturers specifications.
> - Developing a comprehensive construction activity management plan to minimize the amount of large construction equipment operating during any given time period.
> - Reducing CO, ROG and NO_x emissions from equipment by avoiding unnecessary idling.
> - Using materials with a low ROG content to limit emissions from adhesives, clean-up solvents, paint and asphalt paving materials used for project construction.

C. Page V-91, Mitigation 2 at top of Page. Wording pertaining to open burning will be deleted, as follows:

> During construction, mitigation measures ~~(except burning)~~ should be monitored by the Public Works Department. The SJVUAPCD would be responsible for permitting processes and monitoring compliance with air quality permits.

D. Page V-92, Measure 1.e. The need to clarify the promotion of low-emission vehicles on the project site is accepted. However, it is much too early in the development process to make "...an exact commitment" to low emission vehicles. This will be accomplished through imposition of conditions of approval added by the City as specific projects are reviewed and approved, as reflected in the Mitigation Monitoring Program.

Additional clarification of the intent of Measure 1.e. is appropriate. With respect to on-site use of transit, it is intended that on-site transit be available from the opening of Phase 1 development on Stewart Tract and Mossdale Village. As development intensifies, the transit spine proposed for Stewart Tract will be extended to connect additional phases of development. The use of various modes of on-site transit were assumed, conservatively, in projecting traffic for Stewart Tract.

The following additional mitigation measures are proposed:

1. Electrical outlets are to be provided in residential garages and carports suitable for re-charging electric vehicles.

2. Fleet vehicles (two or more) operated by commercial uses such as hotels, motels, and theme parks will be equipped for operation on alternative fuels such as natural gas.

E. Page V-92, Mitigation 2.a. While the District recommends the complete elimination of conventional wood stoves and fireplaces, this decision is one to be made by the developer. The option for using EPA certified low-emitting fireplaces and stoves under 2.a. should therefore remain. As an example, hearth-type fireplaces should be designed to utilize natural gas to simulate wood burning as an option to wood burning.

F. Page V-93, Mitigation 2.g. and f. With respect to heating, cooling and lighting systems, the project sponsor will have to determine the extent to which Title 24 requirements will be exceeded.

G. Page V-93, Mitigation 2.i. The comment that Measure 2.I is not a mitigation measure is accepted. Therefore, mitigation measure 2.i. pertaining to requirements for obtaining permits to operate from the SJV Unified Air Pollution Control District is hereby deleted.

H. Page V-93, Effect of Mitigation Measures. The District calls for incorporating "...additional feasible mitigation" because of the scale of the project. At a meeting held on September 22, 1995 at District offices in Modesto, it was agreed that the following mitigation measures be added to the Final EIR as an extension of the numbers listed on pp. V-91 through V-93 of the Draft EIR. Many of the measures have already been made proposals of the Specific Plan, but are listed here for the convenience of mitigation monitoring.

3. **Land Use/Design Measures:** Commercial land use centers on Stewart Tract will be designed to accommodate a variety of complementary uses that will meet the needs of residents and tourists on-site. Proposals of the Specific Plan call for meeting the majority of convenience-goods and shopping goods needs on-site.

4. **Parking lot design measures:**

   a. In requiring off-street parking facilities for individual projects, it is the intent of the City to require only that number of spaces that reasonably may be necessary for the use or combination of uses proposed. Where more than one use is provided as part of a single

commercial complex, the number of parking spaces determined will reflect the multiple patronage that can result from a single parking space. An example is provided by the characteristics of shopping center patronage.

b. Parking lots will be designed to provide for convenient exit from parking lots to the street system without delays otherwise associated with restricted access.

c. In connection with measure 4.b, above, parking lots will be sized and distributed so as to avoid as much as possible the creation of large expanses of parking area.

5. **Subdivision/Commercial Site Design Measures:**

a. Project design provides for multiple and/or direct pedestrian access between complementary land uses throughout the project.

b. Project design provides for efficient movement of vehicles throughout the site.

c. All uses shall be within reasonable walking distance (i.e., 1/4 mile) of transit facilities.

6. **Infrastructure Improvement Measures:**

a. Project design provides for safe and direct access to residential, commercial and recreation areas via bicycles. Commercial and employment centers of 50 or more employees at one site will provide facilities for the safe storage/parking of bicycles, and for locker room and shower facilities for those bicycling or walking to work or engaging in healthful exercise routines during the day.

b. Bus stop improvements will include facilities for protection from the elements and seating.

c. Park and ride lots will be facilitated by the City of Lathrop in implementing the Specific Plan and will be located to the north, east and west of the Project, and close to the multi-modal transportation center on Stewart Tract.

d. The City will require the direct or indirect provision of pre-school day care services for the Gold Rush City, Califia and Wildlife theme parks and the regional shopping center. Indirect provision implies participation in day care services at a location central to the employees of more than one establishment.

7. **Operational Measures/TDM:**

a. Implement a rideshare/vanpool program for medium- and large-sized employers.

b. Provide preferential parking for carpool/vanpool/electrically operated and alternatively fueled vehicles.

c. Develop agreements with businesses to implement compressed work schedules of various lengths to reduce total traffic generation during the work week.

d. Whenever possible, assure the availability of on-site shops and services to employees.

e. Provide commuter information areas and tourist information centers at locations convenient to employees and tourists.

8. **Area Source Measures:**

a. During site plan or subdivision review by the City of all residential projects, encourage energy conservation measures beyond those currently required by State law, including, but not limited to the following:

- Solar or low emission water heaters.
- Energy efficient appliances.
- Shade trees to reduce solar loads
- Low sodium parking lot lights.
- Building orientation and passive solar design.
- Use of light colored roofing materials

b. During site plan review of all non-residential projects, encourage energy conservation measures beyond those currently required by State law, including but not limited to the following:

- Solar/low emission water heaters.
- Central water heating systems.
- Energy efficient AC controls.
- Insulated windows.
- Parking structure ventilation.
- Light control and energy efficient lighting.
- Light colored roofing materials.
- Extra wall and attic insulation.

I. Incorporation of District Guidelines for General Plan Policy and State Energy Guidelines.

The Comment identifies some of the areas to be discussed for inclusion in the West Lathrop Specific Plan. These areas are discussed separately in the responses to comments which follow.

J. Exceeding Required Energy Conservation Measures. This comment suggests that the project sponsor implement strategies which go beyond State standards in building efficiency and energy efficient development. While exceeding existing standards would be admirable, the decision will be that of the project sponsor in determining what additional energy conservation measures, if any, are to be utilized. As listed under H.8.a. and b., above, exceeding state standards is to be encouraged by the City during the project review stage.

K. Objective/Policy Combinations Recommended for Inclusion in Part III of the Specific Plan Pertaining to Mitigation of Air Pollution. The objectives, goals and policies recommended by the District for inclusion in the Specific Plan are better considered for addition to the Lathrop General Plan. These recommendations will be considered by the City when it next updates the General Plan, currently planned for 1996.

L. Air Quality Benefits. Comments concerning the benefits of fugitive dust control, and various rules of District Regulation No. VIII are accepted. Mitigation for fugitive dust during construction activities has been added [see response to Comment B, above].

ADDITIONAL CONSIDERATIONS In addition to the foregoing responses to comments, the following amendments and/or corrections to the Draft EIR are offered:

1. The discussion of Air Quality Planning and Control on pp. III-32 and -33, and of significance criteria on p. III-35 are superseded by corresponding discussion on pp. V-85 through V-89.

2. The pollutant emission thresholds in the table at the top of p. V-89 are replaced as follows, based on data provided by Dave Stagnaro, Environmental Planner, SJVUAPCD [telephone communication with Dr. Richard Pollack, 6/19/95]:

Pollutant	BACT Threshold	Offset Threshold
CO	550 lbs./day	550 lbs./day
TOG	2 lbs./day	55 lbs./day
No_x	2 lbs./day	55 lbs./day
So_x	0 lbs./day	150 lbs./day
PM_{10}	2 lbs./day	80 lbs./day

3. Estimates of CO concentrations provided in Table V-15, DEIR page V-95 are revised as shown on the next page. As described in greater detail, below, there will not be any CO violations under the West Lathrop Specific Plan as proposed, or under any other scenario previously

At the September 22, 1995 meeting with Mr. David Stagnaro, Environmental Planner with the SJVUAPCD, Mr. Stagnaro suggested that the District's Atmospheric Modeler (Mr. Jim Sweet) be consulted regarding two particular details of the modeling procedures -- background concentration and persistence factor. As a result of this suggestion, several phone conversations with Mr; Sweet resulted in the following:

a. Mr. Sweet agreed with the procedures used to estimate background concentrations for the DEIR, except the use of the persistence factor. He pointed out that the persistence factor (essentially the ratio between the second highest 8 hour average value and the second highest 1 hour average value) measured at the closest monitoring station (Hazleton in Stockton) was 0.57 and recommended that this value be used in place of the urban default estimate of 0.7 that was used in preparing CO projections for the DEIR.

2. In order to understand the significance of this change, it must be understood that the CO modeling is performed for the worst case single hour, i.e. an hour involving both peak hour traffic and worst case meteorological conditions. The 8 hour average is derived from the 1 hour average by multiplying the 1 hour average by a persistence factor (in this case 0.57).

3. The original modeling used an overly conservative persistence factor of 0.7, as recommended by Caltrans in its Air Quality Technical Analysis Notes for urban conditions in which specific monitoring data are unavailable. Mr. Sweet' analysis of the Hazleton data, even when utilizing the Caltrans procedures, suggested a persistence factor of 0.57. While this factor is still conservatively based, it is not as extreme as the original factor applied. As a consequence, predicted 8 hour average CO concentrations are reduced by about 19% from the values reported in the DEIR. The 1 hour concentrations remain unaffected. The resulting 8 hour concentrations, while still conservatively based on worst case traffic and meteorology, results in there not being any violations of CO standards under any scenario for the future of West Lathrop.

TABLE V-15

CARBON MONOXIDE CONCENTRATIONS AT INTERSECTION CURBSIDE RECEPTORS

Revised to Reflect Comments by SJV Unified APCD Staff, September-October 1995

Total: Sum of CALINE4 Value + Background

Intersection	Averag	Exist	2005 No proj	2005 Alt. E	2017 No proj	2017 Alt. E	2025 No proj	2025 Alt. E
I5NB/Louise	1-houn	9.9	10.0	14.1	10.6	13.1	10.1	12.4
	8-houn	5.6	5.7	8.0	6.0	7.4	5.8	7.1
I5SB/Louise	1-houn	6.6	9.7	14.6	8.8	12.7	9.9	13.6
	8-houn	3.8	5.5	8.3	5.0	7.2	5.7	7.8
Manthey/Louise	1-houn	3.4	6.5	14.1	7.0	9.2	7.5	11.9
	8-houn	1.9	3.7	8.0	4.0	5.2	4.3	6.8
I5 SB/I205 Ramp	1-houn	3.0	6.0	6.0	6.0	6.1	6.0	6.0
	8-houn	1.7	3.4	3.4	3.4	3.5	3.4	3.4
SR120 Off/Mossdale	1-houn	3.0	6.0	6.0	6.0	6.1	6.0	N/A
	8-houn	1.7	3.4	3.4	3.4	3.5	3.4	N/A
Golden Valley/Mossdale	1-houn	3.0	6.0	6.0	6.0	6.6	6.0	N/A
	8-houn	1.7	3.4	3.4	3.4	3.8	3.4	N/A
Circle/Mossdale	1-houn	3.0	6.0	6.0	6.0	6.6	6.0	N/A
	8-houn	1.7	3.4	3.4	3.4	3.8	3.4	N/A
Gold Rush/Circle	1-houn	3.0	6.0	7.8	6.0	8.6	6.0	9.3
	8-houn	1.7	3.4	4.4	3.4	4.9	3.4	5.3
CO Background	1-houn	3.0	6.0	6.0	6.0	6.0	6.0	6.0
	8-houn	1.7	3.4	3.4	3.4	3.4	3.4	3.4

Note that no violations of CO standards are predicted at any location under any scenario.

SAN JOAQUIN REGIONAL
RAIL COMMISSION

1810 E. HAZELTON AVENUE
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STOCKTON, CALIFORNIA 95201
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RECEIVED
AUG 21 1995
Ans'd.....

August 18, 1995

Ms. Pam Carder, Director of Planning
CITY OF LATHROP
Planning Division
16775 Howland Road, Suite One
Lathrop, California 95330

SUBJECT: WEST LATHROP SPECIFIC PLAN AND DRAFT ENVIRONMENTAL IMPACT REPORT & ALTERNATIVE "E" FOR MOSSDALE VILLAGE & STEWART TRACT

Dear Ms. Carder:

A. The San Joaquin Regional Rail Commission is currently negotiating with both the Union Pacific Railroad and the Southern Pacific Railroad for the Altamont Commuter Rail Service. These complex negotiations have not confirmed a station location as asserted in the above documents.

B. A recent announcement proposing a merger of these two railroads could alter the proposed routing of rail service and the location of a commuter rail station within in the Lathrop area. The merger talks are impacting San Joaquin Regional Rail Commission negotiations with the railroads and will affect transportation alternatives available to the proposed development of Mossdale Village and Stewart Tract.

C. The Environmental Impact Report and Alternative "E" for the West Lathrop Specific Plan should be amended to reflect the potential shift in financial support of the Altamont Service operating costs, station improvements, parking and localized feeder service onto the project proponent.

Please contact Brian Schmidt at (209) 468-3151 for additional information or to respond to these comments.

Very truly yours,

Stacey Mortensen
Deputy Program Manager

SM/kah

RESPONSE TO COMMENT LETTER NO. 9 - San Joaquin Regional Rail Commission

A.&B. Commission Negotiations with Railroads for Locating a Station. The comment is acknowledged. The City agrees that a station location for the Altamont Commuter Rail Service has not been confirmed. However, the Lathrop area is still in consideration as a potential location for the station.

C. Cost Shift to Developer. The Commission calls for an amendment to the Specific Plan to reflect a potential shift in financial support of the Altamont Pass rail service and attendant facilities operations. The City respectfully disagrees with this recommendation. The purpose of serving the large-scale Gold Rush City and Stewart Tract commercial activities with a commuter rail service is to provide support for the service during off-peak commute hours. Visitors would use the rail to reach the theme park at times when trains would be satisfying much lower off-peak demand. A train to the Bay Area during the AM commute would return with visitors to the theme park during mid-morning and other off-peak hours. This off-peak use would provide much needed financial support in the form of fares for train operations throughout the day and evening. A further shift in operating costs to the Stewart Tract project would not be appropriate unless some special rail services are provided for the benefit of Stewart Tract operations at various times that are not available to or needed by the general public. Depot and related parking construction on Stewart Tract is proposed as a Project cost.

PART III

RESPONSE TO COMMENTS BY LOCAL AGENCIES

TRANSPORTATION, CIRCULATION AND TRAFFIC

Regional Conditions

The regional freeway system, dominated by I-5, State Route (S.R.) 120, I-205, and S.R. 99, converges on the Lathrop area. I-5 provides access to metropolitan areas of Stockton and Sacramento, and serves as the primary conduit for truck traffic to Southern California from Northern California (including the San Francisco Bay Area). S.R. 99 provides functions similar to I-5, but also connects with all major cities of the San Joaquin Valley between Stockton and Bakersfield.

I-205 heading west from Lathrop through Tracy connects with I-580 at the Coast Range and extends westerly over Altamont Pass, through the Livermore Valley, and over the Oakland Hills to the cities along the easterly shores of San Francisco Bay. This transportation corridor is fast becoming of greater importance in accommodating commute traffic between the Northern San Joaquin Valley and the Bay Area, and in its emerging role in moving people and goods by various modes of regional transit. As highway traffic becomes more congested during peak hours, the extension of regional transit capability from the Valley to and from the Bay Area is becoming an imperative.

Local Conditions

Primary transportation and circulation facilities connecting the West Lathrop Planning Area with the region include Interstate 5, Interstate 205, S.R. 120 and S.R. 99. [see Figure III-2] Both the Southern Pacific and Union Pacific railroads, which provide only freight service, pass through the eastern reaches of Stewart Tract. The Southern Pacific also cuts across the southern corner of Mossdale Village. Freeway access to Mossdale Village is provided by the Louise Avenue/I-5 interchange; freeway access to Stewart Tract is provided by the Mossdale Road interchange between its connections with I-205 and S.R. 120 freeways. This two mile section of I-5 is often referred to as the "merge".

The planning area is served by Louise Avenue, Manthey Road, Mossdale Road, Stewart Road and Paradise Road, which are developed as 2-lane rural facilities within the planning area. East of I-5, Louise Avenue is a 2-4 lane arterial street extending to Lathrop's east City limits and beyond to Manteca. Manthey Road serves as a frontage road along I-5, connecting the Louise Avenue and Mossdale Road interchanges within the planning area. It also extends north of Louise Avenue, providing access to the Lathrop Road and Roth Road interchanges with I-5 within Lathrop and interchanges farther north into the Stockton area. Stewart Road and Paradise Road provide access to farms within the Stewart Tract. Paradise Road crosses south over I-205 west of the planning area. Existing traffic volumes on these roadways are low and operate at acceptable levels.

The Stockton Metropolitan Airport is classified for all classes of commercial jet passenger and air freight services and for general aviation activities. Flight activities associated with the airport located within the boundaries of the Sharpe Depot involve mostly helicopter flights, with fixed wing operations involving only a small percentage of total traffic. The San Joaquin River is a navigable waterway under the jurisdiction of the Corps of Engineers. Considerable recreational boating activity occurs along the river between Lathrop and Stockton, but bridges along the river prevent the use of large boats or sailing vessels.

Existing Traffic Volume (1993)

Interstate 5 has an annual ADT (average daily traffic volume) of about 62,000 through the center of Lathrop and a peak month ADT of about 69,000. Where I-5 merges with I-205 southwest of town at Mossdale Road, annual ADT is closer to 95,000 with a monthly peak close to 107,000. State Route 120

LOCAL AGENCY FORMATION COMMISSION
LAFCO
OF SAN JOAQUIN COUNTY

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PHONE: 209/468-3198

EXECUTIVE OFFICER
GERALD F. SCOTT

LEGAL COUNSEL
MICHAEL McGREW
DEPUTY COUNTY COUNSEL

August 17, 1995

Pam Carder
Lathrop Planning Director
16675 Howland Road #1
Lathrop, CA 95330

RE: West Lathrop Specific Plan and Draft E.I.R.

San Joaquin LAFCo has reviewed the West Lathrop Plan EIR and submits the following comments:

1. The Draft EIR correctly identifies LAFCo as a Responsible Agency which would consider the EIR upon reviewing applications for annexations.

2. Except as noted, the Draft EIR appears to adequately discuss most concerns of LAFCo.

A. 3. Figure III-6 shows that almost all of the territory is under Williamson Act contract and no notice of nonrenewal has been filed. The EIR should disclose the plans for disposition of contracts.

B. 4. The Draft EIR fails to recognize that Stewart Tract falls within the jurisdiction of both Reclamation Districts 2062 and 2107. The EIR should discuss a feasible plan for 100-year flood protection.

C. 5. The EIR should recognize that fire protection for Stewart Tract is divided between the Manteca-Lathrop Fire District and the Tracy Rural Fire District. A plan for effective fire protection services should be discussed.

D. 6. Page 132 of the Specific Plan states that the City intends to request annexation of the entire Specific Plan area as soon as the EIR is certified. It is suggested that a phased annexation program may be more environmentally sound and should be explored.

Thank you for the opportunity to comment.

Sincerely,

Gerald F. Scott
Executive Officer

GFS:dm

WLATHEIR.RPT

RESPONSE TO COMMENT LETTER NO. 10 - San Joaquin County LAFCO

A. Plans for Disposition of Williamson Act Contracts. The City plans on canceling a relatively small number of Williamson Act contracts as needed to allow the first part of Phase 1 development on Stewart Tract and possibly Phase 1 development on Mossdale Village. It is anticipated that future phases for Stewart Tract will be able to follow the normal procedures for non-renewal of contracts. Given the penalties associated with contract cancellation and the City's commitment to maintaining agricultural use as long as possible, cancellation will only be used to a limited extent.

B. Stewart Tract within Jurisdiction of Reclamation Districts. It is recognized that Stewart Tract lays within the jurisdiction of Reclamation Districts 2062 and 2107. Existing conditions and the proposed flood control system are described on pp V-17 through V-19 of the Draft EIR, along with reference to the technical appendix prepared by Siegfried Engineering on the subject. The topic of flood control is further discussed in the Response to Comment Letter No. 12, Comment C, in this Final EIR..

C. Division of Fire Protection Service. With Stewart Tract being served by two different fire districts, LAFCO calls for discussion of an effective fire service plan. This implies that the division of jurisdiction between two districts may cause problems of service. In previous conversation with the City's Community Development Director, LAFCO's Executive Officer indicated that this issue would be resolved as part of the annexation proceedings, presumably by selecting either the Tracy or Manteca-Lathrop Districts for the provision of fire protection service at that time. Since Lathrop is now served by the Manteca-Lathrop District, it would be helpful if the Manteca-Lathrop District was selected for all of Stewart Tract. However, if LAFCO wants the current jurisdictional split to remain, the City is not concerned as long as both districts enter into a mutual aid agreement for providing the services needed.

D. City Intent to Request Annexation of the entire Specific Plan Area. LAFCO states that a phased program of annexation may be more environmentally sound than annexing all of the Specific Plan area as a unit. The City's reasons for seeking a single annexation include public health and safety related to flood control, simplification of project implementation and permitting, as well as financial considerations related to the provision of public infrastructure on Stewart Tract. Taking the entire Tract out of the flood plain is an example of why a single annexation is requested. If the Stewart Tract is annexed in phases, development would need to proceed on a dual permitting process with the City and the County. This would be simplified by annexing the entire Stewart Tract as a unit and processing project approvals with the City. Also, much of the infrastructure financing will be dependent upon knowing that all of the Tract is entitled to develop over time.

There are no apparent environmental concerns that emerge because of a single action of annexation. Phased development of the Tract is assured by policies of the Lathrop General Plan, and the proposed Specific Plan, and by provisions of the Development Agreement that will be approved concurrent with Specific Plan adoption. In addition, the Project EIR calls for continuing mitigation over a long period of time, based on a program of development phasing. The mitigation measures will remain valid and will be implemented under the Mitigation Monitoring Program whether or not annexation of all of Stewart Tract occurs as a single action.

COMMENT LETTER NO. 11

Office of the
County Administrator

COUNTY OF SAN JOAQUIN

Courthouse, Room 707
222 East Weber Avenue
Stockton, California 95202-2778
(209) 468-3211

August 21, 1995

Ms. Pam Carder
City of Lathrop
City Hall
16775 Howland Road, Suite #1
Lathrop, CA 95330-9792

RECEIVED
AUG 2 1 1995
Ans'd.....

Dear Pam:

West Lathrop Specific Plan
Draft Environmental Impact Report

A. This office has reviewed the Draft Environmental Impact Report (DEIR) prepared for the West Lathrop Specific Plan. Consistent with our review of all development proposals, the County is primarily concerned with our continuing ability to provide adequate levels of Countywide services. Other County departments will address specific areas of concern in their comments on the DEIR.

The DEIR notes that the "growth-inducing impact of the Specific Plan" will place demands on "all of the public and private facilities and services needed to serve increased economic activity and growth of the resident and visiting population". However, there is no analysis of the demands that will be placed on a broad range of services provided by the County. We are most interested in understanding the demands on our criminal justice, health and human service systems as well as those placed on our transportation network.

B. A discussion of the impacts on Countywide services should be provided in sufficient detail to compare project alternatives and mitigation measures. A phasing plan for facilities and services should be detailed and supported by financial and fiscal analysis. The review of a project of this magnitude must address the feasibility of the project in terms of its ability to finance construction, expand public facilities, underwrite environmental mitigation, and maintain Countywide as well as municipal services. As such, it is crucial that the County and the public be afforded adequate time to review the financial and fiscal documentation of the project.

In previous correspondence, we noted that we had worked through preliminary fiscal assumptions with the project proponents. It was our understanding that we would have time to review an analysis of the project's impact on the County's General Fund prior to public review of the project. We find it awkward to review the Specific Plan and the DEIR without the support of financial and fiscal documentation. As soon as practical, we would like to review market assumptions, financial analysis (including financing plans for off-site improvements), and fiscal analysis (including mitigation of impacts on County services and facilities). If working drafts exist, we would appreciate copies at this time.

Our exposure to fiscal aspects of the project have been limited to discussions with the project proponents. As a result, it might be productive for County staff to meet with you to review our comments and address any misconceptions they might produce. Perhaps we could also identify the scope of cost and revenue analysis that would be appropriate for an initial briefing session with the Board of Supervisors.

Please contact Richard Laiblin at your convenience, to coordinate any follow up. As suggested, this may include a scoping session involving City and County staff.

Very truly yours,

David L. Baker
County Administrator

DLB:RJL:mk
c: Board Members
Terry Dermody, County Counsel
Chet Davisson, Community Development
Henry Hirata, Public Works

RL08-04

RESPONSE TO COMMENT LETTER NO. 11 -San Joaquin County Administrator

A. Demands on County Services. Traffic projections prepared for the Project utilizing the COG traffic model indicate that there will not be any significant impact to segments of the County road system extending north of Lathrop (Airport Way, Harlan Rd., McKinley Avenue and Manthey Road) or west of Lathrop (Arbor Way). According to results of the COG model, average daily traffic volumes along Airport Way north of Lathrop/Manteca are expected to remain about the same in 2025 with or without the project. The increase would be modest, involving about 1600 two-way vehicles per day, or about 135 PM peak hour vehicles due to the project in 2025.

To the west, Golden Valley Parkway will be extended ultimately as a 6-lane facility generally along the alignment of Arbor Way to Paradise Road where connection with I-205 will be made via a new interchange. All road improvements required by the Project will be provided at or before the time when they are needed.

Demands on the County's criminal justice, health and human service systems, would be considered socio-economic impacts rather than environmental impacts. Such demands do not result in a change in the physical environment and therefore CEQA does not require them to be analyzed and mitigated through the EIR process. *See Goleta Union School District v. The Regents of the University of California, 37 Cal.App.4th 1025 (1995).* Projected tax revenues to be realized by the County are discussed under Comment B, below.

B. The tax revenues to be generated by the Project will be very significant, and should more than offset any increased costs of social service delivery by the County that may be attributable to the Project. Annual property and sales tax revenues to the County for Stewart Tract will be reflected in financial and fiscal analyses that will be available for public review when the Specific Plan is presented to the City for public hearings. While completed for the City in developing the Specific Plan, financial and fiscal analysis is outside the scope of CEQA unless specifically related to an adverse physical impact upon the environment. Similarly, the feasibility of the Project is not placed in question by the EIR except as it relates to whether or not the mitigation measures proposed will be financially feasible. The Development Agreement will contain provisions to ensure that the project, including mitigation measures, will be adequately financed.

COMMENT LETTER NO. 12

COUNTY OF SAN JOAQUIN
DEPARTMENT OF PUBLIC WORKS
P. O. BOX 1810 — 1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
(209) 468-3000
FAX (209) 468-2999

HENRY M. HIRATA
DIRECTOR

EUGENE DELUCCHI
CHIEF DEPUTY DIRECTOR

THOMAS R. FLINN
DEPUTY DIRECTOR

MANUEL LOPEZ
DEPUTY DIRECTOR

August 18, 1995

RECEIVED
AUG 21 1995
Ans'd.....

Pam Carder, Planning Director
CITY OF LATHROP
P.O. Box 1429
Lathrop, CA 95330

SUBJECT: RESPONSE TO DRAFT EIR FOR THE PROPOSED WEST LATHROP SPECIFIC PLAN

Dear Ms. Carder:

The following comments are submitted in response to the environmental document referred to above:

A. SOLID WASTE DIVISION - Tom Horton, Solid Waste Manager, 468-3066

1. The document needs to state the population and generation rate used in projecting the annual solid waste generated as shown on Page V-43, *"Projected Solid Waste Generation"*.

2. Please identify the responsible party that will be required to build the transfer station, its source of funding and who will operate the facility. This information should be added to Item 2.a., Page V-44.

3. The Lovelace Materials Recovery Facility and Transfer Station (LMRF&TS) is designed to handle **all** the waste from the Central County. The project proponents are encouraged to use the LMRF&TS.

GB(kah) 08/16/95

B. TRANSPORTATION PLANNING DIVISION, Ron Cook, Administrative Assistant I, 468-3531

1. The transportation analysis is insufficient. The analysis must include impacts to county roadways and regional highways, not just impacts within the proposed project. A project of this size will have significant impacts to commuter traffic over the Altamont Pass. Those impacts and the mitigation measures need to be thoroughly analyzed and discussed in the environmental document. Peak trips projected in Alternative "E" indicate that insufficient capacity exists at the freeway interchange impacted.

2. The Congestion Management Program (CMP) routes within San Joaquin County have not been adequately addressed relative to impacts created by the proposed development. San Joaquin County is responsible for reporting degradation in established levels of service on county roadways annually. The county is required to correct deficiencies once identified. How will the development of West Lathrop pay for its fair share of the cost to correct deficiencies which will occur as development occurs?

3. Trip generation of the development is inadequate. How will major impacts to the following non-CMP arterials and collector roads be mitigated?: Grant Line Road, Tracy Boulevard, Eleventh Street, Byron Road, Airport Way, Manthey Road and Kasson Road.

3. Who will pay for the accelerated wear and tear on these county maintained roads arising out of the proposed development?

4. The San Joaquin Valley Unified Air Pollution Control District has classified the county as a non-attainment area for particulate matter and emissions generated by virtually any activity involving an internal combustion engine. The cumulative impacts to this non-attainment area arising out of the proposed development, requires the proponent to mitigate appropriately. Developers must take an active roll in reducing trip ends and emissions through effective mitigations. The environmental document proposed lacks appropriate detail to determine whether the mitigations proposed will be viable in reducing particulate matter.

5. The funding of specific roadway and freeway improvements must be discussed in greater detail. Where will the funding come from to complete required mitigations to traffic impacts? Where will funding come from to correct deficiencies as mandated by the San Joaquin Valley Unified Air Pollution Control District?

6. What transit resources exist or will be available to complete the "mulit-modal" transportation hub indicated in the proposed documents?

RLC(kah) 08/16/95

C. WATER RESOURCES/FLOOD CONTROL DIVISION, Michael Callahan, Senior Civil Engineer, 468-3062

1. It is stated that attempts will be made to supply the project with surface water. However if these attempts fail, the project will be supplied with groundwater. There is also discussion in the EIR which details the groundwater over drafting and water quality problems in the area. Supplying the project with groundwater could exacerbate these problems impacting the groundwater resources in the area. The potential impacts could be mitigated by one of the following measures:

   a. The location of the proposed well sites should be defined and an analysis conducted to show that groundwater resources will not be impaired.

   b. The documents should be revised to state that if groundwater will be used, an analysis will be conducted to define impacts to the groundwater resources in the area. If the analysis shows that the well would increase the rate of salinity intrusion or increase the groundwater overdraft, an alternative site will be required. In addition, an alternative to use of groundwater should be provided in the documents in the event that no adequate well sites are found and surface water can not be obtained.

2. Removal of Stewart Tract from the 100-year floodplain will displace the volume of water which had previously flooded the island. This will raise the 100-year flood elevation and impact the levees in the surrounding area of the Delta. This will be a particular problem for the levees on the east side of the San Joaquin River. The levees were improved to meet FEMA standards for the Weston Ranch project. The increase in the 100-year flood levels will result in these levees no longer meeting FEMA criteria and all areas previously removed from will be placed back into the 100-year floodplain. This will include Weston Ranch, the proposed Mossdale Village, the San Joaquin County hospital and jail facilities, and portions of the City of Lathrop. This is a significant impact which has not been addressed or mitigated in the project EIR. An analysis must be conducted to determine where the 100-year flood elevation will be increased by the removal of Stewart Tract from the 100-year floodplain and the appropriate mitigations identified.

3. Page V-49 lists items to be addressed during environmental review of the proposed marinas. An additional item which should be evaluated is the impact of erosion to the Delta levees caused by boat wakes from boats arriving and departing from the new proposed marinas.

4. Many types of plants identified in the document, proposed to be used on levees, are inconsistent with the maintenance and inspection requirements for levees. Therefore, the documents should state that all landscaping on the levees will be limited to that which is approved by the State Reclamation Board.

5. Bridge crossings over the San Joaquin River are subject to heavy debris loading. The mitigation for this impact needs to reflect current regulations. All proposed bridge crossings will be required to have a minimum of three feet of freeboard from the 100-year flood elevation to the lowest member of the bridge and supports located within the channel area shall be minimized.

MC(kah) 098/18/95

Should you need to discuss these comments in greater detail please telephone the above listed Division directly or me at (209) 468-3073.

Very truly yours,

Kenneth A. Hill
Environmental Coordinator

c: Manuel Lopez, Deputy Director/Development
Tom Flinn, Deputy Director/Engineering
Tom Horton, Solid Waste Manager/Solid Waste Division
Stacey Mortensen, Deputy Program Manager/SJ Regional Rail Commission
Ron Cook, Administrative Assistant I/Transportation Planning Division
Michael Callahan, Sr. Civil Engineer/Water Resources/Flood Control Division
Richard Laiblin, Senior Deputy County Administrator/County Administrator Office

C:\WPDOCS\ENVIRONS\RESPONSE\WLATHROP.EIR

RESPONSE TO COMMENT LETTER NO. 12 - S.J. County Department of Public Works

A. SOLID WASTE DIVISION

1. Population and Generation Rate used in Solid Waste Projections. As indicated in the footnote (#11) at the bottom of page V-43 of the Draft EIR, the discussion of existing conditions and some of the projections is based on information contained in the City of Lathrop's "Integrated Solid Waste Management Plan AB939", adopted by the City Council March 2, 1993. The waste disposal characterization is described on pp. 7-23 of the Management Plan. Projections assume a buildout population under the West Lathrop Specific Plan of 29,270. Projections also take into account the experience at Disneyland, Orange County, to the extent that theme park operations will constitute a significant component of overall solid waste generation. However, because the entire Stewart Tract project is unique for California, the estimate of 50,000 to 60,000 tons per year at buildout is a composite estimate which includes the probable levels of waste to be expected from extensive tourist-oriented activities and facilities. Under the Mitigation Monitoring Program , waste generation will be monitored on a regular basis over the years to ensure and implement adequate waste loading, disposal and recycling requirements.

2.&3. Waste Transfer Station. Since publication of the Draft EIR, it has been determined by the City's Public Works Department and solid waste franchise operator that a transfer station will not be needed on Stewart Tract. The Lovelace Materials Recovery Facility and Transfer Station will be used for all disposal operations.

B. TRANSPORTATION PLANNING DIVISION

1. Impacts to County Roadways. The analysis of traffic impacts in the Draft EIR is not limited to impacts within the Project site. Regarding traffic impacts to the County road system, see discussion under paragraph A., Comment Letter No. 11 above, and paragraph B.3 below. The SJ County COG model was used for all traffic and transportation impact projections and analysis, including assumptions on regional traffic and commute traffic. It should be understood that even Caltrans has not requested impact analysis beyond the freeway segments described in the Draft EIR. Under Alternative "E", all interchanges will have adequate capacity due to the Project with the mitigation measures proposed.

2. Payment for County Road Deficiencies. To the extent that any deficiencies occur on the CMP network as the result of Project traffic, Lathrop will participate in a countywide fee on a fair-share basis along with all other local (city and county) jurisdictions when an appropriate countywide fee is established.

3. Impacts on County Roads. [See paragraph A, Comment Letter No. 11, and paragraph B.1 above.] Traffic volumes on the County roadway system in reasonable proximity to the City of Lathrop are presented in the Technical Appendix to the Draft EIR. Based upon COG input regarding expected freeway widening by 2025 and the construction of Golden Valley Parkway as a 6-lane regional expressway, there should generally be sufficient capacity on the regional freeway and expressway system to accommodate ambient and buildout project traffic. Therefore, less than significant increases in project traffic would be expected on the county roads in question. Other roads indicated are too remote and will not be important to the movement of Project-generated traffic.

4. Air Quality Mitigation. Additional mitigation measures related to air quality impacts of the Project as requested by the SJV Unified APCD are provided under response to Comment Letter No. 8, above.

5. Funding for specific roadway and freeway improvements and air quality mitigation. Funding for these improvements and mitigation measures will be made the responsibility of the Project developer(s) during the development review permit stage. In addition, certain responsibilities will be spelled out in the Development Agreement between the City and the Project developer. Compliance with these mitigation measures will be monitored by the City under the Mitigation Monitoring Program.

6. Multi-Modal Transportation Facility. This facility will be located on Stewart Tract in close proximity to the S.P. Railroad trackage and park and ride facilities. It will be provided as part of the Project infrastructure.

C. WATER RESOURCES AND FLOOD CONTROL DIVISION

1. Impact on Groundwater. Testing on groundwater aquifers within Stewart Tract was conducted during the summer of 1995, and continues in the fall. Results obtained to date indicate that at least one aquifer can be used as an alternate source of domestic water. Testing on water drawn from the aquifer depth of 96' - 116' have shown that the existing groundwater quality and quantity estimates appear to be satisfactory for domestic water supply. Continued testing is being conducted to verify earlier findings and to explore deeper aquifers. [Memorandum from Ted Zaferatos, Century West Engineering, 9/22/95]

Preliminary reports indicate that the aquifer can produce up to 1,500 gpm from one well, and that the addition of another aquifer at the 120' - 140' depth can produce up to 2,500 gpm. Water quality tests thus far have shown very low amounts of almost all organic contaminants and non-detectable amounts of various organics. The only marginal or borderline readings from the array of Title 22 tests conducted were on the specific conductance, total dissolved solids and chloride ion concentrations. Testing is continuing to determine the best aquifer quality available for the establishment of a well field which will not impair groundwater resources. Vertical wells are recommended for developing the groundwater as an alternate or supplemental supply. As a precautionary measure, a centrally located water treatment plant should be constructed to provide conventional treatment to the groundwater supply. By agreement with the State Water Quality Control Board, the U.S. Bureau of Reclamation will release adequate water to maintain a Total Dissolved Solids (TDS) level in the San Joaquin River below 500 parts per million (ppm) at the mouth of the Stanislaus River. This agreement is designed to aid in the resistance of salt water intrusion into the groundwater aquifers at Lathrop and downstream from Lathrop.

The EIR already provides for several alternatives to the use of groundwater, and states clearly that several sources should be developed for conjunctive use. This includes importing surface water by agreement with the South San Joaquin Irrigation District the conversion of Stewart Tract agricultural entitlements for municipal use and use of riparian rights for lands in Mossdale Village and Stewart Tract.

2. Removal from the 100 Year Floodplain. The east bank of the San Joaquin River was reconstructed several years ago to protect lands east of the river, between French Camp Slough and Wathall Slough. The levee now protects against a 100-year flood frequency event. Inspection of the as-built plans for this project indicates that the levee height was over filled, with several feet of freeboard. This levee project fully protects the existing City of Lathrop from a 100-year+ frequency flood event, while slightly increasing the volume and elevation of floodwaters that could be expected on Stewart Tract and other lands west of the San Joaquin River under existing conditions.

Stewart Tract levees are Corps of Engineers project levees that protect the Tract from flooding due to a 50-year flood event. It is estimated that the volume of displaced water from the flood plain due to a 100-year flood event will be approximately 40,000 acre feet [memorandum from Siegfried Engineering, 11/21/95]. If a 100-year event did occur, this volume of water would be spread downstream to other areas of the Delta that most likely would be in a flooded condition because their inferior levee systems would already have failed. This flooded area would have an area of about 500 square miles, with a flooded area volume of about 5.6 million acre-feet. By removing Stewart Tract from this volume, the pool of Delta flooding would increase at the most by about 0.1 to 0.2 of a foot.

A preliminary analysis has been made of the flood conditions around Stewart Tract during a 100-year flood event, and a minimum freeboard of 4'-5' appears to exist along both sides of the San Joaquin River. If the Delta flood pool were to increase by 0.1 to 0.2 feet as the result of Stewart Tract being (100-year) flood protected, the backwater affect in the San Joaquin River opposite the Project would also increase by the same 0.1-0.2 feet. This will not impact the minimum three foot freeboard required by FEMA, and therefore will not have an adverse impact on the ability of the levee along the east side of the river to protect the urban and agricultural areas extending from Weston Ranch on the north to the south end of Lathrop.

The levee along the north side of Old River ranges from about one to four feet lower than the opposite levee which protects Stewart Tract. Therefore, even without additional Stewart Tract levee improvements, the Old River north levee will most likely fail first during a 100-year flood event. Consequently, additional improvements to Stewart Tract levees will not worsen the already deficient levee system along the north side of Old River beyond the conditions that already exist.

FEMA flood maps indicate that the area southwest of Paradise Cut will have a 100-year flood elevation of about 20 feet. If Stewart Tract were to flood, it would have a flood elevation of about 18'. To the north of Old River, along Roberts Island, the flood elevation is seven feet. Therefore, if Stewart Tract were to be flood protected for a 100-year flood event, the displaced floodwaters will move northwesterly toward the center of the Delta and would not tend to increase the height of flooding southwest of Paradise Cut.

3. Additional Considerations in Evaluating the Impact of Marina Boating. Evaluation of the impact of marina boating activity on river levees, and particularly the potential for erosion, is already a requirement of the several State and Federal agencies having permitting authority. Such evaluation will be conducted under separate environmental review of the marina project(s).

4. Landscaping on Levees. Levee landscaping will be limited to that which is consistent with maintaining the structural integrity of levees and which will satisfy the permitting authorities having jurisdiction. In particular, levee landscaping will meet the guidelines prescribed by the "Interim Guide for Vegetation on Flood Control Levees under Reclamation Board Authority", as adopted by the Reclamation Board September 16, 1988.

5. Bridge Crossings. Current regulations regarding bridge crossings of the San Joaquin River will be observed, including the minimum freeboard required from the 100-year floodplain elevation to the lowest member of a bridge and supports located within the channel. Consideration is being given to bridge designs which will span the channel without the need for in-channel support.

COMMENT LETTER NO. 13

SAN JOAQUIN COUNTY
COMMUNITY DEVELOPMENT DEPARTMENT

1810 E. HAZELTON AVE., STOCKTON, CA 95205-6232
PHONE: 209/468-3121 Fax: 209/468-3163

RECEIVED
AUG 18 1995
Ans'd.

August 17, 1995

Pamela Carder, Director
Lathrop Planning Department
16775 Howland Road - Suite One
Lathrop, CA 95330

Dear Ms Carder:

Re: **WEST LATHROP SPECIFIC PLAN AND DRAFT ENVIRONMENTAL IMPACT REPORT**

We have reviewed the West Lathrop Specific Plan, dated 4/7/95, and Alternative E, dated 6/26/95, as well as the Draft Environmental Impact Report (DEIR). The majority of our comments are divided into those comments regarding the overall project presentation in the documents and those comments regarding specific topics.

OVERALL COMMENTS

A. Some important aspects of the project are not clearly defined. When we reviewed the Notice of Preparation in 1993, we asked that the EIR contain a clear definition of the project. This is not available in the EIR, and it is difficult to piece together the project from the other two documents.

B. Specific Plan

The Specific Plan should be revised to incorporate the changes made by Alternative E. We recognize that the Specific Plan was prepared before it became clear that the Mossdale interchange could not be improved to serve Stewart Tract. The preparation of a revised plan for Stewart Tract was then neccessary. Instead of an Addendum describing Alternative E, the original Specific Plan should have been revised, even though Caltrans only recently reached the conclusion that the Mossdale interchange could not be used for access to the proposed development.

As the documents are now written, Alternative E must be used in conjunction with the Specific Plan, which makes critical aspects of the Stewart Tract development proposal hard to follow. It is not always clear which parts of the Specific Plan are still valid and which have been changed by Alternative E. In addition, the Alternative E Addendum to the Specific Plan does not comprehensively describe the changes it would make to the Specific Plan.

C. DEIR

The DEIR should be redone to evaluate the proposal with Alternative E Incorporated. As prepared, the DEIR evaluates the Specific Plan, with only some changes being made to account for Alternative E. The DEIR continues to refer to mitigation that is proposed in the Specific Plan but is not proposed in Alternative E (such as the park and ride lot). It is impossible to determine which parts of the DEIR are valid with Alternative E and which are no longer valid.

Review of the DEIR is further complicated by the fact that references to the pages of the Specific Plan are inaccurate. For example, page IV-25 of the DEIR refers to page 58 of the Specific Plan for information on visitors arriving at Stockton Metropolitan Airport, but that page does not address the topic. Also, page

IV-9 of the DEIR refers to pages 72-79 of the Specific Plan for proposed protection from levee breaks, but those don't discuss levee breaks.

The separation of impacts and mitigation measures into two chapters of the DEIR, Chapter IV for those addressed in the Specific Plan and Chapter V for additional impacts and mitigation, makes the analysis of each impact and the total proposed mitigation very difficult to follow.

D. Project Assumptions

Project assumptions should be included in the Specific Plan and evaluated in the DEIR. Evaluation of the Specific Plan and the DEIR require knowledge of the underlying assumptions on which they are based, particularly assumptions relating to transportation and the market for the project.

The major impact of the proposed development is on the transportation network and extensive traffic modelling appears to have been done. The assumptions underlying the modelling, however, are not included in any of the documents. As you are aware, assumptions are critical to the modelling efforts. The DEIR does not include the number of trips expected by residents and employees, the trip destinations, the number of annual visitors, the number of visitors using different transportation modes, trips made by visitors during their stays, and the changes in the assumptions for different phases of the project.

In addition, the markets for the recreation development and the regional commercial on Stewart Tract need to be identified. Information regarding the origins of the visitors to the amusement parks and the regional shopping/entertainment should be included in the documents. This information would assist in evaluating the assumptions underlying the traffic modelling.

The proposed new interchange at Paradise Road and I-205 illustrates the need to know market and trip assumptions. Even by 2025, with presumed full buildout of Stewart Tract, only a single-lane on-ramp is needed to westbound I-205, according to the DEIR. This would be the most direct access from the amusement parks on Stewart Tract to the Bay area, and it would be expected that additional capacity would be needed. This, however, cannot be evaluated without knowing the assumptions on which the traffic modelling is based.

SPECIFIC COMMENTS

E. Regional Commercial

Alternative E adds 148 acres of regional commercial to the project on Stewart Tract. This commercial is intended to a combination shopping/entertainment center, comparable to City Walk at Universal Studios in Los Angeles or Mall of America in Minneapolis.

A proposal of this magnitude would normally receive extensive market analysis and environmental and financial/fiscal review. In the Addendum to the Specific Plan and in the DEIR it is given only minor consideration in relation to the overall project. Access, with respect to location and modes, should be more fully discussed. Trip generation by the complex should be identified separately from other components of the Stewart Tract proposal.

As noted above, market assumptions regarding this complex are needed. With the present development of the Tracy Mall and the vacancy of some the nearby factory outlet stores, it seems unlikely that the market would support this type of complex in Phase I, as provided for in the Addendum. It could be risky to assume that the complex will generate revenues beginning with Phase I.

F. Existing Land Uses

The Specific Plan and the DEIR ignore some existing land uses on the project site and land uses adjacent to the site, all presently in the unincorporated area. These uses include the existing freeway service development at the Mossdale interchange and the mobile home parks on the San Joaquin River. Impacts on these uses should be considered.

G. Planned Land Uses in the Unincorporated Area

The County General Plan for the Mossdale interchange area is ignored. The County has approximately 70+ areas of Freeway Service Commercial planned adjacent to the Mossdale interchange. Impacts of the project on these uses need to be addressed. The County freeway service area is more likely to develop if the Gold Rush City project is successful. In addition, there will be growth- inducing impacts on adjacent unincorporated lands.

H. Mossdale Interchange

The DEIR (p.V-97) states, "Even limited use of the Mossdale interchange could cause traffic problems if a road connection between the interchange and the area of Stewart Tract west of the S.P.Railroad track is provided." No mitigation of this impact is given, nor is any unavoidable impact noted. The EIR should include mitigation that prevents access to the amusement parks, and the regional commercial complex from the Mossdale interchange.

The EIR needs to recognize that there will be traffic movement from the existing and planned uses near the Mossdale Interchange to the new Stewart Tract development. These uses include any parking for transit (if some parking is still proposed under Alternative E), the previously mentioned freeway service uses, the farmer's market, the wastewater treatment plant, the marina and residential uses, and agricultural uses. The EIR should include traffic projections for the interchange from the existing and planned (City and County) land uses.

I. San Joaquin River Crossings

The Specific Plan proposes at least two new crossings of the San Joaquin River, but does not contain a description of the proposed bridge structures. The impacts of the bridge structures on the river (including on the fishery and boat transportation) need to be discussed in the DEIR.

The base maps show a river crossing of Yosemite Avenue, but there is none existing. If this is part of the project proposal, it should be discussed in the plan and EIR. If the crossing is an error, does that mean that additional traffic would occur on I-5?

J. Access

Local: During Phase I Mossdale interchange is to provide access to Stewart Tract. The access from the interchange to the proposed development needs to be shown and discussed. Presently, the only access from the interchange is via Manthey Road and Stewart Road.

The discussion of Manthey Road in the Specific Plan and DEIR seem to be inconsistent as to whether or not it will ultimately terminate at Mossdale Crossing Park.

Freeway: The Specific Plan and the DEIR need to define further the access to the project at specified phases of development from all directions, including from State Route 99 and from I-5 northbound.

K. Freeway Traffic and Improvements

The DEIR (p.V-69) states that freeway improvements needed by 2017 for Base Case conditions (without the project) "would also provide acceptable peak hour operation for Base Case + Project traffic at all locations, with the following exceptions:

g. I-205 west of MacArthur Drive would require additional widening to 10 lanes.
h. I-5 north of Roth Road would require widening to 10 lanes."

The mitigation proposed for this deficiency is the project's "appropriate fair-share of regional traffic improvement mitigation fees." Given the extent of the project's impact on the roadway system, it appears unlikely that these improvements and others identified in the DEIR can all be funded only through the normal traffic mitigation fees. The EIR should discuss the anticipated amount of such fees from the project and compare that with the cost of all the improvements expected to be funded through that mechanism. While CEQA does not require a financial/fiscal analysis, it does require that proposed mitigation measures be feasible and adequate to address the impact. In this case it appears that the mitigation may not be adequate for a project of this magnitude. The impacts of this project on the transportation network need to be completely mitigated.

L. Transit

The transit discussion is deficient in both the Specific Plan and the DEIR. Transit needs to be heavily used in order to relieve the congestion that will result on the roadways if this project develops to the extent envisioned. According the DEIR (p.IV-26), transit is to provide for 25-30% of the trips, depending on the year. This is an ambitious assumption.

The proposed transit program, both rail and bus, should be fully described in the Specific Plan, with phasing included. The Mitigation Monitoring Program in the DEIR, under the air quality topic, refers to a staged program, starting at or soon after the park opening. The Mitigation Monitoring Program should specify the timing of the development of the transit program.

Alternative E eliminates the multi-modal transit facility and park and ride lot for 25,000 cars on the east side of the SPRR. It is not clear if, or where, the transit facility will be located, although reference is made to a skyway extending from it. Table II-5 of the DEIR states that Alternative E provides 10.0 acres for transit "parking" as opposed to 9.0 acres in the Specific Plan. What happened to the multi-modal transit "facility"?

The Specific Plan should describe the transit facility that is actually being considered under Alternative E, including its location, the modes it will serve, its access, the assumed origins of incoming trips, the assumed destinations of outgoing trips, and the facility's anticipated use over the development of the project. The DEIR should evaluate transit's effectiveness in relieving congestion and attracting users. A diagram showing the transit facility's relationship to other land uses and transportation facilities (roadways, rail, light rail, bikeways) would be helpful.

With the elimination of the large park and ride lot, three smaller lots are proposed at distant locations from the Stewart Tract development. The DEIR notes that the city has not accepted this proposal. The Specific Plan should fully describe the proposal for park and ride facilities, and the DEIR should evaluate these as to access, useability, effectiveness, and compatibility with adjacent land uses.

M. Flood Protection

The Specific Plan estimates that $15.7 million will be needed for levee improvement, all to be expended in Phase One. The levee program is confusing as presented in the documents. It should be fully described in the Plan and analyzed in the DEIR. The depth of the 100-year flood should be cited.

Page 33 of the Specific Plan refers to Chapter V for discussion of levee improvements, but Chapter V contains no discussion of levees. The DEIR (page II-13) suggests that the 100-year flood protection might be phased, using cross levees. If this is the case, the impact of these cross levees on the land use and phasing should be discussed. Other portions of the DEIR suggest that Golden Valley Parkway is to be used as a levee and that levee improvements may be phased so that only a portion of Stewart Tract is initially protected. This should be clarified in the DEIR. (Also see discussion of Habitat below.)

Since the levees on Stewart Tract will need to provide 100-year flood protection, they will be higher than levees along the opposite banks of Paradise Cut, Old River, and a portion of the San Joaquin River. The impact on the land protected by these levees needs to discussed in the DEIR. If the 100-year flood depth on these lands would increase, the flood increase and depth should be specified.

The DEIR Mitigition Monitoring Program (page I-18) should note that the Federal Emergency Management Agency is the agency that needs to verify completion of any levee work.

N. Habitat

The Specific Plan should reference the Habitat Management Plan that has apparently been prepared and give more details of the Plan, such as what occurs on the site and needs mitigation and what the mitigation would be if a Swainson's hawk nest tree is found on the site during construction.

The Plan apparently requires retention of riparian vegetation. This could be in conflict with a levee improvement plan. One portion of the DEIR states that the waterway sides of the levees are not to be disturbed, while another statement in the DEIR notes that impacts to the waterways could occur as a result of levee improvements.

O. Marina

The impacts of the proposed marina are not outlined in the DEIR, which states that the marinas are to be evaluated when specific proposals are made. The Specific Plan mentions the low water levels in some of the nearby waterways. Adequate environmental assessment of the marina would need to consider this, as well as the multitude of construction and operational impacts that such a project creates. The need for further environmental assessment should be included in the Mitigation Monitoring Program.

P. Impacts on County Recreation Facilities

The impacts of the proposed development on the following facilities need to be considered: Mossdale Crossing Park, Dos Reis Park, and Durham Ferry State Recreation Area. The proposed development will create regional recreation demand for public facilities without the proposed expansion of the County's regional facilities.

The development would attract demand for camping and no RV facilities are planned until Phase 2. The expansion of camping facilities in Dos Reis Park should be considered as mitigation for camping demand, with the Stewart Tract project proponents responsible for this expansion to serve visitors to their developments.

The river park in Mossdale Village can be expected to serve some regional recreation demand. A bikeway should extend the length of the development along the San Joaquin River, with a connection over the River to Stewart Tract. Parking for regional use of the facility should be provided. Fishing facilities should also be considered in conjunction with any marina development.

If Manthey Road is to be closed at Mossdale Park (DEIR, page II-9), would Golden Valley Parkway, as it is proposed in Alternative E, provide access to the park? Park access should be available from Stewart Tract as well as Mossdale Village.

Q. Williamson Act

The majority of the project site is under Williamson Act contract (DEIR, Figure III-6). The DEIR should review the findings that the City will have to make to remove the lands from contract and the feasibility of making the findings. Any lands for which Notices of Nonrenewal have been issued should be noted.

R. Visual Impacts

The DEIR discusses the sky glare that will occur from the project, but does not address an existing visual condition: fog. The fog appears to be denser at the San Joaquin River than anywhere along the freeway system in San Joaquin County. The impact of fog on the project needs to be included in the DEIR. Fog is briefly discussed under air quality, but traffic hazards due to the fog and the microclimate at the River are not addressed.

S. Timing of Improvements

The Specific Plan and the EIR should contain a timetable of improvements. It is not clear when roadway improvements, for example, will be needed and when they will be provided. Roadway traffic volumes at specified phases of the project should be given. The phases of the project should be described in terms of the number of dwelling units for permanent residents and the number for visitors, the number of employees, and the square footage of development.

T. Cumulative Impacts

The cumulative impact discussion in the DEIR should include cumulative impacts with buildout of other Lathrop projects and those of the near-by cities and the County. Cumulative impacts on the roadways are particularly critical. Development around the Mossdale interchange, as shown on the County General Plan Map, should be considered as part of the cumulative impact analysis.

U. Growth-Inducing Impacts

The DEIR is probably correct in assuming that the project, if successful, will promote additional development in the area which may be economically beneficial. However, such additional development, under CEQA, needs to be considered in terms of its potential physical impacts. The land around the Mossdale interchange, for example, also needs to addressed here regarding growth-inducement resulting from the proposed project. Development in this area is a much greater possibility than development on Roberts Island, which has been considered in the DEIR.

V. General Plan Consistency

It appears that the current project proposal, with Alternative E, is different from the Lathrop General Plan. If so, the General Plan should be amended. This would trigger a review under the Congestion Management Program.

The Regional Commercial and the large amount of residential development were not included in the City General Plan and the transportation network was not as now being planned. Under State law, a Specific Plan must be consistent with the General Plan.

W. REVIEW PROCESS

The comments provided above should only be considered partial comments on the Specific Plan, the Addendum, and the DEIR. We would strongly recommend that the Specific Plan and the DEIR be revised to reflect the project as now proposed (without improvement of the Mossdale interchange and the transit provisions east of the SPRR and with the regional commercial). The documents should then be circulated for public review.

It is not our intent to delay the project, but only to ensure a thorough review. The Stewart Tract portion of the project could provide a large number of jobs in the County and diversify the County's economy, but in so doing it could cause significant transportation impacts unless adequate mitigation is provided. Mitigation should be the responsibility of the project proponents and this project should not adversely impact the County's transportation network. A full disclosure EIR is necessary not only to satisfy the requirements of CEQA but also to permit the City to negotiate a Development Agreement that protects the City and assists in mitigating both on and off-site impacts.

X. NEED FOR COORDINATED EFFORTS

We see these documents as the first step in coordination among the various jurisdictions on the project. It is important that Lathrop, the other cities of the County (particularly Manteca, Tracy, and Stockton), the County, COG, and Caltrans work together on the challenges that the project represents. Lack of adequate planning for facilities, services, and mitigation of environmental impacts could have serious consequences for all jurisdictions and the residents and businesses within the County.

Thank you for the opportunity to review these documents. We hope that the City will agree that revised documents would provide necessary clarification of the project, its impacts, and mitigation, and that we will have an opportunity to further review the project in these documents. We also anticipate receipt of the financial/fiscal evaluation and later the Final EIR prior to the city public hearings on the project.

Please feel free to contact me at 468-3146 if you have any questions regarding my comments.

Sincerely,

Peggy Keranen

Peggy Keranen
Deputy Director

PK/jjf
c.0.6.00.11
Co.Administrator: David Baker, Richard Laiblin
Public Works: Henry Hirata, Manuel Lopez
Chet Davisson
COG
PK/LTHSP.LET

RESPONSE TO COMMENT LETTER NO. 13 - S.J. County Community Development Dept.

OVERALL COMMENTS

A. Need for Clear Project Definition. The project description contained in the Draft EIR covers 33 pages, including illustrations and tables. Further clarification is being provided by publication of a single Specific Plan document which consolidates the original Plan document and the Alternate E supplement (the "Consolidated Specific Plan"). The EIR will be relied on by the City for adoption of the Specific Plan, the Development Agreement, the Habitat Management Plan and associated documents and applications for the sphere of influence amendment and annexation of the Project site to the City of Lathrop, as well as future project approvals adequately analyzed by the EIR. The comment lacks specificity as to what further clarification is necessary or appropriate in consideration of the extensive description already provided in the Draft EIR.

B. Specific Plan. As noted under A, above, the Specific Plan document and its Alternate E supplement are being consolidated as a single document.

C. DEIR. Unlike the Specific Plan document, the discussion of project proposals which no longer are considered valid remains useful to the purposes of the EIR as an informational document. The Final EIR begins with an Executive Summary (see Part I of this document) which provides the clarity necessary to understand which mitigation measures apply to the consolidated Specific Plan document which now embodies Alternative E as the Project.

The references on p IV-25 of the DEIR to p 58 of the Specific Plan should be made instead to pages v-vi (Executive Summary) and p IV-2 ("Infrastructure") of the Consolidated Specific Plan. Similarly, the reference on p IV-19 of the DEIR to pp 72-79 of the Specific Plan should be made instead to pp II-4 and II-5 ("Plan Objectives") of the Consolidated Specific Plan.

The reason for separating the discussion of impacts mitigated by project proposals in Part IV from the discussion of other impacts and mitigation measures in Part V is made clear in the introduction in Part IV. CEQA has for years encouraged project revisions to mitigate impacts. A separate Part (IV) was selected to indicate the impressive extent of environmental analysis conducted during Plan preparation which influenced the selection of Plan proposals.

D. Project Assumptions. Project assumptions were considered sufficiently important to include in a separately published Technical Appendix on file with the City of Lathrop which was made available for review during the public review period on the Draft EIR. Formerly published in three volumes, the Technical Appendix has been consolidated as a single volume to reflect the proposals of the "Consolidated Specific Plan".

CEQA does not require discussion of market analysis in support of proposals of the Specific Plan as part of an EIR. However, such analysis was prepared for Stewart Tract development with the reports held as confidential proprietary information by the Project sponsor and the City.

SPECIFIC COMMENTS

E. Regional Commercial. As indicated under D, above, CEQA does not require discussion of market analysis in support of Specific Plan proposals. The specialized regional shopping and

entertainment center proposed is intended to draw heavily upon tourists and visitors to Stewart Tract. While intended to be phased in over 20+ years, phase 1 of the center will not be constructed until the characteristics of the market have been established.

As to requirements for environmental analysis dictated by the regional center proposal, the potential impacts on traffic and air quality become the area of primary concern. The traffic modeling completed for the Project indicates that the traffic impacts of the regional center can be mitigated, and that the total impact upon the freeway system under Alternative E will not exceed (and in fact will be less than) total traffic at buildout under the Specific Plan as originally proposed prior to the development of Alternative E. The importance of access and distribution of traffic to and from the site is discussed under the Response to Comment Letter No. 8.

With less traffic than the original proposal, the impacts on air quality will be less for all pollutants, including Carbon Monoxide (CO) concentrations at signalized roadway intersections. No CO violations will result from regional center traffic. It should also be noted that the regional center will not generate impacts of any kind if it never develops. The proposal, and the impacts analyzed, assume a worst-case situation to assure that adequate mitigation is possible.

F. Existing Land Use. The existing land uses cited have not been ignored by the Specific Plan and DEIR. The existing freeway service development at the Mossdale interchange and marina development served by the interchange both north and south of the I-5/I-205/S.R. 120 freeway merge will continue to be served by the Mossdale interchange. Under Alternative E, the traffic capacity of the interchange cannot be exceeded.

The requirements for access to and from the freeway by gravel hauling operations served by the Mossdale interchange are protected under traffic proposals of Alternate E which will enable trucks to utilize Manthey Road access to the Louise Avenue interchange, thus reducing existing and future gravel truck impacts on the freeway merge.

Any potential for impacts on farmlands west of Paradise Cut has been eliminated by retaining and enhancing the character of Paradise Cut as a buffer of wildlife habitat between Stewart Tract development and farmlands to the west.

G. Planned Land Uses in the Unincorporated Areas. Of the 70+ acres of freeway commercial proposed by the County General Plan at the Mossdale interchange, 50 acres will be annexed as part of Stewart Tract development. The remaining 20+ acres will not be adversely impacted, as explained under F, above. [see last para. Under F, above regarding growth inducing impacts.] The Specific Plan will not have any greater effect in this area than will the County General Plan.

H. Mossdale Interchange. Proposals of the Specific Plan (Alternative E) and traffic mitigation added in the Response to Comment Letter No. 2 preclude the potential for adverse impact cited on p. V-97 of the Draft EIR. This was a condition imposed by Caltrans in determining the limited extent to which the interchange can be used in the future.

All of the uses cited which require access to the Mossdale interchange have been considered in determining the traffic capacity of the interchange.

I. San Joaquin River Crossings. The impacts of bridge construction are addressed under the Response to Comment Letter No. 12 [para. C.5.], and Response to Comment Letter No. 6 [para.

A and B]. To the extent any specific Project improvements (i.e., bridge crossings) would have the potential to affect waters of the United States (including impacts on the fishery and boat transportation), they will be approved only after all necessary permits required from State and Federal agencies have been obtained.

As discussed in the Response to Comment Letter No. 2 [para B.8], Caltrans' recommendation to delete the Yosemite Avenue/S.R. 120 interchange connection to the Mossdale interchange as part of the Specific Plan has been accepted, because it would overload the traffic capacity of the Mossdale interchange. This extension would be considered in the future (as proposed by the General Plan) only in the context of removing or modifying the existing Mossdale/Manthey interchange ramps.

J. Access. Under the Specific Plan (Alternative E), the existing Mossdale interchange will continue to be used for limited access to adjacent lands (without change), but it will not be used as a point of access for the majority of Stewart Tract development west of the Southern Pacific railroad.

As noted in the Response to Comment Letter No. 2 [para B.10], in order to adhere to the capacity of the existing I-5 Mossdale/Manthey interchange, Manthey Road is anticipated to be converted to one-way northbound from Stewart Tract to Mossdale Village upon the extension of Golden Valley Parkway from Mossdale Village to Stewart Tract (**See Exhibit A** of this document).

As noted in the Response to Comment Letter No. 2 [para B.36], under Alternative E, the existing Stewart Road connection from the Mossdale/Manthey interchange across the S.P. Railroad is closed. However, the crossing is maintained for access from development west of the railroad tracks to the transit parking area.

Access to the Project from State Route 99 will be via State Route 120, and access to the Project from I-5 northbound will be via the Louise Avenue/I-5 interchange.

J. Access. Access to areas of Stewart Tract west of the S.P. Railroad from the Mossdale interchange has been denied by Caltrans. All access to areas west of the S.P. Railroad to serve Phase 1 will be from the Louise Avenue interchange, via Gold Rush Boulevard. With regard to Manthey Road, see responses B.2 and B.3, Comment Letter No. 2. Access from all directions to West Lathrop is already described in the Specific Plan and DEIR.

K. Freeway Traffic and Improvements. The funding questions raised are discussed under the Response to Comment Letter No. 2. In discussing Caltrans comments on the Draft EIR at a meeting with Caltrans staff, it was agreed that a freeway impact fee will be required and that all cities and the County will have to participate with fair-share allocations assigned to development projects which clearly will impact the freeway system. At this point, Caltrans does not know what costs will be involved as a basis for a fee structure. However, Lathrop's commitment to a fair-share approach is reasonable and appropriate. By this commitment, the City is not also required to mitigate traffic impacts that may be generated by other development in the county and its cities.

The combined impacts on the freeway system of development under the general plans of other local jurisdictions will be far greater than that envisioned by the West Lathrop Specific Plan. Moreover, developments are proposed frequently in the County and other cities of the County

which will impact the freeway system, which do not assure the level of mitigation suggested by this comment. This subject is deserving of discussion and negotiation through the auspices of the SJC COG and Caltrans at an early date so that reasonable fees for freeway improvements by all local jurisdictions can be established. Lacking such agreement, Lathrop can only pledge itself to a responsibility for its "fair-share" of the costs that may be involved.

L. Transit The general thrust of the comment that more detail on transit commitment is needed is accepted. However, the level of detail requested is premature at this stage. The Draft EIR calls for a more defined commitment to transit (see pp. V-100 to V-102). The City is discussing this need and expects to have appropriate language included in the Development Agreement with the Project developer that will assure a continuing and increasing commitment in support of both on-site and off-site transit as phased development and the need occurs. It should be understood that the assumptions used with the COG model for developing traffic projections for various horizon years are very conservative in the percentage of total traffic reaching Stewart Tract via various modes of transit, and have been accepted as reasonable by Caltrans and the COG. This was required by Caltrans and the COG to assure adequate analysis and mitigation under worst-case conditions.

With respect to the three smaller park and ride facilities discussed on p. V-101 of the Draft EIR, Caltrans request for these facilities has since been accepted [see B.39. under the Response to Comment Letter No. 2].

M. Flood Protection. [See Comment Letter No. 12 (para. C.2) and Response to Comment Letter No. 22 (para. B)].

N. Habitat. The Habitat Management Plan (HMP) for Paradise Cut and off-site mitigation lands will be approved by the Department of Fish and Game and adopted by the City prior to approval of the Specific Plan, and will be implemented concurrently with the development of the Project. Under the HMP, all development of suitable Swainson's hawk foraging habitat within the Project site will be mitigated by the preservation of other suitable habitat -- either on-site in Paradise Cut or off-site -- at a ratio of 0.5 acres of mitigation land to 1.0 acres of suitable foraging habitat converted to unsuitable uses. On- and off-site mitigation lands will be dedicated and managed exclusively for the purpose of habitat preservation and enhancement.

The statements referred to in the Draft EIR regarding levee vegetation do not in fact conflict. The statement that impacts to the waterways could occur is only made in the context of impacts that could occur if mitigation is not provided. Subsequent statements are then provided to assure adequate mitigation.

O. Marina. As stated in the comment, "...the marinas are to be evaluated when specific proposals are made." Further environmental evaluation will be conducted when applications for marina development are received by the City. Since further evaluation is offered as a need to mitigate the potential impacts of marinas when sufficient information is available regarding the design of such improvements, it will be included in the Mitigation Monitoring Program.

P. Impacts on County Recreation Facilities. The Specific Plan provides for extensive and varied recreational facilities and services of a regional character to the point where it will enhance recreational opportunities for the population in the region on a macro scale. By contrast, the recommended expansion of camping facilities at Dos Reis County Park would not be of value to

tourists with RV's visiting Stewart Tract because of its distance from the Stewart Tract and relatively small land area. While RV camping area is not planned for Stewart Tract until Phase II development, facilities will be provided on a temporary basis during Phase I if the demand becomes apparent. Lacking permanent facilities until Phase II, RV parking will be available at commercial lodging facilities for those who would stay in lodging facilities overnight.

A bikeways plan for the City provides for extensive bikeways in both Stewart Tract and Mossdale Village which are reflected in Specific Plan proposals. Extending a bikeway over the San Joaquin River on both the Golden Valley Parkway and Gold Rush Boulevard expressway bridges is a proposal of the City's Bikeway Master Plan. The West Lathrop Specific Plan will be adopted in compliance with this proposal of the Master Plan.

Access will be provided to Mossdale Park from the southern end of Manthey Road even when Manthey Road is terminated as a means of access to Stewart Tract and its function is replaced by Golden Valley Parkway.

Q. Williamson Act. [See response A.3. to LAFCO's Comment Letter No. 10] As noted in this response, the City plans on canceling a relatively small number of Williamson Act contracts as needed to allow the first part of Phase I development on Stewart Tract and possibly Phase I development on Mossdale Village. Given the penalties associated with contract cancellation and the City's commitment to maintaining agricultural use as long as possible, cancellation will only be used to a limited extent. Further, Williamson Act contracts will be canceled only to the extent the City determines that the appropriate findings can be made as required under the Williamson Act.

R. Visual Impacts. The impact of fog conditions on Project operations is discussed indirectly in terms of the problems associated with traffic on the freeway merge, and is one of several reasons why full Project access from the Mossdale interchange will be prohibited. Dense fog conditions together with temperature will combine to discourage heavy tourist activities during the fog season (generally mid-December through February), and may even require that commercial recreation operations be suspended or canceled. As far as impact on permanent residents of Stewart Tract, the need for caution will be no greater than it will anywhere else in central San Joaquin County when dense fog conditions develop and prevail overnight and sometimes for several days. When fog is dense throughout the area, conditions near the river will be ones of degree rather than kind. During peak fog days, and especially at night, fog is often uniformly dense throughout a broad area of the county.

S. Timing of Improvements. Improvements are being required in two different time frames. The first is by broad phase of development, which may extend over a period of 5-10 years. The second and more important stage is in connection with specific project development. The Specific Plan and Draft EIR call for all needed improvements to be in place at or before the time when they are needed. Timing of need will be determined based on performance standards that will be included in the Development Agreement.

T. Cumulative Impacts. Cumulative impacts on roadways are taken into account by the COG model used for traffic projections (and also by the County's traffic model). In addition, the COG model weighs impacts from development within the 4-county region. Development around the Mossdale interchange in accordance with land use policy of the County General Plan was factored into the COG model runs for various horizon years. Other possible impacts of

development in the County near the interchange are too negligible to influence cumulative impact analysis.

U. Growth-Inducing Impacts in Vicinity of Mossdale Interchange. Development in the vicinity of the Mossdale interchange (either with or without the Project) is strictly limited because of limitations on interchange capacity. Accordingly, new development (other than that under the proposed Project) will not be permitted unless and until the Mossdale/I-5 interchange is improved or other transportation system improvements allow for sufficient additional traffic capacity in this area.

V. General Plan Consistency. It is incorrect to conclude that land use proposals under Alternate E are not consistent with the Lathrop General Plan. All of the commercial development and residential development envisioned by the Specific Plan is consistent with policies and proposals of the General Plan. At the beginning of the Specific Plan process, the City carefully reviewed and identified the extent of flexibility allowed under the General Plan in the location and arrangement of land use on Stewart Tract to ensure that the Specific Plan would be consistent with the General Plan.

W. Review Process. As noted previously, the two Specific Plan reports published (the original and Alternative E) have been consolidated into a single document, without changing any of the features upon which environmental analysis is required. The Draft EIR reflects a logical sequence of events that occurred in the planning process, culminating with the selection of Alternate E.

An EIR must be recirculated if "significant new information" is added which indicates that (I) a new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented; (ii) a substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance; (iii) a feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it; or (iv) the Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. [CEQA Guidelines § 15088.5.] None of these circumstances are applicable in the present case, and therefore the Draft EIR need not be recirculated. No new information has been added to the EIR that indicates that the Project will have new or more severe environmental impacts than those identified and analyzed in the Draft EIR. In addition, there is no new information that would indicate that there is a feasible project alternative or mitigation measure that would clearly lessen the significant environmental impacts of project but that are not being implemented

X. Need for Coordinated Efforts. Lathrop intends to continue the process of coordination with other affected jurisdictions that has continued since the initial stages of preparing the West Lathrop Specific Plan and EIR in 1993.

CITY OF STOCKTON

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COMMENTS REGARDING WEST LATHROP SPECIFIC PLAN AND DRAFT ENVIRONMENTAL IMPACT REPORT

The City of Stockton would like to thank you for the opportunity to review the West Lathrop Specific Plan and Draft Environmental Impact Report (Draft EIR) and has comments regarding both documents. In addition, the City of Stockton would like to incorporate, by this reference, all applicable comments regarding the Specific Plan and Draft EIR as submitted by the San Joaquin County Community Development Department (dated August 17, 1995), San Joaquin County Administrator (dated August 21, 1995), the San County Public Works Department (dated August 18, 1995), and by the San Joaquin Regional Rail Commission (dated August 18, 1995) (copies attached).

In accordance with your conversation with Senior Planner Michael Niblock, we greatly appreciate your cooperation in granting the City's request for a two-day extension for the submittal of our comments on the proposed Specific Plan and Draft EIR. Furthermore, the three (3) additional copies of these voluminous documents, which you graciously provided for the City Manager's office and the Municipal Utilities and Public Works Departments, have been reviewed and a coordinated set of City comments are provided below for your formal consideration.

A

PART 1 - COMMENTS ON THE LATHROP SPECIFIC PLAN

This project involves the urbanization of two large tracts of land, one a 1,161 acre proposed residential development, Mossdale Village, adjacent to the City of Lathrop's limits, and the 5,794 acre Stuart Tract on which will be developed a theme park called Gold Rush City. Together these projects make up the West Lathrop Specific Plan. Although this proposal is not adjacent to the City of Stockton, Lathrop's City limits

abut Stockton's Urban Service Area and Sphere of Influence boundary to the south at Roth Road. Therefore, impacts to the City of Stockton are likely and the City has the following comments:

1. The Specific Plan should provide an analysis of population with forecasts of anticipated population growth at various stages. There does not appear to be anything that will indicate the population of these two projects at buildout. It is difficult to generate utility and transportation system demands without such figures.

2. The plan provides for the development of over 11,700 units of housing but there is no analysis of how this figure matches with the remaining vacant land in Lathrop's General Plan. What will Lathrop's population be at the buildout of its entire General Plan, including West Lathrop, and at what period in the future will this occur? This must be analyzed in the Specific Plan. What impact will such an increase in size have on the existing City of Lathrop?

3. The addition of 7,000 acres of vacant land for urbanization appears to be based on the assumption that this land will cause a stimulation of growth for San Joaquin County above the estimates made by the State Department of Finance (DOF). There is insufficient analysis to support this assumption. An alternative scenario is that the economy of the region will support a population figure identified by DOF regardless of whether West Lathrop is developed or not. The addition of this land would then only serve to redirect new development and economic opportunities away from Stockton and other Cities in the County which are designed to accommodate this urbanization, with resultant negative economic impacts on existing cities. The EIR should also address the impact on existing zoned industrial land elsewhere in the County considering that the City and County have worked cooperatively to create an "Enterprise Zone" for a large area of south Stockton which has been officially designated as such by the State Department of Commerce. Competition between the proposed project and existing cities for scarce commercial, industrial, and job creating enterprises could negatively effect the economic interest of San Joaquin County as a whole, and/or of the City/County Enterprise Zone in particular.

B. PART 2 - COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)

A. General Comments

1. There seems to be no relationship between the "Summary of Significant Adverse Environmental Impacts Reduced or Avoided Through Policies and Proposals of the Specific Plan" and Part IV, which it references. If Part

IV is supposed to provide the discussion/impacts/mitigation needed to support this list, there should be a cross-reference to where specifically in Part IV each item is addressed.

2. Under the "Summary of Significant Adverse Environmental Impacts That Feasibly Can Be Mitigated or Avoided", there are no mitigation measures listed for Wastewater Management, page I-6.

3. We wish to compliment the City of Lathrop Planning staff and the DEIR preparers for providing the significance criteria in the discussion of each impact.

4. It would appear that the information provided prior to the mitigation measures in the "Summary of Significant Adverse Environmental Impacts That Feasibly Can Be Mitigated or Avoided" would be discussed, and preferably expanded on, either under the discussion of environmental setting or Part IV, but in at least the case of "Compaction and Overcovering of Soils" there seems to be no such discussion. Based on the information on pages III-19, 20 and IV-3, this impact and mitigation measure came out of thin air.

5. If agricultural land conversion will "remain an unavoidable significant impact" as stated on page IV-8, how can it be considered a significant adverse environmental impact that can be mitigated or avoided as shown on page I-5. And if these are supposed to be two separate impacts, it needs to be clarified; given the format in which it is shown, the implication is that loss of agricultural land is mitigable, which it is not by the EIR's own statement. This comment applies to another section, i.e., Light and Glare.

6. How can Seismic Hazards be listed as a significant impact that can be mitigated or avoided, page I-6, when page IV-10 states that it cannot be completely mitigated, and will remain a significant unavoidable impact?

7. Page IV-18, "Urban Design" should be corrected as follows: Evaluation of ... specified that the issue is ~~whther thcb~~ whether the proposal would result in the "~~creatrion~~creation of an ....

8. Need to list any documents, reports, plans, etc. that were used to prepare this document, as required by CEQA.

Traffic Issues

1. Regional impacts, beyond those identified in the DEIR, on the movement of goods and services through this Specific Plan area must be discussed. The effects on goods movement must be addressed as this area is a primary corridor linking the San Joaquin Valley and the Bay Area. This document indicates that the areas of most significant regional impacts would occur westerly along I-205 through Tracy to its interchange with I-580, along I-5 between Lathrop and Stockton, and along SR 120 between I-5 and SR 99. Unacceptable freeway operations on these segments will cause diversion to, and will negatively impact upon, surface streets, such as Manthey Road, the Arch-Sperry Road Corridor, and Airport Way, in Stockton. Yet the impacts of the project on these roadways is not addressed. Further, the scope of the analysis needs to be expanded to include impacts to Interstate 5 north to the Crosstown Freeway, as well as on the Crosstown Freeway itself and needs to fully address the impacts of Alternative E.

2. As written, the mitigation measures for impacts to the freeway system are not compulsory and may not be acceptable, realistic and adequate. Mitigation measures suggest that the impacts should be mitigated through the payment of regional impact fees and through the implementation of Transportation Demand Management (TDM) measures for project employment uses. This type of project does not effectively lend itself to TDMs.

3. Page II-23, Development Concept, Paragraph 4. The statement that "many of these guests (8,000 - 12,000 guests per day) will originate from surrounding hotels and other attractions on Stewart Tract" is misleading. It would appear, at best, some "of these guests would originate from surrounding hotels and other attractions on Stewart Tract." It is more likely that due to the nature of the project and its close proximity to valley towns and cities, the project has the potential to generate a significant number of local trips on a daily basis, not to mention the arrival/departure trips of the longer term (multiple day) guests. This basic information should be disclosed quantitatively within the text of this document.

4. Trip generation rate reduction of 10-40% may be valid for local traffic but were these same assumptions made for regional/resort traffic as well? Actual rates and reductions should be clearly identified for all proposed types of land uses in the text of this document. Based on a

general review of the trip generation rates contained in the technical appendix, it appears generation rates may have been underestimated in the range of 20-25%.

5. Page II-28. The park and ride lot originally planned to be located in the vicinity of the Mossdale interchange was "removed from the site to three locations at interchanges along the freeway system outside of West Lathrop." Where are the three sites and what resulting impacts are created? Is this consideration included in the Alternative E analysis?

~~6.~~ Air Quality Issues

Due to the City of Stockton's concern in regard to the overall air quality issues which impact both Stockton and Lathrop, the following information is being forwarded for purposes of clarification:

1. On pages III-26 and 27, the chart for the pollutant Suspended Particulates should instead be referred to as PM10 (10 microns).

2. Page III-29, 3rd paragraph: Air quality for the stated pollutants are exceeded for the region more than several days out of the stated period, use data available from the Air District. Also, California's standard for ozone is 0.09 ppm, not to be exceeded more than once in a three year period, verify with the San Joaquin Valley Unified Air Pollution Control District (Air District) and amend DEIR as necessary.

3. Employers within the Cities of Stockton and Lathrop are impacted by the Air District's Rule 2001 (Commute Based Trip Reduction Rule and the requirements thereof). Chapters III and V lack a discussion on this topic.

4. The Cities of Stockton and Lathrop are also impacted by the Air District's Regulation VIII, Valleywide PM10 and Ozone studies, and Title V permitting program. Chapters II and V lack a discussion on this topic.

5. Page III-32, 3rd paragraph, 2nd sentence, ... "by the end of 1977" is unclear. Is this the date the author intended to state?

6. IV-28, 1.a.: The application of various development designs has the potential of reducing air emissions resulting from a project, however specifically indicating that will be the case without quantifying how it will occur is an opinion and not factual. This should be clarified.

6. IV-28, 1.a.: The application of various development designs has the potential of reducing air emissions resulting from a project, however specifically indicating that will be the case without quantifying how it will occur is an opinion and not factual. This should be clarified.

7. V-83: What is "relatively good"? If the valley as a whole exceeds air quality standards more than 50 times a year, is that still "relatively good"? In addition, the discussion focuses on only winter or a summer air pollution problem. Discussion, instead, should focus on the winter "PM10" and "CO" issues whereas the summer focuses on the Ozone issues. These air quality issues affect all of the cities within the region.

8. Page V-85: Are agricultural operations and burning the major sources of particulates, if so, a chart indicating the respective sources and their emissions contribution should be included, similar to the chart on page V-88.

9. Certain air quality impacts are cumulatively and regionally significant and cannot be mitigated to a less than significant level, therefore, any approval of this project would necessitate a Statement of Overriding Consideration to that effect.

10. In general, and similar to Stockton's approach, each air quality mitigation measure needs to indicate that the owners, developers, and/or successors-in-interest shall implement the air quality mitigation measures, as specified.

11. V-93, last sentence: Spelling error, "are" should be "air."

D. Water Issues

1. Surface water must be used as a potable water supply for this plan in order to avoid an adverse impact to the overdraft of ground water in the East Central San Joaquin basin that cannot be mitigated. The EIR needs to address this issue with respect to the "American River Water Resources Investigation" study underway by the U.S Bureau of Reclamation and the "EBMUD/East San Joaquin Conjunctive Use Project" being prepared by the County. The EIR must evaluate South San Joaquin Irrigation District's ability to sell surface water to Lathrop unless it is surplus to that agency.

2. The continued use of groundwater in this location would further adversely affect salinity intrusion into eastern San Joaquin County and, therefore, well depth concerns, number of wells, well capacity and other

factors affecting the quantity and quality of the groundwater within the affected groundwater basin must be further addressed in the revised DEIR.

5. Wastewater Issues

1. Meeting wastewater water quality standards will be a major part of the decision-making process concerning which alterative is selected. Each alternative should fully discuss the design parameters used to determine the effluent discharge in relationship to the water quality standards that will be imposed for that alterative.

2. The EIR should describe the effluent standards that will be imposed by the Central Valley Regional Water Quality Control Board on a direct discharge from a new wastewater treatment plant to serve the project area, the feasibility and cost of attaining this level of treatment, and the time frame required in the NPDES Permit process.

3. The EIR should describe the impacts of Lathrop's direct discharge to the San Joaquin River on salinity, temperature, and dissolved oxygen.

4. The EIR should quantify uses of reclaimed water in the project area, and describe reclaimed water quality criteria and affordability of reclaimed water for these uses.

5. The City of Lathrop is not within the City of Stockton's General Plan Land Use Diagram nor the Urban Service Area (USA) boundaries and the extension of Stockton's utility services to areas outside the USA is contrary to the following General Plan policies:

    1. General Plan shall designate an Urban Service Area at or beyond the existing City limits where City services and facilities will be available for extension upon annexation and where future urban development shall be in conformance with City Council adopted master utility and circulation plans.

    2. The Urban Service Area shall be expanded only when applicable General Plan policies can be met and appropriate services and efficient infrastructure can be provided.

    Therefore, to extend services to the City of Lathrop, Stockton's General Plan will have to be amended and the City's Master Waste Water Collection and Treatment Plan revised. Furthermore, more detailed option-specific environmental documentation will be required in order to allow the City to offer sanitary sewer service to cities/jurisdictions

outside the General Plan Area. Lathrop shall bear the cost of preparation of these documents.

Again, the City of Stockton would like to thank you for the opportunity to comment on this project. However, given the substantive (quantitative and qualitative) inadequacies in these documents, the City of Stockton requests, as did San Joaquin County, that both the Specific Plan and the Draft Environmental Impact Report be revised, as requested above, and recirculated for public comment prior to the scheduling of any public hearings on the project. We would appreciate and hereby request receipt of any Notice of Availability for any subsequent environmental documentation and copies of such documentation, as well as, any amended Specific Plan documents for review by the City. In addition, please notify us of any other subsequent public hearings and/or other actions to be considered regarding this project. If you have any questions, please contact Senior Planner Michael Niblock of the Community Development Department, Planning Division at 937-8266.

DWANE MILNES
CITY MANAGER

DM:gp

Attachments

cc: City Council w/attachments
Tom Harris, City Attorney w/attachments
Cynthia Humbert, Assistant City Attorney w/attachments
Guy Petzold, Deputy City Attorney w/attachments
Lyn Krieger, Deputy City Manager w/attachments
Gary Ingraham, Assistant City Manager w/attachments
Bob Sivell, Enterprise Zone Manager w/attachments
Edward Chavez, Police Chief w/attachments
James B. Giottonini, Public Works Director w/attachments
Gregg Meissner, Senior Transportation Planner w/attachments
Morris Allen, Director of Municipal Utilities w/attachments
John Carlson, Community Development Director w/attachments
Gunter Konold, Program Manager w/attachments
Sam Mah, Deputy Director, Planning Division w/attachments
Michael Niblock, Senior Planner w/attachments
Dianne Keil Smith, Assistant Planner w/attachments
San Joaquin County Administrator w/attachments
San Joaquin County Community Development Department w/attachments
San Joaquin County Public Works Department w/attachments
San Joaquin Regional Rail Commission w/attachments

A:\LETTERS\CARDER

RESPONSE TO COMMENT LETTER NO. 14 - City of Stockton

A. PART 1 - COMMENTS ON THE (WEST) LATHROP SPECIFIC PLAN.

1.&2. Specific Plan Population Forecasts. The population forecasts in support of the Specific Plan population holding capacity are provided in the Lathrop General Plan [see pp. 2-6 to 2-10]. For the 20 year period from 1990 to 2010, the population forecast was approximately 30,000. Since little urban expansion has been possible over the past five years because of limitations in the City's sewage treatment capacity, and because several years may yet be required by the City to provide the necessary treatment capacity, the time when the 30,000 forecast is reached is set back to about 2017.

The permanent population holding capacity of the Specific Plan is approximately 29,270 which is not expected to be reached until the year 2025. The population holding capacity is determined by combining the populations shown in Tables II-3 and -4 of the Draft EIR for Mossdale Village and Stewart Tract, respectively. With a population holding capacity of 9,460, Mossdale Village is expected to buildout over a 20 year period to 2017. With a population holding capacity of 19,800, Stewart Tract is expected to buildout over a 30 year period. By 2017, Stewart Tract's resident population is not expected to exceed 8,000-10,000.

The impacts of these population forecasts on the City of Lathrop are reflected in the policies and proposals of the Lathrop General Plan.

3. Assumptions on Growth and Effects on Stockton. The population forecasts and holding capacities embodied in the Lathrop General Plan (and West Lathrop Specific Plan are not driven by State Department of Finance forecasts for the County and its cities, nor should they be. They are based on an independent analysis of the economic conditions that will exist in Lathrop both with and without development of the Stewart Tract. The State's forecasts do not reflect or assume that such a unique form of economic activity will emerge as is proposed for Stewart Tract.

It is to be noted that the population forecasts prepared by the State Department of Finance cover alternative futures under different assumptions on migration, birth and death rates and levels of economic activity. These forecasts are not intended as self-fulfilling prophecies. Lathrop's population forecasts and land use proposals of its General Plan are grounded in supportable forecasts of economic activity which reflect its strategic location in the region.

Proposals of the West Lathrop Specific Plan and General Plan reflect the City's right, as prescribed by State Law, to plan for the urban and economic future it desires to achieve. In this context, other cities have an equal right to achieve their goals by planning for that future which they desire and feel they can sustain.

B. PART 2 - COMMENTS ON THE DRAFT EIR

General Comments

RESPONSE TO COMMENT LETTER NO. 14 - City of Stockton

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3. Assumptions on Growth and Effects on Stockton. The population forecasts and holding capacities embodied in the Lathrop General Plan (and West Lathrop Specific Plan are not driven by State Department of Finance forecasts for the County and its cities, nor should they be. They are based on an independent analysis of the economic conditions that will exist in Lathrop both with and without development of the Stewart Tract. The State's forecasts do not reflect or assume that such a unique form of economic activity will emerge as is proposed for Stewart Tract.

It is to be noted that the population forecasts prepared by the State Department of Finance cover alternative futures under different assumptions on migration, birth and death rates and levels of economic activity. These forecasts are not intended as self-fulfilling prophecies. Lathrop's population forecasts and land use proposals of its General Plan are grounded in supportable forecasts of economic activity which reflect its strategic location in the region.

Proposals of the West Lathrop Specific Plan and General Plan reflect the City's right, as prescribed by State Law, to plan for the urban and economic future it desires to achieve. In this context, other cities have an equal right to achieve their goals by planning for that future which they desire and feel they can sustain.

B. PART 2 - COMMENTS ON THE DRAFT EIR

General Comments

would result from constructing one or more facilities to be managed separately by the City of Lathrop or connection to the Stockton plant.

1&2.b. Current limitations on the availability of land for effluent disposal at the Manteca facility may be satisfied in part by utilizing agricultural lands north of Yosemite Avenue both east and west of McKinley Avenue for the purpose. For the most part, these lands are being held as a buffer for existing industry rather than as sites having industrial potential. This acreage may also satisfy the need for land disposal if Site 3b adjacent to the existing Lathrop treatment plant is selected.

1&2.c. The wastewater management facilities required to serve West Lathrop will include collector sewers, pumping plants, a treatment plant (or expansion of the existing regional plant), storage, effluent reuse and disposal systems capable of phased expansion of each component of the overall sewerage system with minimum system disruption and acceptable cost.

1&2.d. Future development under the West Lathrop Specific Plan shall not be permitted until adequate sewerage system facilities can be assured at the time of occupancy and/or operation of new developments.

1&2.e. Treated effluent is to be reused to the greatest extent feasible, for landscape and crop irrigation.

1&2.f. If adequate wastewater management facilities are not available in time to serve first phase development of Stewart Tract and Mossdale Village, then affected developers may, at their own expense, construct interim wastewater management facilities that are compatible with long-range wastewater management plans of the City of Lathrop. The costs of connecting to long-term facilities at a later date shall also be the responsibility of initial and subsequent developers requiring interim facilities.

1&2.g. With the exception of the Manteca and Stockton regional facilities, all wastewater management facilities located within or connecting to sewage sources operating within the city limits of Lathrop shall, upon acceptance and approval by the City of Lathrop and the Regional Water Board, be operated by the City of Lathrop.

1&2.h. All costs for interim or long-range wastewater management facilities will be charged by the City of Lathrop to the parties receiving the services.

1&2.i. As Stewart Tract develops in phases over the time, a significant portion or portions of Stewart Tract will continue to be farmed and irrigated with treated effluent, and appropriate landscaping in developed areas will be irrigated with treated effluent when the quantities of effluent become sufficiently large to assure the feasibility of wastewater reclamation.

1&2.j. Wastewater management will be regulated at all times by Waste Discharge Requirements issued by the Regional Water Board.

3.a. The alternatives being examined by the City of Lathrop for the location of wastewater treatment and disposal facilities shall be examined as to their site-specific environmental

impacts; mitigation measures shall be applied to the selected location which are capable of eliminating all potential significant effects or of reducing such effects to acceptable levels.

3.b. Any alternative providing for a plant site within the Lathrop planning area will require a site for the temporary detention of influent in the event of a plant upset involving influent bypass of the treatment system. While such wastewater spills occur but rarely, the potential does exist and requires system design to the highest standards which will minimize this possibility.

3.c. The potential for off-site odors from the treatment plant shall be addressed by utilizing odor avoidance design of treatment facilities, primarily at the headworks, and trunk line conveyance facilities.

4. If land disposal of effluent is required to meet the long-term needs of Stewart Tract, land toward the westerly end of the Tract would be most appropriate for the purpose given the phasing proposals for development under the Specific Plan.

5. The potential for health hazards from spraying reclaimed effluent to landscaped areas will be avoided by meeting State standards for such disposal under Title 22 of the California Administrative Code.

6. Sludge will require disposal to an approved site. Options include landfill, spreading or discing on agricultural lands, or composting.

7. Either permanent or temporary sites for land disposal of effluent will require adherence to State standards. Effluent disposal needs for an interim plant may be achieved by utilizing lands available on Stewart Tract, between the railroad and freeway. Another possibility may be agricultural pastures along the McKinley Avenue corridor north of Yosemite Avenue.

3. Provision of Significance Criteria. The compliment extended is accepted with thanks.

4. Expansion of Discussion, pp. I-5 et seq. As a summary of impacts and mitigation measures, full description is not required nor desirable in the Executive Summary. This is consistent with CEQA Guidelines caution against redundancy in preparing EIRs. As the example given regarding compaction and overcovering of soils, discussion of the three mitigation measures listed in the summary on p. I-5 can be found in Part V, as follows:

- Drainage - see 1.a. on p. IV-3
- Dust control - see 1.d. on p. IV-4
- Problem soils - see 2.a. - 2.d., pp. IV-4 and -5.

5. Agricultural Land, Light and Glare and Seismic Hazards. These comments note that agricultural land conversion, light and glare and seismic hazards are listed as significant unavoidable adverse environmental impacts on page I-4 of the Draft EIR, and are also discussed under the section on "significant adverse environmental impacts that feasibly can be mitigated and avoided" on pages I-5 through I-13. This is not inconsistent. In fact, all of the unavoidable adverse environmental impacts listed on page I-4 are also discussed under the section on "significant adverse

environmental impacts that feasibly can be mitigated or avoided." The reason is that, although the unavoidable significant impacts cannot be mitigated to a level of insignificance, each of them can and will be mitigated to the maximum extent feasible and are therefore also discussed under the section on "significant adverse environmental impacts that feasibly can be mitigated or avoided." A discussion of partial mitigation is appropriate even though full mitigation is not feasible.

7. Correction under Urban Design, Page IV-18. The fourth line in the opening paragraph under Urban Design is hereby corrected to read as follows:

> "The Environmental Checklist Form [Guidelines Appendix I] specified that the issue is ~~ehther theb~~ whether the proposal would result in the ~~creatrion~~ creation of an ...."

8. Need to List Documents. References to documents used in preparing the report are listed in continuous sets of footnotes for each part of the report where footnotes are needed. This fulfills the requirement of CEQA.

Traffic Issues

1. Regional Impacts Regional impacts on the movement of goods and services through the Specific Plan area are the same as regional impacts on transportation generally, which are discussed at length in the Draft EIR and this Response to Comments document. [See responses to Comment Letter No. 2.] Regional impacts on the freeway system have received the approval of Caltrans District 10. The effects on the County roads mentioned refers to those segments which lay within or close to the Specific Plan boundaries. Mitigation measures have been devised for all such impacts.

2. Impacts to the Freeway System. All mitigation measures listed and described in the Draft EIR are compulsory under provisions of CEQA unless specifically excepted. None of the measures referred to have been given such exception or made voluntary, and all of them will be included in the Mitigation Monitoring Program which requires vigilance and participation by both the City and Caltrans to assure implementation when needed. As discussed in Response H to Comment Letter No. 8, it is anticipated that a number of TDM measures will be implemented on the Project site.

   It is unclear why the commentor believes that "this type of project does not effectively lend itself to TDMs." As discussed in Response H to Comment Letter No. 8, it is anticipated that a number of TDM measures will be implemented on the Project site. In any event, the traffic impacts of the project have been projected with the very conservative assumption that traffic generation rates will be reduced by only 1%-2% as a result of transit and TDM measures. Therefore, the EIR does not assume that TDMs are critical for mitigating traffic impacts of the project.

3. Development Concept, Page II-23, Paragraph 4. The City respectfully disagrees with the substitution of "some" for "many" in reference to the number of guests on Stewart Tract which will originate from lodging facilities on Stewart Tract. The quantification of trips anticipated to be generated by the Project is provided in the consolidated Technical Appendix on traffic and transportation which has been provided to the City of Stockton.

4. Trip Generation Rate Reduction. Trip generation rates are provided for all land uses in the Technical Appendix referred to under 3., above. The rates used are those published periodically by the Institute for Transportation Engineers and used throughout the Nation. The rates used and methodology of application are acceptable to Caltrans staff and the COG modeling staff. None of the rates underestimate generation as alleged.

5. Park and Ride Lot, Page II-28. The three sites, and a fourth one recommended by Caltrans, have yet to be selected. However, they will be provided at locations where traffic destined for Stewart Tract can be diverted from the freeway system. Generalized locations have been identified as near the Roth Road interchange with I-5, the Paradise Road interchange with I-205, and the S.R. 120 interchange with Yosemite Avenue. The fourth site requested by Caltrans will, if proven feasible, be located near the Louise Avenue interchange with I-5.

Air Quality Issues.

All of the air quality issues raised by the Draft EIR have been reviewed with the San Joaquin Valley Unified APCD staff. The reader is directed to the Response to Comment Letter No. 8 for changes and additions directed by or requested by APCD staff. With the changes made, the APCD staff is satisfied with the effort documented in the Draft EIR. The spelling error on p. V-93 is acknowledged. Other comments are addressed below.

1. Reference to Suspended Particulate, Table III-2 of Draft EIR. The row designated as "Suspended Particulate" includes a footnote #11 indicating that it involves particulate of 10 microns or less in diameter, which is the same as PM_{10}.

2. Page III-29, 3rd para. The word "several" was used as compared to "many". This distinction was accepted by the SJV Unified Air Pollution Control District.

3. Affect of SJV Unified APCD Rule 2001. While chapters III and V of the Draft EIR lack a specific reference to Rule 2001 (Commute Based Trip Reduction Rule), the Rule has been observed in the mitigation measures and results of air quality modeling reported in the Response to Comment Letter No. 8 above, and listed as mitigation on page V-87 of the DEIR.

4. APCD Regulation VIII. The lack of specific discussion of Regulation VIII in the Draft EIR does not imply that it has been ignored. Mitigation and air quality modeling reflect Valley-wide PM_{10} and Ozone studies by the Air Pollution Control District. However, the topic of dust emissions under Regulation VIII is discussed under Specific Comments, para. B, in the Response to Comment Letter No. 8, above.

5. Inaccurate Reference. Reference to the year 1977 is a typographical error. The correct reference is the year 1997.

6. Mitigation 1.a, Page IV-28. The statement that good development design has the potential of reducing air emissions does not require quantification. It is a widely accepted fact in the field of air quality management that efficient development design will reduce trip time and engine idling time, thus reducing the amount of air pollutant emissions generated by a project. The bottom line of importance is that the Project will not result in violations of CO standards, as reflected in the results shown in the revised Table V-15 provided in the Response to Comment Letter No. 8 above.

7. Use of the Phrase "Relatively Good", Page V-83. The phrase "relative good" in the 2nd full paragraph is appropriate, since it refers to the extent of mixing occurring as the result of air flow produced by the Pacific High. Use of the phrase does not prejudice the discussion. Discussion of conditions in summer and winter were selected because they tend to reflect worst-case conditions. Since the Valley has been designated an attainment area for CO, a major concern of the EIR is with avoidance of CO violations which could jeopardize that designation. It is not necessary to describe all possible conditions if it does not necessarily contribute to the mitigation of impacts that may be possible and/or required.

8. Recommendation for Including a Table on the Impacts of Agricultural Burning. Since this sub-section merely summarizes various air pollution problems and their sources in the region, it is not necessary to discuss every possible topic at length. Agricultural burning is only listed as contributory to regional problems of air pollution. The Project will not of itself exacerbate problems caused by agricultural burning. To the extent that agricultural burning occurs at all within the West Lathrop planning area, it will be reduced by the conversion of crop lands to urban use.

9. Cumulative Impacts of Regional Significance. The fact that certain impacts on air quality cannot be adequately mitigated to less than significant levels and that a statement of overriding considerations will be needed is addressed in the DEIR on p I-4, p V-93 (under "Effect of Mitigation Measures"), and p VII-1, and in this FEIR under Response to Comment Letter No. 8.

10. Responsibility for Implementation of Air Quality Mitigation. The responsibility of "owners, developers and/or successors in interest" for implementing air quality mitigation is acknowledged and is set forth in the Mitigation Monitoring Program.

Water Issues

1. Surface Water. Regarding the impacts of the Project on overdraft of ground water, see response C.1 to Comment Letter No. 12. Any surface water purchased by the City of Lathrop from SSJID would be surplus water to SSJID.

2. Groundwater. [See C.1. under Response to Comment Letter No. 12]

Wastewater Issues

All of the wastewater issues posed by the comments are being addressed in the parallel study of wastewater management alternatives referred to previously in the response to para. 2. under General Comments, above.

1. Wastewater quality standards. The importance of wastewater quality standards in the selection of the preferred wastewater facilities alternative is acknowledged. [See response to General Comment #2 in para. 2 of Comment Letter No. 14, above.]

2. Effluent Standards Proposed. The effluent standards to be followed will be those established by the Regional Board (Water Quality Control Board, Central Valley Region). [See response to General Comment #2 in para. 2 of Comment Letter No. 14, above.]

3. Impacts of Direct Discharge to the San Joaquin River. The City is not proposing direct discharge to the San Joaquin River unless the discharge of effluent treated to a tertiary treatment level is approved by the Regional Board. Regional Board approval would assure the avoidance of adverse impacts on salinity, temperature and dissolved oxygen.

4. Quantification of Reclaimed Water. The amount of wastewater that is expected to be reclaimed will increase steadily as development occurs over the 30 year period required to achieve buildout on Stewart Tract and the 15-20 year period required to achieve buildout of Mossdale Village. Assuming five stages or phases of development, with zero river discharge, the amount of disposal of reclaimed effluent to open space and recreation areas would range from about 1.3 mgd (million gallons per day) at the end of Stage 1 to about 3.9 mgd at the end of Stage 5.[1] The criteria for treatment will be tertiary level to standards established by the Regional Board for the disposal of non-potable water. Disposal of reclaimed wastewater has been deemed affordable by the City and Stewart Tract developer. Cost estimates, assuming zero discharge and including the costs of the distribution systems main facilities (land. Storage ponds, pumping and trunk conveyance), range from $ 9.9 million at the end of Stage 1 to$ 29.4 million at the end of Stage 5

5. Limitations to the Stockton Alternative. The limitations to the feasibility of the Stockton alternative for wastewater treatment as described by the comment letter are acknowledged.

Recirculation

See Response para. W to Comment Letter No. 13.

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1 **City of Lathrop Wastewater Facilities Plan**, Siegfried Engineering, Inc. And Century West Engineering, October, 1995

COMMENT LETTER NO. 15

CITY OF MANTECA

DEPARTMENT OF DEVELOPMENT
ASSISTANCE SERVICES

August 21, 1995

RECEIVED
AUG 2 1 1995
Ans'd.....

Pam Carder, Community Development Director
City of Lathrop
Community Development Department
16775 Howland Road, Ste. One
Lathrop, Ca 95330

Re: West Lathrop Specific Plan And Draft Environmental Impact Report.

Dear Ms. Carder:

Thank you for the opportunity to review and comment on the proposed West Lathrop Specific Plan and E.I.R. Following is the City of Manteca response comments to your referral of the above subject project.

A. 1. Development Services anticipates that the need to expand State Route 120 (Bypass) from four lanes to six lanes will occur as part of Phase III of the Stewart Tract element, not Phase V. The need will occur because of project plus cumulative impact. Development Services also concurs with Public Works that the Paradise Road/I-205 interchange should be constructed with Phase II of the Stewart Tract element, not Phase III. (Benjamin Cantu, Development Services, 209-239-8427)

B. 2. The Paradise Cut Resource Conservation/Open Space land area, proposed to offset the loss of existing wildlife habitat and forging area, should be maintained in a pristine state with very limited human accessibility. This area should be no less than 1,000 feet in width at any point adjacent to urban development and provided with a 10 foot high security fence, especially since it is anticipated that future urban development will occur on both sides of the preserve. The Paradise Cut "preserve" should take place with development of Phase I Area I. (Benjamin Cantu, Development Services, 209-239-8427)

C. 3. The "RCO" designation should be removed from the urban lakes, it is unlikely that wildlife or fowl could sustain any type of natural setting or habitat amongst intensive urban development. (Benjamin Cantu, Development Services, 209-239-8427)

D. 4. In regards to the proposed use of groundwater as a supplement to other sources of potable water at a ratio of 50/50, to avoid further degradation of the groundwater supply and maintain groundwater levels, a maximum groundwater pumping rate must be established. For example, the groundwater availability value used by Manteca is 1.0 acre foot per acre of land served per year (AF/AC/YR) as determined in the 1985 groundwater study conducted for San Joaquin County by Brown and Caldwell. (Jim Podesta, Public Works/Engr., 239-8462)

E. 5. Degradation of the groundwater due to expansion of Lathrop's municipal well fields, on the east side of Hwy 5, will result in degradation of Manteca's groundwater beginning at Manteca's western boundary adjacent to Lathrop. (Jim Podesta, Public Works/Engr., 239-8462)

F. 6. The wastewater treatment option depicting tie to Manteca facilities will be far less expensive than the other two options (Stockton tie or new Lathrop or project facility). No affect is anticipated to the city of Manteca unless the Manteca tie option is successfully negotiated. (Jim Podesta, Public Works/Engr., 239-8462)

G. 7. It is vital that a development of this size have at least two connections to the freeway, the earlier the better. The development will have a definite impact on the level of service experienced by Manteca residents on local interchanges and freeways. (Jim Podesta, Public Works/Engr., 239-8462)

If I can be of further assistance please feel free to contact me.

Sincerely,

Benjamin J. Cantu, Jr.
Deputy Director of Development
Assistance Services

c. City Manager
Mike Brinton, Director of Public Works
Jim Podesta, Deputy Director of Public Works
David Vickers, Traffic, P.W.

RESPONSE TO COMMENT LETTER NO. 15 - City of Manteca

A. Timing of S.R. 120 and the Paradise Road Interchange Improvements. The timing of need for these improvements as presented in the Draft EIR is based on the extensive COG modeling effort which was approved by COG and Caltrans staff as to methodology and results. Lacking any evidence to the contrary other than opinion, the proposals for mitigation timing must remain as presented.

B. Paradise Cut. Manteca's interest in the preservation of Paradise Cut for wildlife habitat is appreciated. The enhancement and management of Paradise Cut as a wildlife preserve is to be accomplished in accordance with the Habitat Management Plan that will be approved by the Department of Fish and Game and adopted by the City prior to approval of the Specific Plan, and that will be implemented concurrently with the development of the Project. For further discussion of the HMP, see Response to Comment Letter 7 [para A.2 and B.1] and Response to Comment Letter 13 [para N].

C. RCO Designation. The RCO (Resource Conservation and Open Space) designation under the Specific Plan and the City of Lathrop zoning ordinance is intended for application as follows:

> This district is intended to provide for permanent open spaces in areas of the community which exhibit vegetation or wildlife, wetlands, bodies of water or water courses, mineral resources, scenic qualities, or recreational potential, and which are designated as open space, school or college sites or as agriculture by the General Plan. This district is further intended to be applied to lands within the City which are subject to an agricultural land conservation contract under provisions of the Williamson Act.

By the above statement, application of the RCO designation to the Stewart Tract lake system is appropriate. The lakes are an important component of the open space system under the Specific Plan whether or not they will offer any value as wildlife habitat.

D.&E. Groundwater Pumping Rate. The City does not intend to establish a well field on Stewart Tract that exceeds safe yield for the aquifers involved. The safe yield and pumping rate established for these aquifers cannot be determined until current test well and related studies are completed. Further degradation of the City's well field east of I-5 is not at risk as the result of any well field to be established west of I-5 or west of the San Joaquin River. The safe yield of the existing well field which prevails today was established years ago before Lathrop became a municipality. [See also Response to Comment Letter No. 12, para. C.1]

F. Manteca Wastewater Treatment Option. The effects the Manteca wastewater treatment option on the City of Manteca will need to be evaluated further if it proves to be the best option of those currently being considered under wastewater treatment alternatives. A Manteca option could not be selected by Lathrop without willing agreement by the City of Manteca on fair-share financial responsibilities for treatment, disposal and system management occasioned by this option.

C. Need for Two Connections to the Freeway System. The Project will have two connections. One will be at the Louise Avenue/I-5 interchange and the other will be at the MacArthur Road/I-205 interchange via Paradise Road. The impacts of the Project on Louise Avenue, Yosemite Avenue and Lathrop Road arterials which serve both Lathrop and Manteca have been factored into the traffic modeling and mitigation requirements for the Project.

COMMENT LETTER NO. 16

CITY OF TRACY

Community Development
520 Tracy Blvd.
Tracy, CA 95376

Telephone: (209) 836-2665
Fax: (209) 836-3529

August 21, 1995

Pamela Carder, Planning Director
City of Lathrop
Planning Department
16775 Howland Road, Suite 1
Lathrop, CA 95330

RE: West Lathrop Specific Plan

Dear Pam:

In reviewing the West Lathrop Specific Plan and EIR the City of Tracy has the following comments;

A. (a) The City of Tracy's Roadway Master Plan designates a new interchange with I-205 at Chrisman Road. This interchange will occur west of Pardise Avenue, as shown on the attached Exhibit IV-1. The reasoning for this westward shift is to allow sufficient spacing if an additional interchange becomes necessary prior to I-205's terminus with I-5. We would suggest that the roadway plan for the West Lathrop Specific Plan be revised to reflect the interchange as show on Exhibit IV-1.

B. (b) The City is concerned that with I-205 presently operating at LOS E and F, that local streets within the City of Tracy will be impacted when the Gold Rush theme park begins operations. It is imperative that the interchange referenced in comment (a) above be constructed prior to the opening of the theme park.

C. (c) Water is a significant regional issue, if SSJID water is not available and municipal wells become the primary source of water on the Steward Tract, there may be a potential impact to the City's ground water at 1,000 to 1,200 feet. As this aquifer is undefined, it is suggested that sufficient hydrological studies be completed prior to the drilling of any municipal wells.

D. (d) As water is a regional issues, it is strongly suggested that treated effluent be used for irrigation within the project area.

If you have any questions please feel free to contact me.

Very truly yours,

Robert M. Conant, Jr.
Senior Planner

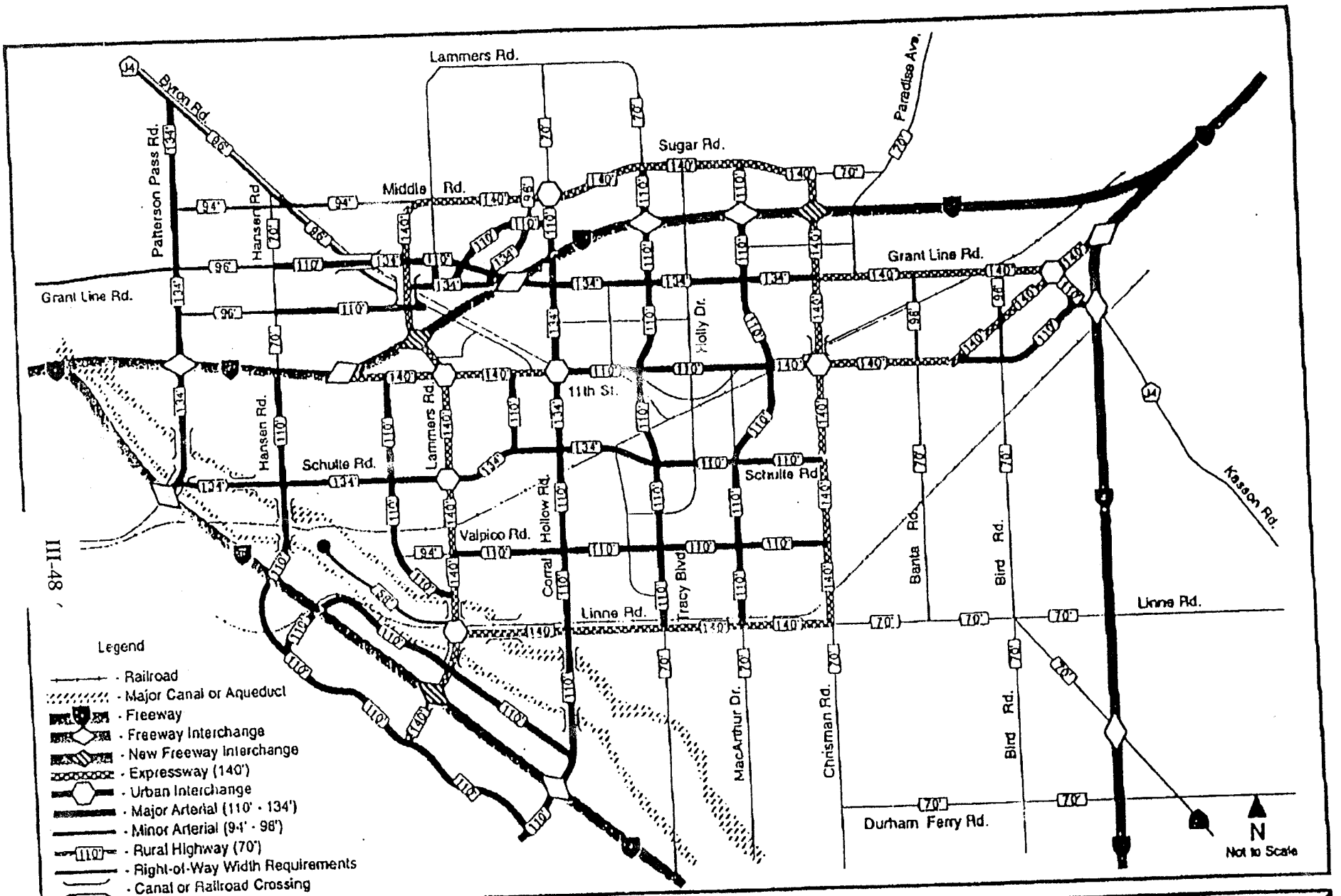

EXHIBIT IV-1

Long-Range Roadway and Right-of-Way Master Plan

Fehr & Peers Associates, Inc.
Transportation Consultants

706-117-01

RESPONSE TO COMMENT LETTER NO. 16 - City of Tracy

A. Tracy's Chrisman Road Interchange Designated by the Tracy Roadway Master Plan. The recommendation is accepted. It has always been the intention under the Specific Plan to designate a new interchange with I-205 at Chrisman Road. References to interchanges at Paradise Drive and Chrisman Road are meant to be synonymous as the preferred location of the new interchange.

B. Level of Service on I-205. The Project traffic modeling does not indicate the need for constructing the Chrisman Road/I-205 interchange during Phase 1 of Stewart Tract development. This has been corroborated by Caltrans staff.

C. Need for Studies in Support of a New Water Well Field on Stewart Tract. [See D. and E. under Response to Comment Letter No. 15, and C.1. under Response to Comment Letter No. 12.]

D. Need for Wastewater Reclamation. The City agrees with this comment. Wastewater reclamation is a requirement of the Specific Plan for any treatment and disposal option to be provided within or in the immediate area of the Project.

TRACY PUBLIC SCHOOLS
315 East 11th Street
Tracy, CA 95376-4095
Facilities Development Department
(209) 831-5032
FAX (209) 831-5342 Facilities Development

July 25, 1995

Ms. Pam Carder
Director, Community Development
City of Lathrop
16775 Howland Road, Ste. One
Lathrop, CA 95330

RE: Response to West Lathrop Specific Plan and Draft Environmental Report

Dear Pam;

Thank you for the opportunity to respond to the West Lathrop Specific Plan and Draft E.I.R. The Stewart Tract appears to be a very exciting project.

While the Draft E.I.R. does a good job of describing the school impact mitigation measures that are needed, we feel the Specific Plan Objectives are weak in carrying that concept forward.

The District's first preference is that a new goal section be added to the Plan Objectives that relate to schools, perhaps between General Plan Goal No. 1 and 2.

A. General Plan:

GOAL No. ___: ADEQUATE SCHOOL FACILITIES FOR ALL STUDENTS IN THE WEST LATHROP PLANNING AREA

Intent: Increased development activity in the West Lathrop Planning Area will cause enrollment increases in the current school districts and will necessitate the establishment of new schools. The Land Use Element provides for the development of educational facilities as a part of the overall land use strategy. The Land Use Diagram is instrumental in assisting the local school district(s) and state agencies in the planning and provision of educational facilities to achieve maximum opportunity for the education of residents of all socioeconomic levels.

Objective ___A: Provide school facilities that are centrally located to the populations they serve.

> School facilities shall be located in cooperation with the appropriate school districts in accordance with state and local requirements. When possible school facilities should be located in convenient proximity to neighborhood and community parks and other open space to encourage joint use facilities. The residential growth within the West Lathrop Planning Area will be monitored to enable local school districts to expand facilities and services to meet

educational needs. The City shall keep the school districts apprised of proposed plans and development status.

Objective ___B: New residential development shall be responsible for its effects on enrollment in local schools.

The City, in cooperation with school districts, shall require land dedications for the construction of new schools or in-lieu fees in accordance with state law.

- School impact mitigation shall be provided through the creation of, or annexation to, a Mello-Roos District for the purpose of providing full mitigation for school impacts, as justified in the District's mitigation fee justification document.

If a separate Goal is not acceptable to the City, then the District requests that similar language be incorporated into the existing goals and objectives.

It is the District's preference that the CFD be structured in such a way that the land owners vote for the CFD to be obtained prior to granting the last legislative act for the project. A one time CFD prepayment for the developers high school mitigation, payable at building permit time, would be acceptable to Tracy Joint Union High School District.

Attached is the District's official letter transmitting our school impact mitigation justification document. The report shows the high school portion of the school impacts are currently $3,472.48 per single family residence and $838.05 per multi-family (4 or more units attached). The figures include the statutory $1.72 per square foot developer fee.

If you have any questions, please feel free to call me at 831-5032.

Sincerely,

Sherry Gongaware

Sherry Gongaware
Director, Facilities Development

SG:bn

pc: J. Folz, MUSD
J. Keiser, BSD
C. Goodall

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city\responses to EIR

TRACY PUBLIC SCHOOLS
315 East 11th Street
Tracy, CA 95376-4095
Facilities Development Department
(209) 831-5032
FAX (209) 831-5342 Facilities Development

July 25, 1995

Ms. Pam Carder, Director
Community Development Department
City of Lathrop
16775 Howland Road, Ste. One
Lathrop, CA 95330

RE: Adoption of Joint Resolution H94-21, a Comprehensive School Facilities Capital Improvement and Finance Plan

Dear Pam;

At a special joint school board meeting on June 13, 1995, the governing board of Tracy Joint Union High School District (the "District") approved a joint resolution adopting the attached Comprehensive School Facilities Capital Improvement and Finance Plan and Addendum (Plan). The Plan demonstrates that the actual cost for high school mitigation would be $3,472.48 for a single family dwelling, $838.05 for a multi-family dwelling and $1,270.65 for a mobile home. All the mitigation amounts include the statutory $1.72 per square foot developer fee.

A copy of the Board resolution is attached. The resolution is accompanied by a copy of the supporting documentation and a map indicating the boundaries of the area subject to the school mitigation demonstrated in the Plan. The AB 1600 findings are contained in the addendum.

The school mitigation demonstrated in the Plan applies to all growth in the Districts outside CFD 87-1 and CFD 89-2. The revised school mitigation amount will become effective on August 14, 1995.

As shown in the enclosed documentation, the District will use the money received for school mitigation for the purpose of funding the construction, interim facilities, support facilities and expansion of school facilities; all mitigation funds received will be placed in the Districts' restricted capital facilities fund; the Board has authorized expenditure of the mitigation funds; and the Board has adopted a proposed construction plan for the facilities to be built with the mitigation funds.

The District requests that the City of Lathrop, as part of its project approval process, require all new development which would impact the District(s) through the generation of students and which do not have developer agreements, to form or join a CFD with the District(s) for the purposes of financing the full mitigation cost, as specified under the Plan, in order to provide necessary school facilities.

It is the Districts desire that a CFD be formed so the projects within the Tracy Joint Union High School District boundaries would have a one time CFD prepayment amount for school mitigation. The Districts request that all new development be required to join the CFD.

If you have any questions, please contact me at 831-5032.

Sincerely,

Sherry Gongaware

Sherry Gongaware
Director, Facilities Development

SG:bn

pc: C. Goodall
J. Folz, MUSD
J. Keiser, BSD

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RESPONSE TO COMMENT LETTER NO. 17 - Tracy Public Schools

A. General Plan. Policies of the Lathrop General Plan provide the basis for meeting requirements for schools on Stewart Tract as follows:

> "The possible need for public, semi-public and private institutional facilities shall be determined at the time of Specific Plan preparation, including schools, park and recreation areas, government offices, medical and health care facilities, private clubs and lodges, and churches and other religious institutions." [from p. IV-A-20, Lathrop General Plan, 12/91]

This policy provides sufficient basis for the mitigation described on p. V-47 of the Draft EIR for the Specific Plan, as follows:

> "1.a. As residential development projects for permanent occupancy are proposed for Mossdale Village and Stewart Tract, school impact fees should be augmented by the creation of, or annexation to, a Mello-Roos district for the purpose of providing full mitigation for school impacts. As an alternative, a developer and school district may negotiate a mitigation fee based on the district's mitigation fee justification documents and the pro-rata contribution to the need for capital facilities occasioned by the residential development project."

This General Plan policy and EIR mitigation is consistent with the provisions of the Joint Resolution of the Boards of Trustees of the Tracy School District, the Tracy Joint Union High School District and the Jefferson School District, as adopted on June 13, 1995. The resolution calls for mitigation of school impacts for each of the districts by requiring annexation to an appropriate Mello-Roos Community Facilities District (CFD) or by the creation of a new CFD for the purpose. Therefore, further statements of policy in the Lathrop General Plan, or of mitigation in the Specific Plan EIR, are not required.

COMMENT LETTER NO. 18

Jack Schreder & Associates
School Facilities

2230 K Street
Sacramento, CA 95816

(916) 441-0986
FAX 441-3048

RECEIVED
AUG - 9 1995
Ans'd.....

August 8, 1995

Pamela Carder, Community Development Director
City of Lathrop
16775 Howland Road, Suite One
Lathrop, CA 95330

Dear Pam,

We appreciated the opportunity to review the Draft Environmental Impact Report for the West Lathrop Specific Plan. Upon review of the document we have determined that the findings of significant impact in the report as they relate to the Banta Elementary School District are consistent with the data provided and analyzed by the District.

In addition, we concur that the mitigation measures outlined in the report reduce the significant impact to a level "Less than significant".

Your cooperation in addressing the environmental issues as required by CEQA is of extreme importance to the District and we thank you for a thorough and satisfactory report.

Sincerely,

Jack Schreder
Consultant to Banta Elementary
School District

RESPONSE TO COMMENT LETTER NO. 18 - Banta Elementary School District

No response required.

COMMENT LETTER NO. 19

RECEIVED
AUG 2 8 1995
Ans'd.....

SSJID SOUTH SAN JOAQUIN IRRIGATION DISTRICT

August 25, 1994

Pam Carder
City of Lathrop
16675 Howland Rd.
Lathrop, CA 95330

RE: West Lathrop Specific Plan and Draft Environmental Impact Report

Dear Ms. Carder:

Based upon a brief review of the materials supplied relative to the above referenced project, South San Joaquin Irrigation District staff has made the following observations and comments for your consideration:

A. 1. The Specific Plan correctly states that negotiations are currently underway with the South San Joaquin Irrigation District for water service provided by the District. However, engineering and feasibility studies have not commenced until water supply agreements are executed by the cities. It was also noted that in the Section II-11 of the Environmental Impact Report, under the Water Resources heading, the City of Ripon should be included in the list of participants in the proposed water treatment plant project.

B. 2. The plan provides for a series of waterways to meander throughout the developed areas in addition to some lake areas, however, it is not clear as to what measures, if any, would be taken to ensure that the migration of fish on the river would not be affected by the planned diversions into this area, if there is a direct connection from the old river to the waterways. There may be a need to provide for some screening in order to prevent certain species of fish from getting lost in the meandering waterways and off-stream lake areas.

C. 3. The report mentions in several places that there is a need to provide detention ponds and possible drainage treatment facilities, however there appears to be limited emphasis on the monitoring measures to be taken to ensure that water quality standards are met. Potentially hazardous sources of drainage inlets may need to be monitored on a regular basis and perhaps a contingency plan

11011 East Highway 120, Manteca, CA 95336-9750 • Phone 209/823-3101 • FAX 209/823-8406

formulated to deal with any hazardous spill situations.

We appreciate the opportunity to review and comment on this specific plan. The overall plan appears to be very impressive. Should you have any questions or need further input, please feel free to contact either myself or the General Manager, Rick Martin.

Sincerely,

Sam Bologna

Sam Bologna
Engineering Department Supervisor

cc: Rick Martin-General Manager

RESPONSE TO COMMENT LETTER NO. 19 - South San Joaquin Irrigation District

A. Negotiations; Add City of Ripon to List.

The need for an executed water supply agreement with the District prior to commencing engineering and feasibility studies is acknowledged. The City of Ripon is hereby added to the list of cities in the last paragraph on p. II-11 of the Draft EIR,

B. Need to Protect Migrating Fish from Entering the Stewart Tract Lake System. Fish screens of adequate size will be provided at intakes to the lake system from either the San Joaquin River or Old River if one or more direct intakes are needed. However, it is anticipated that the on-site lake system will be filled by groundwater seepage, and therefore connections between the river and the lake system would not be needed.

C. Need to Monitor Detention Ponds. The need for monitoring is acknowledged and is covered by mitigation measure #1 on p IV-11 and mitigation measure # 1&2j on p V-15 of the Draft EIR.

NOMELLINI, GRILLI & McDANIEL
PROFESSIONAL LAW CORPORATIONS
235 EAST WEBER AVENUE
POST OFFICE BOX 1461
STOCKTON, CALIFORNIA 95201-1461
TELEPHONE (209) 465-5883
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DANTE JOHN NOMELLINI
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DAVID L. GRILLI
PROFESSIONAL LAW CORPORATION

DANIEL A. McDANIEL
PROFESSIONAL LAW CORPORATION

July 11, 1995

RECEIVED
JUL 12
Ans'd.....

City of Lathrop
Planning Division
16775 Howland Road, Suite One
Lathrop, California 95330

Re: West Lathrop Specific Plan and Draft Environmental Impact Report

Dear Sir:

A. Thank you for a copy of the above-referenced documents. Your Appendix A list of Permitting Agencies and Permits should specify Reclamation District No. 17 as to levee encroachments (including construction, excavation, etc.) related to the Mossdale Village portion of the plan.

B. The Board of Trustees has in the past been very concerned with trails, bicycle paths and other linear public access facilities on District levees due to the extreme difficulty associated with policing trespass and vandalism and providing services such as trash cleanup, restrooms and parking. The levees require on-going maintenance work and any facilities located thereon are subject to removal or damage as a result of such work. The primary use of the levee area must be flood control. The area of concern extends from approximately the centerline of the waterway to a point ten (10) feet landward of the landside toe of the levee. The MV-C and MV-D, copies of which are attached, appear to present workable concepts with the exception of the trees and landscaping along the landside levee slope.

Your developers should be encouraged to contact both Reclamation District No. 17 and The Reclamation Board of the State of California early in the planning process.

Reclamation District No. 17 can be contacted through my office as follows:

Reclamation District No. 17
c/o Dante John Nomellini, Counsel
Nomellini, Grilli & McDaniel
Professional Law Corporations
P. O. Box 1461
Stockton, California 95201

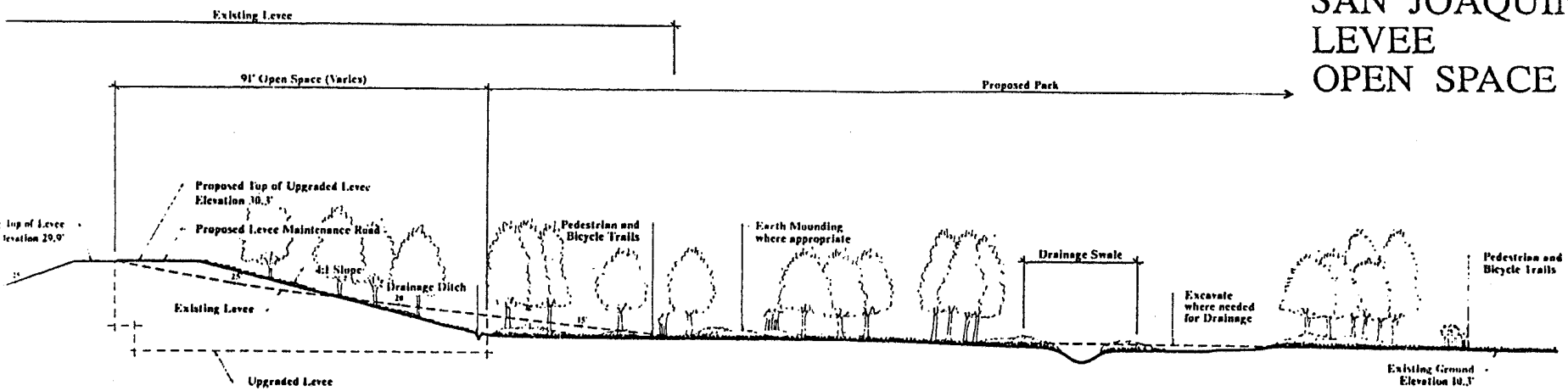
Yours very truly,

DANTE JOHN NOMELLINI
Counsel for Reclamation
District No. 17

DJN:ju
Enclosures
cc: Board of Trustees
Ely Conway, Secretary
San Joaquin County Public Works

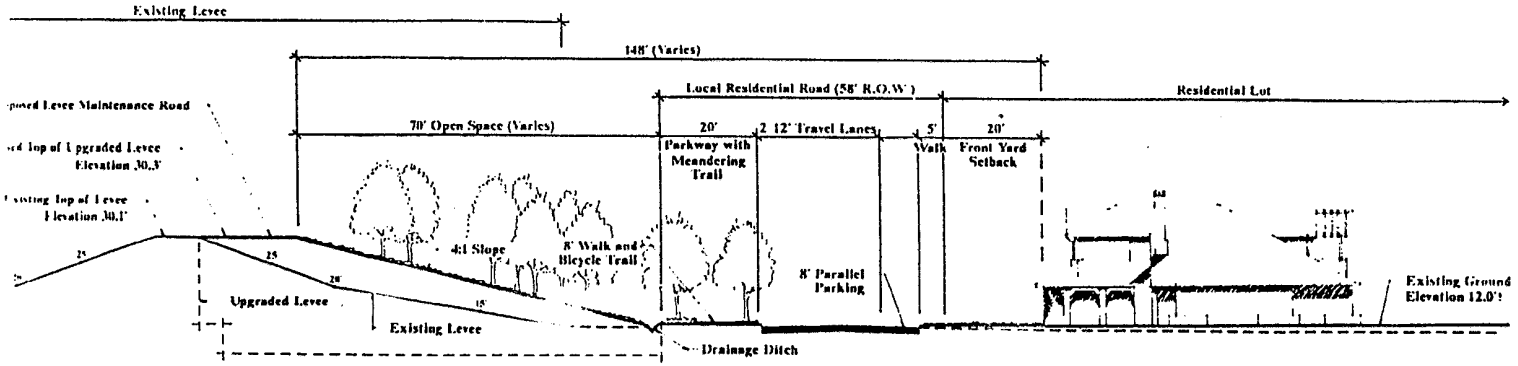
G:\3\RD17\LATHROP.LTR
7/11/95

SAN JOAQUIN LEVEE OPEN SPACE



III-62

MV C



MV D

PLAN TY OF LATHROP, CA

FOR CONCEPTUAL PURP NLY pbr

PART IV

RESPONSE TO COMMENTS BY PRIVATE ORGANIZATIONS AND INDIVIDUALS

RESPONSE TO COMMENT LETTER NO. 20 - Reclamation District No. 17

A. List of Permitting Agencies. Reclamation District No. 17 is hereby added to the list of permitting agencies with respect to levee encroachments, related to the Mossdale Village portion of the Specific Plan, including construction, excavation and other works.

B. Access to Levee System by Recreation Trails. The District's concern for problems of trespass, vandalism and policing, and of uses of the levees which are inconsistent with maintenance responsibilities of the District are acknowledged. The District will be contacted as detailed plans for recreation corridors adjacent to levees are prepared. It should be noted that all lineal recreation corridors alongside levees in Mossdale Village will have direct visual and physical access from a parallel public street to permit regular policing of activities along the corridor system. Landscaping along the land side of levees will be accomplished in accordance with the publication entitled "Interim Guide for Vegetation on Flood Control Levees Under Reclamation Board Authority", adopted by the Reclamation Board on September 16. 1988.

has an annual ADT of about 45,000 west of the Yosemite Avenue undercrossing. Annual ADT on I-205 is 65,000 just west of I-5. Overall, traffic on the freeway system has been increasing at an annual rate of about 5%.

Existing (summer, 1993) weekday and Saturday peak hour traffic volumea are shown on Figures III-3, -4 and -5 at various locations along the freeway and local surface street system. Figures III-3-A, -B and -C show weekday AM peak hour volumes; Figures III-4-A, -B and -C show PM Friday peak hour volumes; and Figures III-5-A, -B, and -C show Saturday peak hour volumes. Figure III-5-D shows unacceptable levels of service for weekday and Saturday peak hour volumes. Table III-0 indicates existing intersection level of service. This data provides a firm basis for determining the impacts of projected traffic volumes under the Specific Plan as described in Part V.

Based upon Caltrans historical count data and expected peak traffic hours of the Project, the following highest traffic hours of the day adjacent to the Project site were selected for purposes of analysis:

- Weekday AM peak hour 7:00-8:00
- Weekday PM peak hour 4:00-5:00
- Saturday AM peak hour 11:00-Noon

Traffic counts were conducted by Crane Transportation Group (CTG) in May/June 1993 at interchanges and intersections serving the Project site for all three of the above time periods. Freeway volumes and weave movements were also counted along the I-5 "merge" to determine weaving patterns between the freeway-to-freeway connections with S.R. 120 and I-205. This data has been supplied to Caltrans. CTG freeway volume counts were factored upward (based on Caltrans count information) to reflect peak operating months of the Project theme parks. PM counts were factored to reflect Friday afternoon conditions as PM volumes on this day of the week are typically highest.

Intersection Operation

Intersections, rather than roadway segments between intersections, are almost always the capacity-controlling locations for any circulation system. Signalized intersection operation is graded based upon two different scales. The first scale employs a grading system called Level of Service (LOS) which ranges from Level A, (indicating uncongested flow and minimum delay to drivers, down to Level F, (indicating significant congestion and delay on most or all intersection approaches. The LOS scale is also associated with a Volume-to-Capacity (V/C) ratio.[1] The V/C ratio has a minimum 0.10 change for each service level change. The V/C ratio designations allow a more detailed examination of the impacts of a particular project. Greater detail about signalized analysis methodologies is provided in Appendix B.

Unsignalized intersection operation is graded using the LOS A through F scale. All-way stop intersections receive one letter designation reflecting operation of the entire intersection. However, no V/C values are calculated. Intersections with side streets only stop-sign controlled also are evaluated using the LOS scale. However, unlike signalized or all-way stop analysis where the LOS designations pertain to the entire intersection, LOS designations for side street stop sign control analysis are computed for individual turn and through movements rather than for the entire intersection. [See Appendix B for greater detail on methodologies]

The City of Lathrop uses LOS D as the poorest acceptable operation at signalized intersections. It has no minimum standard for all-way stop sign controlled locations. Typically, all-way stop standards are the

---

[1] Transportation Research Board Circular 212.

MORRISON & FOERSTER

ATTORNEYS AT LAW

SAN FRANCISCO
LOS ANGELES
SACRAMENTO
ORANGE COUNTY
PALO ALTO
SEATTLE

PLEASE RESPOND TO:
P. O. BOX 8130
WALNUT CREEK, CA 94596-8130

101 YGNACIO VALLEY ROAD, SUITE 450
WALNUT CREEK, CA 94596-4095
TELEPHONE (510) 295-3300
TELEFACSIMILE (510) 946-9912

NEW YORK
WASHINGTON, D.C.
DENVER
LONDON
BRUSSELS
HONG KONG
TOKYO

DIRECT DIAL NUMBER
(510) 295-3351

August 21, 1995

By Telefacsimile

RECEIVED
AUG 2 1 1995
Ans'd.....

Ms. Pamela Carder
Community Development Director
City of Lathrop
16775 Howland Road, Suite #1
Lathrop, CA 95330

Re: Califia Development Group Comments on Draft Environmental Impact Report for the West Lathrop Specific Plan

Dear Ms. Carder:

Thank you for the opportunity to review the Draft Environmental Impact Report ("DEIR") for the West Lathrop Specific Plan. In general, Califia Development Group believes that the DEIR presents an accurate and complete description of the West Lathrop Specific Plan and its alternatives, and contains an appropriate and legally sufficient analysis of the project under the California Environmental Quality Act ("CEQA"). The comments in this letter are offered primarily to suggest certain clarifications or corrections to the DEIR.

Califia Development Group's specific comments on the DEIR are as follows:

A. 1. Page I-13, Mitigation #6 for Transportation/Circulation/Traffic. This mitigation measure states that "Manteca and Lathrop should both impose traffic impact fees to help pay for improvements to inter-community expressways/arterial streets." Please note that, although development within the Specific Plan area will pay for its fair share contribution toward improvements to inter-community expressways/arterial streets, the project is not located within the jurisdiction of the City of Manteca and therefore will not be subject to fees imposed by that City. We expect, however, that Manteca will also impose traffic impact fees on development within its jurisdiction to pay for its fair share of such traffic improvements.

B. 2. Page II-1, line one. The DEIR states that the "proposed project is the West Lathrop Specific Plan, as supplemented by the Addendum to the Specific Plan. . . ." For clarification, please note that the "Addendum" referred to in this sentence is the West Lathrop Specific Plan Alternative E.

C. 3. Pages IV-21 through IV-25, V-59 through V-83 and V-97 through V-100. Please note that Califia's obligations regarding construction and funding of its share of on-site and off-site traffic improvements will be outlined in the proposed development agreement between Califia and the City of Lathrop.

We look forward to receiving the Final EIR and reviewing the responses to these comments. Thank you for your continued cooperation.

Very truly yours,

Gregory Caligari /cj

Gregory B. Caligari

cc: Darryl Foreman
Norman Jarrett

RESPONSE TO COMMENT LETTER NO. 21 - Morrison and Foerster

A. Page I-13, Mitigation #6 for Transportation/Circulation/Traffic. The comment is accepted. The mitigation measure is not intended to suggest that Manteca would charge fees for developments within Lathrop. The intent is to emphasize that certain arterial traffic (and freeway) facilities within Lathrop are also important to circulation and traffic and Manteca, and that improvements to these jointly used facilities within Manteca are of importance to both cities.

B. Page II-1, line one. The original Specific Plan and the Addendum (Alternative "E") have been consolidated as a single Specific Plan document.

C. Pages IV-21 through IV-25, V-59 through V-83 and V-97 through V-100. It is noted that Califia's share of constructing and financing on-site and off-site traffic improvements will be described in the proposed Development Agreement between Califia and the City of Lathrop.

MOSSDALE ASSOCIATES, COMMENT LETTER NO. 22
874 E. WOODWARD AVE.
MANTECA, CA 95337
(209) 239-4929

August 21, 1995

To: City of Lathrop Community Development Department
16775 Howland Rd., Ste. 1
Lathrop, CA 95330

From: Michael Brown
Brown Sand, Inc.
Mossdale Associates, Ltd.
874 E. Woodward Ave.
Manteca, CA 95337

Re: Draft EIR, West Lathrop Specific Plan, Alternative E

A. 1. Page II-7 of Draft EIR states that Manthey Road would become an access road losing the connection from Lathrop to the Mossdale interchange. Alternative E assumes that Manthey road stays as is. Our current Use Permit requires Northbound I-5 trucks to use Manthey to access Louise to I-5. In the event Alternative E is not selected, we object to any change that does not give us truck access to I-5 south, I-205 and SR-120 east and west, and I-5 north via Manthey and the Louise/I-5 interchange. If Alternative E is selected, I would like a statement in the final EIR that Manthey Road is to remain as-is.

B. 2. The draft EIR does not include a copy of the technical appendix relating to flooding, so I was not able to review it. The Specific Plan on page 5 states that levee improvements may be phased. On page 142 it states the all levee improvements will be made in the first phase. Which is correct? On Page V-17 of the Draft EIR it states that the island flooded in 1950 at the upper end. My understanding is that the water level at Mossdale was only a few feet because the ground elevation at the southern end is actually 5 feet higher than the top of the levee at the north western end. The water merely flowed down to the low end and flowed back into the river. My concern with staged flood protection is that protecting that portion of the island west of the Southern Pacific tracks will place the eastern portion at a greater risk of inundation, and at higher water levels than we face today. This is a significant impact that I did not see addressed in the EIR, as it affects not only our property, but the I-5 freeway, SP and UP railway structures.

C. 3. Our current project does not require additional flood proofing. We have already elevated our structures above flood levels. The plan proposes additional flood proofing of the island. Page 141 of the Specific Plan states that "Area of Benefits Fees" and "Property Assessments" might be used to pay for this additional flood proofing. This is not acceptable if our property is to be charged. We are not willing to pay for this flood proofing which we do not need. Any future financing plan must take this into account.

Sincerely,

Michael Brown
Mossdale Associates, Ltd.

MB/kkf

RESPONSE TO COMMENT LETTER NO. 22 - Mossdale Associates

A. Page II-7, Manthey Road. Manthey Road will continue to be important for gravel hauling from Mossdale Associates lands and facilities east of the freeway merge. Under the Project (formerly Alternative "E", Manthey Road will be retained as it is (but with the bridge restricted to northbound traffic) and will connect to Louise Avenue via Golden Valley Parkway east of the river. Reference to the termination of Manthey east of the river would only affect the northerly segment of Manthey providing access to the service commercial corridor extending south from Louise Avenue (Gold Rush Boulevard) to where it would be connected to (creating a loop with) Golden Valley Parkway.

B. Flooding. The technical appendix pertaining to flooding was published separately and is on file for public review at the Lathrop City Hall. The statements cited in the Specific Plan concerning phasing of levee improvements are contradictory as claimed. The correct statement is that levee improvements may be phased in keeping with the phasing of development on Stewart Tract. No more than two phases are being considered at this time. The description of the historic flood conditions in 1950 was abstracted from the Siegfried Engineering report cited in Footnote # 7 on p. V-17 of the Draft EIR. For the complete description, see pp. 4 and 5 of the Siegfried report (the technical appendix is available at City Hall).

While increasing the risk of greater inundation of the east end of Stewart Tract under staged flood protection of the island is a matter of legitimate concern, it has to be viewed in the context of current conditions. The levee at the east end of Stewart Tract also encompasses the lands of Mossdale Associates which lay between the freeway merge and the Union Pacific Railroad. Floodwater from the San Joaquin River passes under the Union Pacific, the Freeway merge and the S.P. Railroad embankments. By closing off these floodways, Mossdale Associates lands would be protected against a 100-year flood event along with the rest of Stewart Tract.

Under the Project (formerly Alternative "E"), and with the east end of Stewart Tract protected by a 100-year flood elevation levee, mitigation east of the S.P. Railroad embankment would only require the collection of surface storm waters which would be conveyed by ditch or pipeline to pump stations discharging into Paradise Cut and the San Joaquin River. This is discussed in the technical appendix prepared by Siegfried Engineering entitled "Storm Drainage System," February 1994, available for review at City Hall. A pump station map is shown on p. 3 of the report. [The reader is also directed to the discussion provided under para. C.2. in the Response to Comment Letter No. 12.] As an alternative, the levee system east of the S.P. Railroad could remain as is since 100-year flood protection is not necessarily required for the uses proposed under the Project.

C. Opposition to Inclusion in any Area of Benefit established to Pay for Flood Proofing. The area managed by Mossdale Associates east of the freeway merge would not have to be included in any area of benefit for improvements needed to avoid flooding on Stewart Tract if the levee system east of the freeway remains as is [see last sentence under B, above]. An alternative is to construct a new levee east of the freeway merge which would by-pass Mossdale Associates lands and only protect Stewart Tract development west of the freeway merge. The levee could also protect Stewart Tract lands east of the freeway which lay adjacent to Paradise Cut.

COMMENT LETTER NO. 23

Land Utilization Alliance

P. O. Box 1259 • Stockton, CA 95201 • (209) 467-7554 • Fax: (209) 467-7553

I believe in beauty, I believe in stones and water, and soil, People and their future. - Ansel Adams

RECEIVED
AUG 2 8 1995
Ans'd.....

Pam Carder, Planning Director
City of Lathrop
16775 Howland Road, Suite One
Lathrop, CA 95330

August 21, 1995

RE: West Lathrop Specific Plan and Draft Environmental Impact Report

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A. Land Utilization Alliance protests the lack of notification, circulation, and comment period by the City of Lathrop of its West Lathrop Specific Plan and Draft EIR. The City has effectively called for the minimum acceptable comment period under CEQA. Moreover, throughout the region there are numerous projects and expansions that LUA is reviewing at this time.

B. The massive scope of this project and its regional impacts mandate the most scrutiny by all applicable agencies. The DIER for this project should be of the highest quality, and should give decision-makers and the public a full opportunity to analyze and undertand the environmental repercussions of the project, and to compare them to the other possible alternatives for dealing with the regions growth.

Unfortunately, the DEIR fails entirely to live up to this mandate. Indeed, it violates many standards for adequacy under CEQA. Perhaps most important, it fails to provide the agencies and the public with the information necessary for them to compare this proposal to other means of addressing the region's growth. It fails to accurately or completely disclose the environmental impacts associated with the project, including particularly the true extent of impacts to biological resources, water quality, air quality, agricultural lands, and regional growth.

C. Among the most defective aspects of the DEIR is its apparent confusion over what constitutes "Project." Section 15378 of the CEQA Guidelines defines "project" as "the whole of the action, which has the potential for resulting in a physical change in the environment, directly or ultimately. . ." The DEIR omits a description of several major integral aspects of the project which appear in the Specific Plan, and thus appears to be a classic instance of improper project segmentation.

D. The DEIR fails to adequately analyze a reasonable range of alternatives. With a project such as this, which will have enormous long-term impacts on the entire region, the burden to analyze carefully all reasonable alternatives is especially heavy.

In formulating a "reasonable range of alternatives," the City does not seem to have focused on options that could substantially lessen or avoid all of the significant environmental effects associated with the project as proposed. (See Pub. Resources Code, Section 21002; CEQA Guidelines Section 15126, Subd. (d)(3).) While certain alternatives address some of the significant impacts of the project, many of the impacts identified as significant are not addressed by project alternatives. The discussion, in short, does not seem to serve the purpose intended for alternatives analysis. Nor are alternatives proposed as "mitigation" for significant impacts.

More specifically, the DEIR should state why alternatives are not feasible which would:

- Eliminate or reduce significant air quality impacts (e.g. an infill alternative that results in densities which could realistically support transit);
- Eliminate or reduce significant transportation impacts;
- Eliminate significant biological impacts;
- Eliminate or reduce significant land use impacts (e.g. and infill alternative including other County community infill to accommodate countywide growth requirements);
- Eliminate or reduce water availability impacts (e.g. is there a natural limit on growth -- or carrying capacity -- in the County that should be respected); and
- Eliminate or reduce the loss of agricultural lands.

E. The DEIR fails to adequately analyze cumulative, indirect, and growth-inducing impacts. Cumulative impact analyses have been held to be inadequate when they understate the severity of impacts, when they omit information that should reasonably been included, and when they have not covered a reasonable geographic scope. The massive scope of the proposed project, together with its significant regional impacts and long-term application place a particularly great responsibility on this DEIR to adequately analyze cumulative and indirect impacts.

In this case, the DEIR with few exceptions, fails to state the severity of impacts, omits information about cumulative impacts and does not reveal its geographic scope for determining the extent of the various cumulative impacts. Nor is there any identification of the cumulative projects or plans that were relied upon to analyze the extent of cumulative impacts by topical area. While there is a general discussion about cumulative impacts to biological, agricultural and air quality resources, it is not clear whether all other potentially significant cumulative impacts were found to be insignificant and on what evidence that conclusion was based. In short, the DEIR appears to have failed to adequately identify, analyze and mitigate cumulative impacts.

Please indicate how the DEIR addresses cumulative impacts to land use, transportation, water supply and quantity, wastewater, drainage and flooding, solid waste, energy and aesthetics. Also, describe the geographic study area for each cumulative impact analysis and the project or plan based assumptions underlying the respective analyses. In addition, please state the disposition of cumulative impacts for each topical area before and after mitigation. Finally, describe the significance of growth inducing impacts on the project, and elaborate on why such impacts will not be regional in nature.

F. A revised Draft EIR must be issued and circulated in a wider scope for public comment. Given the DEIR's confusion over what constitutes the project, and the omission from the project description of necessary infrastructure, the DEIR must be revised and recirculated in draft form. The revised draft should also address the other deficiencies identified herein.

Thank you for this opportunity to comment on the proposed project. This office would appreciate copies of all future notices related to the instant project.

John Eilers

Land Utilization Alliance

RESPONSE TO COMMENT LETTER NO. 23 - Land Utilization Alliance

A. Notification, Circulation and Comment. The legally required 45 day comment period was followed by the City, and proper notice was provided as required by CEQA.

B. Quality of EIR. The City agrees that the DEIR should be of the highest quality, providing opportunity to scrutinize environmental consequences and "...to compare them to the other possible alternatives for dealing with the region's growth". The City believes that it has met this standard of quality, and in fact has been complimented to that effect by a number of the agencies and parties responding to the document. Criticism by the Alliance suggests that it is either unaware of the growth issues dealt with by the Lathrop General Plan (in 1991) that provides the basis in policy for the West Lathrop Specific Plan, or that it remains opposed to Lathrop's General Plan policies and proposals. In either event, the Specific Plan merely implements the provisions of the General Plan that have provided for urbanization of the West Lathrop planning area since the General Plan was adopted in 1991. Impacts related to the topics raised by this comment. Including biological resources, water quality, air quality, agricultural lands and regional growth are all addressed in detail in the Draft EIR.

C. Project Description. The Alliance claims deficiencies in the Project description, which covers all of the 33 pages which comprise Part II of the Draft EIR, without specifying the deficiencies in terms that give direction to any response. The City disagrees with the statement that "several major integral aspects of the project which appear in the Specific Plan" are not included in the project description of the Draft EIR. The City cannot provide a more detailed response to this comment because the commentor has failed to specifically identify what aspects of the Specific Plan it feels have not been adequately addressed by the Draft EIR. [See also response to Comment Letter No. 13, para. A.]

D. Range of Alternatives. The alternatives analysis contained in Part VI of the Draft EIR satisfies CEQA's requirement that an EIR must "describe a reasonable range of alternatives to the project or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." [CEQA Guidelines Section 15126(d).] Alternatives analyzed in the Draft EIR include: (I) the "no project" alternative (i.e., the project site remains in agricultural use); (ii.) an alternative that reduces the area of urban expansion: (iii) an alternative that further reduces the area of urban expansion: (iv) an alternative that enlarges the area of urban expansion; (v) several off-site alternatives: and (vi) several design alternatives, including a conservation-oriented alternative for Mossdale Village, a job-intensive alternative for Mossdale Village, a conservation-oriented alternative for Stewart Tract, and a job-intensive alternative for Stewart Tract. One or more of these alternatives would avoid or substantially eliminate each of the impacts of the Project cited by the commentor, including air quality impacts, transportation impacts, biological impacts, land use impacts, water resources impacts, and impacts to agricultural lands. An evaluation of the comparative merits and feasibility of the alternatives is provided throughout the discussion on pages VI-2 through VI-24 of the Draft EIR.

E. Cumulative and Growth-Inducing Analysis.

Growth-Inducing Impact Analysis:

Growth-inducing impacts are discussed as a topic in Part VII of the Draft EIR [see pp.VII-5 and VII-6]. The discussion centers on the risk that nearby agricultural lands could be targeted for urban expansion sometime in the future as the result of development under the West Lathrop Specific Plan. As noted on page VII-5 of the Draft EIR, notwithstanding the policies and proposals of the Lathrop General Plan and the West Lathrop Specific Plan that seek to confine urban expansion, there is always a risk that nearby agricultural lands eventually could be targeted for urban expansion. However, the impacts of development on Stewart Tract on adjacent agricultural lands should be minimal because Stewart Tract is physically separated from other land by way of waterways and levees. The same is true of development within Mossdale Village with the exception of certain agricultural lands to the north. These adjacent agricultural lands, however, are already committed to urbanization by virtue of being within the City's General Plan and Sphere of Influence.

Cumulative Impact Analysis:

Cumulative impacts are discussed as a topic on pp. VII-1 through VII-5 of the Draft EIR. The discussion centers first on cumulative impacts on the region (transportation, traffic and air quality), followed by cumulative impacts in relation to other projects in San Joaquin County, cumulative impacts on the jobs-housing balance, and cumulative impacts on public services. Discussion then contains a general reference to the cumulative impact discussions that are found in Parts IV and V of the Draft EIR. The discussion below identifies where these cumulative impact discussions can be found in Parts IV and V of the Draft EIR and of this Final EIR pertaining to the topics of land and water resources, biological resources, air quality, transportation and circulation, public safety, noise, population, housing. human health and cultural resources.

Land Resources: Discussion of the cumulative impacts on land resources is provided initially on pp IV- I through IV-9 of the Draft EIR, pertaining to compaction and overcovering of soil, the potential for soil liquefaction, agricultural land conversion and seismic hazards. For the subtopics of soil liquefaction and seismic hazards, the discussion of cumulative impacts of the Project is limited to the boundaries of the West Lathrop Specific Plan because the impacts are site specific rather than regional in nature, and are not cumulatively significant. There will not be any impacts of compaction and overcovering of the soil outside of the Project site except those pertaining to flooding which are discussed separately, below. The cumulative loss of the value of agricultural production resulting from agricultural land conversion is covered at the top of page IV-8.

Discussion of agricultural land resources and geology and seismic hazards is discussed further on pp V-1 through V-4 of the Draft EIR, with cumulative impact discussion again focused on impacts within the Project site as described above.

Water Resources: Discussion of the cumulative impacts on water resources is discussed initially on pp. IV-10 through IV-12 of the Draft EIR pertaining to the water supply, wastewater management, drainage and flood control and lake management. For water supply (p. IV-10), concern focuses on the potential impact of depending on wells as the sole source of domestic water and the potential for losing agricultural water entitlements for undeveloped parts of Stewart Tract in seeking a conversion of Stewart Tract agricultural water entitlements to urban use. The discussion of wastewater management is very limited, referring to the more detailed discussion in Part V which is covered below.

Discussion of drainage and flood control focuses on the need to avoid disposal of surface drainage water contaminated by oils and chemicals on streets which could have a cumulative adverse impact on surrounding streams, and the site specific impacts of flooding. Discussion of water resource topics is found on pp. V-5 through V-20 of the Draft EIR. Water supply is discussed in the broader context of existing conditions, water demands of the Project, the impacts of failure to practice water conservation and a combination of approaches to meeting Project water requirements including importing surface waters (pp. V-5 through V-9).

The discussion related to cumulative impacts of wastewater management (pp. V-10) focuses on existing conditions, wastewater collection, wastewater treatment alternatives, wastewater reclamation and reuse and effluent storage and disposal. Regional impacts are discussed in the context of connecting to the City of Stockton's wastewater treatment facility or that of the City of Manteca to meet long-range needs of the Project for wastewater management. All other site alternatives are Project site specific as to the location of proposed treatment plant and effluent disposal/storage sites. None of these sites would have any adverse cumulative impacts on the Project site or surrounding environment because tertiary level treatment and effluent disposal to standards of the Regional Water Quality Control Board would be required.

The topic of surface water drainage is covered in Part IV of the Draft EIR as referenced above, with the exception of a description of the proposed storm water drainage system which is addressed on p. V-18. The discussion related to flood control (pp. V-18 and -19) focuses on a description of the proposed flood control system and requirements for levee rehabilitation and avoidance of elevated groundwater levels. Cumulative impacts of flood control on the lands and waters of the Delta are discussed more specifically in the Response to Comment Letter No. 12 (Comment C) in this Final EIR (FEIR).

The discussion of environmental impacts related to lake management (pp. V-19 and V-20) focuses on site-related impacts. Because it is not anticipated that the lake system on the Project site will be connected to external waterways, it does not present a potential for adverse off-site cumulative effects.

Biological Resources: Discussion of the cumulative impacts on biological resources is discussed initially on pp. IV-12 through IV-15 of the Draft EIR pertaining to fish and wildlife, and to riparian vegetation, wetlands and watercourses. Cumulative effects on wildlife focus on the effects of a reduction in Swainson's Hawk habitat and requirements to offset such effects through implementation of a Habitat Management Plan for the species. For the fisheries of the San Joaquin River and its tributaries, concerns focus on avoiding the discharge of contaminated surface water or wastewater effluent which otherwise could have an adverse impact on upstream and downstream fisheries. For riparian lands and waters, concern is focused on site specific impacts and mitigation necessary to avoid significant environmental impacts to these resources. Cumulative impacts on biological resources is discussed again in greater detail on pp. V-21 through V-33 of the Draft EIR.

Air Quality: The cumulative impacts of the Project on Air Quality are discussed first on pp. IV-27 and -28, and again on pp. V-83 through V-95 of the Draft EIR. The cumulative effects of the Project on the air basin are implicit in the description of operational impacts (V-91 through V-93). Since cumulative effects occur primarily as a result of impacts on regional traffic, such effects are included in the results of the air pollution modeling (conducted with the approval of the San Joaquin Valley Unified Air Pollution Control District) which also reflects

indirectly the cumulative effects of air pollution generated by traffic (see below). Additional discussion is also provided in the Response to Comment Letter No. 8 in this FEIR.

Transportation, Circulation and Traffic: The cumulative impacts of the Project on transportation, circulation and traffic are discussed first on pp. IV-20 through IV-27, and again on pp. V-52 through V-83 of the Draft EIR. The cumulative effects on the regional freeway system and local roads are implicit in the description of traffic impacts which were obtained by utilizing the San Joaquin County COG traffic model for the sub-region. The COG model is calibrated to reflect the cumulative effects of all projects proposed or underway in San Joaquin County that are listed in Table VII-1 on p. VII-4 of the Draft EIR.

Public Safety: The cumulative effects of the Project on Public Safety are described on p. V-48 of the Draft EIR. Concern is focused on hazards to the health and safety of visitors to Stewart Tract occasioned by earthquakes, flooding or other natural or man-made disaster requiring evacuation and emergency services.

Noise: The cumulative impacts of the Project on the noise environment and of the noise environment on the Project are described on pp. IV-15 and -16, and pp. V-33 through V-41 of the Draft EIR. Concern is focused on the effects of external freeway and railroad traffic noise sources on Project development and the effects of Project-generated noise on the external environment. Cumulative effects of the Project are essentially confined to on-site impacts and mitigation.

Population/Housing: The cumulative impacts of the Project on population and housing are described in the Part II, Project Description, and are implicit in the discussion of all environmental impacts in Parts IV and V of the Draft EIR that are sensitive to population and housing generated by the Project. As noted in the beginning to this Response, discussion of Project effects on the local and regional jobs/housing balance is also discussed in Part VII of the Draft EIR (p. VII-2).

Human Health: The cumulative impacts of the Project on human health are covered under the topic of Public Safety above, in the discussion of the health effects of air pollution (p. III-27 and -29) and indirectly in the discussion of geologic hazards, flood control and noise topics in Parts IV and V the Draft EIR as referenced above.

Archaeological and cultural resources: The cumulative impacts of the Project on cultural resources is described on pp. IV-19 and IV-20 of the Draft EIR. The Project will not result in significant adverse cumulative impacts because, as stated in the Draft EIR, all three biological sites within the Project site will be protected into perpetuity by their inclusion within areas of permanent open space. Also as stated in the Draft EIR, mitigation against the potential loss of unknown archaeological and cultural resources of significance will be avoided through close monitoring of construction activities by the City of Lathrop.

F. Call for a Revised Draft EIR. See Response to Comment Letter No. 13, para. W..

COMMENT LETTER NO. 24

SAN JOAQUIN FARM BUREAU FEDERATION

MEETING TODAY'S PROBLEMS / PLANNING FOR TOMORROW

August 25, 1995

RECEIVED
AUG 25 1995
Ans'd.....

Pamela Carder, Director
Lathrop Planning Department
City of Lathrop
16775 Howland Road - Suite 1
Lathrop, CA 95330

RE: WEST LATHROP SPECIFIC PLAN AND DRAFT ENVIRONMENTAL IMPACT REPORT

Ms. Carder:

The Following Comments are in regards to the review of the Draft EIR and Specific Plan for West Lathrop by the San Joaquin Farm Bureau Federation.

A. *General Comments:*

The level of detail and inaccuracy in the documents distributed for public review are tremendously disappointing. The level of detail in several areas of the Specific Plan is insufficient and the Draft EIR can be questioned as to meeting the regulations of the California Environmental Quality Act.

B. *Public Review of Key Documents:*

San Joaquin Farm Bureau Federation is deeply concerned with the availability for the general public to adequately review the West Lathrop Specific Plan and Draft EIR. This concern stems from reports by individuals that the key documents were not distributed in public places in the communities of Manteca, Stockton, and other areas that will obviously be impacted by the proposed plans. The absurd price of $55 for the Specific Plan and $20 for the DEIR also added to the fact that these documents have not been widely read or reviewed by a sound cross section of the public.

C. *Specific Comments:*

1. Water (supply, treatment, disposal)

It would seem that a city already thirsty for water if nothing else would require project proponents to at least identify a reasonable and viable source of water for its proposed project. In reading the documents it appears that Lathrop has decided that development at all costs is far more important that the ability to be able to support any development. Basing findings for a Specific Plan and DEIR on pipe dreams of slim probability will not ensure water for Lathrop.

POST OFFICE BOX 8444 - 3290 NORTH A (209) 931-4931 - STOCKTON, CA 95209

According to the plans of the City of Lathrop's Sewer Master Plan it has been planned that Gold Rush City would develop its own wastewater treatment facility for collection, treatment, and disposal but now with the publishing of these documents we learn that instead it will be Lathrop's plan to impose their wastewater treatment shortcomings onto another community like the City of Stockton. To allow this claim of handling wastewater treatment and disposal as published in these reports by shipping it out of the city and impacting another communities system is unacceptable.

2. *Growth Inducing Impacts:*

The Gold Rush City project if ever successful will, as assumed in the DEIR, be growth inducing. This future possible development according to CEQA must be considered in terms of its impacts as well.

3. *General Plan Inconsistency:*

According to a cursory review of the Lathrop General Plan it appears that the Specific Plan and DEIR with alternative "E" do not match. It would seem that these published reports would mandate that a general plan change is in order.

4. *Levee Improvement and Maintenance:*

Probably the most important facet of the proposed project and also the most disappointing in regards to specifics and detail as to how the City of Lathrop expects to actually accomplish "improvement & maintenance". Others have commented to specifics of the fact that the documents cite discussion of levee improvements which are not found in the reports, but what about the impacts and pressures not discussed at all. These reports must recognize that by building up levee protection for Gold Rush City new levee pressures will be impacted onto other levees far beyond the project site. These impacts must be mitigated by this project and until they are discussed and thoroughly reviewed by a proper DEIR and Specific Plan these documents should be considered nothing more that a beginning to a process that has a long way to go.

5. *Transportation and Air Quality:*

In reading the published documents one feels like they should remind the City of Lathrop and Gold Rush City proponents that according to the California Environmental Quality Act mitigation measures must be feasible and adequate to address project impacts.

D. *Closing Comments:*

These comments should be considered preliminary comments to the Specific Plan and DEIR. These documents should be redone to fairly represent the project as is now proposed and with more detail to the specifics of the proposed project so that it fairly can be evaluated by those reviewing the documents. The San Joaquin Farm Bureau Federation considers these documents as they now stand as inadequate for the purposes of legal review of this project.

Respectfully Submitted,

William E Bechthold

WILLIAM E. BECHTHOLD
President

RESPONSE TO COMMENT LETTER NO. 24 - S.J. County Farm Bureau Federation

A. General Comments. The commentor's opinion on the adequacy of the EIR is not accepted. It neither identifies the so-called inadequacies nor suggests specifically what needs to be done to overcome them. The City feels that it has more than met the letter and spirit of CEQA in preparing this EIR.

B. Public Review of Key Documents. As noted under para. A, Response to Comment Letter No. 23, all CEQA requirements for public review were met. The City does not have a library, but its City Hall offices are easily accessible with comfortable space for reviewing all reports. It is not typical practice to provide reports to other cities unless requested. They were provided to the City of Tracy, City of Manteca, City of Stockton, the Tracy School Districts, San Joaquin County, and other local governmental agencies. The price of the documents does not deter any person from reviewing the documents which were made available at Lathrop City Hall.

C. Specific Comments.

1. Water Supply/Wastewater Management. A detailed discussion of options for obtaining a firm supply of potable water to serve the Project is found on pp IV-10 and -11 and V-5 through V-10 of the Draft EIR. Also, see discussion see para. C.1, Response to Comment Letter No. 12.

   Wastewater management issues are discussed on pp IV-11 and V-10 through V-17 of the Draft EIR. Also, see discussions of wastewater issues under the Response to Comment Letter No. 14 and para. E of Response to Comment Letter No. 25.

2. Growth-Inducing Impacts: See para. E., Response to Comment Letter No. 23.

3. General Plan Inconsistency: See para. V under Comment Letter No. 13.

4. Levee Improvement and Maintenance. Typical levee design and improvement proposals are contained in the Specific Plan document under the Community Design Sections in Chapter VI, after p. 121. [See also para. C.2., under Response to Comment Letter 12, and para. B under Response to Comment Letter No. 22.]

5. Transportation and Air Quality. The City is aware that mitigation measures must be feasible and adequate to address project impacts. Regarding feasibility of mitigation measures, see Response to Comment Letter No. 11, para, B. The adequacy of mitigation measures related to transportation and air quality are covered extensively in the Draft EIR and has received approval from staff of Caltrans and the SJV Unified Air Pollution Control District.

D. Closing Comments. The City strongly disagrees with this opinion. The allegations are of such generality that further response is unwarranted.

Robert Grunwald
c/o Pam Carder, Planning Director
City of Lathrop
16775 Howland Road, Suite One
Lathrop, CA 95330

21 August 1995

VIA FAX

Subject: Comments on West Lathrop Specific Plan DEIR

Dear Mr. Grunwald:

The following are my comments on the Draft EIR for the West Lathrop Specific Plan. These comments are my own personal comments as a resident of the City of Stockton. As you know, I am a professional city planner and I was previously employed as Senior Planner for San Joaquin County.

Overall, I am very disappointed in the level of detail of the infrastructure plans that are included as part of the Specific Plan, and I believe the DEIR to be inadequate under the California Environmental Quality Act (CEQA). I am also quite alarmed at the City's transparent attempts to stifle citizen review of the relevant documents upon which this DEIR is based.

For purposes of my legal standing in this CEQA action, I incorporate by reference all of the topics and comments that are included in the letter, dated August 17, 1995, submitted by Peggy Keranen, Deputy Director, San Joaquin County Community Development Department. I have read all of Ms. Keranen's comments and agree with them. In an attempt at brevity I will not repeat all of her comments.

A. Lack of Availability of Key Documents

The main value of the California Environmental Quality Act is its requirements for full public disclosure of development projects and their potential impacts upon the environment. If individual jurisdictions attempt to avoid or circumvent the public disclosure requirements of the act, the public is robbed of its ability to learn about and speak out on critical development issues. I believe the City of Lathrop and its officers have violated the intent, if not the letter, of the CEQA law.

It appears that many interested citizens and agency representatives may not have had an opportunity to examine the West Lathrop Specific Plan, the detailed "project description" which the DEIR analyzes, because the City has not freely provided the Specific Plan to those individuals who

requested the DEIR. The City set a prohibitively high price of S 55 for the Specific Plan and S 20 for the DEIR.

I spoke with Pam Carder on or about August 14th, and asked here if copies of the Specific Plan and the DEIR were in area libraries. She replied that the City had not put copies in the Stockton, Manteca or any other libraries, and people could review the documents in the City offices. I strongly suggested she do so, and she said she would think about it. I noted to her that many people, myself included, work during the day and cannot make it into the City offices. Also, I was not able to come up with S 55 for the Specific Plan, since my wife is not working during the summer. As far as I know, no copies of the DEIR and the Specific Plan were ever made available int he libraries or other public offices outside Lathrop.

I spoke with Supervisor Dario Marenco's office and requested copies of the DEIR, the Specific Plan, and the Addendum (Alternative E). The City deliberately ignored the request for the Specific Plan and sent only the Addendum and the DEIR. The City staff has reasoned that the Addendum is the most recent updated plan (with major changes to the proposed circulation system for Stewart Tract); most people received only the Addendum with the DEIR. However, the addendum is inadequate in reviewing the DEIR, since it only updates the circulation portion of the Specific Plan.

For these reasons, I request that the City place copies of the DEIR, Addendum, and Specific Plan in all of the libraries in the county and grant a 30-day extension of the review period for the DEIR, until about September 21, 1995. I believe the County Community Development Department has made a similar request. Please inform me in writing of the City's decision.

B. Lack of an Adequate Project Description

Related to the points that I made above, and in agreement with the comments submitted by the County, I request that the updated project description included in the Addendum be integrated into the Specific Plan, and that the DEIR be revised to analyze in detail all of updated circulation improvements that are now proposed. The revised DEIR should be recirculated for public review. As the documents now read, it is not possible to fully grasp what circulation and other improvements are proposed under the project, and what the environmental impacts for specific components of the project may be. There appear to be numerous references between the DEIR and the Specific Plan which are inaccurate, as detailed in Ms. Keranen's letter.

C. Level of Detail of the Specific Plan and DEIR

California State law requires that an adequate specific plan must include text and diagrams which "specify all of the following in detail: ...(2) the proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid

waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan" (Section 65451 of California Government Code). In some instances, the infrastructure plans that have been included in the Specific Plan and analyzed in the DEIR have not been developed in enough detail to meet the standards for a Specific Plan, and consequently cannot be adequately analyzed in the DEIR. I have used the example of flood control and storm drainage below, to illustrate this point.

Several very large development projects have been proposed in California over the last five years, including the Dougherty Valley and Cowell Ranch projects in Contra Costa County and the Mountain House "new town" project in San Joaquin County. Citizens and agency representatives have come to expect a high level of detail and professionalism in the preparation of the Master Plan, Specific Plan, and DEIRs for these complex mega-projects.

It is instructive to compare the infrastructure and environmental documents that have been prepared recently for these other projects with the Specific Plan and DEIR prepared for West Lathrop/Gold Rush City. I think that even a layperson can quickly determine that the level of infrastructure detail provided in these other Specific Plan goes well beyond what settles for a Specific Plan for West Lathrop. Again, the lack of adequate infrastructure planning for storm drainage facilities, as discussed below, is a good example of the problem.

The detail in the West Lathrop Specific Plan is at a Master Plan, not Specific Plan, level. The recurrent problem with the Specific Plan and DEIR is that the discussion of a particular infrastructure system includes a discussion of several alterative systems, with not enough detail of the proposed system. The developers and the City have not completed enough technical studies and made enough hard technical, economic, and political decisions to warrant preparation of a Specific Plan. The Gold Rush City developers, Calafia, are well aware of the discrepancy between the technical report preparation requirements of the City of Lathrop compared to Contra Costa and San Joaquin Counties, since Califia is one of the two major developers for the 11,000 housing unit project, Dougherty Valley. Calafia and their consultants are capable of preparing high quality infrastructure and environmental documents, if they are required to do so by the City, the representatives of trustee and responsible agencies, and the concerned citizens of San Joaquin County.

D. Storm Drainage Facilities and Levee Improvements

Goal No. 8A in the West Lathrop Specific Plan states the intention to: "Reconstruct the levees around Stewart Tract to FEMA standards and maintain safe, expedient evacuation routes at all times." In order to build the Gold Rush City project and associated housing, hotels, etc. everyone knows that major levee reconstruction and heightening will have to be implemented on the levees around Stewart Tract and along portions of the San Joaquin River.

The Stewart Tract is a Delta island at or below sea level; levee improvements are one of the key "make or break" issues, along with water and water service, and circulation, in terms of infrastructure planning, environmental impact analysis, and public safety. The Specific Plan and the DEIR are both woefully inadequate in explaining in detail what levee improvements are proposed, whether the specific improvements will provide FEMA flood project standards, what potentially significant environmental impacts could be caused by the construction of the improvements, and whether the impacts could be mitigated.

Unfortunately, a lay person reading the Specific Plan and DEIR will not be able to find any specific levee improvement proposals, in either text or diagram form. The Specific Plan has only a very brief discussion of flood control issues (pp. 73-78). The text in the Specific Plan presents a very vague plan for flood control, e.g., "remedial work is planned to be performed on the Stewart Tract levee system which may help control the groundwater level in Stewart Tract" (page 74).

A series of lakes and canals are proposed but there are no detailed drawings or cross-sections of those facilities. The text notes that building pads will need to be graded five to six feet above the lakes, or perhaps as much as ten to twelve feet above lake levels further away. This amount of excavation and fill could be enormous, spread out over the entire Stewart Tract. Has the amount of required fill to provide pads at these elevations been calculated in either the Specific Plan or DEIR?

The Specific Plan states on page 32 under Goal 8A that "...engineering concepts for the design and construction of the levee system, the storm drainage and the system of roads and utilities have been incorporated into the Specific Plan. The major western portion of the Stewart Tract levees will be improved as part of Phase I." However, the text on pages 73-78 has no detailed description or graphics that show these Phase I improvements.

If there are other technical studies the City has prepared that are to be used in planning Gold Rush City drainage infrastructure, the studies should be excerpted or summarized in some detail in the DEIR Part V, or the entire studies should identified and made easily available to the public, in the county libraries. At one point in the text, there is a reference to a cross-island levee (Golden Valley Parkway?) but no description or graphic.

The DEIR analysis of the potential flood control impacts is so brief and non-responsive as to be laughable, if it were not such a life and death issue. The DEIR flood control mitigation measures on pages IV-9 and 10, and V-19 are so general as to be meaningless in successfully arguing, or proving, that the FEMA standards can be met by raising the Stewart Tract levees. I don't have time to go through each measure, but Measures 1 and 5 on page V-19 illustrate the problem.

Measure 1 discusses levee improvements in a very generalized way (not phrased as mitigation) and states: "...The final design of levee sections will require hydraulic and hydrographic analysis and the surveying of additional levee sections (including below the normal water line), slope stability analysis, and, if available, seepage data collected from piezometers during elevated river stages. It is likely that

relatively broad levees with substantial freeboard above design flood levels will be considered appropriate, having regard to the very high level of investment which they will protect."
Measure 5 addresses problem of elevated groundwater during high river flows and begin by stating: "Several options are available... [Note: one or more of these techniques will be implemented on Stewart Tract."

If the level of analysis described in Measure 1 above has not already been performed, then drainage planning for Gold Rush City is not advanced enough to warrant the preparation of a Specific Plan. The City should require the developer to prepare the studies, integrate the results of the studies into the Specific Plan, and prove in the DEIR that a specific, proposed storm drainage and levee improvement plan will meet FEMA standards and will mitigate all of its identified impacts upon the local and regional (down-stream) environment.

None of these so-called mitigation measures address the very real possibility that major improvements to the San Joaquin River levee system may be required. Nothing in the DEIR analysis addresses potential flooding or environmental impacts related to specific planned improvements and to Weston Ranch or the City of Stockton levees and flood protection downstream. The lack of any detailed plans upon which to base the analysis does not seem to faze the DEIR author. His conclusion states that "project impacts associated with drainage and flood control are either less than significant or will be mitigated to a level of less than significant...These measures will ensure that flood protection will be provided for at least a 100 year intensity event and that the levees surrounding Stewart Tract will be improved to meet standards of FEMA and the Corps of Engineers."

These conclusions are based upon no credible data or evidence presented in either the DEIR or Specific Plan and are symptomatic of the EIR author's obvious personal bias toward the project. The storm drainage analysis is totally inadequate and should be entirely rewritten and augmented with engineering, design, and scientific data which supports the DEIR finding of no significant impacts.

E. Water Supply and Wastewater Treatment and Disposal

Once again, the fact that the project has not yet identified any source of potable water or source of wastewater disposal strongly argues that enough work has not been done to justify preparation and approval of a ~~deficient~~ Specific Plan. As in the case of flood control, the DEIR analysis of water supply and wastewater treatment and disposal is totally inadequate and biased in its appraisal of impacts. The text of the Specific Plan (pages 65-68) is honest about the lack of a water supply and a plan to dispose of wastewaters. The text outlines three possible sources for water supply and three possible wastewater disposal options, but goes into no detail and calls for future studies.

The City's Sewer Master Plan has assumed all along that Gold Rush City would have its own wastewater collection, treatment and disposal system. Now, all of a sudden, the Gold Rush City developers are talking about the possibility of hooking into the City of Stockton wastewater plant!

As in the case of flood control, the DEIR author has unprofessionally opined that all possible environmental impacts of the project related to wastewater treatment and disposal can reduced to level of insignificance (page V-17), even if we don't know whether those impacts will occur in Lathrop, Manteca, or Stockton!

F. Transportation/Circulation

I have not had the time to doublecheck the transportation assumptions (such as the rather dubious assumption that 25 - 30% of trips will be by public transit) because the assumptions are not included in the DEIR. The section should be amended to summarize the most important assumptions that went into the analysis, especially the list of future (2010 or 2017) specific improvements that are assumed to be paid with public monies versus those improvements that are to be paid for by the developers or by the City of Lathrop. As noted in Ms. Keranen's letter, mitigation measures that state deficiencies will be mitigated by the project's "appropriate fair-share of regional traffic improvement mitigation fees" are not sufficient evidence to prove conclusively that major freeway and other transportation improvements that are directly impacted by buildout of the project can be mitigated to a level of less than significant.

The land use program described in the Specific Plan and DEIR includes buildout projections that appear to exceed the land uses identified in the City's 1991 General Plan. The DEIR and Addendum redesignated substantial lands around the Mossdale freeway interchange for "Urban Reserve." What assumed densities have been used for this Urban Reserve area in the traffic projections? If no development potential was modelled, then the 2017 traffic projections are probably understated in the area.

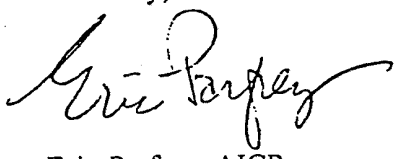
The transportation section of the DEIR is inadequate since it fails to describe the projects's relationship to the San Joaquin County Congestion Management Program and plan (CMP). The section must be rewritten to include an analysis of the difference in projected land uses and traffic volumes for Gold Rush City and West Lathrop under the existing 1991 General Pan and the proposed Specific Plan. A separate impact and mitigation measure should discuss whether the proposed Specific Plan is less than or greater than the General Plan Amendment review requirements of the CMP.

G. Biological Resources

This section of the Specific Plan and the DEIR should be updated to reflect the most recent discussions and negotiations between the City, the Department of Fish and Game, and Mr. Waldo Holt. Some of the language and mitigation measures included in the DEIR do not appear to be consistent with the recent settlement discussions.

If you have any questions, please contact me at (510) 420-8686 (day) or (209) 462-4808 (evenings). I look forward to reading the Final EIR. Your work is cut out for you.

Sincerely,



Eric Parfrey, AICP
1421 W. Willow St.
Stockton, CA 95203

RESPONSE TO COMMENT LETTER NO. 25 - Eric Parfrey

A. Lack of Availability of Key Documents. See para. A, Response to Comment Letter No. 13 and to para. C, Response to Comment Letter No. 23.

B. Lack of an Adequate Project Description. See para. C, Response to Comment Letter No. 23. Recirculation of the EIR is not necessary, as discussed in Response to Comment Letter No. 13, para. W. The consolidated Specific Plan document merely consolidates the previously published Specific Plan and Addendum, eliminating references to project characteristics and proposals which have been determined to be infeasible. The Draft EIR presents a logical sequence of events which transpired during the concurrent efforts in preparing the Specific Plan and Draft EIR.

C. Level of Detail. The City disagrees with the overall comment on insufficient detail regarding infrastructure planning and analysis. The State Planning and Zoning Law (Section 65450 et. Seq.) pertaining to Specific Plans does not require the level of detail claimed by Mr. Parfrey as being necessary. The operative provisions of law are quoted below as background for understanding the responses which follow:

> **"Section 65451.(a)** A specific plan shall include a text and a diagram or diagrams which specify all of the following in detail:
>
> (1) The distribution, location and extent of the uses of land, including open space, within the area covered by the plan.
>
> (2) The proposed distribution, location and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste, energy and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.
>
> (3) Standards and criteria by which development will proceed, and standards for the conservation, development and utilization of natural resources, where applicable.
>
> (4) A program of implementation measures including regulations, programs, public works projects and financing measures necessary to carry our paragraphs (1), (2) and (3).

All of these topics are discussed extensively in the West Lathrop Specific Plan. Corroboration as to the adequacy of such discussion is provided by a review of guidelines for the preparation of specific plans as described in "Specific Plans in the Golden State", published by the Governor's Office of Planning and Research (OPR), August 1988. The following references to the OPR report on specific plans are instructive in responding to Mr. Parfrey's comments:

1. The Introduction to the OPR guidelines concludes with the statement that "'Specific Plan in the Golden State' is an informative report and its suggestions should not be viewed as mandatory requirements." [see p. 7]

2. A specific plan is described as "...creating a bridge between general plan policies and individual development proposals. Ideally, a specific plan directs all facets of future development: from the distribution of land uses to the location and sizing of supporting infrastructure, from methods of financing public improvements to standards of development." [see p. 9]

3. "Specific plans are adaptable. They may cover a very large area ..... or a small site of less than an acre..... They may address only those issues contained in the general plan or they may branch out into other subjects of local relevance. The local city council .....is free to choose the subject of a specific plan", provided that the plan meets the requirements of Government Code Section 65451 as cited above. [see p.9]

4. "A specific plan is a flexible means of implementing the general plan". [see p. 9]

D. Storm Drainage Facilities and Levee Improvements. See Response to Comment Letter No. 12, para. C.2. In its "Model Outline of a Specific Plan" (beginning on p. 17 of the OPR guidelines), OPR refers to requirements for water, sewer and storm drainage under paragraph B, as follows:

> "B. Water, Sewer and Storm Drainage -- a statement of development policies (based on opportunities, issues, and the analysis of data) pertaining to the planned distribution, location, extent and intensity of water, sewer and storm drainage and consisting of:
>
> 1. Goals
> 2. Objectives
> 3. Policies
> 4. An explanation of how the goals, objectives and policies manifest themselves in the plan proposals
> 5. Plan proposals
>   a. Diagrams and written descriptions of planned water, sewer, and drainage systems, including improvements, that support planned land uses (Figure 10 and 11 are example diagrams).
>   b. Component characteristics of water, sewer and storm drainage systems, including standards and criteria."

The description of plan proposals is especially relevant, since the technical appendixes referred to below for these topics more than meet the intent of OPR's guidelines, including the illustrations referred to under 5.a., above.

The comment incorrectly states that "the Stewart Tract is a Delta island at or below sea level." While the Stewart Tract is a Delta island, it is not "at or below sea level".

The amount of fill required to elevate building pads has been calculated generally as being approximately equal to the amount of excavation required to create the lake system.

The DEIR specifically states on p. IV-19 (mitigation measure 1.a) and p. V-18, that flood protection and drainage works construction within the Specific Plan area will be designed to meet standards set by the U.S. Army Corps of Engineers, the Federal Emergency Management Agency (FEMA), the California Reclamation Board, and the California Department of Water Resources.

Further detailed engineering required beyond that provided in the Specific Plan will quite properly be required at the specific project stage. Engineering analyses which meet the test of the OPR guidelines for specific plans are contained in technical appendixes available for public review at Lathrop City Hall, including:

- **Domestic Water Supply,** Siegfried Engineering, December 1994
- **Stewart Tract Flood Protection,** Siegfried Engineering, December 1994
- **Stewart Tract Storm Drainage System,** Siegfried Engr., December 1994
- **Wastewater Collection System,** Siegfried Engineering, December 1994

- **Reclaimed Wastewater Distribution System**, Siegfried Engr., Dec. 1994
- **Response to Stockton's Proposal for Accepting Wastewater**, Siegfried Engineering, January 1995
- **Preliminary Geotechnical Report**, Roger Foote & Associates, November 1994

E. Water Supply and Wastewater Treatment and Disposal. [See C.1., Response to Comment Letter No. 12, and Response to Comment Letter No. 14 pertaining to water and wastewater issues.] The comment incorrectly states that the "City's Sewer Master Plan has assumed all along that Gold Rush City would have its own wastewater collection, treatment and disposal system". The City's current Master Plan does not include Gold Rush City. and therefore there is not any assumption that Gold Rush City would have a separate wastewater collection, treatment and disposal system. Also, it is not the "Gold Rush City developers" that are "talking about the possibility of hooking into the City of Stockton wastewater plant," he City of Lathrop as a whole, including the Stewart Tract. The City recognizes that further environmental review may be necessary in connection with the City's selection of a wastewater collection, treatment and disposal system to serve the Specific Plan area.

F. Transportation/Circulation. See responses to Comment Letter No. 2, para. B in Response to Comment Letter No. 12, para. J. and K. in Response to Comment Letter No. 13, and the discussion of Traffic Issues in the Response to Comment Letter No. 14.

The Urban Reserve designation under the Specific Plan is intended to ensure that development in the vicinity of the Mossdale interchange will be strictly limited because of limitations on interchange capacity. Under this designation, new development (other than that under the proposed Project) will not be permitted unless and until the Mossdale/I-5 interchange is improved or other transportation system improvements allow for sufficient additional traffic capacity in this area. Therefore, no presumption as to future land uses within the Urban Reserve designation were incorporated into traffic modeling for the years 2017 and 2025. Any authorization for development within the Urban Reserve designation would first require an appropriate level of environmental assessment.

With respect to the Project's relationship to the San Joaquin County Congestion Management Program (CMP), CMP traffic modeling conducted for the San Joaquin County COG has not been done and officially approved for any horizon years beyond 2000 [conversation between Peter Williams and Mark Crane]. The City of Lathrop intends to comply with all applicable provisions of the CMP. Compliance with the CMP for West Lathrop is further assured by performance standards for the Project that are incorporated into the Consolidated Specific Plan and the Development Agreement that will be approved concurrent with Specific Plan adoption.

G. Biological Resources. The Consolidated Specific Plan contains a discussion of the HMP that reflects the most recent discussions of the City with the California Department of Fish and Game (DFG) and Waldo Holt. As stated in para. N in the Response to Comment Letter No. 13, the HMP for Paradise Cut and off-site mitigation lands will be approved by DFG and adopted by the City prior to approval of the Specific Plan, and will be implemented concurrently with the development of the Project. Under the HMP, all development of suitable Swainson's hawk foraging habitat within the Project site will be mitigated by the preservation of other suitable habitat -- either on-site in Paradise Cut or off-site -- at a ratio of 0. 5 acres of mitigation land to 1.0 acres of suitable foraging habitat converted to unsuitable uses. On and off-site mitigation lands will be dedicated and managed exclusively for the purpose of habitat preservation and

enhancement. Implementation of the HMP, as approved by DFG, will satisfy the requirements of the City's General Plan.

EXHIBIT "A"

YEAR 2005 AND YEAR 2025 TRAFFIC PROJECTIONS, IMPACTS AND MITIGATION MEASURES UNDER THE PROJECT (PREVIOUSLY ALTERNATIVE "E")

October 17, 1995

Pam Carter
City of Lathrop

I am requesting that these be included in the Gold Rush EIR.

1. All agreements made with the developers be included and part of the mitigations. Should the land be sold to any other developers they or she, he will be responsible for any and all mitigations.

2. Mitigation measures should be part of the monitoring and must be done timely and as agreed in a timely fashion.

3. All issues addressed by the Land Utilization (LUA) be included in the EIR. (John Eilers)

4. The are be tested for ground water and shale. Percolation of rain has been a problem in that area, flooding could result. This should be addressed.

5. All levees repaired and up keep shall be the responsibility of Gold Rush City area only. Should a flood occur - it shall not be declared a natural disaster and at no time be a cost to the taxpayers or the City of Lathrop beyond the boundary of Gold Rush City.

6. Once annexed changes cannot be done on a piecemeal basis that can cause adverse conditions that have been mitigated and addressed in the EIR.

7. Since the school district of Banta and Tracy are involved, mitigation measures must be included to the funding and responsibility of providing schools, both grade and high schools.

8. 100 year flood plain.

9. They should be a housing and job balance. If no jobs no houses.

Georgianna Reichelt
3605 E. Louise
Manteca, CA 95337

Transcribed from the original handwritten copy by Pamela R. Carder, 24 October 1995.

RESPONSE TO COMMENT LETTER NO. 26 -Georgianna Reichelt

1. Agreements. It is not appropriate to include the Development Agreement between the City and the Project developers as part of the Final EIR, since the Development Agreement will run with the land (i.e., will be imposed on any subsequent buyers). Under CEQA, all required mitigation must be imposed by the City when needed on specific projects submitted in the future that are consistent with the West Lathrop Specific Plan. All impacts and mitigation described in the EIR is also contained in the Mitigation Monitoring Program (MMP) prepared separately and available for public review at City Hall. Upon certification of the EIR, the MMP will become Part IX of the Final EIR.

2. Mitigation Monitoring. See response under Item 1, above.

3. Issues Addressed by the Land Utilization Alliance. See response to Comment Letter No. 23.

4. Groundwater/Flooding. See response to Comment Letters No. 12, 14 and 22, above.

5. Levee Repair and Upkeep. With respect to long-term levee maintenance on Stewart Tract, a flood control maintenance district will be formed to generate the funding required for proper long-term levee maintenance. However, when disasters occur such as those resulting from a flood or earthquake, public responsibility for repair and cleanup is often shared at local, state and federal levels depending on the magnitude of the disaster. Disasters are considered to be "natural disasters" when natural conditions cause public works to fail and such failure cannot be attributed to faulty design and construction standards imposed at the time when the works were constructed. Under such conditions, it is not possible for any City in California to hold harmless any particular local resident taxpayers at the expense of others. Similarly, if a similar disaster were to occur east of Interstate 5 whatever local tax burdens that would be generated would fall on the City as a whole and not just on lands east of I-5.

6. Changes after Annexation. The City concurs that changes to the Project (whether or not piecemeal in character) cannot be made in the future which would cause adverse environmental impacts beyond those already mitigated by the West Lathrop Specific Plan EIR. Under the Specific Plan (and its EIR), all specific development proposals will require environmental assessment to determine whether further mitigation may be required beyond that already covered by the Specific Plan EIR.

7. School Districts. Mitigation measures for school impacts on all affected school districts are provided in the Draft EIR, and have been determined by the affected districts to be adequate.

8. 100 Year Floodplain. See response to Comment Letter No. 22, as noted under Item 4, above.

9. Jobs/Housing Balance. A jobs/housing balance is assured by policies of the West Lathrop Specific Plan and Lathrop General Plan that Stewart Tract development must generate sufficient jobs to create its own balance, without having to draw-down on the highly positive ratio of jobs to housing currently enjoyed by Lathrop as compared to other cities in San Joaquin County.

same as signalized. The minimum LOS recommended for side street stop sign controlled intersections is LOS E.

Table III-0 presents existing levels of service at intersections in close proximity to the Project site. Currently, all intersections operate acceptably during all peak time periods (weekday AM and PM peak hours, and Saturday AM peak hour).

TABLE III-0

EXISTING INTERSECTION LEVEL OF SERVICE
[1993]

Intersection	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday AM Peak Hour
Louise Avenue I-5 Northbound Ramps (off-ramp stop sign controlled)	A[1]	C	C
Louise Avenue I-5 Southbound Ramps (off-ramp stop sign controlled)	A[2]	C	C
Yosemite Avenue/S.R. 120 Eastbound Ramps (off-ramp stop sign controlled)	A[3]	B	A
Yosemite Avenue/S.R. 120 Westbound Ramps (off-ramp stop sign controlled)	A[4]	A	A
Louise Avenue/Manthey Road (Louise Avenue stop sign controlled)	A	A	A

[1] Unsignalized level of service - westbound left turn
[2] Unsignalized level of service - southbound left turn
[3] Unsignalized level of service - eastbound left turn
[4] Unsignalized level of service - northbound left turn

Source: Crane Transportation Group

Existing Freeway Operation

Per Caltrans standards, the poorest acceptable operation is LOS D. With an assumed capacity @ LOS D = 1,850 vehicles per lane per hour,[2] the locations that currently have unacceptable operation are presented in Figure III-5-D for the following time periods:

- Weekday AM peak hour
- Weekday PM peak hour.
- Saturday AM peak hour

The only unacceptable freeway operation occurs during the weekday PM peak hour on eastbound I-205 from west of the MacArthur interchange to I-5, and on eastbound S.R. 120 to the east of the Yosemite Avenue interchange.

[2] Highway Capacity Manual, Transportation Research Board Special Report 209, 70 mph design speed.

INTRODUCTION

This Exhibit presents revisions to certain of the impacts and mitigation measures previously described in the Draft EIR, based on new traffic model runs for the years 2005 and 2025 under the Project as proposed (which includes Alternative E land use proposals for Stewart Tract). Under tje Project, the Mossdale interchange is no longer viewed as a primary means of access to Stewart Tract. The interchange will serve only a limited amount of peak hour weekday traffic generated by existing land use near the interchange and a farmers' market proposed between the freeway and the S.P. Railroad. The existing road connection between the areas east and west of the S.P. Railroad will be disconnected to eliminate access to Stewart Tract.

Underthe Project, access to Stewart Tract will depend initially on the construction of Gold Rush Boulevard over the San Joaquin River as an extension of Louise Avenue. As traffic demands increase, additional access will be provided by extending Golden Valley Parkway southerly and westerly across the river, through Stewart Tract, and on to Paradise Road and a new interchange with I-205. Golden Valley Parkway thus will become the parallel facility to the I-5/I-205 freeway sections as they pass through Lathrop, relieving the freeway system of having to accommodate traffic destined for various parts of Lathrop between Lathrop Road on the north and Paradise Road on the west.

Exhibit A concludes with a series of maps presenting traffic-related data for the Project in addition to the six maps provided under the Response to Comment Letter.No. 2 in Part II of the Final EIR.

IMPACTS AND MITIGATION MEASURES [Replaces the list of impacts and mitigation measures No. 1-3 on ppV-59 through V-62, and Nos. 15-19 on pV-80 of the Draft EIR.] Note that strike-out language indicates deletions and italics indicate new or revised language.

Year 2005 Base Case + Project Conditions

Impact 1: ~~The proposed Mossdale interchange design does not meet Caltrans or Federal Highway Administration (FHWA) design criteria. The criteria include minimum interchange spacing between freeway-to-freeway interchanges, and new surface street interchanges are required to be two miles in rural areas and one mile in urban areas; new interchanges not providing connections to all freeway travel directions are avoided, as are surface street ramp connections to freeway-to-freeway connections. [significant]~~ *This impact is no longer relevant with the proposals of Alternate E. All Project access in the year 2005 via the Louise Avenue interchange will be in accordance with Access Alternative* E, *as shown on Figures V-5 and -6 and Figures V-17 and -18 in Response to Comment Letter No.2 of the Final EIR .*

Mitigation 1: ~~This would require State II Project Study Report (PSR) improvements for the interchange (pluis and additional southbound off-ramp .....of the Technical Appendix.~~ *No mitigation is required.*

Impact 2: Project area traffic would result in unacceptable freeway operation along the following freeeway segments (above and beyond Base Case conditions), as follows: **[significant]**

a. For the weekday PM peak hour, Project traffic would increase V/C ratios by more than 1% on all freeway segments experiencing unacceptable operations with Base Case traffic. *PM peak hour Project traffic would also increase eastbound volumes on S.R. 120 (from I-5 to the Yosemite*

interchange) to borderline capacity operations. [See revised Figure V-4 of Draft EIR in Response to Caltrans Comments, p II-19 of Final EIR]

b. ~~For the Saturday AM peak hour, eastbound I-205 operations would be unacceptable from west of the MacArthur Drive interchange to the new off-ramp serving Stewart Tract; and north-bound I-5 operations would be unacceptable from the proposed Mossdale loop on-ramp to the I-5/SR 120 diverge at the San Joaquin River.~~

Mitigation 2: The following freeway widening would be required to provide acceptable freeway operation for Base Case (without Project) traffic conditions, *and it would also provide acceptable operation for "with Project" conditions with the one exception cited below after item c* :

a. Widen I-205 to eight lanes.
b. Widen I-5 northbound (I-205 to SR 120) to 5 lanes across the San Joaquin River.
c. Widen I-5 north of SR 120 to 8 lanes.

The possible exception is that S .R. 120 from I-5 to the Yosemite interchange may require widening from 4 (up) to 6 lanes due to the Project, based upon projected volumes and freeway capacities accepted by Caltrans.

The above improvements currently are not programmed by Caltrans, nor does Caltrans have available funding for these improvements. It is therefore imperative that realistic regional fees or other appropriate levies be imposed to provide these improvements, or to provide alternate means of travel. Other approaches would include financial incentives to take transit, if available, or to carpool, or financial disincentives such as a high gasoline tax or tolls to cross Altamont Pass would decrease dependence on the automobile.

Impact 3: The Louise Avenue intersections with I-5 north- and southbound ramps would both be operating at unacceptable levels with the addition of Project traffic and geometrics sufficient to accommodate Base Case traffic ~~(See Table V-9)~~ (See Table A-1 of this Exhibit A to the Final EIR). [**significant**]

Mitigation 3: The Louise Avenue intersections with I-5 north- and southbound ramps should be improved as presented on Figure V-6 (as revised on pII-21 of Response to Caltrans Comments). *Improvements are the same as those planned for Phase 2 in the Project Study Report for the Louise Avenue interchange.*

All project on-site roadways would be operating at acceptable levels of service if designed with the number of lanes shown on Figure V-6. In addition, all on-site intersections would be operating at acceptable levels of service ~~(see Table V-9)~~.

Intersections requiring signalization within the Project area are presented in Figure V-6. The Project applicant has proposed that traffic circles (roundabouts) rather than signalized intersections be provided at all intersections along East and West Califia Drive which is the major 4-6 lane arterial ring road serving Stewart Tract. By 2005, circles would be provided (at a minimum) at the East Califia Drive intersection with ~~Mossdale Boulevard and~~ Gold Rush Boulevard. Although there is currently minimal use of traffic circles within the United States, their popularity is slowly growing. Comments and reports by representatives from jurisdictions using traffic circles indicates that circles, if designed properly, typically provide about 10% to 20% greater capacity than a signalized intersection, resulting in less overall delay

for drivers. ~~Roundabout level of service analyses results contained in the Technical Appendix indicate acceptable operation of a major traffic circle at the Califia Drive/Mossdale Boulevard junction.~~

Year 2025 Base Case + Project Conditions

Impact 15: ~~A~~ Project traffic would result in unacceptable PM peak hour operation of LOS E along the following freeway segments: (See revised Figure V-15 of Draft EIR in Response to Caltrans Comments, p II-22 of Final EIR) **[significant]**

a. SR 120 eastbound from I-5 to the Yosemite Avenue interchange.
b. I-5 northbound from ~~Louise Avenue~~ *S.R. 120* to Lathrop Road.
c. Eastbound I-205, from west of MacArthur Drive to the Paradise Road interchange, would have its V/C ratio increased by more than 1%.
d. Eastbound I-205 from Paradise Road interchange to I-5 (borderline capacity operation).

Mitigation 15: TDM measures will be required for Project employment uses, and fair-share contributions toward freeway improvements should be imposed. ~~However, the impact will be so severe as to require an alternative land use configuration as described under Mitigation 14, above.~~

Volume levels at the Louise Avenue interchange would increase greatly with the addition of Project traffic.

Impact 16: The Louise Avenue intersections with the I-5 north- and southbound ramps would both be operating at unacceptable levels with the addition of Project traffic ~~(see Table V-11)~~. (See Table A-2 of this Exhibit A to the Final EIR). **[significant]**

Mitigation 16: The Louise Avenue intersections with the I-5 north- and southbound ramps should be improved as presented in Figure V-17 (see revised Figure V-17 shown now as Figure V-18 of the Draft EIR in Response to Caltrans Comments, p II-24 of Final EIR). Loop ramps will be required in the northwest and southeast quadrants of the interchange.

All Project on-site roadways would be operating at acceptable levels of service if designed with the number of lanes shown on Figure V-17 (as revised). ~~However, this would require widening Golden Valley Parkway through the Project site.~~

~~**Impact 17:** Golden Valley Parkway would operate at an unacceptable level of service through the Project site (Stewart Tract and Mossdale Village) as a 6-lane expressway with the addition of Project traffic. [significant]~~

~~**Mitigation 17:** Widen Golden Valley Parkway from six to eight lanes through the Project site.~~

All on-site intersections would be operating at acceptable levels ~~(see Table V-11)~~, with the exception of Golden Valley Parkway/Gold Rush Boulevard ~~and Golden Valley Parkway/Mossdale Boulevard~~.

Impact 18: The Golden Valley Parkway at-grade intersection with Gold Rush ~~and Mossdale~~ Boulevard would be operating at unacceptable levels, even with maximum lane improvements. **[significant]**

Mitigation 18: Provide grade separation and interchange treatment at the Golden Valley Parkway intersection with Gold Rush ~~and Mossdale~~ Boulevard. Adequate right-of-way should be retained for ~~both~~ *this* improvement.

Intersections requiring signalization within the Project area are presented in Figure V-17(as revised). The Project would provide significantly increased traffic volumes off-site at other locations within the City of Lathrop.

Impact 19: The following roadway locations would experience significant impacts due to Project traffic: **[significant]**

~~a.~~ ~~Lathrop Road, from Harlan Road to McKinley Avenue, would have its V/C ratio increased by more than 1% at locations already experiencing unacceptable operation as a 4-lane arterial roadway.~~

a. Louise Avenue, from Harlan Road to 5th Street, would have its V/C ratio increased by more than 1% at locations already experiencing unacceptable operation as a 4-lane arterial roadway.

~~c.~~ ~~Golden Valley Parkway, from Lathrop Road to Roth Road, would have its V/C ratio increased by more than 1% at a location already experiencing unacceptable operation as a 6-lane expressway.~~

Mitigation 19: The Project should provide for a fair-share contribution of traffic impact fees toward widening ~~these three~~ *this* roadway.

Effect of Project Mitigation:

The above Project mitigation measures will mitigate Project impacts on the freeway system.to less than significant levels by assuring acceptable levels of service within the West Lathrop planning area and on the freeway system as generated by the Project. However, unavoidable significant cumulative traffic impacts on the freeway system (i.e., including impacts generated by other projects within and outside of the region which will contribute to regional traffic demand in future years) will remain.

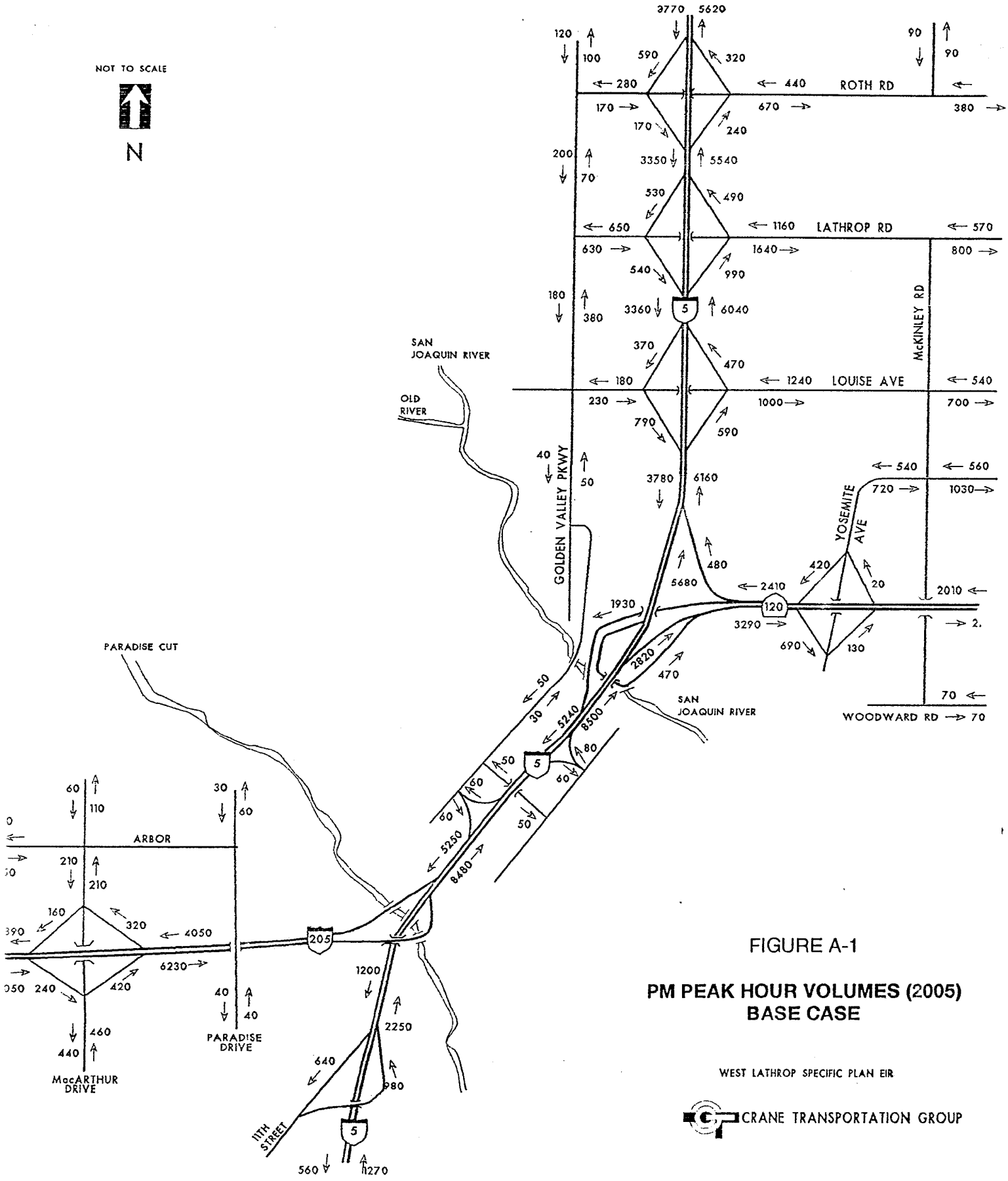


FIGURE A-1

PM PEAK HOUR VOLUMES (2005)
BASE CASE

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

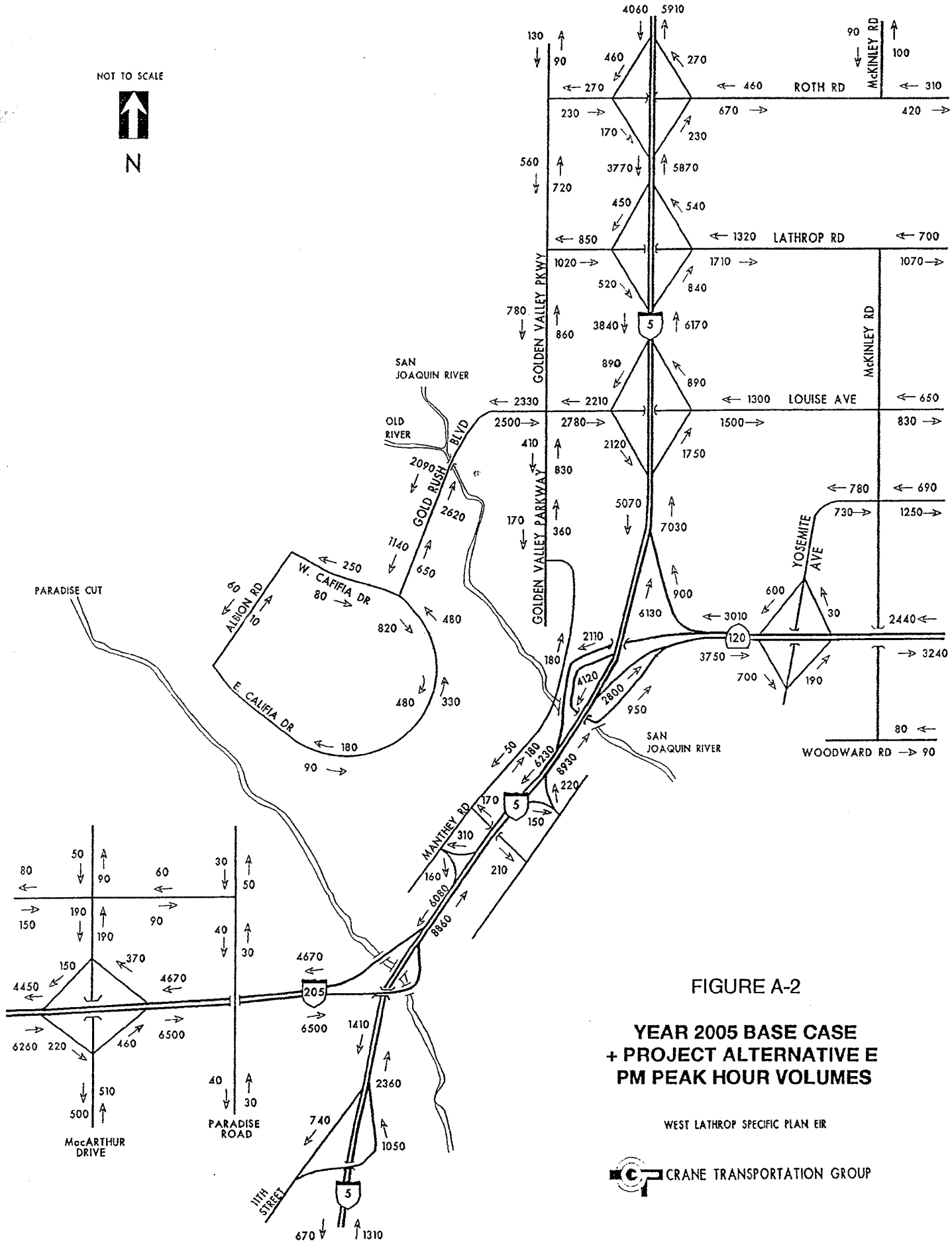


FIGURE A-2

YEAR 2005 BASE CASE + PROJECT ALTERNATIVE E PM PEAK HOUR VOLUMES

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

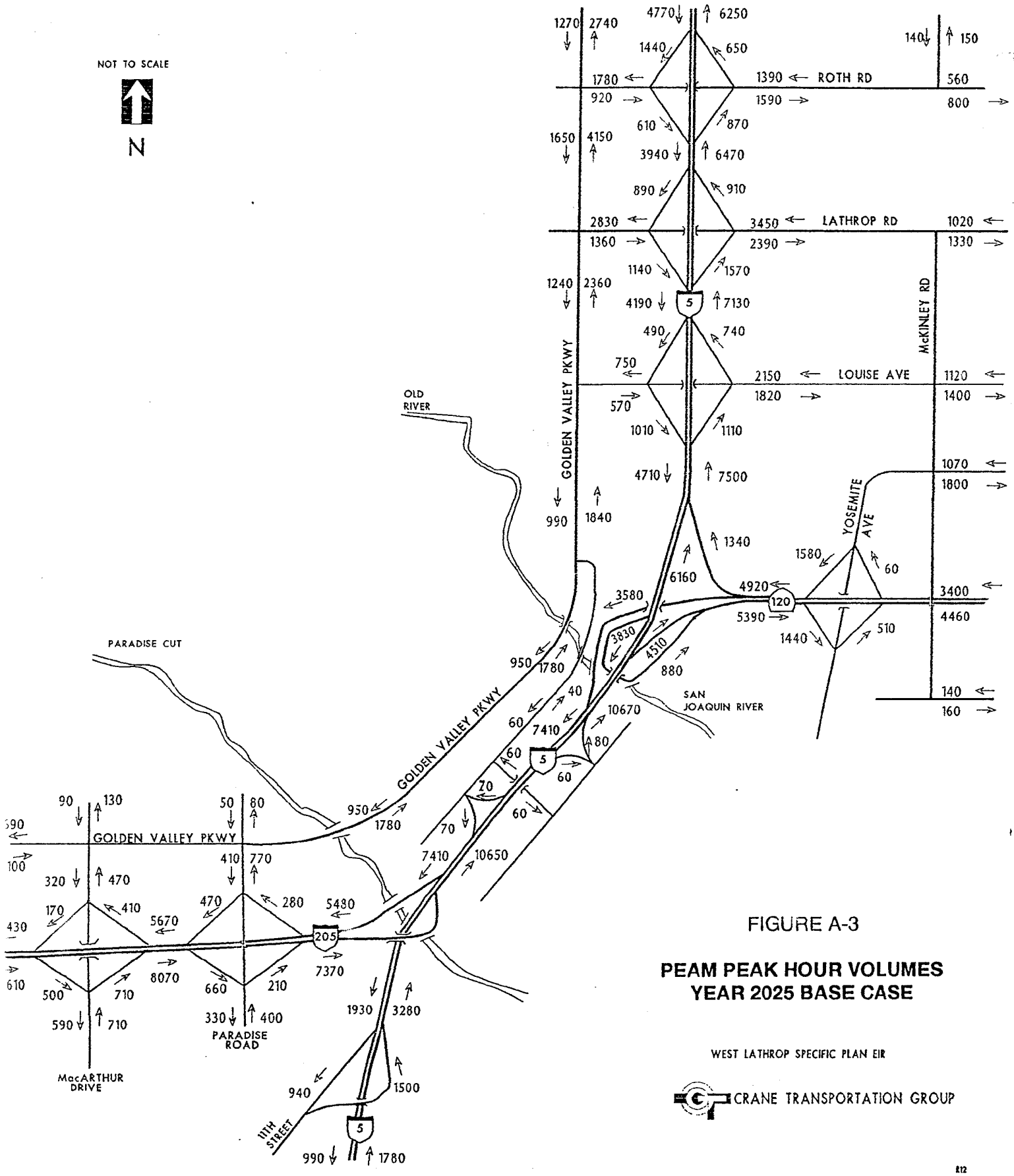


FIGURE A-3

PEAM PEAK HOUR VOLUMES
YEAR 2025 BASE CASE

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

PART IX

MITIGATION MONITORING PROGRAM

A Part of the Final Environmental Impact Report for the West Lathrop Specific Plan

SECTION 1 - INTRODUCTION

In compliance with Public Resources Code Section 21081.6, the City Council does hereby establish the Mitigation Monitoring Program for the West Lathrop Specific Plan. This Program ensures compliance with all mitigation measures included in the certification of the Final EIR for the West Lathrop Specific Plan (State Clearing House No. 93112027). It allows the City and its citizens to verify compliance with mitigation measures, and serves to provide specific information regarding the effectiveness of particular mitigation measures.

A. Monitoring Checklist

Project mitigation measures identified to mitigate or avoid significant effects on the environment have been incorporated into a Checklist (attached as Table IX-1) which is intended as a summary of the full program for ready reference. Mitigation measures are listed both separately and by environmental topic in the Checklist. Appropriate space is provided in the Checklist to enable the City to monitor progress in the implementation of each measure. Any information provided to the City by applicants for individual development projects must be kept with the project file for that project for the purpose of verification.

B. List of Permitting Agencies

A list of State and Federal agencies having responsibility for issuing various types of permits required before development can occur under certain situation is included after the Checklist, beginning on page IX-11.

C. Characteristics of the Monitoring Program

1. Program-Level Mitigation Monitoring:

The overall monitoring for secondary impacts resulting from the Specific Plan will be conducted by the Lathrop Community Development, City Engineering, Public Works and Building Departments. These Departments will monitor mitigation measures, if any, which apply to the City as a whole as distinct from development project mitigation.

2. Project-Level Mitigation Monitoring:

Mitigation measures to be monitored as part of Specific Plan implementation will be the primary responsibility of the Community Development Department, assisted by the City Engineer, the Director of Public Works and Building Official, as appropriate. Most of the mitigation measures can be monitored through the development review and approval processes, the issuance of building permits and by the checking of engineering and improvement plans.

As City staff reviews each stage of project development, maps and plans will be checked by each agency having jurisdictional responsibility for review. Mitigation measures specific to the project are to be classified into project design monitoring and on-going monitoring, as follows:

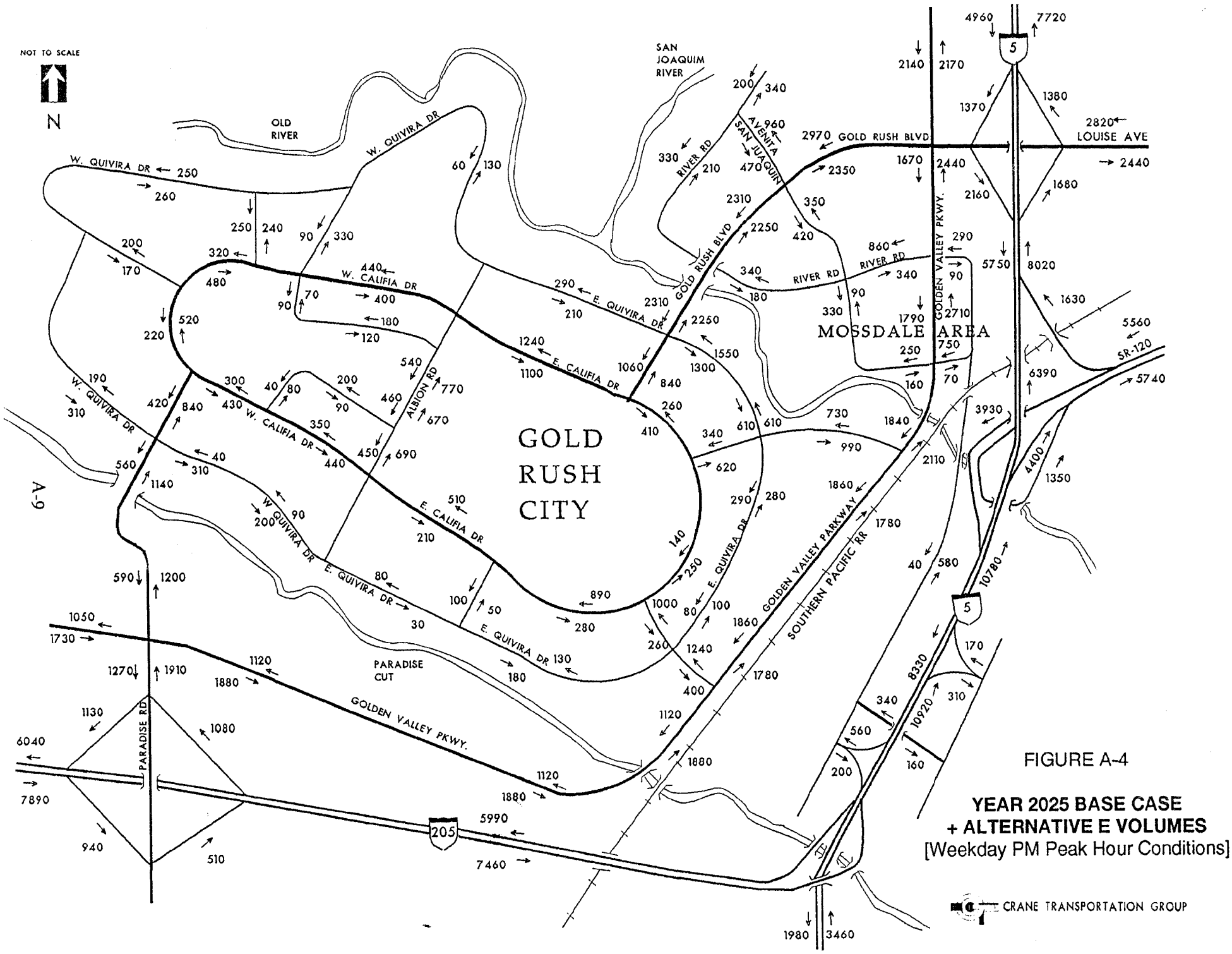


FIGURE A-4

YEAR 2025 BASE CASE
+ ALTERNATIVE E VOLUMES
[Weekday PM Peak Hour Conditions]

CRANE TRANSPORTATION GROUP

TABLE A-1

YEAR 2005 INTERSECTION LEVEL OF SERVICE
Alternative E, Weekday PM Peak Hour
[Signalized Operation]

Intersection	Level of Service - V/C Ratio[1]
Louise Avenue/I-5 Northbound Ramps	F - 1.79[2] C - 0.77[3]
Louise Avenue/I-5 Southbound Ramps	F - 1.46[2] C - 0.73[3]
Gold Rush Boulevard/Golden Valley Parkway	F - 3.81[2] C - 0.88[3]

1. TRB Circular 212: Level of Service - Volume/Capacity Ratio
2. Level of service with Base Case geometrics
3. Mitigated by Project

Source: Crane Transportation Group

TABLE A-2

YEAR 2025 INTERSECTION LEVEL OF SERVICE
Alternative E, Weekday PM Peak Hour
[Signalized Operation]

Intersection	Level of Service -V/C Ratio[1]
Louise Avenue/I-5 Northbound Ramps	F - 1.21[3] D - 0.85[4,5]
Louise Avenue/I-5 Southbound Ramps	E - 0.92[3] B - 0.64[4,5]
Paradise Road/I-205 Westbound Ramps[2]	D - 0.81
Paradise Road/I-205 Eastbound Ramps[2]	B - 0.65
Gold Rush Boulevard/Golden Valley Parkway	F - 2.92[3] Grade Separated[4]

1. TRB Circular 212: Level of Service - Volume/Capacity Ratio
2. New intersections
3. Level of service with Base Case geometrics
4. Mitigated by Project
5. Mitigation includes loop ramps

Source: Crane Transportation Group

Signalization Needs

Traffic signals are used to provide an orderly flow of traffic through an intersection. Many times they are needed to offer side street traffic an opportunity to access a major roadway where high volumes and/or high vehicle speeds block crossing or turn movements. They do not, however, increase the capacity of an intersection (i.e., increase the overall intersection's ability to accommodate additional vehicles) and, in fact, often slightly reduce the number of total vehicles that can pass through an intersection in a given period of time. Signals can also cause an increase in traffic accidents if installed at inappropriate locations.

There are 11 possible tests for determining if a traffic signal is warranted. These tests, called "warrants", consider criteria such as actual traffic volume, pedestrian volume, presence of school children and accident history. Usually, two or more warrants must be met before a signal is installed. In this report, the test for peak hour volumes (Warrant #11) has been applied. When Warrant 11 is met there is a strong indication that a detailed signal warrant analysis covering all possible warrants is appropriate. These rigorous analyses are described in Appendix D of the Caltrans Traffic Manual, while Warrant 11 is presented in Appendix B of this report.

Currently, no unsignalized intersections that could provide primary access to the Project site have volumes meeting or exceeding peak hour signal warrant criteria.

Planned Roadway Improvements

Caltrans:[3]

The S.R. 120 freeway between I-5 and S.R. 99 is currently being widened from a 3-lane facility up to a 4-lane facility (two lanes in each direction). As part of this construction, two new ramps are being added to the Yosemite Avenue interchange (westbound off and eastbound on) and a new interchange is being provided at Union Road in Manteca. Construction is expected to be completed by the end of 1995.

I-205 is projected to be widened from 4-lanes up to 6-lanes from Tracy west to I-580 between the years 2000 and 20005. Widening from four to six lanes between Tracy and I-5 is tentatively programmed between 2005 and 2010.

City of Lathrop:[4]

Stage I improvements at the Louise Avenue/I-5 interchange are planned for the summer of 1995. Improvements will include signalizing both ramp intersections and widening both the northbound and southbound off-ramps to 2- lanes at their surface street intersections with Louise Avenue. Louise Avenue will be widened to 4-lanes in its underpass of the I-5 freeway to include back-to-back left turn lanes on the approaches to each on-ramp as well as two eastbound travel lanes. Additional pavement widening will also be provided at each intersection to facilitate truck turn movements.

---

3 Conversation with Mr. Matt Bailey, Caltrans District 10 Engineer.

4 Conversation with Mr. Glenn Gebhardt, Lathrop City Engineer

a. *Project Design Monitoring:* Project design monitoring involves mitigation measures that are to be incorporated into the specific project design to mitigate one or more impacts identified in the Final EIR. For the most part, these measures will be shown on site plans and any required improvement drawings. If a mitigation measure is not shown or included, plans and any draft agreements will be returned to the applicant for correction. Plans or agreements shall not be approved until the appropriate mitigation measures have been duly incorporated and/or implemented. In addition, certificates of occupancy shall not be issued until all applicable mitigation measures have been implemented. Verification of compliance will be noted on the Checklist, and the Checklist shall be signed off and dated thereby completing the monitoring process for each particular measure.

b. *On-going Measure Monitoring:* An on-going mitigation measure is one that continues over a period of time (e.g., dust control during grading operations). The process followed will be similar to that for project design monitoring except that the status of each on-going measure will be noted periodically until no longer needed. Such monitoring may have to occur both before and after occupancy. Project applicants may be required to submit periodic reports to the City regarding such on-going measures, and Community Development staff may be required to submit periodic reports to the City Planning Commission and City Council.

C. Outside Agency Monitoring

Mitigation monitoring which is the responsibility of agencies other than those of the City (e.g., Caltrans, Department of Fish & Game, and Corps of Engineers) shall be managed by such agencies. The City shall notify such agencies when specific mitigation measures pertaining to their areas of responsibility or jurisdiction are proposed for inclusion in project approvals so that these agencies are then able to develop a program for review with the City which outlines the proposed monitoring.

D. Changes in Mitigation Measures

If as a result of the monitoring program the City determines that one or more mitigation measures is ineffective, physically infeasible or is not achieving the intent of the measures, the City may, with the approval of the developer and any outside agency having jurisdiction, modify or add mitigation measures to achieve the intent of the original mitigation measures.

E. Notice to the Subdivider/Developer

The subdivider and/or developer shall be notified in writing at the time when it is determined by the City that each mitigation measure required of the developer is complete. As an alternate procedure, an applicant may request notice of verification. However, where it is determined by the City that verification is not yet possible, the City shall notify the applicant in writing clearly specifying what remains to be done by the applicant before verification is possible. Where monitoring by an outside agency is required (as under para. C. Above), the City shall coordinate the process of notice and encourage the outside agency to provide the notice required by this section.

F. Responsibility of Lead Agency; Public Records

As the Lead Agency, the City of Lathrop will be responsible to coordinate the mitigation monitoring program responsibilities of all parties to the process. The results of the monitoring program shall be summarized and filed with each development file maintained by the City so that the applicant, public officials and interested citizens can easily obtain information on the status of mitigation measure implementation.

G. Monitoring Program Fees

The City may charge a project applicant for the actual cost to the City of monitoring all mitigation measures attributable to a specific development project as described in this program. A deposit may be required by the City to be applied towards this fee. A deposit may also be required by the City to be applied by the City to any consultant services required by the City to carry out any aspect of the monitoring program. Any unused portion of the deposit will be refunded to the project applicant.

H. Agreement

The City may require an agreement with a project applicant specifying the applicant's responsibility for various aspects of the monitoring program, including responsibilities for reporting on the status of implementation, manner of payment, penalties for non-compliance and financial security arrangements.

I. Enforcement

Mitigation monitoring may be enforced through the provisions of the Development Agreement between the City of Lathrop and the Califia Development Group, or through any other means available to the City of Lathrop.

TABLE IX-1

CHECKLIST FOR MITIGATION MONITORING PROGRAM, WEST LATHROP SPECIFIC PLAN EIR

MITIGATION MEASURES . . [Note: Page #s for the location of mitigation measures in the Draft EIR are shown in brackets after each measures]	Local Party or Agency Responsible	Outside Agency Responsible	When Required	Date of Completion	Agency Needing to Verify
Agricultural Land Conversion; Urban Agricultural Conflicts					
The eventual loss of 5,800 acres of agricultural land to urban use is unavoidable and cannot be fully mitigated. The following measures are those which can reduce the incremental impacts as land develops in phases:					
1. Phasing of development [see pIV-6, Draft EIR]	City/Developers		On-going	_____	Comm. Develop.
1a Establish fencing or other suitable barriers at the urban/agricultural inter-face to reduce potential for conflicts from trespass. [V-2]	Developers		During project construction	_____	Comm. Develop.
1b Establish buffer zone to reduce noise of ag operations. [V-2]	City		On-going	_____	Comm. Develop.
1c Comply with County restrictions on safe distances to urban areas for pesticide applications [V-2]	Developers	County Agricul. Commissioner	On-going	_____	County Agricul. Commissioner
1d Monitor compliance with City's "right-to-farm" ordinance. [V-2]	City		On-going	_____	Comm. Develop.
2. Revise farmland irrigation systems as development occurs. [V-2]	Developers		On-going	_____	Comm. Develop.
Geologic and Seismic Hazards; Foundation Safety					
2a Provide soil compaction tests and geotechnical analysis of soil conditions and behavior under seismic conditions. [IV-6]	Developers		During prep. of prelim. engr.	_____	City Engr./ Bldg. Official
2b-d Provide prelim. soils report for residential development, and for individual housing units if needed. [IV-6]	Developers		Prelim, engr.	_____	City Engr./ Bldg. Official
1a Additional soil samples, field measurements and lab testing to determine potential for soil liquefaction. [V-4]	Developers		Prelim, engr.	_____	City Engr./ Bldg. Official
1b Several geotechnical approaches available as needed, including excavation and recompaction, grouting and founding structures below liquefiable layers. [V-5]	Developers		Prelim. Engr.	_____	City Engr./ Bldg. Official
2. Mitigate potential for secondary seismic effects as necessary through use of relatively flat slopes, building setbacks from levees and specialized soil treatment. [IV-5]	Developers		Prelim. Engr.	_____	City Engr./ Bldg. Official

MITIGATION MEASURES . . [Note: Page #s for the location of mitigation measures in the Draft EIR are shown in brackets after each measures]	Local Party or Agency Responsible	Outside Agency Responsible	When Required	Date of Completion	Agency Needing to Verify
1a-b Construct flood control and drainage works to Federal and State standards [IV-9]	Developers/ City	Corps of Engrs FEMA, DWR & Reclamation Bd.	On-going	_____	City Engr.
1c-d Provide safe ground within areas of population concentration. [IV-9]	Developers		On-going	_____	City Engr.
Water Supply					
1. Withhold development permits until extent of development to be approved is supported by availability of firm water supply [IV-10]	Developers/City	Regional Water Quality	Prior to develop. permit	_____	City Engr.
2. Assure availability of adequate water for continued ag irrigation as a condition of converting ag water entitlements to M&R use [IV-10]	Developers/City	Water Rights Board	Prior to develop. permit	_____	City Engr.
1a-d Monitor depth of existing and future wells to avoid adverse impacts of groundwater demands on the aquifer; monitor well field groundwater to detect any contaminants; maintain consumption records; do not serve West Lathrop from City's exist. well field; provide groundwater recharge with surface water when available to off-set effects of well pumping. [V-7 and -8]	Developers/City	Regional Water Quality	On-going	_____ _____ _____ _____ _____	City Engr.
2a-o Provide adequate supplies of water through a combination of approaches including City participation in a regional water project; such as proposed by SSJID, groundwater pumping from wells on Stewart Tract, conversion of riparian rights and conversion of agricultural entitlements. [V-8, -9]	Developers/City	Regional Water Quality, Water Rights Board	Prior to Phase 1 development	_____ _____ _____ _____	City Engr.
3. Practice water conservation, including reuse of effluent for landscaping and agricultural irrigation. [V-9]	Developers/City	Regional Water Quality	On-going	_____	City Engr.
Wastewater Management					
1 & 2a-j Select the most environmentally superior alternative for long-term waste treatment and disposal consistent with economic and political feasibility, including either Sites 3b or 4, or connection to Manteca or Stockton plants; expand the City's existing plant on Howland Road for interim period while perfecting the preferred long-term alternative. [V-14,-15]	City/Developers	Regional Water Quality; possibly the cities of Manteca or Stockton	Interim plant expansion required for Phase 1, with long-term for 1 and 2+	_____ _____	City Engr.
3. Eliminate all on-site specific impacts of selected treatment plant site 3b or 4, including temporary detention ponds in event of plant upset and odor-control design of treatment facilities. [V-15]	City	Regional Water Quality	For interim plant expansion and long-term plant	_____ _____	City Engr. & Pub. Wks. Dir.

MITIGATION MEASURES . . [Note: Page #s for the location of mitigation measures in the Draft EIR are shown in brackets after each measures]	Local Party or Agency Responsible	Outside Agency Responsible	When Required	Date of Completion	Agency Needing to Verify
4-7 Provide land disposal of effluent for interim and long-term needs; meet State standards for effluent spraying under Title 22; remove and dispose of sludge on a regular basis. [V-16,-17]	City	Regional Water Quality	Prior to plant operations	_____	City Engr. & Pub. Wks. Dir.
Drainage and Flood Control					
1. Install equipment to remove contamination from surface water drainage and monitor the system on a regular basis. [IV-11]	Developers/City	Regional Water Quality	Project const. & on-going	_____	City Engr.
2a-b Reconstruct Stewart Tract levees for effective flood control; flood-proof as phase development occurs. [IV-11, -12]	Developers	Corps of Engrs.	As phased develop. occurs	_____	City Engr./Corps of Engrs.
1-4 Final design of levee sections based on hydraulic and hydrographic analysis, slope stability analysis and seepage data; levee rehabilitation to occur only on the land side with engineered fill; levee widening to consider impacts on adjacent areas. [V-19]	Developers	Corps of Engrs. Reclamation Bd. and Reclamat'n District	During project construction and on-going phases	_____ _____ _____ _____	City Engr. and outside agencies
5. Eliminate elevated groundwater surface during high river flows by elevating affected surface areas, interception and drainage. [V-19]	Developers	Regional Water Quality	During project construction	_____	City Engr.
Lake Management					
1-3 Lake system to be designed and managed to avoid such problems as stagnant water, nutrient buildup, mosquito swarms, bacteria concentration, unsightly visual characteristics, and adverse effects on fisheries. [V-20]	Developers	Regional Water Quality, County Health Dept.	During lake design and on-going maint.	_____	City Engr. and outside agencies
Biological Resources - Vegetation					
1. Replace lost riparian vegetation at a minimum mitigation ratio of 3:1; establish Paradise Cut management habitat [IV-13 and V-22] 2. Avoid loss of Mexican elderberry shrubs; mitigate if necessary in accordance with Federal Fish & Wildlife Service Guidelines [V-22]	Developers/City	Dept. of Fish and Game, US Fish & Wildlife Service	Phase 1 development of Stewart Tract & on-going	_____	Community Development Department
Biological Resources - Wildlife					
1-2 Implement Habitat Management Plan (HMP) for Swainson's hawk] and White-tailed kite; establish and enhance habitat for 900 acre Paradise Cut wildlife management corridor. [IV-13, V-29]	Developers/City	Dept. of Fish and Game	Phase 1 development of Stewart Tract & Mossdale Vill.	_____	Community Development Department
Biological Resources - Wetlands					
1a-c Obtain Nationwide or Section 404 permits for jurisdictional wetlands, streambed alteration permit and water quality certificate. [V-30,-31]	Developers	Corps. Engrs./F & G, Reg. Water	Prior to fill or construction	_____	Comm. Develop. Department

MITIGATION MEASURES . . [Note: Page #s for the location of mitigation measures in the Draft EIR are shown in brackets after each measures]	Local Party or Agency Responsible	Outside Agency Responsible	When Required	Date of Completion	Agency Needing to Verify
Biological Resources - Fisheries					
1,2a-b Avoid contamination of watercourses from surface water runoff and construction activities by detention reservoirs, contamination removal and limitations on construction during Chinook Salmon run. [V-31,-32]	Developers/City	Dept. Fish & Game	During construction and on-going	_____	City Engr. & outside agency
3a-c Comply with state and federal water quality requirements for fish species of special concern; undertake fish salvaging in sloughs and channels; screen water conveyors to standards of Dept F & G [V-32]	City, maintenance district	Dept. Fish & Game	On-going	_____	City Engr. & outside agenc's
4-6 Strengthen project levees; construct marinas to National Marine Fisheries Resources Guidelines [V-32]	Developers	Corps, F&G, DWR, Boating & Harbors	During construction	_____	City Engr. & outside agenc's
Noise Environment					
1-3 Place commercial structures to block noise transmission; Provide spatial buffers, noise barriers and landscaping [IV-15,-16]	Developers		Site planning & construction	_____	Comm. Develop. & Bldg. Official
1-6 Increase distance from noise source; shield with barriers; block transmission by building placement; locate noise sensitive rooms away from noise source; utilize acoustical design and materials. [V-40,-41]	Developers		Site planning & bldg. design	_____	Comm. Develop. & Bldg. Official
Light and Glare					
1-3 Provide buffer zone between Stewart Tract commercial and Mossdale Village residential; hooding and directing outdoor lighting fixtures; landscape screening along arterial streets, expressways and freeways. [IV-16,-17]	Developers		Site planning & bldg. Design	_____	Comm. Develop. & Bldg. Official
Public, Municipal Utility and Energy Services					
1a-b Provide all public facility, municipal utility and energy services needed by permanent and transient housing and tourist population. [IV-17]	Developers		Site planning & bldg. Design	_____	City Engr, Pub. Wks, Comm. Develop. & Bldg
1a-e Ensure compliance with City's Integrated Solid Waste Management Plan; remove wastes from agricultural operations; mandatory pick-up of solid wastes; recycle materials. [V-43]	Bldg. & land occupancies		On-going	_____	City Public Works Dept.
Provision of electrical and natural gas service by PG & E. [V-45]	Developers	PG & E	Site planning & bldg. design	_____	City Engr.

MITIGATION MEASURES . . [Note: Page #s for the location of mitigation measures in the Draft EIR are shown in brackets after each measures]	Local Party or Agency Responsible	Outside Agency Responsible	When Required	Date of Completion	Agency Needing to Verify
1a-d Pay school impacts fees, augmented by Mello-Roos financing district; reserve school sites for large residential projects; exempt senior citizen housing from financial contributions as prescribed by State Law. [V-47]	Developers, affected local school districts and residential owners		Site planning	On-going	Comm. Develop and school districts
Urban Design and Visual Quality					
1-3 Implement design standards of Specific Plan; creation of urban landscape; framing of mountain back-drop by street orientation, open space corridors and outdoor recreation areas. [IV-18,-19]	Developers		Site planning & bldg. Design;	_____	Comm. Develop.
Archaeological and Cultural Resources					
1-4 Protect archaeological sites of importance within areas of permanent open space; avoid accidental loss of yet unknown resources during construction under procedures of CEQA Guidelines, Appendix J; preserve and display isolated finds as representative of pre-history of project site; preserve and display built resources. [IV-20]	Developers	State Office of Historic Preservation, Native American reps.	Site planning & bldg. Design	_____ _____ _____	Community Development, City Engr., Pub. Works
Transportation, Circulation & Traffic - Freeways & Expressways					
1a-d Construct Golden Valley Parkway as a parallel facility to I-5 and I-205; provide on-site, local off-site and regional transit opportunities. [IV-21]	Developers, City	Caltrans,County, COG, Railroads	Under phased development	_____	Comm. Develop. City Engr., Pub. Works
1,3,,8,9,10,11,16 Improve Louise Avenue interchange for project access for 2005, 2017 and 2025. [V-59,-62,-68,-69,-70,-80]	Developers	Caltrans	Under phased development	_____ _____	City Engr., Caltrans
2a-c,7 Establish regional fees as fair-share contribution to widening I-205, the merge, SR 120 east to SR 99, and I-5 north to Stockton. [V-59,-69]	Developers	Caltrans/COG	As development occurs	_____	City Engr., COG
6,14 Under Access Alternative E, limit use of Mossdale interchange by development along the merge, and provide additional project access via a Paradise Road interchange and extension of Golden Valley Parkway thru Stewart Tract. [IV-22] [V-68]	Developers	Caltrans	Under phased development, between years 2005 and 2017.	_____ _____	City Engineer, Caltrans
4,5 Grade separate pedestrian and bike trails in close proximity to traffic circles along Califia (Circle) Drive; construct and monitor one traffic circle before adding others; provide safe pedestrian and bike crossings of Califia Drive. [V-62,-63]	Developers		As phased development occurs	_____	City Engr.
12,17 Grade separate the Gold Rush Blvd./Golden Valley Parkway intersection	Developers		By 2017 or earlier (monitor)	_____	City Engineer

MITIGATION MEASURES . . [Note: Page #s for the location of mitigation measures in the Draft EIR are shown in brackets after each measures]	Local Party or Agency Responsible	Outside Agency Responsible	When Required	Date of Completion	Agency Needing to Verify
Transportation, Circulation & Traffic - Local Roadways					
4,5 Grade separate pedestrian and bike trails in close proximity to traffic circles along Calilia (Circle) Drive; construct and monitor one traffic circle before adding others; provide safe pedestrian and bike crossings of Calilia Drive. [V-62,-63]	Developers		As phased development occurs (based on monitoring)	_____ _____	City Engr.
19 Provide fair-share impact fees toward widening Lathrop Road (from Harlan to McKinley) and Louise Avenue (from Harlan to Fifth Street). [V-83]	Developers				City Engr.
Provide traffic signalization at intersections shown on Table V-17 as determined by traffic warrants. [V-82]	Developers/City		As determined by traffic warrants	_____	City Engr.
5. Local and regional transit is to be a commitment for Mossdale Village as soon as sufficient residential development occurs to establish a minimum level of patronage in support of continuous City transit routes. Both local and regional transit is to be a commitment for Stewart Tract beginning with the opening of the first theme park and recreation-residential project. [IV-23]	Developers/City Developers		[See mitigation measure description]	_____ _____	City Engr., Pub. Wks Director
1a-b, 3,4 Maintain Manthey Road during project construction as a project costs; convert Manthey to a service road for Mossdale Village Service Commercial when Golden Valley Parkway extended to Stewart Tract; provide boulevard landscaping and meandering sidewalks along arterial streets and some collectors. [IV-24]	Developers		During one or more phases of project design & construction	_____	City Engineer
1,2 Street improvements to be scheduled to be in place at or before time of need; utilize buses for tourists arriving from Stockton Airport. [IV-25]	Developers		At or prior to time of need	_____	City Engineer
3a-c,4,5 Provide large-scale park and ride facilities at three remote locations; provide a multi-modal transit center on Stewart Tract; gradually increase commitment to on-site and off-site (regional) transit; provide local transit throughout the City; separate bicycle and pedestrian ways separated from streets. [IV-26,-27]	Developers		During Phase 1 development, and on-going	_____	Comm. Develop. & City Engr.
Air Quality Management					
1a-c The design of the Specific Plan circulation system, the Project's commitment to non-auto modes of transportation and the reduction in freeway commute traffic by the availability of three large remote park and ride sites will serve to reduce air pollution emissions as compared to conventional approaches to development. [IV-28]	Developers		Site planning for phased development	_____	Community Development Department

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2b The gradual cessation of farming operations will greatly reduce the potential for the release of particulates to the air. [IV-28]	Developers		As phased development occurs	_____	Community Development
1a-p,2 Control dust and other air pollutant emissions related to construction activities in accordance with San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) Regulation VII. [V-90]	Developers/City	SJVUAPCD	During construction activities	_____	Public Works Dept. & outside agency
1a-k,2a-l In addition to impacts mitigated by project proposals of design, transit and park & ride facilities, implement Transportation Demand Management (TDM) strategies as listed on pp. V-91-93 of the Draft EIR.	Developers/City	SJVUAPCD	On-going as phased develop. Design occurs	_____	City Engr., Pub. Wks., Comm. Develop., Bldg.
Specialized Mitigation Required under Alternative E					
1. The potential for ramp congestion at the Louise Avenue interchange is to be mitigated by the construction of loop on-ramps in the southeast and northwest quadrants of the interchange, with adequate space reserved for the purposes as development on adjacent lands occurs. [V-97]	Developers/City	Caltrans	Prior to the 2017 horizon year (monitor)	_____	Comm. Develop. City Engr, outside agency
A more defined commitment to the use of on-site and off-site transit is needed as a component of the Specific Plan to further reduce impacts on traffic and air quality.	Developers/City		From the beginning of Phase 1 development of Stewart Tract and on-going	_____ _____	Community Development

PRELIMINARY LIST OF PERMITTING AGENCIES AND PERMITS REQUIRED

More than 20 State and several Federal agencies have been identified as having jurisdiction within the West Lathrop Specific Plan area over the issuance of more than 40 different types of permits required at various stages of the development process, plus several kinds of statements to be filed and/or actions required.

A. California Department of Conservation:

1. Permit required for:
   a. Capping or drilling of any oil or gas well.
   b. Statement required from City justifying decision by developer not to extract sand from the MRZ-2 deposit between the I-5/SR 120 freeway merge and the S.P. Railroad.
2. Contact:
   a. Division of Oil & Gas, (916) 445-9686, 20th Floor, 801 K Street, Sacramento 95814.
   b. John Parish, Executive Officer, Mining & Geology Board for sand extraction exemption, (916) 322-1082, 24th Floor, 801 K Street, Sacramento 95814.

B. California Energy Commission:

1. Permit required for:
   a. Notice of intention (NOI) & application for certification (AFC) of small co-generation power plant of 50 megawatts or more.
   b. Small power plant exemption from NOI, with certification directly for plant of 300 megawatts or less, and with an expedited a 12 month AFC process.
2. Contact: Siting Office, California Energy Commission, (916) 654-5100, 1516 Ninth Street, MS-15, Sacramento 95814.

C. California Environmental Protection Agency (EPA), Air Resources Board:

Will mediate the resolution of any conflicts on air quality compliance that may arise with the San Joaquin Valley Unified Air Pollution Control District or Federal EPA.

1. Permit required by SJVUAPCD for:
   a. Authority to construct a facility or equipment which may emit pollutants from a stationary source to assure compliance with national, state and regional emission standards.
   b. Permit to operate. Same as under a., above.
2. Contact: SJVUAPCD, (209) 497-2057, 1999 Tuolumne Street, Suite 200, Fresno 93721, or branch office at Salida (north Modesto), 4230 Kiernan Avenue, Salida.

D. Cal EPA, Department of Pesticide Regulation:

1. Permit required for:
   a. Use/application of restricted materials pesticide on agricultural crops, golf courses, parks, rights-of-way.

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   a. Use/application of restricted materials pesticide on agricultural crops, golf courses, parks, rights-of-way.

H. Department of Fish & Game:

1. Permits required for:
   a. Streambed alteration, involving water diversion or any change to streambed. Requires 1601 agreement for public project and 1603 agreement for private project.

   b. Standard or special suction dredging permit, for suction dredging involving an intake under 8" in diameter or over 8" in diameter. Project site is within Zone F which is open to dredging throughout the year.
   c. Section 2081 Management Agreement for any loss of habitat for state-listed wildlife species (Swainson's Hawk).
2. Contact: F & G staff, (916) 355-0978, 1701 Nimbus Road, Rancho Cordova 95670.

I. Department of Health Services:

1. Permits required for:
   a. Medical waste treatment facility permit (if have an on-site medical facility of any kind involving disposal of medical waste), from Environmental Health Division..
   b. Permit to operate a public water system, from Office of Drinking Water.
2. Contact: Medical waste management staff, (916) 322-2042, P.O. Box 942732, Sacramento 94234-7320; Office of Drinking Water staff, (209) 948-7697, 31 E. Channel Street, Room 270, Stockton 95202.

J. Department of Housing and Urban Development:

1. Permits required for mobile home park, special occupancy park and campgrounds.
2. Contact: HCD Division of Codes and Standards, Northern Area Office, (916) 255-2501, 8911 Folsom Boulevard, Sacramento 95826.

K. Public Utilities Commission:

1. Permits required for: Certificates of public convenience and necessity by any public utilities serving the project area.
2. Contact: Douglas Long at PUC, (415) 783-2011, State Office Building, 505 Van Ness Avenue, San Francisco 94102.

L. The Reclamation Board:

1. Permits (encroachment) required for:
   a. Any construction along the levees of the San Joaquin River or its tributaries;
   b. Any removal or deposit of earth along such levees;
   c. Installing or removing irrigation, drainage, gas, power, communication, water or sewer pipes/lines along such levees;
   d. Installing erosion control devices along such levees;
   e. Levee Landscaping.
2. Contact: Wendy Halverson, (327-1531), 1416 Ninth Street, Room 455-8, Sacramento 95814.

M. **Department of Transportation (Caltrans):**

1. Permits required for any form of encroachment to State Highways, including Interstate, including access, sign placement, planting or removal of vegetation, road approaches and grading.
2. Contact: District 10, Caltrans (209) 948-7891, 1976 E. Charter Way, Stockton 95203.

N. **Department of Transportation, Division of Aeronautics:**

1. Permits required for: Heliports and temporary heliport landing sites.
2. Contact: Sandy Hesnard, Division of Aeronautics, (916) 324-1833, 1130 K Street, 4th Floor, Sacramento 94274-0001.

O. **State Lands Commission:**

1. Permits required for anything affecting sovereign lands of the state, including:
   a. Dredging
   b. Land use lease for marinas and related river facilities, industrial projects along river, rights-of-way for utilities, bridges, etc., seawalls and similar, and bridges, roads, recreation structures.
   c. Marine facilities program (oil and gas terminals)
   d. Marine salvage
2. Contact: Fred Sledd, (916) 445-8715, 1807 - 13th Street, Sacramento 95814.

P. **California Integrated Waste Management Board:**

1. Permits required for: operation of any solid waste facility, including landfills, transfer stations, compost facilities, and waste-to-energy facilities.
2. Contact: Lorraine Van Kekerix, (916) 255-2670, 8800 Cal Center Drive, Sacramento 95826.

Q. **Department of Water Resources:**

1. Permits required for:
   a. Certificate of approval to store water; [may not apply, depending on height of barrier];
   b. Removal of a dam or reservoir; [may not be required, depending on height]
2. Contact: Melinda Woods, (916) 445-7606, 2200 "X" Street, Suite 200, Sacramento 95818.
   Also contact Dale Hoffman-Floerke re San Joaquin River Management Program, (916) 445-2277, at Alhambra and "S", Sacramento, and Andy Lee (916) 327-1590 reproject flood requirements.

R. **Department of Boating and Waterways:**

Provides information on boating capacity studies required in support of marinas. Contact: Leslie Whitten, (916) 445-6281, 1629 "S" Street, Sacramento 95814-7291.

M. Department of Transportation (Caltrans):

1. Permits required for any form of encroachment to State Highways, including Interstate, including access, sign placement, planting or removal of vegetation, road approaches and grading.
2. Contact: District 10, Caltrans (209) 948-7891, 1976 E. Charter Way, Stockton 95203.

N. Department of Transportation, Division of Aeronautics:

1. Permits required for: Heliports and temporary heliport landing sites.
2. Contact: Sandy Hesnard, Division of Aeronautics, (916) 324-1833, 1130 K Street, 4th Floor, Sacramento 94274-0001.

O. State Lands Commission:

1. Permits required for anything affecting sovereign lands of the state, including:
   a. Dredging
   b. Land use lease for marinas and related river facilities, industrial projects along river, rights-of-way for utilities, bridges, etc., seawalls and similar, and bridges, roads, recreation structures.
   c. Marine facilities program (oil and gas terminals)
   d. Marine salvage
2. Contact: Fred Sledd, (916) 445-8715, 1807 - 13th Street, Sacramento 95814.

P. California Integrated Waste Management Board:

1. Permits required for: operation of any solid waste facility, including landfills, transfer stations, compost facilities, and waste-to-energy facilities.
2. Contact: Lorraine Van Kekerix, (916) 255-2670, 8800 Cal Center Drive, Sacramento 95826.

Q. Department of Water Resources:

1. Permits required for:
   a. Certificate of approval to store water: [may not apply, depending on height of barrier];
   b. Removal of a dam or reservoir: [may not be required, depending on height]
2. Contact: Melinda Woods, (916) 445-7606, 2200 "X" Street, Suite 200, Sacramento 95818.
   Also contact Dale Hoffman-Floerke re San Joaquin River Management Program, (916) 445-2277, at Alhambra and "S", Sacramento, and Andy Lee (916) 327-1590 reproject flood requirements.

R. Department of Boating and Waterways:

Provides information on boating capacity studies required in support of marinas. Contact: Leslie Whitten, (916) 445-6281, 1629 "S" Street, Sacramento 95814-7291.

S. **Office of Historic Preservation and Native American Heritage Commission:**

Provides procedures and approves mitigation for avoiding damage to cultural resources. Contact: Beau Becker. (916) 653-8551 for Historic Preservation. and Debbie Treadway (916) 653-4082 for matters concerning Native American impact mitigation.

T. **U.S. Army Corps of Engineers:**

1. Permits required for:
   a. 404 permit involving dredging and fill operations. location of structures inside levees of navigable streams. affect on wetlands..
   b. Nationwide 26 for projects less than 10 acres.
   c. Section 10 permit involving marinas. piers. etc
2. Contact: James Monroe. (916) 557-5266. Sacramento District. 1325 J Street. Sacramento 95814.

U. **U.S. Coast Guard:**

1. Permits required for alteration or construction of bridges over navigable waterways.
2. Contact: W.R. Till. (510) 437-3514, Coast Guard Island. Alameda

Note: Caltrans also concerned with any changes in river hydrology that may affect foundation piers of Caltrans bridges.

V. **U.S. Environmental Protection Agency:**

Contact for purposes of determining whether any NEPA (National Environmental Policy Act) documentation may be required . such as an Environmental Impact Statement. is Carolyn Yale. (415) 744-1580. Carolyn's office provides the inter-agency coordination required.

SECTION 2 - MITIGATION MONITORING PROGRAM

FORMAT AND CONTENTS

The Mitigation Monitoring Program (MMP) is organized under the same topic structure and order contained in the Final EIR. The MMP consists of a separate page (or pages) devoted to a given impact and the mitigation measures applicable to that impact. Impacts and mitigation measures as described in Parts IV and V of the Final EIR are covered so that all requirements for mitigation can be viewed at a single place in this document.

The MMP specifies the following information for each set of impacts and applicable mitigation measures:

- Impact. Lists the topical impacts in Parts IV and V of the EIR which trigger the mitigation requirement(s).

- Mitigation Measures . Lists the mitigation measures in Parts IV and V of the EIR which correspond (by number) to a given impact. In some cases, the only mitigation measures listed are those that are embodied in Specific Plan proposals as described in Part IV of the EIR because they were considered adequate for the impacts involved.

- Responsibility for Implementation. This sub-section identifies the private party, public agency or individual responsible for carrying out required mitigation. In some cases, responsibility will be shared.

- Timing of Implementation, Monitoring and Verification. This sub-section indicates when various mitigation, monitoring and verification of mitigation is to be performed or accomplished. Where appropriate, timing is linked to the development review and approval processes of the City (or outside agency). Examples include the review of tentative and final subdivision maps and site plans, and the issuance of a building permit or certificate of occupancy.

- Responsibility for Monitoring and Verification This sub-section indicates the agencies or individuals responsible for the actual monitoring required and to assure verification of compliance (and enforcement if necessary) by the party responsible for implementation. In some cases, responsibility may be shared.

LAND RESOURCES

Compaction and Overcovering of the Soil

Impacts Mitigated by Specific Plan Proposals, Draft EIR (DEIR) p IV-3:

1. Vacant and agricultural soils will be compacted for building construction and overcovered with exposed impervious surfaces such as roofs, driveways, streets and off-street parking areas. The extent of overcovering will be determined by site plans submitted for City approval for each separate construction project. The more extensive compaction and overcovering of soils that will occur will increase surface water runoff and the potential for wind erosion during land grading and construction.

Mitigation Included in Specific Plan Proposals ,DEIR pp IV-3 and -4:

1. a. Positive drainage will be required for each site consistent with overall master plans of drainage for Mossdale and Stewart Tract that will avoid adverse impacts on other properties. Specific drainage improvements for a given project would be determined at the time of Site Plan Review (or equivalent) under provisions of the Specific Plan or the City's Zoning and Subdivision Ordinances. [see Specific Plan (SP), pp. 72-79]

1. b. The design of surface water detention and conveyance facilities provides for multi-purpose recreational and wildlife habitat use of surface waters within recreation and other open space corridors. Detention reservoirs will be designed to control the rate of surface water runoff, and for the control of debris, sediment and contaminants. [see SP, pp 76-77]

1. c. Positive control of surface water runoff and sediment during wet weather is required for all types of construction activity. This includes requirements for trapping sediments and debris, prohibition of grading during periods of rainfall or when soil moisture is high, requirements for stockpiling and reuse of native (or agricultural) topsoil, and revegetation or temporary methods of controlling erosion of barren areas to avoid sedimentation of drainageways. The Specific Plan provides that in both the Stewart Tract and Mossdale Village areas, provisions to meet anticipated National Pollution Discharge Elimination System (NPDES) requirements shall be made prior to stormwater being discharged to the San Joaquin River, Old River and Paradise Cut. [see SP, p 74]

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: All mitigation measures are to be made conditions of development approval by the City, and carried out during project design and construction. Monitoring and verification is to be conducted during City Engineer's review of plans and specifications, and by field inspections at appropriate intervals during project construction.

Responsibility for Monitoring and Verification: The City Engineer/Director of Public Works.

Potential for Soil Liquefaction

Impacts Mitigated by Specific Plan Proposals, DEIR p IV-6:

2. Soils within and under the levees surrounding Stewart Tract are subject to the potential for liquefaction and levee failure during a severe earthquake. The potential for levee failure is increased if an earthquake were to occur during times of high flood conditions exceeding that created by a 100 year event. Such a combination of hazardous events could seriously jeopardize the health and safety of thousands of people within Stewart Tract.]

Mitigation Included in Specific Plan Proposals, DEIR pp IV-3 and -4:

Mitigation of the potential for liquefaction involves extensive soils and foundation engineering and special construction techniques. Baseline studies conducted during formulation of the Specific Plan support the following policies that serve to mitigate project impacts: [see SP under Site Plan Review, p 150]

2. a Soil compaction tests, and geotechnical analysis of soil conditions and behavior under seismic conditions are required of all subdivisions and of all commercial, industrial and institutional structures over 6,000 square feet in area (or in the case of institutional structures, those which hold 100 or more people).

2.b. A preliminary soils report is to be prepared by a registered geo-technical engineer for any residential development project, based upon field soil samples and laboratory tests. If the report indicates the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects, the developer shall provide for and submit the findings of a soil investigation of each housing site proposed. The soil investigation shall be prepared by a state-registered civil engineer and shall recommend corrective action to prevent structural damage to each dwelling to be constructed. Prior to the issuance of a building permit, any recommended action approved by the Building Official shall be incorporated into the construction plans and specifications of each dwelling or structure.

2.c. A preliminary soils and geologic report, prepared by a state-certified engineering geologist and based on adequate test borings and laboratory investigations, shall be submitted to the Building Official for every subdivision, planned development or other residential project at the time of submitting a tentative map or other type of development application to the City.

2.d. If the preliminary geologic report indicates the presence of critically expansive soils or other soil problems (e.g., potential for liquefaction which if not corrected could lead to structural defects), the developer shall provide such additional soils investigation for each development site as may be requested by the Building Official. The geologic investigation shall be prepared by a state-certified engineering geologist and shall recommend further corrective action to prevent structural damage to dwelling units. Prior to the issuance of a building permit, any recommended action approved by the Building Official shall be incorporated into site preparation and the construction of each dwelling.

2.e. The provisions of policy nos. 2.a. - 2.d., above, shall be applicable to all commercial, industrial, institutional and public development projects.

2.f. Areas where building construction has been determined to be inappropriate because of hazardous conditions have been made a part of the recreation and open space systems.

Additional Impacts Identified, DEIR p V-4:

1. The site will be exposed to seismic shaking, with some soils experiencing liquefaction during future high intensity earthquakes. A limited boring program indicated the presence of saturated, fairly clean sands and silts in a relatively loose state at shallow depths around parts of the site. These conditions indicate a significant potential for liquefaction which needs to be investigated in future geotechnical work assignments.

2. Other secondary seismic effects, such as lateral spreading and settlement, may also occur during future high intensity shaking.

Additional Mitigation Identified, DEIR pp V-4 and -5:

1.a. Additional samples, field measurements, laboratory testing and analyses will be required before this liquefaction potential can be reliably assessed and appropriate foundation treatments recommended. This should be accomplished during preparation of preliminary engineering drawings, in accordance with applicable State and local governmental standards.

1.b. Several geotechnical approaches are available to mitigate the adverse effects of liquefaction under dwellings or other structures, including: excavation and recompaction; dynamic compaction; chemical or compaction grouting; and founding structures below the liquefiable layers.

2. The potential for secondary seismic effects should be evaluated in future work and if necessary mitigated through the use of relatively flat slopes, setbacks of building from steep slopes (of levees) and specialized soil treatment.

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: Measures 2.a - 2.f are to be carried out during the preparation of preliminary plans for project development, with results made available for City review prior to development approval by the City. Additional studies may be required under Part V measures 1.a - 2. All specific measures determined by these studies as being necessary to assure foundation safety are to be made conditions of development approval and/or final drawings and specifications, as appropriate.

Monitoring and verification is to be conducted during City review of plans and specifications and by field inspections at appropriate intervals during project construction.

Responsibility for Monitoring and Verification: The City Engineer and Building Official

Agricultural Land Conversion

Impacts Mitigated by Specific Plan Proposals, DEIR p IV-7 and -8:

1. The eventual conversion of approximately 5,800 acres of productive agricultural land to urban use under the West Lathrop Specific Plan will be irreversible, since it is not reasonable to assume that later re-conversion to agricultural use will ever become economically feasible.

2. The cumulative loss of value of agricultural production that would occur at buildout would be in the order of $6.2 million (current dollars).[1] The annual loss of field crops at buildout would represent about 0.93% of current county-wide field crop value. For vegetables, the annual loss would be about 3.10% of current county-wide vegetable crop value: for fruit and nut crops, the annual loss would be about 0.35% of current county-wide fruit and nut crop value. The cumulative impact of these losses to the State's economy as a whole would be in the order of $24.8 million.]

3. Other potential impacts involve a shifting in the location where urban-agricultural conflicts may occur from the current interface between urban and agricultural lands to other locations where urban expansion occurs.

4. The conversion of farm land to urban use will have some positive benefits, such as eliminating the use of agricultural pesticides, dust from plowing and discing operations and farm wastes.

Mitigation Included in Specific Plan Proposals, DEIR p IV-8:

Mitigation measures to minimize this impact are provided in Part V of the General Plan pertaining to Open Space for Managed Resource Production and Open Space for Shaping Urban Growth. They include the policy on phased development and maintaining a rate of population growth which will not exceed the ability of the City to provide needed urban services. The policy on phasing has been incorporated into the Specific Plan. [see SP, p 122, 3rd para.] It is important to note that the measures called for by the General Plan EIR can only postpone the irreversible loss and ease conditions during the interim. A new measure under the Specific Plan is to purchase land and dedicate conservation easements over agricultural land as permanent mitigation for the loss of Swainson's hawk foraging habitat.

Additional Impacts Identified, DEIR p V-2 and -3:

1. It is reasonable to assume that conflicts will occur at the agricultural-urban interface as development occurs under the proposed plan of phasing. Conflicts affecting the farmland owners and operators concern trespass, vandalism, theft, major damage to equipment and liability in the event of harm to trespassers that may occur from normal farming operations or from unauthorized use of farm equipment. Conflicts affecting residential neighbors concern spray drift of pesticides and herbicides, noise from farm equipment, dust from farm operations and wind-borne odors.

2. Construction of early phases of development on Stewart Tract will disrupt the irrigation and drainage of agricultural lands located west of Phase I on Stewart Tract.

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[1] Derived from the **San Joaquin County Agricultural Crop Report, 1990**, San Joaquin County Agricultural Commissioner's Office, and based on the average $ yield per acre for field crops, vegetables and fruit and nut crops representative of crop patterns in the Lathrop Planning Area.

Additional Mitigation Identified, DEIR pp V-2 and -3:

1.a. As development occurs under the phasing plan, fencing or other suitable barriers such as watercourses should be established at the interface between the phases which are developing and adjacent to agricultural lands so as to reduce the potential of urban-agricultural conflicts resulting from trespass, vandalism, crop and equipment damage, and theft.

1.b. To reduce the potential for adverse impacts from agricultural operations upon residential areas, a buffer zone of 50-100 yards shall be provided between the line of residential or commercial development and the nearest line of farmland, with fencing of each line to discourage trespass. This buffer should be assured as a condition of development approval, with removal of the buffer not to occur until the next phase of urban expansion is approved.

1.c To reduce the chance of spray drift hazards, agricultural operations should comply with San Joaquin County restrictions on the distance that pesticides can be applied to environmentally sensitive areas, such as residential areas, schools, parks, waterways and livestock. The distances required vary with the type of pesticide and method of application.

1.d. The City of Lathrop should monitor and ensure compliance with its "right to farm" ordinance which is designed to protect agricultural operations from urban-agricultural conflicts and inform residents about the types of agricultural operations that may occur in their vicinity. The ordinance protects properly operated farms from nuisance complaints. Proper notice to a prospective buyer is required at the time of property sale.

2. Revisions to the existing local irrigation and drainage systems on Stewart Tract will be necessary to keep the remaining farmland in operation. This could require additional pumps and ditches during early phases of development.

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: Phasing will occur infrequently, depending on the rate of buildout of the previous phase of development. The erection of fencing, the establishment of buffer strips and revisions to ag irrigation and drainage systems are to be accomplished as the first step in undertaking a new phase of development. Notices under the City's right-to-farm ordinance are to be provided at the time of property purchase to buyers, as prescribed by the ordinance.

Monitoring and verification is to be conducted at the time of development review by the City, and during early stages of constructing a given phase of development. Monitoring by the Agricultural Commissioner is to be conducted under terms of the permit issued by the Commissioner to the project developer. The City should notify the Agricultural Commissioner as to when monitoring of pesticide applications may be required in relation to the issuance of occupancy permits.

Responsibility for Monitoring and Verification: The Community Development Director will have responsibility for monitoring all measures except 1.c. Measure 1.c. will be the responsibility of the County Agricultural Commissioner.

Action by Monitor: The Community Development Department will verify mitigation implementation through review of plans and specifications and by field inspection.

Geology and Seismic Hazards

Impacts Mitigated by Specific Plan Proposals, DEIR p IV-9:

1. The occurrence of an earthquake exceeding 6.5 on the Richter scale poses a potential for soil liquefaction and levee failure within Stewart Tract, particularly within extended periods of high water in adjacent watercourses, along with a consequent possibility for the loss of life and property due to flooding and structural failure.

2. A devastating earthquake has the potential for generating panic among thousands of participants at a theme park or similar recreation facility and among spectators at major sporting events, with the possibility of loss of life and personal injury.

Mitigation Included in Specific Plan Proposals, DEIR p IV-9:

1.a. Flood control and drainage works construction will be designed to meet standards set by the U.S. Corps of Engineers, the Federal Emergency Management Agency (FEMA), the California Reclamation Board, and the California Department of Water Resources. [see SP, p32, Objective 8A, para. 3]

1.b. Levees along the San Joaquin River, Old River and Paradise Cut will be constructed to elevations that meet Project Levee Standards. The required increase in levee height at each location will be based on field mapping and soils investigations completed during preparation of the Specific Plan. [see SP, p150 Site Plan Review]

1.c. Areas of population concentration will be designated and designed to provide sufficient space above flood levels to provide "safe ground" until evacuation from affected sites becomes possible. [[see SP, p32, Objective 8A, para. 2]

1.d. The Specific Plan provides for the construction, equipping and manning of fire stations at appropriate locations to assure capability to deal effectively with emergency service demands resulting from natural or man-made disasters or other causes. [see SP, p32, Objective 7A]

2.a. An earthquake and flood protection plan will be prepared for the Stewart Tract to assure capabilities for evacuation and to deal effectively with crowd control so as to avoid panic at major activity centers and public events. The means and capability to assure swift emergency response by medical, police and fire protection services will be in place before the opening of any theme park or other major recreation commercial use on Stewart Tract. [see SP, p32, Objective 8A, para. 2] Further discussion of this topic is provided under the topics of Health and Safety in this part of the EIR and in Part V.

2.b. Flood control works are proposed by the Specific Plan which will assure capability to control flood waters from inundating all parts of Stewart Tract, and to confine floodwaters to the smallest possible areas of impact consistent with the extent of flooding involved. This includes providing works to protect areas from flooding due to levee breaks. [see SP, pp 72-79] Further discussion of this topic is also provided under the topic of Drainage and Flood Control in this document.

Additional Impacts Identified, DEIR p V-4]: See p IX-19 of this MMP.

Additional Mitigation Identified, DEIR pp V-4 and -5: See p. IX-19 of this MMP.

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: Measures 1.a - 2.b are to be carried out during the preparation of preliminary plans for project development, with results made available for City review prior to development approval by the City. Additional studies may be required under Part V measures 1.a - 2. on pp. V-4 and -5 of the FEIR. Specific measures determined by these studies and/or by the City Engineer as being necessary to assure levee safety are to be made conditions of development approval and/or final drawings and specifications, as appropriate.

Monitoring and verification is to be conducted during City review of plans and specifications at the time of development review, and by field inspections at appropriate intervals during project construction. Coordination will be required by the City Engineer with the developer's project engineer, the State Reclamation Board, the State Fire Marshall, FEMA and affected local reclamation districts. Monitoring by the Corps of Engineers, the Reclamation Board, State Fire Marshall and FEMAshould occur during the Corps permitting process, and, at appropriate intervals during project construction.

Responsibility for Monitoring: The City Engineer, City Fire Chief and the Corps of Engineers.

WATER RESOURCES

Water Supply

Impacts Mitigated by Specific Plan Proposals, DEIR p IV-10:

1. Dependence on expanding water supplies by drilling new wells will place the growing community in serious jeopardy as the quality of water from underground aquifers continues to deteriorate because of increased salinity. Failure to achieve an assured permanent supply of potable water from non-well sources will jeopardize the City's ability to supply needed water in the future.

2. The conversion of agricultural water entitlements for the Stewart Tract to urban use has the potential for reducing or eliminating continuing entitlements that will be needed for agricultural use as phased urbanization occurs. The loss of entitlements necessary to assure continued agricultural use of non-urbanized lands could result in the premature commitment of lands to urban use. In the event that the level of urbanization envisioned for Gold Rush City does not materialize, loss of agricultural water entitlements could commit the entire Tract to some other forms of urbanization in the future.

Mitigation Included in Specific Plan Proposals, DEIR p IV-10:

1. The General Plan EIR requires that development within Stewart Tract and Mossdale Village be withheld until the extent of development to be approved is supported by assurance that a firm supply of water will be obtained commensurate with the amount of urbanization to be provided. The possible need for phasing-in urban water supplies is recognized. To meet this test, the City has been exploring several approaches singly, and in combination, including conversion of appropriative rights, riparian rights, well field expansion, and contracting for surface waters that would be provided by the South San Joaquin Irrigation District. [see SP, p 60, 2nd para.]

2. Any conversion of agricultural water entitlements for the Stewart Tract to urban use must assure the continued availability of water for on-going agricultural use until such time that phased conversion of lands to urban use is justified. [see SP, p 61, top para]

Additional Impacts Identified, DEIR p V-7:

1. Expansion of the City's municipal well field could have the eventual effect of lowering the quality of the City's drinking water supplies by increased levels of salinity.

2. The City's existing domestic well water supply is not adequate for supplying the estimated volume of water (14.3 MGD) that will be needed by the year 2025, including West Lathrop.

3. Failure to practice urban water conservation through the reuse of treated municipal liquid waste would result in the over-consumption and waste of water from the various other sources available to the City.

Additional Mitigation Identified, DEIR pp V-7,-8,-9:

1.a. Water depths in existing and future wells will be monitored on a regular basis to determine if increased groundwater demands are adversely affecting the aquifer. For example, a sustained trend of declining water levels may signal that the aquifer is in a serious overdraft condition. In such an event, the City will consider prohibiting, or severely restricting the use of any new wells that can be expected to significantly intensify the condition.

1.b. The City will continue to monitor the quality of its well field groundwater in the interest of detecting the presence of potential contaminants; should the quantity or quality of groundwater pumped by the City begin to deteriorate, groundwater recharge programs will be implemented as supplemental sources of surface water become available.

1.c. City water consumption records will be monitored, and water meter repairs and testing programs will be maintained to pinpoint water system losses and inhibit excessive usage.

1.d. Development on Stewart Tract and Mossdale Village will not be served with groundwater from the City's existing well field.

1.e. During the City's on-going investigations to locate additional long-term supplies of potable water for domestic use, further efforts will be required to determine if groundwater aquifers in the area will yield sufficient quantities of quality water suitable for domestic use.

The potential for supplying adequate supplies of potable water rests with a combination of approaches pursued simultaneously, including those set forth below. The City will pursue each of these options, and shall withhold development for any phase of development under the West Lathrop Specific Plan until there is assurance of a firm supply of potable water commensurate with the amount of urbanization to be served. It is prudent to combine the available approaches based on the need for water conservation in a dwindling regional water environment.

2.a. To meet long-term water supply requirements, the City will continue to participate in a regional water project in which the South San Joaquin Irrigation District would provide the needed supply, construct the conveyance system and treatment infrastructure, treat the water to meet State Standards for domestic uses, and deliver the treated water to appropriate locations in or near the City of Lathrop. It is anticipated that several other cities will also participate in this water project. Studies and planning for this project currently are underway.

2.b Studies completed by Siegfried Engineering indicate that the use of groundwater obtained from wells on Stewart Tract can serve the needs of the development (on either an interim or permanent basis) if the water from this source is treated to meet State drinking water.[2]

2.c. Potable water may also be made available by converting riparian or appropriative water rights held by the Stewart Tract ownership in the amount of 34,000 acre feet per year. The City of Lathrop will file with the Water Rights Board to convert use of Stewart Tract appropriative rights in accordance with provisions of State Law. If utilized, this interim water supply will be treated to meet State Standards for M&I (Municipal & Industrial) use. Transfer of the agricultural water right for M&I use by the City will be approached under a program of phased development consistent with demand and need. This is needed to protect the existing agricultural water right until it is no longer needed for crop irrigation. The conversion of an agricultural appropriative by the City of Lathrop for M & I use is permitted by Section 1700 of the California Water Code.[3] This action could provide for all of the City's water needs contemplated under the Lathrop General Plan. A water treatment plant would be required to treat San Joaquin River water, and also for water from the Stanislaus River conveyed by SSJID.

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2 Siegfried Engineering, Inc., **Alternate Water Supply, West Lathrop Specific Plan**, February 28, 1995.

3 Barring any protests, such a transfer of water rights is a relatively simple matter. Fees for the transfer are $100, to be paid to the State Water Resources Control Board for the expenses of processing the application, plus $800 for preparation of an Environmental Evaluation to be prepared by the Department of Fish and Game.

2.d. Water obtained by the City from upstream sources (other than SSJID), if available, would be transported via the San Joaquin River channel or other surface water courses, treated and stored near areas of proposed development.

2.e. A domestic water supply will be provided to serve each phase of Stewart Tract and Mossdale Village before it is permitted to construct. The supply will be sufficient in reliability, quantity and quality in accordance with State Health regulations. The water supply system will be owned and operated by the City of Lathrop.

2.f. A distribution system of pipelines and storage tanks has been planned by Siegfried Engineering, Inc. which provides for five storage tanks with a capacities ranging from 4.0 to 6.0 million gallons (Total of 26.0 million gallons), to be located along the perimeter of Stewart Tract (#s 2-5) and within Mossdale Village south of Louise Avenue. These tanks will provide for emergency storage, fire flow and equalization storage.

2.g. As planned, the water mains appear adequate to carry water from proposed delivery points. If a water treatment plant is located on-site for treating San Joaquin River water, pump stations and water mains may require resizing and relocation during final design.

2.h. The water system is preliminarily planned to serve the needs of the proposed Project. When the Project proceeds to final design, the system will be reanalyzed and changes made to address a more accurate assessment of water demands.

2.i. Under phased development of the Project, phased development of the water system may be appropriate. In such event, storage, booster pumps and distribution lines may be less extensive than what will be required for ultimate development.

2.j. All water mains are to be looped or provided with appropriate line flushing facilities. In particular, water mains crossing the San Joaquin River are to be looped, at locations associated with bridges crossing the river if at all possible.

2.k. All water distribution facilities are to be constructed of durable materials and using construction practices to be approved by the City Engineer.

2.l. The development and the water system will be adequately protected from a 100 year flood event by improvements to the levees around Stewart Tract. In the case of power outages, standby power will be installed and properly maintained at all pumping stations to ensure a continuous supply of water.

2.m. Storage tanks are to be located below the horizon line where feasible, and landscaped to visually blend with the overall site and surrounding land use.

2.n. Adequate all-weather access from hard surfaced roads is required to all components of the water system, including right-of-way and ingress and egress routes for maintenance.

2.o. Line flushing and storage tank draining outlets are to be located to maximize the potential for water reuse opportunities.

3. Water conservation will be practiced by the City through the treatment and reuse of effluent for landscaping and agricultural irrigation by providing low water demand landscaping, water conserving methods of irrigation and the use of low-flow water fixtures.

Responsibility for Implementation: As a general principle, the City and project developer will be jointly responsible for pursuing and perfecting all potential sources of potable water. The developer(s) will be responsible for all wells and other facilities necessary to utilize waters available from underground aquifers

and from conversion of agricultural entitlements and riparian rights. The City will pursue a contract for surface water delivery from SSJID or any other public agency source that may become available. The responsibility assigned to the City and project developer (see below) involves repetition of some measures to indicate where joint responsibility will be required. The City will be responsible for the following mitigation measures:

Part IV measures 1 and 2.
Part V measures 1.a. - 1.e., 2.a., 2.c. - 2.e., and 3.

The project developers will be responsible for the following mitigation measures:

Part I. measures 1 and 2.
Part V measures 1.e., 2.b., 2.c., 2.e. - 2.o.

Timing of Implementation, Monitoring and Verification: All Part IV measures, and Part V measures 2.a. - 2.c. require action by the City and project developer as soon as reasonably possible to perfect water supplies adequate for the first phases of development on Stewart Tract and Mossdale Village. These measures must be satisfied before building permits for the beginning of Phase 1 development can be issued by the City.

Part V measures 1.a. - 1.e. require action by the City on a periodic basis commensurate with sound engineering practice. Measure 1.d. will go into effect immediately, and remain in effect for the duration of development activity under the West Lathrop Specific Plan.

Part V measures 2.e. - 2.o. will be carried out during the preparation of engineering plans and specifications required by the City preparatory to recording of final subdivision maps and parcel maps associated with any development project, and prior to the issuance of any occupancy permits for other types of development projects that may be approved by the City under the Specific Plan.

With respect to assuring adequate supplies of potable water, including the design and construction of water supply facilities, the City Engineer will have responsibility for coordination and liaison with all public agencies and private parties having an interest in obtaining water supplies. The City Engineer will verify the provision of on-site water supply facilities through review and approval of engineering drawings and specifications, and by field inspection during construction. Coordination will be required by the City Engineer with the Regional Water Quality Control Board and County Health Department.

Responsibility for Monitoring and Verification: The City Engineer; and, the Regional Water Quality Control Board and County Health Department with respect to permits and authorizations required by the Regional Board and the Department.

Wastewater Management

Impacts Identified in the DEIR, pp V-14,-15,-16:

1. Long-range sewerage capacity for the West Lathrop planning area requires wastewater management facilities that do not currently exist. Any new system(s) must meet the Waste Discharge Requirements established by the California Regional Water Quality Control Board, Central Valley Region (Regional Board).]

2. A matter of concern is whether additional treatment and disposal capacity is to be made available for Lathrop at the Manteca wastewater treatment facility, located east of McKinley Avenue and the Union Pacific Railroad, and north of State Route 120.

3. The ultimate location of treatment and disposal facilities needed to serve West Lathrop development may have important site-specific adverse physical impacts on the environment, including potential for up-set (odor), adverse visual character, and potential adverse effects on the quality of the San Joaquin River, its immediate tributaries and its fisheries.

4. If an effluent storage reservoir is used for either short-term or long-term disposal of effluent to the land, the reservoir may require substantial acreage (long-term) and a prominent visual location (short-term).

5. A potential exists for health hazards from reclaimed effluent sprayed on onto golf courses and other landscaped open space.

6. The treatment process for any facilities located within the Lathrop planning area will generate biological solids requiring disposal.

7. Land disposal of effluent from interim plant facilities will require sufficient acreage reasonably close to the treatment plant, regardless of its location.

8. If a seasonal discharge permit is issued by the Regional Board for disposing treated effluent to the San Joaquin River during periods when land irrigation is not feasible, the quality of the effluent would have to meet discharge requirements set by the Regional Board, including protection of fisheries.

9. If one or more separate treatment plants are provided to meet the needs of the City and its West Lathrop expansion, treatment plant construction will require about four acres of land and plant operation will utilize power and chemicals.

10. Construction-related impacts will include truck traffic, noise from trucks and machinery, and the possible generation of off-site dust. These impacts will involve remote sites being considered either within the Lathrop planning area or at the Stockton or Manteca wastewater treatment plant sites.

Mitigation Measures Identified in the DEIR, pp V-14,-15,-16:

1&2.a. Accommodating Lathrop's needs at the Manteca wastewater treatment facility is consistent with State policy and the intent of the Clean Water Grant Program under which plant construction was originally financed and authorized. If treatment capacity can be added for Lathrop, there would be fewer potential environmental consequences than would result from constructing one or more facilities to be managed separately by the City of Lathrop or connection to the Stockton plant.

1&2.b. Current limitations on the availability of land for effluent disposal at the Manteca facility may be satisfied in part by utilizing agricultural lands north of Yosemite Avenue both east and west of

McKinley Avenue for the purpose. For the most part, these lands are being held as a buffer for existing industry rather than as sites having industrial potential. This acreage may also satisfy the need for land disposal if Site 3b adjacent to the existing Lathrop treatment plant is selected.

1&2.c. The wastewater management facilities required to serve West Lathrop will include collector sewers, pumping plants, a treatment plant (or expansion of the existing regional plant), storage, effluent reuse and disposal systems capable of phased expansion of each component of the overall sewerage system with minimum system disruption and acceptable cost.

1&2.d. Future development under the West Lathrop Specific Plan shall not be permitted until adequate sewerage system facilities can be assured at the time of occupancy and/or operation of new developments.

1&2.e. Treated effluent is to be reused to the greatest extent feasible, for landscape and crop irrigation.

1&2.f. If adequate wastewater management facilities are not available in time to serve first phase development of Stewart Tract and Mossdale Village, then affected developers may, at their own expense, construct interim wastewater management facilities that are compatible with long-range wastewater management plans of the City of Lathrop. The costs of connecting to long-term facilities at a later date shall also be the responsibility of initial and subsequent developers requiring interim facilities.

1&2.g. With the exception of the Manteca and Stockton regional facilities, all wastewater management facilities located within or connecting to sewage sources operating within the city limits of Lathrop shall, upon acceptance and approval by the City of Lathrop and the Regional Water Board, be operated by the City of Lathrop.

1&2.h. All costs for interim or long-range wastewater management facilities will be charged by the City of Lathrop to the parties receiving the services: such charges may include costs for the following:

1) Planning and design:
2) Licensing and permitting:
3) Site acquisition and right-of-way
4) Construction:
5) Start-up
6) Operation & maintenance
7) Replacement

1&2.i. As Stewart Tract develops in phases over the time, a significant portion or portions of Stewart Tract will continue to be farmed and irrigated with treated effluent, and appropriate landscaping in developed areas will be irrigated with treated effluent when the quantities of effluent become sufficiently large to assure the feasibility of wastewater reclamation.

1&2.j. Wastewater management will be regulated at all times by Waste Discharge Requirements issued by the Regional Water Board.

3.a. The alternatives being examined by the City of Lathrop for the location of wastewater treatment and disposal facilities shall be examined as to their site-specific environmental impacts: mitigation measures shall be applied to the selected location which are capable of eliminating all potential significant effects or of reducing such effects to acceptable levels.

3.b. Any alternative providing for a plant site within the Lathrop planning area will require a site for the temporary detention of influent in the event of a plant upset involving influent bypass of the treatment

system. While such wastewater spills occur but rarely, the potential does exist and requires system design to the highest standards which will minimize this possibility.

3.c. The potential for off-site odors from the treatment plant shall be addressed by utilizing odor avoidance design of treatment facilities, primarily at the headworks, and trunk line conveyance facilities.

4. If land disposal of effluent is required to meet the long-term needs of Stewart Tract, land toward the westerly end of the Tract would be most appropriate for the purpose given the phasing proposals for development under the Specific Plan.

5. The potential for health hazards from spraying reclaimed effluent to landscaped areas will be avoided by meeting State standards for such disposal under Title 22 of the California Administrative Code.

6. Sludge will require disposal to an approved site. Options include landfill, spreading or discing on agricultural lands, or composting.

7. Either permanent or temporary sites for land disposal of effluent will require adherence to State standards. Effluent disposal needs for an interim plant may be achieved by utilizing lands available on Stewart Tract, between the railroad and freeway. Another possibility may be agri- cultural pastures along the McKinley Avenue corridor north of Yosemite Avenue.

Responsibility for Implementation: As a general principle, the City, with the assistance and financial participation of the project developer, will be jointly responsible for the engineering design, construction and financing of any wastewater treatment facilities that may be developed in Lathrop, and the City will be responsible for their continuing operation and management. In the event that wastewater treatment is provided under contract with either the City of Stockton or City of Manteca, the City will be responsible for the contractual relationships involved and the private developers will be responsible for financing capital costs attributable to their projects. The City will be responsible for withholding approval of any project proposals based on the Specific Plan unless the capability for the construction and financing of needed wastewater facilities to serve such project is assured. The developer will be responsible for the design and construction of all collection system facilities required to serve his project, to City standards.

Timing of Implementation, Monitoring and Verification: Beginning immediately, it will be necessary for the City and project developer to work together to enlarge the existing wastewater treatment plant south of Crossroads Industrial Park to handle wastewater loading that will be needed to serve Phase I development under the Specific Plan. This will include adequate provision for the disposal of treated wastewater to the land. Concurrently, the City will complete its Wastewater Facilities Plan (and EIR), selecting the approach to wastewater management needed for the long-range.

Responsibility for Monitoring and Verification: The City Engineer; and, the Regional Water Quality Control Board with respect to permits and authorizations required by the Regional Board.

Drainage and Flood Control

Impacts Mitigated by Specific Plan Proposals, DEIR p IV-11:

Impacts:

1. Within all areas covered by the Specific Plan, surface water drainage from streets and other paved surfaces will contain petroleum distillates, grease and chemicals that can degrade the quality of receiving waters of the San Joaquin River and its tributaries. These constituents of surface water drainage are picked up from paved surfaces that carry auto and truck traffic, from excessive use of

water from landscape irrigation, and from outdoor washing of vehicles and building surfaces. Adverse impacts on fish and wildlife and on downstream users would occur.

2. Flooding of the Stewart Tract that occurs during periods of heavy rainfall, or that could occur from a break in the levee system, has the potential for serious damage to property and personal injury.

Mitigation Included in Specific Plan Proposals, DEIR pp IV-11 and -12:

1. The Specific Plan calls for the capability to remove hydrocarbon and other contaminants from surface drainage water prior to disposal to off-site water courses. A capability for on-going monitoring of the system(s) is proposed as part of the mitigation monitoring program summarized in Part I of this document and described in a separate document to be approved by the City Council. [see SP, p74] This topic is also discussed further in Part V of this EIR.

2.a. The potential for flooding of the Stewart Tract requires that levees be reconstructed and strengthened to standards of the Corps of Engineers as has already been accomplished for the levee along the east bank of the San Joaquin River. Affected levees will be those along Old River, the west bank of the San Joaquin River and Paradise Cut, which eventually may require reconstruction around the entire Tract to carry out land use proposals of the General Plan and Specific Plan. (see measure 3, below). [see SP, p 32, Objective 8A]

2.b .In connection with and in addition to Measure 2a, above, a variety of approaches to flood-proofing are covered by the Specific Plan to close the gap to floodwater that otherwise would exist between Old River and Paradise Cut west of the Southern Pacific Railroad. Ways have been devised during preparation of the Specific Plan to assure adequate flood-proofing as phased development occurs. They include elevation of roadways, the sites of major activities, and open space corridors, and the depression of recreation, lake and other open space areas to detain floodwaters during an emergency. [see SP, pp 72-79]

2.c. Other mitigation required to prevent loss of life and property during a natural or man-made disaster are described under the topics of Health and Safety.

Additional Mitigation Identified, DEIR p V-19:

1. Portions of the levees around Stewart Tract will need rehabilitation to increase their height and broaden the landside slopes, as part of the development approval process. The final design of levee sections will require hydraulic and hydrographic analysis and the surveying of additional levee sections (including below the normal water line), slope stability analysis, and, if available, seepage data collected from piezometers during elevated river stages. It is likely that relatively broad levees with substantial freeboard above design flood levels will be considered appropriate, having regard to the very high level of investment which they will protect.

2.a. Levee rehabilitation process is recommended which leaves existing levees unchanged on the water side but which excavates the land side of the levees. The land side of the levee is replaced with engineered fill to at least the minimum height required by FEMA with a 1 on 4 land side backslope.

3. If further analysis indicates a need to continue transverse seepage through levees, an impermeable geofabric membrane could be incorporated into the new levee by laying material on the excavated levee slope prior to placing the engineered fill. In addition, or as an alternate measure, a "toe" drain may be installed at the base of the land side of the levees to intercept and pump seepage and the water discharged back to the river.

4. Levee widening should take into consideration the underground pipe systems located at the land side toe of the present levee. Parts of these systems will have to be removed or relocated to avoid burial under the toe of the upgraded levee. The final levee shape should also reflect project needs for areas adjacent to the levees (e.g., residential uses, open space corridor, golf courses, seepage swales, water courses). Preliminary studies indicate that the levees can be raised and broadened with the materials that are available from the Stewart Tract interior.

The following measures are recommended to mitigate problems associated with elevated groundwater surface at times of high river flows:

5. Several options are available. One involves filling to elevate developed parts of the site; another would utilize a low perimeter drainage swale that would be dry most of the time and intercept and drain elevated groundwater during prolonged wet periods. Collected water could be pumped into surface streams, or the interceptor swales could be made part of open space corridors and recreation areas. [Note: one or more of these techniques will be implemented on Stewart Tract.

Responsibility for Implementation: The project developer will be responsible for implementing Part IV measures 1. - 2.b. and Part V measures 1. - 5. The City will be responsible for the monitoring of surface water contaminants generated (Part IV measure 1). The Corps of Engineers, FEMA, the State Reclamation and affected local reclamation districts will be responsible for reviewing plans and specifications for improving levees and providing other flood control works affecting the waterways which surround the Project.

Timing of Implementation, Monitoring and Verification: With the advice of outside agencies having jurisdiction, the City Engineer will review engineering plans and specifications for all flood control works, and verify compliance by regular field inspections during construction.

Responsibility for Monitoring and Verification: The City Engineer; and, the Corps of Engineers, FEMA, State Reclamation Board and affected local reclamation districts with respect to permits and authorizations required by these agencies.

Lake Management

Impacts Identified in the DEIR, pV-20:

1. Inadequate design and management of the lake system can create problems of water quality, safety and hazards to public health. Potential problems include algal bloom (eutrophication), stagnant water and vector control (insect abatement), bacteria concentration as a threat to public health, unsightly visual characteristics, and adverse effects downstream on fisheries and the quality of water used for agricultural and open space irrigation.

2. In connection with Impact #1, above, nutrients, sediments and various contaminants and pollutants may enter in flowing water, giving rise to several of the problems listed.

3. A potential exists for an incompatibility of lake functions. Important examples include the following:

   a. Flood control in conjunction with storage of stormwater, sediment control, and wildlife nesting.

   b. Sediment control in conjunction with flood control if capacity for sediment is inadequate and if growth of bottom vegetation is smothered.

   c. Recreation use in conjunction with sediment control can become a safety hazard: recreational use in conjunction with wildlife habitat can be adverse if species do not tolerate disturbance.

Mitigation Identified, DEIR p V-20 :

1-3. The lake system is to be designed and managed to avoid the kinds of problems listed under Impact #s 1-3, above. Some of the more important measures that may be required include, but are not limited to: automatic aeration and/or frequent flushing; the use of automatic equipment to maintain appropriate lake elevations; lake sealing; the use of electrically powered boats at reduced speeds; and aquatic vegetation management to meet State and EPA standards.

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: Partial construction of the lake system will be required during Phase I of Stewart Tract development. Monitoring will be required by the City in reviewing engineering plans and specifications, with verification of compliance by regular field inspections of works. Verification may also be required by the Regional Water Quality Control Board and County Health Department by reviewing plans and field inspections.

Responsibility for Monitoring and Verification: The City Engineer; and, the Regional Board and County Health Department.

BIOLOGICAL RESOURCES

Fish and Wildlife

Impacts Mitigated by Specific Plan Proposals, DEIR IV-12 and -13:

Information provided in Part III of this document indicates that both nesting and foraging areas of Swainson's Hawk habitat will be adversely affected by urban development proposed by the Specific Plan. Considerable acreage of foraging habitat will be converted to urban use, and nests will be encroached upon by urban use. Information on the existing fishery of the San Joaquin River and its tributaries in the immediate vicinity of the planning area also indicates a potential for adverse impact. Extensive field studies conducted during formulation of the Specific Plan indicates the absence of any other rare, endangered or threatened species of wildlife.

1. The principal impact on the Swainson's Hawk will be the loss of foraging and nesting habitat, and the potential abandonment of local nesting territories.

2. If suitable nesting territories are not available to support relocation in relation to other Swainson's hawk territories, then there could result a net loss in the hawk population which would further exacerbate the condition of the hawk as a threatened species.

3. The fishery of the San Joaquin River and its tributaries is threatened by the potential for contamination by urban runoff and up-stream agricultural drainage.

Mitigation Included in Specific Plan Proposals, DEIR p IV-13 and -14:

1. Policies of the Lathrop General Plan and EIR, as well as a Stipulated Judgement on the General Plan/General Plan EIR, require that the City either adopt its own Habitat Management Plan or participate with Stockton. The City hopes to participate with other local jurisdictions in need of a locally sponsored HMP for the County, including the San Joaquin County COG and the cities of Lodi, Tracy, Manteca and the County of San Joaquin. A multi-jurisdictional approach can allow for reasonable urban expansion while retaining the Swainson's hawk populations in perpetuity. Because Stockton's program has been postponed indefinitely and the COG program may not be in place for several years, the City is proceeding on its own, along with Stewart Tract and Mossdale Village proponents of the Specific Plan, to assure appropriate mitigation of Swainson's hawk impacts for the first phase of development for a period of approximately five years extending through the year 2000. This program involves identifying and assuring the availability of suitable foraging habitat into perpetuity, and to create new nesting habitat along watercourses in areas like Paradise Cut. [see SP, pp 129-132, and the Technical Appendix describing details of the Habitat Management Plan] If a countywide program does not materialize, the City will cooperate with the State and other units of local government to the extent that its jurisdiction may apply.

   [see SP, pp 129-132, and the Technical Appendix describing details of the Habitat Management Plan]

2.a. Areas of foraging habitat replacement are being sought within the South Delta subpopulation of the Swainson's hawk which is bounded by lower Robert's Island, the City of Tracy, the San Joaquin River and Old River. Whether by land purchase or conservation easement, the quality of the habitat is being considered to include suitable nesting habitat as well as foraging habitat such as alfalfa.

2.b. Based on additional biological surveys conducted early in the Specific Plan formulation process, policies and proposals of the Specific Plan call for habitat retention and habitat enhancement to deal with known sensitive species of plants and animals.

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2.b. Based on additional biological surveys conducted early in the Specific Plan formulation process, policies and proposals of the Specific Plan call for habitat retention and habitat enhancement to deal with known sensitive species of plants and animals.

2.c. Paradise Cut has been designated as the major area where habitat retention and enhancement is to be accomplished, to achieve the following:

- The integration of waterway habitat areas as part of the areawide system of open space.
- The preservation of all stands of vegetation along waterways which provide habitat, and achieving a standard of "no net loss of wetland acreage".
- The careful introduction of public and private recreation activities within habitat areas which will not disturb natural conditions either through intensity of operations, high levels of noise generation, or scarring of the landscape through development activity.
- The retention of hedgerows and other habitat areas within intensively farmed acreage which are compatible with agricultural operations.
- The protection of fisheries by preventing discharge of contaminated surface waters to waterways, or the discharge of waters containing significant Bio Chemical Demand (BOD)which could reduce the dissolved oxygen content of downstream receiving waters.

2.d. To the extent that they can feasibly be applied to the smaller acreage of Mossdale Village, the same objectives of habitat retention and enhancement listed under 2.c., above also apply to Mossdale Village.

2.e. The designation of new areas, including Paradise Cut and perhaps off-site areas for habitat enhancement by the Specific Plan provides a significant trade-off to the general environmental impacts on biological resources associated with development under the Plan. The objective of habitat enhancement is to enhance habitat that has been degraded and to create new habitat where feasible. Enhanced and new habitat will be created along recreation and open space corridors within Stewart Tract and Mossdale Village, including the following:

- The improvement of natural habitat along waterways.
- The creation of new habitat within multi-purpose open space area designated for reuse of treated wastewater, surface water drainage for wildlife management and recreation and lagoons and lakes intended as water features of development.
- Provision of habitat within parks, parkways and golf courses.

3. Fisheries will be protected by reducing the amount of chemicals, petroleum distillates, pesticides and fertilizers contained in urban runoff through extraction, and by the design of waterway projects to protect fish populations. [see also previous discussion under topics of drainage and flood control]

Additional Wildlife Impacts Identified, DEIR pp V-26,-27,-28,-29:

1.a. Swainson's Hawk Foraging Habitat. Approximately 4,590 acres on Stewart Tract could ultimately be affected at full project build-out.

1.b. Swainson's Hawk Foraging Habitat. Approximately 950 acres on Mossdale Village could ultimately be affected at full project build-out.

2.a. Swainson's Hawk and Other Raptor Nest Trees. Because Swainson's hawks will a) build new nests, b) occupy existing nests that they previously constructed, or c) occupy or take over nests that other raptors and magpies have constructed, most existing large nest platforms are therefore potentially

suitable nest sites for this species. There are approximately 33 raptor nests on or surrounding Stewart Tract and Mossdale Village (see Figure 111-6: and. Personal. Comm. and unpublished data from Waldo Holt. 22 April. 1994). Approximately seven trees on Stewart Tract (see Figure III-8). containing known or suspected Swainson's hawk nests or other raptor nests. could be directly or indirectly affected under current project design. The direct or indirect impacts on nest trees could result in a loss of reproductive success of Swainson's hawk or other raptor species. The loss of a tree containing a raptor nest could be subject to the permit provisions of the Migratory Bird Treaty Act.

2.b. Swainson's Hawk and Other Raptor Nest Trees. There are approximately 33 on surrounding Stewart Tract and Mossdale Village (see Figure 111-6:0 and. Personal. Comm. and unpublished data from Waldo Holt. 22 April 1994). One large valley oak tree containing a suspected Swainson's hawk nest (see Figure III-6:). would probably need to be removed from Mossdale Village to accommodate current project design. The direct or indirect impacts on nest trees could result in a loss of reproductive success of Swainson's hawk or other raptor species. The loss of a tree containing a raptor nest could be subject to the permit provisions of the Migratory Bird Treaty Act.

3. San Joaquin Kit Fox. Detailed surveys for this species were conducted in 1993 in accordance with U.S. Fish and Wildlife Service protocol. No evidence of this species was found. nor were any individuals seen.

4. Giant Garter Snake. Focused surveys were conducted for this species between June 29 and July 14. 1993. for a total of 10 days. However. no evidence of this species was found.

5. Aleutian Canada Goose. Only marginal habitat exists on predominance of agricultural land uses and the limited extent of marsh vegetation. No evidence of this species was found.

6. Western Yellow-Billed Cuckoo. Only marginal habitat exists on the project corridor due to the discontiguous stands of riparian vegetation on Stewart Tract. Focused surveys were conducted over a four day period from July 12 to August 11. 1993. using prerecorded tape calls. However. no individuals were heard or seen.

7. California Black Rail. Marginal habitat exists on the project corridor due to the discontiguous stands of riparian vegetation on Stewart Tract. Focused surveys were conducted over a four day period from July 12 to August I 1. 1993. using prerecorded tape calls. However. no individuals were heard or seen.

8. Western Pond Turtle. Western pond turtle was observed in Paradise Cut and in several locations in the San Joaquin River. However. under current project design. it is not likely to be adversely affected.

9a. White-tailed kite (= black shouldered kite): A white-tailed kite nest occurs on the west side of the Southern Pacific Railroad. north of Paradise Cut. The proposed project on Stewart Tract could adversely affect the use of this nest tree through direct loss. or indirectly through abandonment of the nest site.] Due to the large regional base of foraging habitat. the loss of such habitat for white-tailed kite is not significant. The loss of foraging habitat results in an incremental. cumulative loss of potential foraging habitat.

9.b. White-tailed kite. A nest occurs on the west side of the San Joaquin River. opposite Mossdale Village. and a suspected nest tree occurs in the elderberry mitigation area on Mossdale Village. Due to the large regional base of foraging habitat. the loss of such habitat for white-tailed kite is not significant. The loss of foraging habitat results in an incremental. cumulative loss of potential foraging habitat.

10. Northern harrier. The proposed projects on Stewart Tract and Mossdale Village will result in a loss of foraging habitat. Due to the large regional base of foraging habitat, the loss of such habitat for northern harrier is not significant, but nevertheless, results in an incremental, cumulative loss of potential foraging habitat.

11. Riparian Brush Rabbit. Trapping for this species in 1994 at the western tip of Paradise Cut, in accordance with DFG guidelines, did not result in any captures.

12. San Joaquin Valley Riparian Woodrat. Trapping conducted for this species in 1994 at the western tip of Paradise Cut, in accordance with DFG guidelines, did not result in any captures.

Additional Wildlife Mitigation Identified, DEIR pp V-27,-28,-29:

1. Swainson's Hawk Foraging Habitat: The City of Lathrop has prepared a Habitat Management Plan (HMP) that addresses project impacts and mitigation measures for this species. It is anticipated that a California Endangered Species Act Memorandum of Understanding, incorporating a California Endangered Species Act Management Authorization, would be instituted under Fish and Game Code Section 2081. This Authorization, between Lathrop and the Department of Fish and Game, would be established for the 'taking' of foraging habitat.

   Among its component parts, the HMP will provide mitigation for the loss of foraging habitat at a ratio of 0.5 acres of dedicated habitat (either on-site or off-site) to 1 acre of foraging habitat to be replaced by urbanization. Dedication will be in the form of recorded conservation easements, and cash payments (or equivalents) to assure adequate funds for annual operation and maintenance. For Stewart Tract, the HMP will include part or all of Paradise Cut to satisfy Phase 1 development requirements. For Mossdale Village, conservation easements will be required off-site.

2. Swainson's Hawk and Other Raptor Nest Trees: The nearly 900-acre Paradise Cut will remain as open space and will be managed for wildlife habitat values, including nesting raptors. Valley oaks and Fremont cottonwoods will be planted in the Great Valley Oak Riparian forest in Paradise Cut at a 10:1 ratio for any nest trees lost on Stewart Tract or Mossdale Village. Thus, a minimum of 10 trees, five of each species, will be planted for each one lost. These will serve as replacement trees for any trees lost that contain Swainson's hawk nests or other raptor nests. Specific technical details on how, when, and where such trees will be planted and monitored will be described in a Habitat Management Plan (HMP).

3. San Joaquin Kit Fox: No mitigation required. The West Lathrop Specific Plan area is outside the known range of this species [based on extensive field surveys].

4. Giant Garter Snake: No mitigation required. Paradise Cut will remain as open space and will be managed for wildlife habitat values, which will benefit this species in the event that it migrates into the area.

5. Aleutian Canada Goose: No mitigation required.

6. Western Yellow-Billed Cuckoo: No mitigation required. Paradise Cut will remain as open space and will be managed for wildlife habitat values, which will benefit this species in the event that it migrates into the area.

7. California Black Rail: No mitigation required.

8. Western Pond Turtle: No mitigation required. Paradise Cut will remain as open space and will be managed for wildlife habitat values, which will benefit this species which is known to inhabit the area.

9. White-tailed kite (= black shouldered kite): Foraging habitat preserved for Swainson's hawk as a result of implementation of an HMP, will also directly benefit this species.

10. Northern harrier: No mitigation required. Foraging habitat preserved for Swainson's hawk as a result of implementation of an HMP, will also directly benefit this species.

11. Riparian Brush Rabbit: Although the western tip of Stewart Tract within Paradise Cut contains habitat for this species, it is believed that the available area is not large enough to support a viable population of Riparian brush rabbit. However, as the Great Valley Oak Riparian forest is enhanced, restored, and enlarged in Paradise Cut, it may become possible to introduce Riparian brush rabbit into this area. The City of Lathrop will work with the Department of Fish and Game to determine if such an action is warranted.

12. San Joaquin Valley Riparian Woodrat: No mitigation required. Paradise Cut will remain as open space and will be managed for wildlife habitat values, which will benefit this species in the event that it migrates into the area.

13. Paradise Cut Wildlife Habitat Corridor: The nearly 900-acre Paradise Cut is a valuable wildlife corridor linking the San Joaquin River and other portions of the Delta, such as Tom Paine Slough and Salmon Slough. Paradise Cut will be managed for wildlife and open space. Based on the results of the HMP, portions of Paradise Cut may be managed as foraging habitat for Swainson's hawk. Such management decisions will be addressed in the HMP. However, any areas not used in this manner will be restored as Great Valley Oak Riparian and other appropriate habitat. A buffer will be established between Paradise Cut and the remainder of Stewart Tract. To avoid disturbance of wildlife, Paradise Cut will be kept off-limits to visitors, except for educational or scientific purposes.

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: Implementation of mitigation will be accomplished as development phasing occurs, with most measures to be in place as soon after the beginning of a development phase as reasonably may be possible. All of Paradise Cut mitigation will be undertaken during the early stages of Phase 1 development of Stewart Tract. Wildlife conservation easements will be required for subsequent phases of Stewart Tract development and first (and subsequent) phase development of Mossdale Village.

Monitoring and verification by the City will occur throughout the process of Paradise Cut habitat preservation and enhancement (Habitat Management Plan) for the Swainson's hawk and other wildlife species, and in selecting and obtaining wildlife conservation easements satisfactory to the State Department of Fish and Game. Mitigation is to be set in motion no later than the time when the first sub-phase development application for Phase 1 development of Stewart Tract is before the City for review and approval.

Responsibility for Monitoring and Verification: Because of the special character of these tasks, it is proposed that a qualified biologist be on retainer to the City to monitor and verify wildlife mitigation, including coordination and liaison with the Department of Fish and Game and the project developer. Verification will involve the review of habitat enhancement plans, the selection of appropriate conservation easements, and field supervision and inspection. Implementation of mitigation will be accomplished as development phasing occurs, with most measures to be in place as soon after the beginning of a development phase as reasonably may be possible. All of Paradise Cut mitigation will be undertaken during the early stages

of Phase 1 development of Stewart Tract. Wildlife conservation easements will be required for subsequent phases of Stewart Tract development and first (and subsequent) phase development of Mossdale Village.

Monitoring and verification by the City will occur throughout the process of Paradise Cut habitat preservation and enhancement (Habitat Management Plan) for the Swainson's hawk and other wildlife species, and lands having riparian vegetation are proposed for development. Mitigation is to be set in motion no later than the time when the first sub-phase development application for Phase 1 development of Stewart Tract and Mossdale Village is before the City for review and approval.

Responsibility for Monitoring and Verification: Because of the special character of these tasks, it is proposed that a qualified biologist be on retainer to the City to monitor and verify vegetation mitigation, including coordination and liaison with the Department of Fish and Game and the project developer. Verification will involve the review of habitat enhancement plans, the selection of appropriate conservation easements and field supervision and inspection.

Vegetation

Impacts Identified in the DEIR, p V-22:

1. *Loss of Riparian Vegetation.* The proposed project will result in a loss of 0.46 acre of riparian vegetation surrounding the pond on Stewart Tract. No riparian habitat would be affected in Mossdale Village that is not otherwise accounted for as jurisdictional wetland habitat. Under current project design, riparian vegetation will not be affected within Paradise Cut, nor along the waterside levee of San Joaquin River or Old River.

2. *Loss of Elderberry Shrubs.* The loss of elderberry shrubs is a significant impact because of the loss of the host plant of a Federal Threatened species.

Mitigation Identified in the DEIR p V-22 and -23:

1. *Loss of Riparian Vegetation.* A minimum 3:1 mitigation acreage ratio will be used as the replacement ratio for all riparian vegetation lost as a result of project construction. Based on the current site design, 1.38 acres of riparian vegetation will be established in a suitable location and maintained in perpetuity. The specific location and technical details for establishment and monitoring will be described in the Comprehensive Mitigation Plan for this project (see below). In addition, the entire area of Paradise Cut has been left in open space, and will be managed for riparian and wildlife habitat, and/or for Swainson's hawk foraging habitat.

2. *Elderberry Shrubs.* Mexican elderberry shrubs will be avoided to the maximum extent possible. Any that cannot be avoided will be mitigated in accordance with U.S. Fish and Wildlife Service guidelines (General Compensation Guidelines for the Valley Elderberry Longhorn Beetle, U.S. FWS, February 26, 1993). The regulatory authority for 'take' of Mexican elderberry is based on an incidental take permit pursuant to section 7(a) or section 10 of the Federal Endangered Species Act (FESA), following a period of formal consultation. A section 10 consultation applies if a Federal agency is not involved with the project. A section 7 consultation is required if a Federal agency is involved and a take would occur.

Under FESA, the Secretary of Interior may issue an Incidental Take Permit upon completion of an acceptable mitigation plan for elderberry shrubs. The current Service guidelines specify mitigation ratios and monitoring requirements. In the event that any individual or clumps of elderberry shrubs would be affected, consultation will commence with the U.S. Fish & Wildlife Service, and an elderberry mitigation plan will be submitted to the Service for approval.

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: Implementation of mitigation will be accomplished as development phasing occurs, with most measures to be in place as soon after the beginning of a development phase as reasonably may be possible. Monitoring and verification by the City will occur throughout the process of development. Mitigation is to be set in motion no later than the time when the first sub-phase development application for Phase 1 development of Stewart Tract, or of Phase 1 development of Mossdale Village, is before the City for review and approval.

Responsibility for Monitoring and Verification: Same as specified for wildlife, above, with coordination and liaison to be provided by the City's biologist with the U.S. Fish & Wildlife Service.

Wetlands

Impacts Identified in the DEIR, p V-30:

1. *Jurisdictional Wetlands.* Under current project design, 10.97 acres of jurisdictional wetlands would be affected on Stewart Tract and 2.57 acres on Mossdale Village. A total of 8.46 acres of fill would occur in an existing Canal adjacent to Stewart Road. The placement of fill in jurisdictional wetlands is considered a significant impact, and is subject to both Federal and State permit procedures.

Mitigation Identified in DEIR, pp V-30 and -31:

1a. Jurisdictional Wetlands: Placement of fill between 1 and 10 acres in jurisdictional wetlands or waters of the U.S. requires a Nationwide permit from the U.S. Army Corps of Engineers. An individual permit is required if more than 10 acres of wetlands are filled. Depending on the actual number of wetlands filled, either a Nationwide or individual Section 404 permit will be requested. Mitigation requirements for placement of fill in jurisdictional wetlands will be described in a mitigation plan that will accompany the Nationwide or individual permit application. It is anticipated that mitigation for wetland impacts would be conducted on-site in Paradise Cut, Stewart Tract, and Mossdale Village.

1b. The canal adjacent to Stewart Road is believed to be a channelized, intermittent creek. Thus, the California Department of Fish and Game may require a 1601/1603 Streambed Alteration Agreement before the flow or direction of the channel can be altered. Therefore, it is anticipated that the project applicant will consult with the Department of Fish and Game to determine if a Streambed Alteration Agreement is required, and will obtain one if required.

1c. A Water Quality Certificate will be obtained from the Regional Water Quality Control Board.

Fisheries

Impacts Identified in the DEIR, pp V-31 and -32:

1. Contamination of watercourses from surface water drainage (from streets and other paved surfaces) would result in negative impacts on fishery resources.

2. Contamination of watercourses from construction activities would have a negative impact on fishery resources.

3. Depending on its source, the community water supply can have a negative impact to the fishery resources.

4. Any flooding of Stewart Tract resulting from periods of heavy rainfall or breaks in protective levees could result in negative impacts on the fishery resources.

5. Marina construction and operation could have a negative impact on the fishery resources of the San Joaquin River, and particularly on species of special concern.

6. Levee maintenance bank-protection activities, such as riprapping, removal of vegetation and placement of dredged materials on levee banks, could have a negative impact on fishery resources.

7. The conversion of agricultural land to urban use as proposed would have a positive impact on the fishery resources, by eliminating pesticides and other chemical constituents of agricultural return flows which are now pumped to adjacent watercourses.

Mitigation Identified in the DEIR, pp V-31 and -32:

1. Positive off-site drainage, detention reservoirs, and removal of surface water contaminants in compliance with NPDES standards are proposals of the project (see Part IV).

2a. Detention reservoirs are to be installed prior to construction activity to remove sediment and debris.

2b. To protect the Chinook Salmon run, construction activities on the water side of the levees of the San Joaquin River and Old River should be limited to non-migratory summer months (i.e., mid-June through September).

2c. Although sufficient data are not available for the Delta Smelt, Longfin Smelt and Sacramento Splittail in the vicinity of the West Lathrop planning area, these species would nevertheless be protected during construction by measures 1, 2a, and 2b, above.

3a. If state or federal water projects are to be the source of potable water, water use must comply with state and federal water quality requirements for fish species of special concern for the San Joaquin Delta.

3b. Fish salvaging should be undertaken for fish which end up in sloughs and channels of the project area as a result of state and federal pumping operations.

3c. Water conveyors which divert from the San Joaquin River or other watercourses must be screened in accordance with standards established by the State Department of Fish and Game.

4. Project levees are to be strengthened to standards of the Corps of Engineers. Lakes and other open space areas of the site are to be depressed to act as detention basins during periods of high runoff and/or flooding under emergency conditions.

5. Marina construction along watercourses shall be accomplished in accordance with National Marine Fisheries Resources Guidelines, and in consultation with appropriate federal and state authorities. The several measures specified under measure 2, above, shall be followed if determined by state and federal authorities to be applicable.

6. Levee maintenance bank protection activities shall be limited, as prescribed under measure 2, above.

7. No mitigation for fishery protection is required for converting agricultural land to urban use, except as may be applicable under measures 1-6, above.

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: Comprehensive mitigation is to begin immediately upon City approval of Phase 1 development projects, and to continue unabated for that phase until completed. This is necessary because of the need for mitigation to be in place before any construction activities along waterways which could be harmful to fisheries. Monitoring and verification by the City will occur during project design and prior to construction activities, and also during construction activities to

assure avoidance of accidental damage to the fisheries resource. This will require frequent scheduled and unscheduled field inspections.

Responsibility for Monitoring and Verification: Same as for Wildlife and Vegetation, above, with coordination and liaison to be provided by the City's biologist with the State Department of Fish and Game and other outside agencies having jurisdiction.

NOISE

Impacts Mitigated by Specific Plan Proposals, DEIR p IV-15:

1. Noise effects of development proposals for Mossdale Village on Mossdale Village do not pose problems for land use within the Village or in other parts of the community. The principal concern is for the effects of freeway-generated noise on residential development within Mossdale Village. Noise levels from freeway traffic are high, and are expected to continue as freeway traffic increases.

2. The noise effects of commercial recreation development proposals for Stewart Tract on Mossdale Village have the potential for adverse impacts on the Mossdale Village residential environment close to the San Joaquin River.

3. The noise effects of commercial recreation development proposals for Stewart Tract have the potential for adverse impacts on recreation residential and lodging areas proposed for Stewart Tract.

Mitigation Included in Specific Plan Proposals, DEIR pp IV-15 and -16:

1. Policies of the Specific Plan for Mossdale Village require the placement of service commercial structures along Manthey Road, between I-5 and proposed residential areas of the Village so as to block the transmission of freeway noise to residential areas. [see SP, p33, Objective 9B]

2. Land use proposals for Stewart Tract provide a wide spatial buffer of golf course development and lodging areas to adequately attenuate noise effects of theme park and related activities. [see SP, p. 33, Objective 9A]

3. Residential areas of Stewart Tract will be kept far enough away from theme park activities as to attenuate sound by distance. Aesthetically designed walls and landscaping will further attenuate sound emanating from commercial recreation activities surrounding the theme parks. [see SP, p.33, Objective 9A]

Additional Impacts Identified, DEIR pp V-34

Future Noise Impacts:

The future noise environment of the West Lathrop Planning Area will be defined primarily by roadway traffic and railroad noise sources. Increased roadway traffic will cause future noise levels to be higher than existing levels. Noise levels generated by on-site activities at the proposed theme parks, sports centers and commercial centers could also contribute to the future noise environment to a small extent, but roadway traffic noise will be the major noise impact. Noise impacts due to and upon the project were evaluated by comparison of traffic and railroad noise levels to the applicable standards of the Hazard Management Element of the Lathrop General Plan and the increase in noise

Traffic Noise Impacts:

Future traffic noise levels were analyzed for the horizon years of 2005 and 2017. The alternative scenarios analyzed within each of the horizon years are as follows:

Year 2005	Year 2017
• No Project	• No Project
• With Project Access Alternative A[4]	• With Project Access Alternative A
• With Project Access Alternative B	• With Project Access Alternative B
	• With Project Access Alternative C

Tables V-4 and -5 (Years 2005 and 2017 Traffic Noise Levels) show that the following major roadways that are within or adjacent to the project will produce significant noise impacts for the No Project, Alternative A, Alternative B or Alternative C (and Alternative E) scenarios: [Note: a significant impact is assumed if noise levels exceed 60 dB L_{dn} at 100 feet. Mitigation measures would be required for noise-sensitive development occurring within the 60 dB L_{dn} contours].

Year 2005	Year 2017
• I-5	• I-5
• I-205	• I-205
• SR 120	• SR 120
• Circle (Califia) Drive	• Circle (Califia) Drive
• Golden Valley Pkwy.	• Golden Valley Pkwy.
• Gold Rush Blvd.	• Gold Rush Blvd.
	• Paradise Road

Outside the Specific Plan area, a significant noise impact is assumed if the change in traffic noise levels exceeds the criteria shown in Table V-3. From Table V-4 (Year 2005), it is apparent that a significant noise impact will occur along portions of Louise Avenue and Manthey Road (Golden Valley Parkway). From Table V-5 (Year 2017), a significant noise impact will occur along portions of Louise Avenue, Manthey Road (Golden Valley Parkway) and Paradise Road.

Additional Mitigation Identified in the Draft EIR, pp V-40 and -42:

1. Noise exposure may be reduced by increasing the distance between the noise source and receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, storage yards, etc. The available noise attenuation from this technique is limited by the characteristics of the noise source, but is generally 4 to 6 dBA per doubling of distance from the source. Setbacks could be utilized in this project to mitigate significant traffic and railroad noise impacts by limiting residential development to beyond the 60 dB L_{dn} contours.

2. Shielding by barriers can be obtained by placing walls, berms or other structures such as buildings between the noise source and the receiver. In order to predict barrier effectiveness, the use of noise barriers should be determined when final grading plans and project design elements are known. A more detailed analysis of noise attenuation will be required for residential projects located close to or in areas which exceed the 60 dB L_{dn} noise contours shown on Figures V-1 and V-2.

Barrier effectiveness depends upon the relative heights of the source, barrier and receiver. In general, barriers are most effective when placed close to either the receiver or the source. An intermediate barrier location

[4] Full description of the access alternatives can be found in the discussion of transportation, traffic and circulation impacts near the end of Part V of the Draft EIR.

yields a smaller improvement in insertion loss for a given change in barrier height than does a location closer to either source or receiver. The use of a barrier along I-5 could provide substantial traffic noise reduction for ground floor receivers. Because the relative elevations of the noise source and receiver must be known in order to predict barrier effectiveness, the noise reduction provided by the use of noise barriers within the project cannot be determined until final grading plans and lot design have been developed. However, a barrier constructed to intercept line of sight from source to receiver typically results in a 5 dB noise level reduction, with an additional 1 dB noise level reduction for each additional foot of barrier height. A detailed analysis of barrier heights required to achieve 60 dB L_{dn} at residential lots in the development should be conducted when specific lot layout and grading plans have been developed.

3. Buildings can be placed to shield other structures or areas, to remove them from noise impacted areas, and to prevent an increase in noise level caused by reflections. The use of one building to shield another can significantly reduce overall project noise control costs, particularly if the shielding structure is insensitive to noise. The placement of commercial buildings to serve as sound barriers to freeway noise in residential areas will be especially useful in Mossdale Village.

4. Within residential areas, carports or garages can be used to form or complement a barrier shielding adjacent dwellings or an outdoor activity area. Similarly, one residential unit can be placed to shield another so that noise reduction measures are needed for only the unit nearest the noise source. Placement of outdoor activity areas within the shielded portion of a building complex, such as a central courtyard, can be an effective method of providing a quiet retreat in an otherwise noisy environment. Patios or balconies may be placed on the side of a building opposite the noise source, and "wing walls" can be added to buildings or patios to help shield sensitive uses.

When structures have been located to provide maximum noise reduction by barriers or site design, noise reduction measures may still be required to achieve an acceptable interior noise environment. The cost of such measures may be reduced by placement of interior dwelling unit features.

5. Bedrooms, living rooms, family rooms and other noise-sensitive portions of a dwelling can be located on the side of the unit farthest from the noise source. Bathrooms, closets, stairwells and food preparation areas are relatively insensitive to exterior noise sources, and can be placed on the noisy side of a unit. When such techniques are employed, noise reduction requirements for the building facade can be significantly reduced, although the architect must take care to isolate noise-sensitive areas by the use of partitions or doors.

When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through acoustical design of building facades.

6. Standard residential construction practices provide approximately 15 dB noise reduction for building facades with open windows, and approximately 20-25 dB noise reduction when windows are closed. Where greater noise reduction is required, acoustical treatment of the building facade is necessary. Where window exposures are critical, reduction of relative window area is the most effective control technique, followed by providing acoustical glazing (thicker glass or increased air space between panes) in low air infiltration rate frames, use of fixed (non-movable) acoustical glazing or the elimination of windows. Noise transmitted through walls can be reduced by increasing wall mass (using stucco or brick in lieu of wood siding), isolating wall members by the use of double- or staggered-stud walls, or mounting interior walls on resilient channels. Noise control for exterior doorways can be provided by reducing door area, using solid-core doors, and by acoustically sealing

door perimeters with suitable gaskets. Roof treatments may include the use of plywood sheathing under roofing materials.[5]

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: Implementation will begin with the conduct of field surveys of noise levels existing at the time when project design plans are being prepared. Noise level surveys along the freeway and railroad should emulate those conducted for inclusion in the Specific Plan DEIR as published in July 1995. Survey results are to be used in the design and placement of structures, and in determining barrier heights, and will be reviewed by the City prior to the issuance of building permits. The surveys, and subsequent monitoring and verification, may be conducted by a qualified acoustical consultant responsible to the City. Monitoring will be performed for "as built" structures, barriers and sites prior to the issuance of occupancy permits, with additional mitigation to be required if necessary to attenuate any indoor or outdoor noise levels that exceed State standards. Of special concern will be the effectiveness of noise barriers and acoustical design of building facades.

Responsibility for Monitoring and Verification: The City Building Official, with assistance from a qualified acoustical consultant, and with the assistance of the Community Development Director in selecting ways to achieve appropriate levels of outdoor noise attenuation as may be recommended by the acoustical consultant.

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[5] Note that standard energy-conservation double-pane glazing with an 1/8" or 1/4" air-space is not considered acoustical glazing, as its sound reduction for some noise sources is actually less than that of single-pane glazing.

LIGHT AND GLARE

Impacts Mitigated by Specific Plan Proposals, DEIR p IV-16:

1. Views of the night sky will be diminished and perhaps totally obscured by the glare from night-time commercial operations.

2. A related impact would be the adverse effects of neon and area lighting of Stewart Tract commercial recreation centers on residential development within Stewart Tract and directly east of the San Joaquin River within Mossdale Village.

3. A potential exists for adverse effects of lights from vehicle traffic on residential areas adjacent to Gold Valley Parkway and Gold Rush Boulevard through Mossdale Village.

Mitigation Included in Specific Plan Proposals, DEIR p IV-16:

1. The key aspect of reducing the effects of light and glare in Mossdale Village from large-scale commercial operations on Stewart Tract is the buffer zone provided between the major theme park and related commercial areas and the San Joaquin River. However, full mitigation of this impact will not be possible.

2. Mitigation of direct off-site glare is to be achieved by the width of open space corridors along the river and westerly of recreation commercial centers on Stewart Tract, and by hooding and directing of exterior commercial lighting away from residential areas. Special attention will be given to the hooding and/or direction of lighting mounted high on building walls, poles, roofs, equipment and other facilities. [see SP, p91, 1st para.]

3. The potential for glare from vehicle traffic on residential areas will be mitigated by the construction of aesthetically designed walls and installation of landscaping along the perimeter of expressways in order to screen views of traffic from residential areas. [see SP, p88, 1st para.]

Responsibility for Implementation: The project developer.

Timing of Implementation, Monitoring and Verification: Implementation will begin at the time when project plans are being prepared, including site plans, building elevations, outdoor lighting and signage. Proposed mitigation will be reviewed by the City at the time of site plan review and again at the Building Permit stage.

Responsibility for Monitoring and Verification: The Community Development Director prior to City approval of a project site plan and building elevations, and the Building Official prior to the issuance of a building permit or certificate of occupancy, as appropriate.

PUBLIC, MUNICIPAL AND ENERGY SERVICES

Solid Waste Management

Impacts Mitigated by Specific Plan Proposals, DEIR p IV-17:

1. Commercial operations on the Stewart Tract will generate very large daily tonnages of solid wastes requiring recycling and/or disposal to appropriate waste disposal facilities. Failure to adequately manage such operational wastes could cause adverse visual and health effects if waste material was allowed to accumulate or be strewn over areas within and adjacent to Stewart Tract.

Mitigation Included in Specific Plan Proposals, DEIR p IV-17:

1.b Stewart Tract operations will include daily pick-up (in compliance with the City's Integrated Solid Waste Management Plan) of any waste products strewn over commercial grounds and parking areas by visitors; wastes from commercial and residential operations will be separated for recycling of paper, cans and plastics, and glass, with storage at on-site transfer stations for later hauling by re-use operators or County/City approved places of disposal; recycling of solid wastes from residential areas will be conducted on a scheduled basis. [see SP, p 79, 2nd-last para.]

Additional Impacts Identified, DEIR p V-43:

1. The Stewart Tract and Mossdale Village developments are expected to generate large amounts of solid waste at full development. Initially, construction wastes can be expected to be significant, with large quantities of solid wastes generated during all phases of development by residents and visitors to the area. Based on waste generating characteristics of the proposed Anaheim Resort Specific Plan, it is reasonable to assume that the volume will be four to five times greater than the nearly 11,000 tons generated within the City from all sources in 1989.

2. The unique resort and commercial recreation character of Stewart Tract development will generate large amounts of solid waste daily. Theme park operations will in themselves generate large volumes requiring daily pickup and washdown of hard surfaces where solid waste is allowed to accumulate. These volumes and accumulations can become unsightly and unhealthful.

Additional Mitigation Identified, DEIR pp V-43 and 44

1a. The City will monitor development to ensure compliance with the City's Integrated Solid Waste Management Plan (as prepared under the provisions of AB 939).

1b. Since development will be phased, substantial acreage will remain in agricultural use. Resulting solid wastes from agricultural operations will require traditional approaches to management, using livestock and crop wastes for soil fertilization.

1c. Mandatory pickup will be required for residential areas, along with containerized sorting of wastes capable of recycling and reuse.

1d. The significant amounts of wood wastes generated during construction activities are to be segregated and processed as wood chips and mulch for use in landscaping, animal husbandry and farming.

1.e. Grass clippings will generate large amounts of organic waste and are to be mixed with other organic wastes and recycled as compost. Lawn mowing should be accomplished with mulch-forming blades to reduce the amount of clippings requiring composting.

2a. A solid waste transfer station will be required for Stewart Tract waste management where residential and non-residential waste can be sorted into recyclable and disposable wastes for appropriate final disposition. **[This mitigation has been found unnecessary by the Final EIR]**

2b. Vendors are to be encouraged, and in some cases required, to purchase products in low volume and weight containers that are biodegradable, and to purchase products from suppliers that offer empty container buy-back services.

2c. Consideration should be given to establishing exhibits at the Visitors Center which provide information on the latest technology in waste management and how recycling and reuse of waste is accomplished.

2d. Medical wastes generated by the on-site Medical Care Center are to be managed under rules and regulations established by State and County health authorities.

2e. Large animal wastes are to be treated at the sewage treatment plant. Animal wastes that may be mixed with organic bedding material (e.g., sawdust, wood mulch, hay, straw) are to be applied to appropriate agricultural lands at times when fields can be plowed or disced after application.

2f. Sludge originating from the sanitary wastewater treatment process is to be composted and applied to agricultural and open space lands at appropriate times of the year.

2g. Hazardous wastes are to be managed and disposed in accordance with applicable State and local government regulations.

Responsibility for Implementation: The project developer and the City.

Timing of Implementation, Monitoring and Verification: Monitoring of solid waste generation will be provided monthly by the City in order to provide the information required to carry out all mitigation measures which require monitoring to some extent: recycling of construction wastes by the project developer will be accomplished daily or weekly, depending on the volume of waste to be processed; the City will be responsible for managing solid wastes generated by the sewage treatment process; the operators of the wild animal park will be responsible for collecting and delivering animal wastes to the sewage treatment plant on a weekly basis. Verification will be performed by the City in accordance with a schedule for each specific type of waste generation requiring a different approach to implementation and monitoring.

Responsibility for Monitoring and Verification: The City's Director of Public Works.

Electrical and Natural Gas Requirements

Impacts Mitigated by Specific Plan Proposals, DEIR p IV-17:

1. The amount of electrical and natural gas energy required for Stewart Tract operations will be very substantial. Residential demands alone, including lodging, could be in the order of 58 million kW (kilowatts), at an average consumption of 5,800 kW per housing unit (or housing unit equivalent for lodging facilities). Requirements for commercial recreation operations could equal demands for residential use.

Mitigation Included in Specific Plan Proposals, DEIR p IV-17:

1.a. General Plan and Specific Plan policies and proposals require the provision of all public utility, municipal utility and energy services needed to serve permanent and transient housing occupancy, and the daily transient population of visitors to Stewart Tract. This includes streets, public schools, parks and recreation facilities and open space corridors, civic and cultural facilities, fire and police services, emergency services, and water supply, sewerage, drainage/flood control, and solid waste management systems.

Responsibility for Implementation: The project developer and affected public utility companies.

Timing of Implementation, Monitoring and Verification: The project developer will determine requirements for utility services during the preparation of plans for any development project: adequate provision for gas and electrical utility services will be made a consideration of the development review process by the City, based on recommendations received by the City from affected public utility companies. Verification of proper installation will be made through field inspections by the City and affected utility companies prior to the issuance of occupancy permits.

Responsibility for Verification: The City Engineer and utility company field representatives.

Elementary and High School Services

Impacts Identified, DEIR p V-47

1. Residential development for permanent residency of households with school age children within Mossdale Village and Stewart Tract will further exacerbate existing conditions of inadequate school capacity and operational financing.

Mitigation Identified, DEIR p.V-47:

1.a. As residential development projects for permanent occupancy are proposed for Mossdale Village and Stewart Tract, school impact fees should be augmented by the creation of, or annexation to, a Mello-Roos District for the purpose of providing full mitigation for school impacts. As an alternative, a developer and school district may negotiate a mitigation fee based on the district's mitigation fee justification documents and the pro rata contribution to the need for capital facilities occasioned by the residential development project.

1.b. Where a residential project is large enough to encompass a school facility proposed by the West Lathrop Specific Plan, the developer shall work with the appropriate school district regarding the dedication of land and provision of infrastructure improvements required for the school facility in satisfaction of part or all of the pro rata share of school facility costs occasioned by the residential development project.

1.c. Where a residential project is large enough to generate the need for an entire school facility, school construction should be phased to match the phasing of residential construction, with the objective of assuring adequate facilities being available as close to the time of housing occupancy as possible.

1.d. Residential projects designed exclusively or dominantly for senior citizens and which meet the criteria for exemption under applicable State Law shall only pay the fee prescribed by State Law. Any future attempt or proposal to revise the status of a senior citizen housing project so that it is no longer

restricted to senior citizens will trigger the need for participating in school financing in the same manner provided for other residential projects.

Responsibility for Implementation: Affected local school districts, the City and the private developer.

Timing of Implementation, Monitoring and Verification: The affected school districts have responsibility for collecting school impact fees and for negotiating such additional school mitigation as may be provided under measures 1.a - 2, above, prior to the City's issuance of residential occupancy permits. The City will notify affected school districts of pending development projects, and will include appropriate conditions of development approval relative to school mitigation as recommended by the districts within the framework of the mitigation measures listed above. The City, working with the project developer and affected school district, will provide for the location of school sites and related facilities that may be required within a proposed residential development project. Monitoring by the City and school district(s) is to be accomplished during the preparation and review of project development plans and during project construction. The City will withhold residential occupancy permits until written verification is provided to the City by the school district(s) that necessary steps have been taken by the project developer to implement the mitigation measures listed above.

Responsibility for Monitoring and Verification: The District Superintendent of any affected school district and the City's Community Development Director and Building Official.

SAFETY AND HEALTH

Impacts Identified, DEIR p V-48:

1.a. Any natural or man-caused hazardous event poses a potential for jeopardizing lives during the first stages of the occurrence. A worst-case condition would be flooding caused by an earthquake-induced break in the levee(s) intended for flood protection of Stewart Tract.

1.b. Fire, explosion and temporary scaffolding during phased project construction poses a threat to workers. The development of Stewart Tract in phases also will place visitors, theme park employees, residents, vendors and workmen at the site during construction.

2. Automotive and boating emergencies can be expected requiring emergency response.

3. The failure of equipment at theme parks and other recreation attractions poses a threat to visitors and employees.

Mitigation Identified, DEIR p V-48:

1. Stewart Tract development is to be graded so that the very large area within the loop arterial street system will be elevated above surrounding development sufficient to provide safe ground to accommodate all people needing temporary safety in the event of a flood.

1-3. An emergency response and evacuation plan is required prior to construction to protect and provide emergency aid to workmen during construction, and prior to opening commercial recreation attractions, lodging and housing facilities to public use. This response and evacuation plan shall be consistent with policies of the Hazard Management Element of the Lathrop General Plan pertaining to public safety.

Responsibility for Implementation: The City and project developer, in coordination with the County of San Joaquin.

Timing of Implementation, Monitoring and Verification: Grading to create elevated areas of safe ground for people in need of temporary safety during a flood event will be reflected in grading plans to be approved by the City and carried out during the construction process. The emergency response and evacuation plan will be prepared at developer's expense and in place prior to the issuance by the City of permits to allow project construction (at the time of issuing building permits, and permits for site grading and the installation of improvements). The plan will be developed in close coordination with

Responsibility for Monitoring and Verification: The City's Director of Public Works, Fire Chief, Police Chief and Building Official, and the project developer.

URBAN DESIGN AND VISUAL QUALITY

Impacts Identified by Specific Plan Proposals, DEIR p IV-18:

1. The character of urban development under the Specific Plan will enhance the visual quality of the City, and of the visual experience of those residing or visiting the planning area. This will be achieved by the land use and circulation proposals of the Specific Plan, and by the design, development and maintenance standards included as part of the Plan. [see SP, p79]

2. The urbanization of lands within the project area will gradually eliminate views of agricultural lands beyond developing areas as currently seen from highways and rural roads.

3. The urbanization of lands will gradually block or partially obscure the far view scenic backdrop of Mt. Diablo and the Coast Range, except as viewed from elevated levees, elevated building sites and expanses of open space such as golf courses and open space corridors.

Mitigation Identified by Specific Plan Proposals, DEIR pp IV-18 and -19:

1. The principal mechanism for reducing any adverse visual impacts of the Project will be the implementation of City design standards, as described in the Specific Plan, Sections VI and VII. The Urban Design Concept required by the Specific Plan for Mossdale Village and Stewart Tract will refine the Project's site layout, building plans, landscaping, building design and handling of specific site and Project features to reduce the potential for adverse visual impacts of the Project. [see SP, pp 143,145]

2. The loss of limited existing agricultural views will be replaced by an urban landscape that will contribute significantly to the aesthetic qualities of the area. Given the continued preservation of agricultural lands on nearby properties, and the containment of urban development within an existing levee system, this trade-off does not constitute an irreparable loss of visual quality but rather a change in its character.

3. Views of the mountain backdrop to the west will be framed under different conditions rather than lost to the occupant or visitor. The orientation of streets and open space corridors, and the location of parks and major outdoor recreation areas (e.g., golf courses), will provide better opportunities to enjoy the scenic backdrop than is now afforded only from roads and highways, moving at required speeds, or the tops of levees which are not easily accessible under existing conditions. [see SP, p79]

Responsibility for Implementation: The project developer and City.

Timing of Implementation, Monitoring and Verification: Implementation of the urban design guidelines of the Specific Plan will begin with the process of project design, prior to the submission of plans for development review, and will be continued during the preparation and review of plans submitted for building permits and project construction. Monitoring will occur during the project review stage and at intervals during project construction. Verification will occur prior to the issuance of occupancy permits for structures and sites.

Responsibility for Monitoring and Verification: Monitoring and verification will be conducted by the City's Community Development Director and Building Official.

ARCHAEOLOGICAL AND CULTURAL RESOURCES

Impacts Identified by Specific Plan Proposals, DEIR pp IV-19 and -20:

1. The three archaeological sites meet various criteria of significance for preservation under federal and state law. Failure to protect these resources from loss or damage during development and occupation of the affected areas of Mossdale Village and Stewart Tract would be irreparable and contrary to federal and state law.

2. The project area lays in a zone of thick Holocene alluvial deposition, and thus has some potential for buried archaeological deposits which might be disturbed by subsurface construction activities. Because of changes in elevations over the centuries, there is no way to predict where such deposits may be found, if at all.

3. Isolated finds consist of historic farm equipment at one location and pre-historic flakes, a projectile point and a flake tool at others. Failure to protect these resources from loss would not violate federal and state law, but could result in their loss as representative fragments of prehistoric occupancy.

4. Built resources identified, such as silos, barns and sheds, could also be lost or damaged if not protected at their sites or removed to other appropriate sites.

Mitigation Identified by Specific Plan Proposals, DEIR p IV-20: [see SP, p50]

1. The project design team has taken careful note of the location of the three archaeological sites in developing land use proposals for Mossdale Village and Stewart Tract. These areas will be protected into perpetuity by their inclusion within areas of permanent open space. Two of the archaeological sites meet significance criteria for such protection. The third site, although problematical with respect to meeting significance criteria, will similarly be protected.

2. Mitigation against the potential loss of unknown archeological and cultural resources of significance at subsurface locations shall be avoided through close monitoring by the City of Lathrop of construction activities. The City will instruct developers and construction foremen of the potential for damaging prehistoric sites or artifacts, and provide written instructions as to the importance and necessity of halting all excavation work until the significance of the finds can be evaluated by competent archaeological and Native American specialists. Procedures to be followed will be those set forth by CEQA Guidelines, Supplementary Document J.

3. The project sponsor for Stewart Tract will protect and display all isolated finds as representative of the prehistory of the project site, in keeping with the purposes of the historic Gold Rush City theme park proposed. Isolated finds located within Mossdale Village will be preserved as conditions of development approval by the City.

4. Built resources within the Stewart Tract will be preserved and displayed at their existing or other appropriate locations as part of the historic character of theme park development. Built resources within Mossdale Village will be preserved under conditions of development approval by the City.

Responsibility for Implementation: The project developer in coordination and liaison with the City, Native American specialists and the Historic Preservation Office of the State Department of Parks and Recreation.

Timing of Implementation, Monitoring and Verification: Implementation will begin by designing projects to avoid known sites of archaeological and cultural resources identified during the preparation of the Draft

EIR, and will continue during project grading and excavation. This will be verified by the City at the time plans are submitted for project review. The City and project developer will instruct construction crews on procedures to be followed in the event that artifacts are unearthed, including field determination and verification of the importance of artifacts by a qualified archaeologist and Native American specialist. The project developer will relocate and/or preserve, as appropriate, built resources of historic importance during the construction phase.

Responsibility for Monitoring and Verification: The Community Development Director, City Engineer and Building Official, a qualified archaeologist, and a Native American specialist.

TRANSPORTATION, CIRCULATION AND TRAFFIC

Introduction

During preparation of the Draft EIR, a series of Alternatives to the project proposals were examined for different horizon years prior to the selection of Alternative E as the project. As a consequence, a number of potential impacts and mitigation measures are no longer valid. Only those lists of impacts and mitigation measures are shown which are relevant to Alternative E (now part of the Project). Lists contained in the DEIR which pertain to "base case without project conditions" have also been deleted, along with those pertaining to Alternative A. An example is the entire category of impacts and mitigation under Alternative A, which was based on reconstructing the Mossdale interchange for major access to Stewart Tract but which is no longer valid.

The format used for previous topics in this MMP has been modified to reflect the differences in the way in which impact and mitigation sections are treated in Parts IV and V of the Draft EIR. In Part IV, they are discussed under sub-topics pertaining to the type of improvement involved, whereas in Part V they are discussed by horizon years.

For consistency between this MMP and the Draft EIR, the numbering system of the DEIR prevails. Where impacts or mitigation measures have been deleted under proposals of Alternative E, they are also deleted from the MMP. Consequently, where a number is missing in a given sequence of numbers it reflects a deliberate deletion rather than an accidental omission.

Because of the similarity in actions in implementation, monitoring and verification required during the several phases of development anticipated by different horizon years, a master discussion is provided at the end of this section by categories indicating responsibilities for implementation, timing of implementation, monitoring and verification, and responsibility for monitoring and verification.

Freeways

Impacts Identified by Specific Plan Proposals, DEIR ppIV-21 and -22:

1. Interstate 5 north of SR 120 will operate above capacity during peak hours. While inadequate capacity will be due to increases in regional as well as local traffic, the extent of local mitigation required becomes more significant than before.

2. I-205 west of I-5 will have a peak direction demand over capacity during peak commute hours due to local and regional traffic increase, requiring greater commitment to mitigation through managing traffic to and from Stewart Tract and Mossdale Village.

3. The I-5/I-205 merge will have a peak direction demand over capacity during peak commute hours due to local and regional traffic increase, requiring greater commitment to managing traffic to and from Stewart Tract and Mossdale Village.

4. The SR 120 freeway east of I-5 to Yosemite Avenue will have a peak directional demand over capacity during peak commute hours due to local and regional traffic increase, requiring greater commitment to mitigation through managing traffic to and from Stewart Tract and Mossdale Village.

5. The existing Mossdale/Manthey Road interchange along the I-5/I-205/S.R. 120 merge may require restricted use because of State and Federal standards of operation and access at and near a freeway-to-freeway interchange.

Mitigation Identified by Specific Plan Proposals. DEIR ppIV-21 and -22:

1.a. The General Plan and Specific Plan call for the construction of Golden Valley Parkway from Gold Rush Boulevard southerly and westerly to Stewart Tract, parallel to I-5 and the I-5/I-205/S.R.120 merge.[6] Initial construction would be as a 4-lane divided facility. In addition, Gold Rush Boulevard would be extended as the main entrance to Stewart Tract from the north, extending southwest from the Louise Avenue interchange. If required, expansion of Golden Valley Parkway to 6-lanes would occur in advance of need. [see SP, p 53, 2nd para.]

1.b. Golden Valley Parkway will be extended north of Louise Avenue to Lathrop Road, as traffic warrants indicate through the on-going traffic monitoring program. It is to be understood that Golden Valley Parkway has been planned as a parallel facility to I-5 in keeping with General Plan policy to protect "...the through traffic functions of Interstate and State Route freeways serving the Lathrop area by planning expressway and arterial street alignments which will avoid the need or desire to utilize freeway sections for short, local area interval trips as if they were elements of the local expressway/arterial system." [see SP, p53, 3rd para.] Costs of this extension would be shared by adjacent development served as well as by West Lathrop development as proposed.

1.c. The City and Stewart Tract developers propose programs to significantly increase local and regional transit, and its ridership, and thereby reduce dependence on auto use of the Stewart Tract and regional roadway system. This program will also include a very large-scale park and ride facility, BART Express Bus and a rail transit parking facility on Stewart Tract, to serve the interregional needs of the San Joaquin Valley and lower Sacramento Valley commuters to central and southern reaches of the San Francisco Bay Area. [see SP, p56, Transit section]

1.d. The City will participate on a "fair-share" basis with Caltrans, the County, the City of Stockton and new development served to extend Golden Valley Parkway north to the City of Stockton as a parallel facility to I-5 so as to further the purposes of protecting through traffic functions of the freeway as described under Mitigation 1.b., above. The timing of this improvement will be determined by traffic monitoring and the availability of funding. Preservation of the eventual right-of-way to Stockton is required at an early date. [see SP, p53, 3rd para.]

2.a. Golden Valley Parkway will be extended south and then west of Stewart Tract as an expressway parallel to I-205, with a new interchange connection to I-205 at Paradise Road. This facility will be available when needed (as determined by traffic monitoring) to ease traffic demands upon the Louise Avenue/I-5 interchange. . [see SP, p53, 4th para.]

2.b. The City will participate on a "fair-share" basis with Caltrans, the County and the City of Tracy to extend Golden Valley Parkway west to the Paradise Road/I-205 interchange. Further discussion of this topic is provided in Part V of this EIR.

3. Off-sets to peak hour traffic impacts will result from off-peak hour and weekend travel to Stewart Tract.

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[6] Golden Valley Parkway was previously named Stanford Boulevard in the General Plan.

Expressways and Interchanges (2025 Horizon Year)

Impacts Identified in Specific Plan Proposals, DEIR pIV-23:

1. The existing Roth Road/I-5 and Lathrop Road/I-5 interchanges will be adversely impacted due to unacceptable levels of service at the ramp intersections without significant ramp and surface street improvements.

2. The Louise Avenue/I-5 and Yosemite Avenue/SR 120 interchanges will operate above capacity during peak hours without significant ramp and surface street improvements.

3. Golden Valley Parkway will function acceptably as a 4-lane facility north of Gold Rush Blvd. to Lathrop Road, and as a 4-6-lane facility south of Gold Rush Blvd. to Stewart Tract.

4. A 4-6 lane Gold Rush Blvd. from I-5 west to Stewart Tract will be operating at acceptable levels.

5. Conventional approaches to the design of the street system will discourage later efforts to provide for various modes of transit required within the planning area covered by the Specific Plan.

Mitigation Identified by Specific Plan Proposals, DEIR pIV-23:

1. The Specific Plan calls for ramp improvements at the I-5/Louise Avenue/Gold Rush Boulevard, and I-5/Mossdale Road interchanges, as well as a new I-205/Paradise Road interchange by 2017. [see SP, pp 54-55]

2. The General Plan and Specific Plan call for improvements to the Louise Avenue interchange at such time as either Gold Rush Blvd. or Golden Valley Parkway require extension to Stewart Tract. However, ramp improvements will be required in any event as specified by a recent PSR (Project Study Report) prepared for the interchange. [see SP, p 55]

5. In keeping with policies of the General Plan, the design of expressway and arterial streets provides for bus stops, with right-of-way for the inclusion of light rail or other off-street transit mode provided for expressways. Local and regional transit is to be a commitment for Mossdale Village as soon as sufficient residential development occurs to establish the feasibility of a minimum level of patronage for continuous City transit routes. Both local and regional transit is to be a commitment for Stewart Tract beginning with the opening of the first theme park and recreation residential living environment. This commitment to transit is described further under the subjects of Rail, Air, Transit and Air Quality.

Many of the above mitigation measures will require a "fair share" approach to financing among the affected cities, the County and Caltrans.

Arterials and Collectors

Impacts Identified by Specific Plan Proposals, DEIR pIV-24:

1. Access to Stewart Tract via Manthey Road can be provided during Phase 1 development, to accommodate project construction traffic. However, Manthey Road will not function acceptably if depended on for access to a theme park or other large traffic generator prior to the construction of either Golden Valley Parkway or Gold Rush Blvd. for access to Stewart Tract. In addition, the interim

use of Manthey Road during first phase Project construction on Stewart Tract may damage the pavement surface to where remedial improvements and traffic control will be required.

2. All Arterial and Collector streets are planned for the levels of traffic to be generated by the areas they will serve. This includes intersections where signalization is proposed by the Specific Plan.

3. Arterial and Collector streets will have substantial expanses of paved surfacing which lacks redeeming visual qualities.

Mitigation Identified by Specific Plan Proposals, DEIR pIV-24: [see SP, pp 52-54]

1.a. Manthey Road will be replaced by Golden Valley Parkway and Gold Rush Blvd. extensions to Stewart Tract prior to when Manthey may no longer function at an acceptable level.

1.b. Interim roadway maintenance during Stewart Tract construction will be provided to Manthey Road as a Project cost if roadway damage occurs as the result of truck traffic generated by construction activities.

2. No further mitigation is required.

3. Arterial and some Collector street sections will include boulevard landscape treatment and meandering sidewalks to soften the visual effects of paved surfacing. No further mitigation is required.

4. Traffic signals will be timed to manage the levels of traffic anticipated at and between signalized intersections. No further mitigation is required.

Highway Transportation in the Perspective of Rail and Air Transportation and Transit

Impacts Identified by Specific Plan Proposals, DEIR pIV-25:

1. Development proposed under the West Lathrop Specific Plan poses significant potential for creating traffic problems on the freeway system and on the local arterial street and county road systems serving the south-central part of San Joaquin County as well as other parts of Lathrop. Project impacts on freeway sections will be exacerbated as the result of an interruption in Caltrans' previous schedule for making lane improvements caused by Federal and State funding constraints that have emerged since adoption of the General Plan in 1991. The most significant impacts would occur if vehicle traffic were to increase to excessive levels before affected street and freeway sections were improved to match the anticipated traffic impact. Dependence on the auto and all but minor use of transit modes would further exacerbate already existing and emerging problems of freeway congestion and air pollution.

2. Significant numbers of Stewart Tract visitors are expected to arrive in the area by commercial airlines, utilizing Stockton Metropolitan Airport, and to a lesser extent major commercial airports at San Jose, Oakland, San Francisco and Sacramento.] However, most visitors will arrive by auto via the Interstate and State Highway System from other parts of the region, the State and the Nation.

3. With or without development under the Specific Plan, there is every possibility that traffic congestion on the freeway system will extend the AM and PM peak hours to multi-hour periods extending from very early morning to mid-morning, and from early afternoon to mid-evening. The testing of traffic impacts under various access scenarios for Stewart Tract indicates that certain high generating traffic

uses have the potential for creating high levels of traffic congestion at various times throughout the work week and during weekends.

4. As Mossdale Village development and other planned community expansion east of the San Joaquin River occurs, there is a danger that short-trips will add considerable traffic to I-5 within the City limits.

Mitigation Identified by Specific Plan Proposals: [see SP, pp 51-59]

1. The schedule of improvements planned in connection with implementation of the Specific Plan calls for all necessary street improvements to be in place at or before time of need. In addition, a significant commitment to transit is planned for introduction from the beginning of Phase 1 operations. [see discussion under Items 2., and 4., below] [see SP pp 51-59]

2. The majority of visitors arriving to Stewart Tract by commercial airlines will be bused to Stewart Tract from Stockton Airport. As arrivals increase from other regions of the State, the Nation and from international points of origin, buses will be augmented by rail transportation, if rail transportation is provided to Stewart Tract. The percentage of visitors arriving by air and using rental cars is expected to be small compared to total visitation. [see SP, p 58]

3.a. [Modified from original] Park and ride facilities are planned in proximity to the Roth Road and Paradise Road interchanges and on Stewart Tract near Golden Valley Parkway that have the potential for removing upwards of 2,500 vehicles per day from the I-205 corridor leading to and from employment centers in the San Francisco Bay Area. These facilities will improve regional traffic capacity along I-205, and more than off-set traffic impacts of out-bound commuters from Mossdale Village or of in-bound commuters to Stewart Tract along this corridor. It will also buy time in which to perfect and enhance the capacity of train, bus and any other transit modes which currently are being proposed for the region and which will be supplemented by project proposals to reduce freeway traffic demands of the project. [see SP, p58, 1st para.]

3.b. A multi-modal transit center is proposed in close proximity to the park and ride facility along the Southern Pacific railroad right-of-way. [see SP, p58, 1st para.]

3.c. The generally off-peak hour and weekend operations of visitor-serving uses on Stewart Tract will have the effect of minimizing impacts on freeway traffic: the high employment produced on Stewart Tract will create favorable conditions for achieving good balance in the relationship of jobs and housing in the local area, resulting in no additional significant impacts to commute activity on Interstate 580 over the Altamont Pass.

4. [Modified from the original] The long-term mitigation described under Item 3.a., above, will have a potentially significant positive impact. Remote parking lots north along the I-5/Southern Pacific RR corridor and west along the I-205/Southern Pacific and Union Pacific railroad corridors will permit access to and from Stewart Tract by trains, especially during major events. The initial commitment to non-auto modes is planned to increase the percentages of attendance via various transit modes, by the year 2005:

As transit operations are expanded in relation to Stewart Tract attendance, train travel will increase to about 15%. Overall, and based on existing technology, the commitment by Stewart Tract developers to transit by 2010 is expected to be 25%, with 30% occurring by the year 2015. Transit is to be considered as much a part of the proposal as any other type of infrastructure needed, such as water supply and liquid waste treatment and disposal. As such, the various transit modes are to be

available from the beginning, with service expansion as needed. This approach constitutes a major departure in planning to meet the transportation requirements of a large-scale and traffic-intensive project. [see SP, pp 51-59]

4. The intended commitment to regional transit will be matched by various modes of on-site transit for the convenience of visitors to Stewart Tract, including boats, shuttles, light rail, and overhead vehicles. Transit vehicles will convey visitors to and from the theme parks and the multi-modal transportation station and parking facilities planned in close proximity to rail and boulevard expressway access. As Stewart Tract develops westerly, the primary ring road street system also will serve as transit corridor allowing visitors to move within and around the entire Tract without having to use automobiles. A high intensity transit corridor or "spine" will connect major activity centers with major concentrations of visitor motel, hotel and housing facilities. This commitment to high-intensity on-site transit will be matched by low intensity vehicles such as golf carts for movement among housing and outdoor recreation areas and facilities. The objective will be to minimize (if not totally eliminate) dependence on the auto for on-site movement of people. [see SP, p56, Transit section, 1st para.] Implementation of the City's Bicycle Master Plan may eventually result in bicycle traffic accounting for as much as 1% or more of total on-site traffic.

5. Local transit is also to be provided within Mossdale Village, connecting the Village with other activity centers of the community, including, shopping, schools and major employers. Initially, transit service will be provided by buses. However, the Golden Valley Parkway corridor will include sufficient land to accommodate a rail transit right-of-way which eventually would provide connecting service with the communities of Stockton, Manteca and Tracy. [see SP, p56, Transit section, 2nd para.]

Bicycle and pedestrian ways separated from the auto will connect major activity centers within all of Mossdale Village via a system of open space corridors that will be extended as Lathrop expands north of Mossdale Village under policies of the General Plan. Bike riding and walking separate from street corridors along off-street trails is expected to become a significant means of people movement within the town among all age groups. [see SP, p56, Trails section]

2005 Base Case + Project

Impacts Identified. DEIR ppV-59, -62 and -63:

Impact 1: [Note: This impact is left as a reminder that the Mossdale interchange is no longer a point of access to the final Project proposal.] The proposed Mossdale interchange design does not meet Caltrans or Federal Highway Administration (FHWA) design criteria.[7] The criteria include minimum interchange spacing between freeway-to-freeway interchanges and new surface street interchanges are required to be two miles in rural areas and one mile in urban areas; new interchanges not providing connections to all freeway travel directions are avoided, as are surface street ramp connections to freeway-to-freeway connections.

Impact 2: Project area traffic would result in unacceptable freeway operation along the following freeway segments (above and beyond Base Case conditions), as follows:

a. For the weekday PM peak hour, Project traffic would increase V/C ratios by more than 1% on all freeway segments experiencing unacceptable operations with Base Case traffic.

Impact 3: The Louise Avenue intersections with I-5 north- and southbound ramps would both be operating at unacceptable levels with the addition of Project traffic and geometrics sufficient to accommodate Base Case traffic (See Table V-9, DEIR).

Impact 4: Proposed traffic circles along Califia Drive will present a significant concern for at-grade pedestrian crossings in close proximity to each circle, and for bicycle movements through each circle. In addition, the constant supply of new drivers having to use the circles each day (some driving RV's) may produce less than safe driving maneuvers. It is also unknown how the circles will function during extreme foggy conditions in the winter as compared to using traffic signals where there are more defined controls of traffic movements.

Impact 5: No safe pedestrian or bicycle trail crossings of East and West Califia Drive are detailed in the Specific Plan document, assuming that traffic circles are to be provided along this ring roadway.

Mitigation Identified. DEIR pp V-59, -62 and -63:

Mitigation 1: Provide all Project access in the year 2005 via the Louise Avenue interchange (Access B Alternative). This would require Stage II Project Study Report (PSR) improvements for the interchange (plus an additional southbound off-ramp) in order to adequately serve all 2005 Project traffic. Access Alternative B PM peak hour Project area volumes are presented in Figure A-1 of the Technical Appendix. Other Alternative B volumes are provided in sections T-11 through T-15 of the Technical Appendix.

Mitigation 2: The following freeway widening would be required to provide acceptable freeway operation for Base Case (without Project) traffic conditions:

a. Widen I-205 to eight lanes.
b. Widen I-5 northbound (I-205 to SR 120) to 5 lanes across the San Joaquin River.
c. Widen I-5 north of SR 120 to 8 lanes.

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7 Design criteria are published in the Caltrans Highway Design Manual, February 13, 1995 Guidelines.

d. The Project should also contribute towards needed widening from 4 to 6 lanes of S.R. 120 between I-5 and the Yosemite Avenue interchange.

Mitigation 3: The Louise Avenue intersections with I-5 north- and southbound ramps should be improved as presented on Figure V-6.

Mitigation 4: Pedestrian and bicycle trails should be grade separated in close proximity to all traffic circles. It is recommended that only one traffic circle initially be constructed, and its operations closely monitored by the City to test its safety (in the event the City decides to allow any circle construction).

Mitigation 5: Provide a significant number of grade separated pedestrian, bicycle and golf cart crossings of both East and West Califia Drive, either individually or in combination with signalized intersections.

Note: Reference to impact and mitigation measure nos. 6-13 in the Draft EIR no longer apply, and have been deleted.

Year 2025 Base Case + Project Conditions

Impacts Identified, DEIR pV-76, -79, -80, -83:

Impact 14: [Deleted - Reference to the previously proposed Mossdale interchange no longer applies.]

Impact 15: [Modified] Project traffic would result in unacceptable PM peak hour operation of LOS E along the following freeway segments:

a. SR 120 eastbound from I-5 to the Yosemite Avenue interchange.
b. I-5 northbound from S.R. 120 to Lathrop Road.
c. Eastbound I-205, from west of MacArthur Drive to the Paradise Road interchange, would have its V/C ratio increased by more than 1%.
e. Eastbound I-205 from Pardise Road interchange to I-5.

Impact 16: [Borderline conditions] The Louise Avenue intersections with the I-5 north- and southbound ramps would both be operating at unacceptable levels with the addition of Project traffic (see Table V-11).

Impact 17: Note: This impact has been deleted as a result of final Project proposals.

Impact 18: [Modified] The Golden Valley Parkway at-grade intersection with Gold Rush Boulevard would be operating at an unacceptable level, even with maximum lane improvements.

Impact 19: The following roadway locations would experience significant impacts due to Project traffic:

a. [deleted]
b. Louise Avenue, from Harlan Road to 5th Street, would have its V/C ratio increased by more than 1% at locations already experiencing unacceptable operation as a 4-lane arterial roadway.
c. [deleted]

Mitigation Identified, DEIR ppV-76, -79, -80, -83:

Mitigation 15: [Modified] TDM measures will be required for Project employment uses, and fair-share contributions toward freeway improvements should be imposed.

Mitigation 16: [Modified] The Louise Avenue intersections with the I-5 north- and southbound ramps should be improved as presented for the horizon year 2025, with loop ramps in the northwest and southeast quadrants.

Mitigation 17: [deleted]

Mitigation 18: [Modified] Provide grade separation and interchange treatment at the Golden Valley Parkway intersections with Gold Rush and Mossdale Boulevards. Adequate rights-of-way should be retained for both improvements.

Mitigation 19: The Project should provide for a fair-share contribution of traffic impact fees toward widening this roadway.

Mitigation Added as the Result of Comments by Caltrans on DEIR: (#'s as listed in Part I of Final EIR:

Measure # 7: The alignment of Golden Valley Parkway recommended by Caltrans westerly of the Southern Pacific Railroad across Stewart Tract is accepted and is shown as part of the land use and circulation proposals which have become part of the Project. It is anticipated that the Parkway will be constructed between Gold Rush Boulevard (Louise Avenue interchange) and the Paradise Road interchange sometime between 2005 and 2017.

Measure #8: It is agreed that the Louise Avenue interchange will require complete reconstruction over the course of Project development to handle the projected traffic volumes; the existing Project Study Report (PSR) will need to be revised to include the new loop ramps; and, Federal Highway Administration (FHWA) approval will be required.

Measure #9: Interstate 5 will need to widened to at least eight lanes plus auxiliary lanes north of Highway (SR) 120.

Measure #10: The I-205/Paradise-Chrisman interchange needs further refinement to reflect proposals of the Tracy Circulation Master Plan which proposes an interchange located 1,500 feet to the west of the existing two lane Paradise Road overpass of the I-205 freeway. This concept allows full access control, with Paradise Road serving existing farms in the area. This interchange potentially would be a locally funded project, subject to FHWA and CTC discretionary approval for the new access. The City of Lathrop will work with the City of Tracy to develop the PSR/CAR funding plan and project development/construction schedule so that traffic impacts are adequately mitigated.

AIR QUALITY

Impacts Identified by Specific Plan Proposals, DEIR pIV-28:

1. The project has the potential of contributing significant mobile source and stationary source emissions to the atmosphere of the San Joaquin Valley Air Basin, exacerbating already serious problems of air pollution due to non-attainment of federal and air quality standards for ozone, carbon monoxide, oxides of nitrogen and fine particulate matter. These pollutants take their toll on human health by aggravating chronic respiratory conditions, on agricultural production by reducing production and quality per acre, and on the visual quality of the Valley by obscuring views of the natural and man-made environment.

2. Emissions of particulate (PM_{10}), Carbon Monoxide (CO), and the so-called reactive organics (ROG) can prove to be especially difficult to control during long periods as well as intermittent periods of project construction. Construction dust along freeways, during periods of high wind, can obscure vision and create traffic hazards.

Mitigation Identified by Specific Plan Proposals, DEIR pIV-28:

1.a. By testing the effects of various development designs and their circulation systems on traffic during preparation of the Specific Plan, it has been possible to design and plan for freeway, expressway, interchange, arterial street, and air, bus and rail transit so as to minimize problems of traffic congestion associated with use of the automobile. By greatly reducing the potential for such congestion, the objective of emission reduction is served well. The design of the proposed on-site circulation system is adequate for the amount of traffic expected under five-year development phases. This approach is exemplary of transportation planning at its best, since it avoid problems before the fact of development rather than struggling to manage traffic after the effects of traffic congestion have set in. [see SP, pp 51-59]

1.b. The projects commitment to non-auto modes of transportation for moving people to and from the project area and moving people and goods within it will significantly reduce the potential for adverse air quality impacts associated with traffic congestion. Vehicles powered by electricity and clean burning fuels will be utilized. The extent of emissions reduction expected from both mobile and stationary sources is described in Part V of this document. [see SP, pp 51-59]

1.c. The reduction in freeway commute traffic due to park and ride, train and the availability of housing in close proximity to jobs is expected to have a significant positive overall impact on air quality.

2.a. The means of mitigating emissions associated with project construction are described in Part V of this document, since they involve a variety of temporary actions required during construction. As such, they are not then considered as "built-in" approaches to impact mitigation.

2.b. A significant reduction in particulates is expected from the gradual cessation of farming operations which disturb the soil.

[B] While it is not possible to fully mitigate all impacts on air quality, the full range of mitigation measures being proposed are described in Part V mitigation which follows:

Additional Impacts and Mitigation Identified, DEIR ppV-89 thru V-93, and Final EIR ppII-53 and -54:

Construction Phase Impacts:

1. Excavation and grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed earth surfaces would generate PM_{10}. Such emissions, and the resultant ambient concentrations near construction sites, would be very sensitive to local meteorology and topography, to variations in soil silt and moisture content, and to the level of equipment use. Exhaust emissions from the transportation of workers and materials to the construction site are dependent on travel modes and the distances traveled. Exhaust emissions from construction equipment used at the construction site are related to the equipment type, the use of that equipment, and the condition of the equipment.

2. EPA measurements of PM_{10} emissions during construction activities in the southwestern United States provide a rough indication of worst-case impacts. About 1.2 tons of dust per month are emitted per acre of construction, about 45 percent of which are large-diameter particulates, of concern as a soiling nuisance rather than for their adverse health impacts. The remaining PM_{10} fraction could aggravate respiratory problems of workers and nearby residents. Construction activity could produce up to 0.66 tons of PM_{10} per acre per month. Although the EPA has compiled air pollutant emission rates for construction equipment, construction NO_x, ROG and CO emissions can only be qualitatively discussed because project plans are not yet specific enough to provide project-specific equipment type and schedule data needed for an accurate emission calculation (USEPA, Compilation of Air Pollutant Emission Factors, AP-42, Third Edition, 10/80)..

Construction Phase Mitigation:

1. Dust and other air pollutant emissions related to construction shall be addressed in accordance with SJVUAPCD Regulation VII pertaining to fugitive dust/PM_{10}, including:

   a. Adjusting the engines of diesel-powered equipment to reduce NO_x emissions. Maintaining existing gasoline-powered equipment in tune per manufacturers instructions.

   b. Developing a comprehensive construction activity management plan to minimize the amount of large construction equipment operating during any given time period.

   c. Reducing CO, ROG and NO_x emissions from equipment by avoiding unnecessary idling.

   d. Using materials with a low ROG content to limit emissions from adhesives, clean-up solvents, paint, and asphalt paving materials used for project construction.

   e. Sufficiently watering all excavated or graded material.

   f. Ceasing all clearing, grading, earth-moving, or excavation activities when wind speed exceeds 20 mph.

   g. Sufficiently watering or securely covering all material transported off-site.

   h. Minimizing the area disturbed by clearing, grading, earth-moving, or excavation operations.

   j. Seeding and watering all inactive portions of the construction site until cover is grown.

   k. Planting or paving (using APCD approved materials) portions of the site upon which work is complete.

l. Treating all internal roadways and the equipment storage areas with chemical dust suppressant.

m. Covering trucks hauling excavated materials with tarpaulins or other effective covers.

n. Prohibiting burning on the project site.

o. Limiting vehicle speed to 15 mph in unpaved areas.

2. Dust emissions related to construction shall be addressed in accordance with SJVUAPCD regulation VIII, which pertains to fugitive dust/PM_{10}. Rules 8010, 8020, 8030, 8040, 8060 and 8070 contain relevant discussion involving stabilizing exposed surfaces which could generate dust, cleaning exposed surfaces and machinery and avoiding situations which can result in excessive dust generation. Project development will be required to adhere to al such regulations. Since these regulations are required by regulation, they are not technically mitigation measures. The term "mitigation measures" implies actions beyond those which are already covered by applicable regulations of the District.

Measures pertaining to the control of emissions from construction vehicles and equipment would include:

- Adjusting the engines of diesel-powered equipment to reduce NO_x emissions; and maintaining existing gasoline-powered equipment in tune per manufacturers specifications.
- Developing a comprehensive construction activity management plan to minimize the amount of large construction equipment operating during any given time period.
- Reducing CO, ROG and NO_x emissions from equipment by avoiding unnecessary idling.
- Using materials with a low ROG content to limit emissions from adhesives, clean-up solvents, paint and asphalt paving materials used for project construction.

3. During construction, mitigation measures should be monitored by the Public Works Department. Burning should be monitored by the SJVUAPCD. The SJVUAPCD would be responsible for permitting processes and monitoring compliance with air quality permits.

Operational Impacts:

1. During and after the development of the project, emissions from vehicles associated with the proposed commercial and residential uses and from new stationary sources of air pollutants would add to County and San Joaquin Valley totals. As shown in Table V-14, project ROGand NO_x emission increments at ultimate buildout are 2.737 and 6.065 lbs/day, respectively. This would be 0.3 percent and 0.6 percent, respectively, of all ROG and NO_x emissions from in the San Joaquin Valley. Emissions of this magnitude may interfere with the projected maintenance of the ozone NAAQS and must be considered

2. Project traffic has the potential for affecting the local CO levels in areas adjacent to roadways which would carry project traffic. CO concentrations were estimated for existing, future-no-project, and two future-with-project scenarios for three buildout horizons (i.e., the years 2005, 2017, and 2025) by using the CALINE4 model and CO background estimates suggested by Caltrans. The assumptions used are designed to produce very conservative, i.e. high, estimates of CO concentrations. Appendix C contains the details of the modeling assumptions. Table V-15 shows the worst-case curbside CO concentrations at eight intersections where project traffic is expected to have the greatest impact.

[Modified] Modeling shows no existing or future violations of the one-hour or eight-hour CO standards under any of the three horizon years of 2005, 2017 and 2025. With the assumption of a relatively high CO background for future conditions (a doubling in background CO between 1995 and 2005 was assumed, despite improvements in vehicular emission rates), modeling shows no exceedence of the 8 hour average CO standard

at any intersection. No other violations are predicted under any of the scenarios considered for any of the years considered. CO concentrations at other locations would be expected to be lower than those reported here, and no violations of standards would be expected elsewhere.

Operational Mitigation:

1. The most effective means of reducing ozone precursor emissions from motor vehicles would be to reduce the number of vehicle trips generated by the project. A list of such Transportation Demand Management (TDM) strategies could include:

   a. Development of a transportation plan that would promote the use of and offer incentives for ridesharing and transit. This plan should be developed prior to occupancy of any Phase 1 uses.

   b. Appointment of an on-site Transportation Coordinator to coordinate and implement employee and resident transportation programs.

   c. Provision of links to existing regional mass transit systems and subsidize employee and resident purchase of transit passes.

   d. Establishment of an on-site transit system.

   e. Promotion of the use of low-emission (e.g., natural gas fueled) or no-emission (e.g., electric powered) vehicles on-site.

   f. Promotion of bicycle use for on-site travel and establish bicycle routes and storage facilities.

   g. Provision of preferential parking for employees who rideshare while commuting to the project site.

   h. Provision of on-site eating, banking, and postal service facilities at major employment centers on the project site.

   I. Facilitation of the reduction of vehicular travel by planning a utility infrastructure adequate to support high-capacity electronic communication system links.

   j. Emphasis on a pedestrian friendly environment, including adequate width sidewalks, protective curbing and night lighting.

   k. Prohibition of drive-though windows

   l. Encouraging adoption of design criteria to reduce urban heat island effects; increasing the number of trees and light colored surface area have been suggested as means to conserve energy and reduce pollution

2. Ozone precursor emissions from stationary sources on the site can be reduced by implementing the following measures:

   a. Installation of low-emitting, EPA-certified fireplace inserts and/or wood stoves or natural gas fireplaces.

b. Limiting residences to one wood burning appliance which meets EPA Phase II emission standards, or more current standard, if applicable

c. Provision of natural gas lines or electric outlets to backyards to encourage use of natural gas or electric barbecues.

d. Provision of low NO_x emitting and/or high efficiency water heaters.

e. Provision of outdoor electric outlets for leaf blowers and lawnmowers

f. Electric outlets for recharging electric vehicles in garages

g. Installation of energy-efficient, low-NO_x heating/cooling systems.

h. Installation of energy-efficient lighting.

I. [deleted]

j. Electrical outlets are to be provided in residential garages and carports suitable for re-charging electrically powered vehicles.

k. Fleet vehicles (two or more) operated by commercial uses such as hotels, motels and theme parks will be equipped for operation on alternative fuels such as natural gas.

Additional Mitigation, Final EIR ppII-53 and -54:

At a meeting held on September 22 at offices of the San Joaquin Valley Unified APCD in Modesto, it was agreed by the City that the following mitigation measures be added to the Final EIR as an extension of the numbers listed on pp. V-91 through V-93 of the Draft EIR. Many of the measures have already been made proposals of the Specific Plan, but are listed here for the convenience of mitigation monitoring..

3. *Land Use/Design Measures*: Commercial land use centers on Stewart Tract will be designed to accommodate a variety of complimentary uses that will meet the needs of residents and tourists on-site. Proposals of the Specific Plan call for meeting the majority of convenience-goods and shopping goods needs on-site.

4. *Parking lot design measures*:

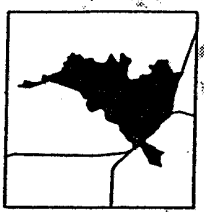
a. In requiring off-street parking facilities for individual projects, it is the intent of the City to require only that number of spaces that reasonably may be necessary for the use or combination of uses proposed. Where more than one use is provided as part of a single commercial complex, the number of parking spaces determined will reflect the multiple patronage that can result from a single parking space. An example is provided by the characteristics of shopping center patronage.

b. Parking lots will be designed to provide for convenient exit from parking lots to the street system without delays otherwise associated with restricted access.

c. In connection with measure 4.b, above, parking lots will be sized and distributed so as to avoid as much as possible the creation of large expanses of parking area.

DRAFT ENVIRONMENTAL IMPACT REPORT

WEST LATHROP SPECIFIC PLAN



Prepared for the

CITY OF LATHROP

by

Grunwald & Associates
City and Environmental Planning Consultants

July 1995

SCH# 93112027

5. *Subdivision/Commercial Site Design Measures:*

   a. Project design provides for multiple and/or direct pedestrian access between complimentary land uses throughout the project.

   b. Project design provides for efficient movement of vehicles throughout the site.

   c. All uses shall be without reasonable walking distance (i.e., 1/4 mile) of transit facilities.

6. *Infrastructure Improvement Measures*:

   a. Project design provides for safe and direct access to residential, commercial and recreation areas via bicycles. Commercial and employment centers will provide facilities for the safe storage/parking of bicycles, and for locker room and shower facilities for those bicycling or walking to work or engaging in healthful exercise routines during the day.

   b. Bus stop improvements will include facilities for protection from the elements and seating.

   c. Park and ride lots will be provided at locations north and west of the project, and close to the multi-modal transportation center on Stewart Tract.

   d. The City will require the direct or indirect provision of pre-school day care services for large commercial establishments such as theme parks and regional shopping. Indirect provision implies participation in day care services at a location central to the employees of more than one establishment.

7. *Operational Measures/TDM:*

   a. Implement a rideshare/vanpool program for medium- and large-sized employers.

   b. Provide preferential parking for carpool/vanpool/electrically operated and alternatively fueled vehicles.

   c. Develop agreements with businesses to implement compressed work schedules of various lengths to reduce total traffic generation during the work week.

   d. Assure the availability of on-site shops and services to employees.

   e. Provide commuter information areas and tourist information centers at locations convenient to employees and tourists.

8. *Area Source Measures*:

   a. During site plan or subdivision review by the City of all residential projects, encourage energy conservation measures beyond those currently required by State law, including, but not limited to the following:

      - Solar or low emission water heaters.
      - Energy efficient appliances.
      - Shade trees to reduce solar loads.
      - Low sodium parking lot lights.

- Building orientation and passive solar design.
- Use of light colored roofing materials.

b. During site plan review of all non-residential projects, encourage energy conservation measures beyond those currently required by State law, including but not limited to the following:

- Solar/low emission water heaters.
- Central water heating systems.
- Energy efficient AC controls.
- Insulated windows.
- Parking structure ventilation.
- Light control and energy efficient lighting.
- Light colored roofing materials.
- Extra wall and attic insulation.

RESPONSIBILITY FOR IMPLEMENTATION

There are three parties responsible for implementing transportation/circulation/traffic mitigation measures during phased development of the Project -- the City, the project developer(s) and Caltrans. All three parties will be involved in virtually every form of implementation, either as a direct participant, or indirectly under notice and referral procedures.

TIMING OF IMPLEMENTATION, MONITORING AND VERIFICATION

A. Periodic Data Monitoring Tasks throughout the Process of Buildout

1. As major Phase 1 project activity areas become operational, annual monitoring will be required to provide up-to-date information on changes in vehicle traffic volumes and capacities and in determining the time when improvements will be required. This will include traffic volumes on the freeway system at interchanges serving the Project, traffic volumes along expressways and arterials within the Project and traffic volumes along arterials outside of the project which serve other parts of Lathrop and surrounding area. Such traffic monitoring would be conducted by the City with the cooperation of the Project developer. The timing of traffic monitoring should be consistent with the time of the year when existing traffic volume data was developed as a basis for EIR traffic impact analyses. Coordination with the annual counts taken by Caltrans along the freeway system would be helpful to maximize the benefits of survey results.

2. Determining the Timing for Freeway Improvements should be examined every 2-4 years, based data developed under 1, above. Periodic evaluations should involve Caltrans, the City and the project developer. Scheduling of special studies, such as Project Study Reports (PSRs) for interchange design, will require programming well in advance of the time when specific engineering, cost estimates, construction specifications and construction scheduling will be needed.

3. As various non-auto modes of transit become operational, ridership data should be collected on an on-going basis for annual evaluation and determination of adjustments that may be needed in increasing transit opportunities. Private transit monitoring would be the responsibility of the Master Project Developer, public transit monitoring would be the responsibility of the City, and the monitoring of park-and-ride facilities along segments of freeways would be the responsibility of Caltrans.

4. In cooperation with Caltrans and the project developer, a monitoring and record keeping system should be established by the City for the purposes described above.

B. Timing of Project-Related Improvements

1. Improvements needed as a condition of individual projects will be determined as part of the development review and permitting process conducted by the City. The first stage of activity should involve a design conference among the principals representing the City, the developer and any outside agencies having jurisdiction. The purpose of the conference is to identify all relevant factors and conditions to be considered by the project developer in preparing his formal application. The conference would take place prior to acceptance by the City of a formal application for a development entitlement which is consistent with the Specific Plan (e.g., subdivision, parcel map, planned development, site plan review, etc.).

2. The second stage of activity will involve the processing of a formal application for development, and a determination of all of the transportation/circulation/traffic improvements that will be required as

conditions of project approval. This analysis will be conducted during the process of environmental review and prior to formal review by the Planning Commission and City Council. with the results made a part of the City staff report to the Commission and Council. Where an outside agency, such as Caltrans. has an important

3. The third stage of activity will occur prior to project construction. including the review of preliminary and final engineering. improvement specifications. bidding procedures. final maps, and the terms of subdivision agreements or other forms of proposed development agreement. The drawings and documents provided and approved during this stage provide the framework of responsibility for the financing and construction of street and highway improvements to follow.

4. The final stage will involve field supervision and review of construction progress to verify that all improvements are in accordance with previously established policy. permit approvals and agreements. This will occur in accordance with an agreement by the City with the project developer of the times when field inspections will be required so as not to unnecessarily delay construction progress. Final verification by the City (and/or Caltrans) of satisfactory completion will be made to the project developer in writing.

RESPONSIBILITY FOR MONITORING AND VERIFICATION

For actions required under sub-section A, above:

1. The City Engineer. who shall coordinate all work required by the project developer and Caltrans. Traffic volume data collection and analysis will be performed by a qualified transportation/traffic consultant. Costs pf consultant services would be defrayed on a pro-rata basis by project developers.

2. The City Engineer.

3. The City Engineer. with the assistance of the Community Development Director.

4. The City Engineer. with assistance from Caltrans as necessary to Caltrans interests.

For actions required under sub-section B. above:

1. The Community Development Director. with assistance from the City Engineer and Caltrans.

2. The Community Development Director. with assistance from the City Engineer and Caltrans.

3. The City Engineer. with assistance from Caltrans. Caltrans will be responsible for monitoring and verifying engineering drawings and specifications involving improvements to the freeway system.

4. The City Engineer. with assistance from Caltrans.

FIGURE III-3-A

EXISTING AM PEAK HOUR SUMMER, 1993, TRAFFIC VOLUMES

Along I-5 North of SR 120 and SR 120

(Weekday, 7:00 - 8:00 AM)

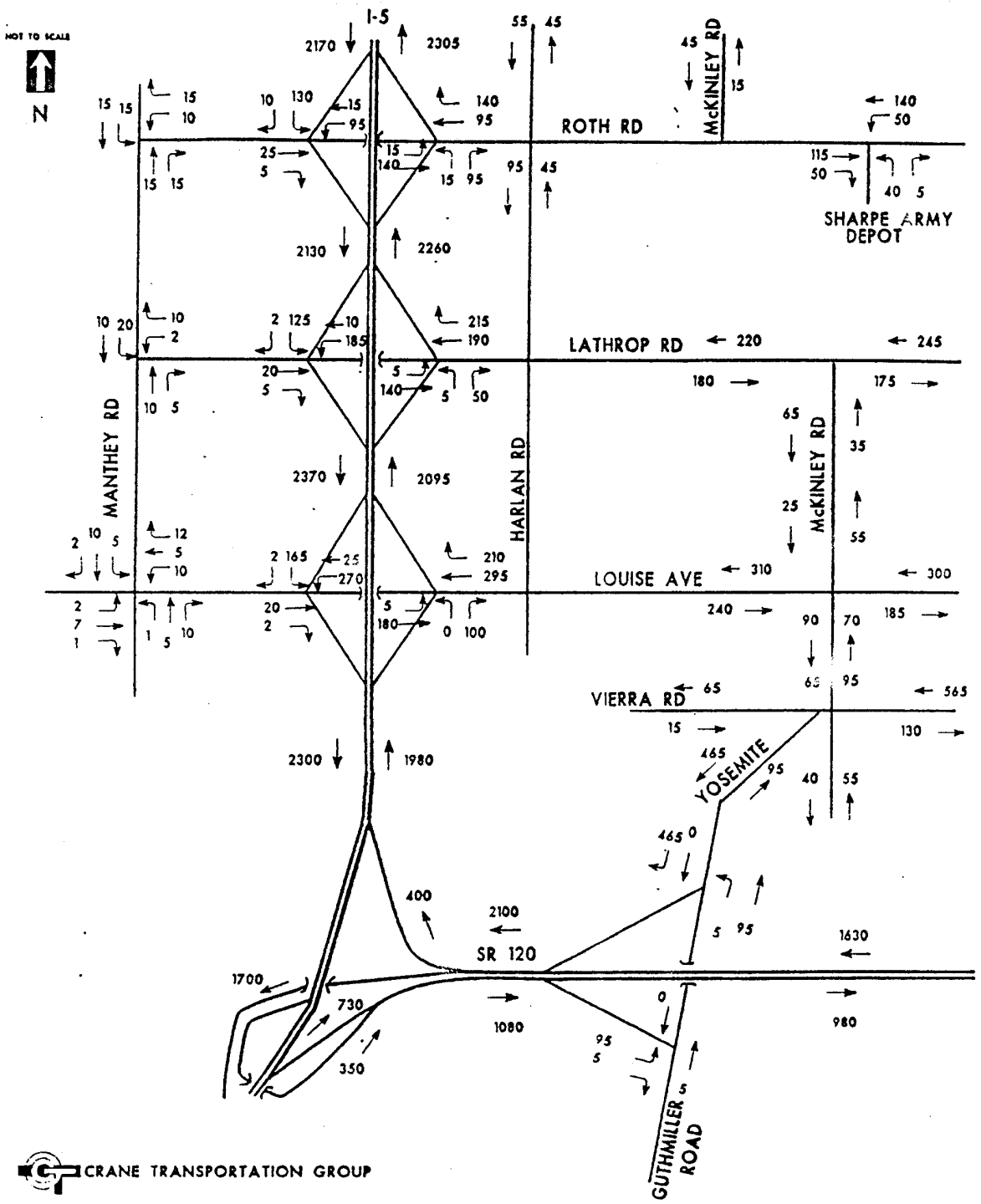


TABLE OF CONTENTS

PART I

INTRODUCTION AND EXECUTIVE SUMMARY

PROPOSED PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The proposed "project" is the West Lathrop Specific Plan prepared for the areas which lay west of Interstate 5 known as Mossdale Village and Stewart Tract, as shown on Figure I-1. The project proposes development on approximately 6,955 acres consistent with the Lathrop General Plan. For Stewart Tract, proposed development involves a large-scale destination resort, centered on several theme parks, on 5,794 acres. For Mossdale Village, proposed development involves a residential "village" on either side of the westerly extension of Louise Avenue (to be named Gold Rush Blvd.), extending south to the I-5 crossing of the San Joaquin River, on 1,161 acres. A complete description of the project is provided in Part II. In addition, a list of agencies which will use this EIR for various permitting purposes is included at the end of Part I.

FOCUS PROVIDED

Review of the Initial Study, responses to the Notice of Preparation issued by the City of Lathrop, and the results of a scoping session sponsored by the Governor's Office of Planning and Research indicated the need for focus on the following impact topics which are discussed in Parts IV and V:

1. **Land Resources**, including compaction and overcovering of soils, seismic hazards, agricultural land conversion and sand deposits of regional significance.

2. **Water Resources**, including water supply, wastewater management, drainage and flood control.

3. **Biological Resources**, including fish and wildlife, vegetation, wetlands and watercourses.

4. **Public Services and Utilities**, including schools, parks, recreation facilities, city offices, and civic, cultural, fire and police services and facilities.

5. **Municipal Utility and Energy Services**, including water treatment and distribution, liquid waste management, solid waste management and co-generation of electrical energy.

6. **Noise**, including noise generated by specialized facilities.

7. **Light and Glare**, including light and glare generated by specialized facilities.

8. **Population and Housing**, including specialized recreation-oriented housing, conventional housing, and the jobs-housing balance to be created.

9. **Safety and Health**, including requirements for protecting people during emergency conditions of flooding, earthquake, fire and explosion, for the provision of emergency medical treatment and for crowd management and evacuation under perilous conditions.

10. **Urban Design and Scenic Quality**, including the visual quality of the urban environment and the protection of scenic resources.

LIST OF TABLES

List of Tables, Continued

LIST OF FIGURES

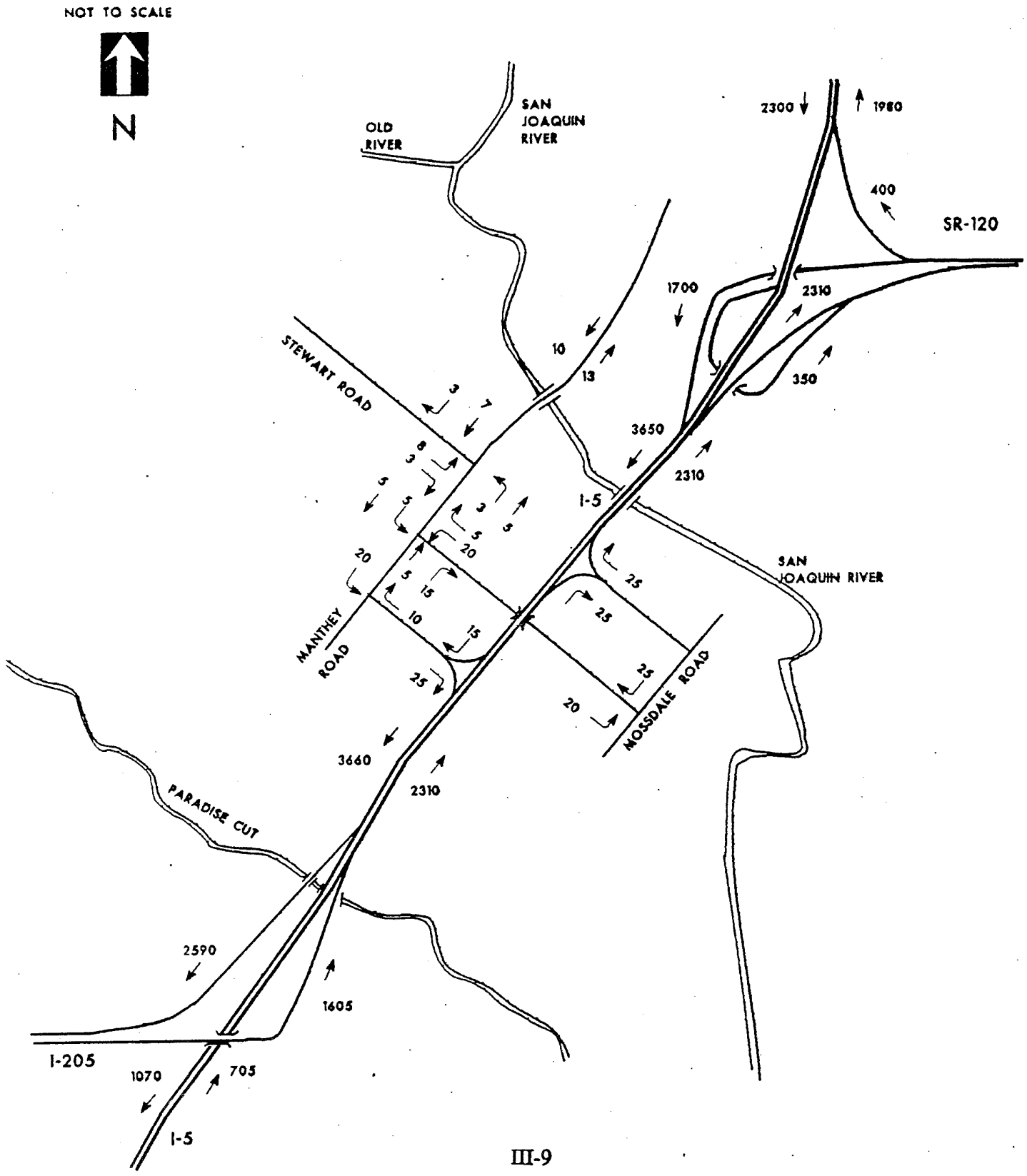
List of Figures, Continued

LIST OF APPENDIXES

FIGURE III-3-B

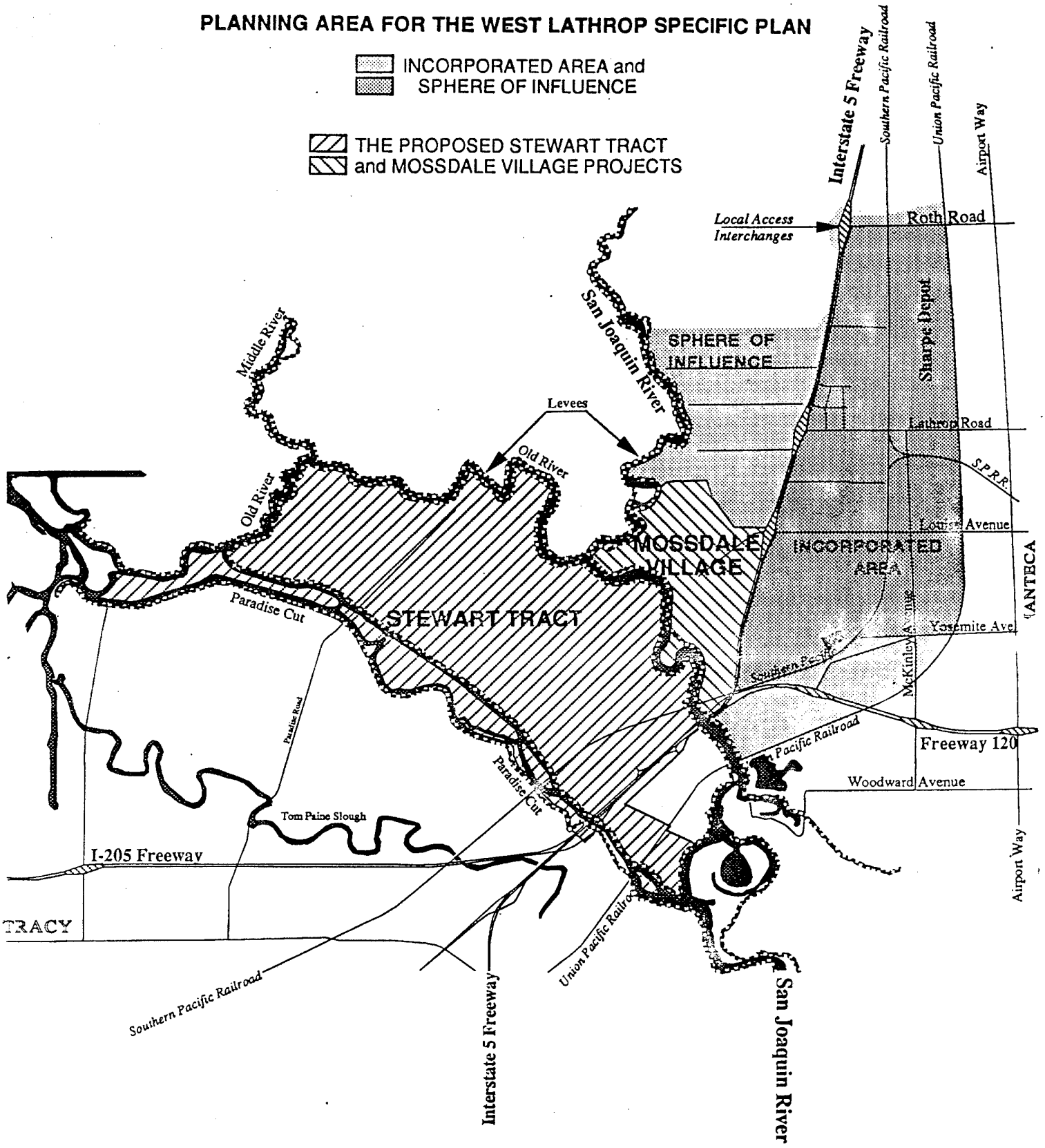
EXISTING AM PEAK HOUR SUMMER, 1993, TRAFFIC VOLUMES

Along I-5 from I-205 to SR 120 Including Manthey and Mossdale Ramps
(Weekday, 7:00 - 8:00 AM)



CRANE TRANSPORTATION GROUP

FIGURE I-1


PLANNING AREA FOR THE WEST LATHROP SPECIFIC PLAN
INCORPORATED AREA and SPHERE OF INFLUENCE
THE PROPOSED STEWART TRACT and MOSSDALE VILLAGE PROJECTS
Interstate 5 Freeway
Southern Pacific Railroad
Union Pacific Railroad
Airport Way
Local Access Interchanges
Roth Road
SPHERE OF INFLUENCE
San Joaquin River
Middle River
Levees
Old River
Old River
Sharpe Depot
Lathrop Road
S.P.R.R.
Louise Avenue
MOSSDALE VILLAGE
INCORPORATED AREA
STEWART TRACT
Paradise Cut
Yosemite Ave.
McKinley Avenue
Southern Pacific
Pacific Railroad
Freeway 120
Woodward Avenue
Paradise Road
Paradise Cut
Tom Paine Slough
I-205 Freeway
TRACY
Southern Pacific Railroad
Interstate 5 Freeway
Union Pacific Railroad
San Joaquin River
Airport Way

11. **Cultural Resources**, including Native American archaeological finds of significance and historical structures.

12. **Impacts on Other Cities and the County of San Joaquin**, including sphere of influence boundaries, traffic and infrastructure planning.

13. **Transportation, Circulation and Traffic**, including assumptions underlying analysis, freeways and interchanges, expressways, arterial and collector streets, air transportation, transit, and bicycle and pedestrian corridors.

14. **Air Quality**, including construction impacts and operational impacts.

AN ESSENTIAL PERSPECTIVE

The Value of Previous Environmental Assessment

This EIR takes into consideration the fact that policies and proposals of the Lathrop General Plan have already stood the test of environmental analysis. To the extent that such policies and proposals remain essentially unchanged, further analysis would not typically be required. However, the breadth and depth of development proposed by the West Lathrop Specific Plan is of such magnitude and complexity that fresh environmental analysis was determined to be necessary.

Differing Time Frames of Specific Plan Buildout for Environmental Analysis

The time frame of the Specific Plan differs with respect to the time when buildout is envisioned for Mossdale Village as compared to Stewart Tract. Buildout of Mossdale Village is expected over a 15 year period to the year 2010. However, buildout for Stewart Tract is not expected for perhaps 30 years to the year 2025. These different periods of buildout introduce different conditions for environmental assessment, impact mitigation and mitigation monitoring. As a consequence, the description of impacts and required mitigation is separated with respect to Mossdale Village and Stewart Tract in the discussion provided in Parts IV and V.

Mitigating Environmental Impacts Through Specific Plan Policies and Proposals

By its very nature, the Specific Plan seeks to enhance the quality of the environment while accommodating additional population and urban expansion. To the extent that it achieves these objectives, its policies and proposals in many cases serve to mitigate potential adverse impacts before the fact of urban development. Impact and mitigation analysis was in preparation concurrently with the drafting of the Specific Plan so that the Plan would anticipate the need for and encompass policies and proposals intended to avoid adverse environmental impacts where possible and to reduce other impacts to levels that are acceptable in keeping with the intent of CEQA. The contribution of the Project's policies and proposals toward impact avoidance and mitigation is of such importance that it is described separately in Part IV of this document.

The Specific Plan has been prepared faithful to the policy and mitigation requirements of the General Plan and General Plan EIR. Those requirements provide an essential framework for the more detailed description of development proposed by the Specific Plan. General Plan policies in themselves were developed after the completion of important baseline studies of land, water, biological, cultural and air resources, and of the noise and transportation/traffic environments. The sources and relationships of

mitigation that have contributed to the preparation of this EIR are shown on Figure IV-1 [see page IV-2 of this document]

SUMMARY OF SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

The **significant unavoidable adverse impacts** which cannot be mitigated to insignificance based on a "worst-case" analysis of future conditions under Project implementation are:

1. An incremental annual increase over 20-30 years in the consumption of nearly 7,000 acres for urban use, of which about 5,800 acres is productive agricultural land. This land is to be designated as Prime Land under the State's Farmland Mapping Program, and its loss will be irreversible. While the total annual value of the loss of field crops and orchards involved is minor as compared to total County losses that can be expected over the same time period from such conversion, the cumulative impact becomes significant over time.

2. An incremental increase in the annual quantities of vehicle and stationary emissions of air pollutants released to the atmosphere each year as vehicle traffic increases and the number of new industries increase. Under worst-case conditions, annual emissions of Carbon Monoxide from vehicle sources, and from Nitrogen Dioxide and Total Organics would add significantly to an already serious problem of air quality within San Joaquin County and the eight county San Joaquin Valley Air Basin.

3. An incremental increase in the amount of light and glare (long term sky glare) as development within the entire community, and particularly within Stewart Tract occurs. The total amount of sky glare produced by future development within the planning area will be highly noticeable miles from Lathrop as compared to existing conditions.

4. The continuing growth in regional traffic on the freeway system that cannot be mitigated solely by measures designed to mitigate impacts of project-generated traffic.

5. Adverse impacts resulting from a major seismic event could occur which cannot be wholly prevented by Project design and construction. A levee breach causing large sections of Stewart Tract or Mossdale Village to flood is an example.

6. The impacts of flooding could be substantial under conditions greater than a 100 year flood event.

The Lathrop City Council acting as Lead Agency must issue a "statement of overriding considerations" under Section 15093 of State CEQA Guidelines (as amended) if the Project is approved.

SUMMARY OF SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS REDUCED OR AVOIDED THROUGH POLICIES AND PROPOSALS OF THE SPECIFIC PLAN [see Part IV for discussion of the following topics]

1. Impacts of compaction and overcovering of soils.
2. Impacts under adverse seismic, rainfall and flooding conditions on levee soils.
3. Impacts on foundation soils.
4. Impacts of seismic hazards.
5. Impacts on municipal and industrial water supply.
6. Impacts of surface water drainage.
7. Impacts of flooding under conditions of a 100 year flood event.

8. Impacts on the foraging and nesting habitat of the Swainson's Hawk.
9. Impacts on the fishery of the San Joaquin River and tributaries in proximity to the planning area.
10. Impacts on riparian vegetation, wetlands and watercourses.
11. Impacts of project-generated traffic on the regional freeway system.
12. Impacts on existing and planned freeway interchanges.
13. Impacts of project-generated traffic on the local road systems.
14. Impacts of project-generated mobile and stationary source emissions on local air quality.
15. Impacts of freeway and railroad generated noise on residential development.
16. Impacts of commercial recreation center noise on residential development.
17. Impacts on solid waste generation and management.
18. Impacts on electrical distribution facilities.
19. Impacts on safety and health
20. Impacts on archaeological and cultural resources.

SUMMARY OF SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT FEASIBLY CAN BE MITIGATED OR AVOIDED

Compaction and Overcovering of Soils

Extensive overcovering and compaction of the soil will occur throughout the planning area which will significantly increase surface water runoff and the extent to which soil erosion may occur during construction activities. Some native soil conditions on lands west of the San Joaquin River on Stewart Tract are subject to foundation failures caused by liquefaction during a severe earthquake. A combination of soil type, high water table and potential for flooding also introduce limitations to soil compaction for building foundations and street construction.

Mitigation Measures:

1. A requirement for drainage to acceptable locations for disposal.
2 Employment of dust control measures through construction management; use of hydro mulching or other adequate types of erosion control on slopes required for development.
3. A requirement for soils and foundation engineering to assure reliable foundations for structures. Such a requirement has been found to be feasible as the result of baseline studies completed during Specific Plan preparation.

Premature Agricultural Land Conversion and Urban-Agricultural Conflicts

The pattern of urbanization west of Interstate 5 within Mossdale Village and Stewart Tract could unnecessarily result in the premature conversion of agricultural land to urban use or create urban-agricultural conflicts at the line of interface between urban land and farmland. To illustrate, assuming a fairly even pace of buildout, the incremental loss of agricultural lands would occur at an average annual rate of about 200 acres over 30 years.

Mitigation Measures:

1. Land use policies of the Specific Plan call for the phasing of development of agricultural lands in such a manner as to avoid the fracturing or fragmentation of the urban pattern and to assure a gradual conversion of agricultural lands extending outward from the existing urban pattern.
2. Urban-agricultural conflicts can be minimized by maintaining temporary open space corridors between the advancing line of urbanization and the receding line of agricultural operations.

Seismic Hazards

The occurrence of a major earthquake within the region poses a serious potential for soil liquefaction and levee failure on Stewart Tract, with consequent possibility for the loss of life and property due to flooding and structural failure. A serious earthquake could generate panic among thousands of visitors to a theme park and among spectators and participants in other events.

Mitigation Measures:

Policies of the Specific Plan serve to mitigate the above impacts. They include the following:

1. Conformance of building design and construction to the latest seismic requirements of the Uniform Building Code.
2. Limiting the height of structures.
3. Facilities needed for emergency response must withstand a maximum credible earthquake and remain operational.
4. Requiring soil compaction tests and geotechnical analysis of soil conditions prior to project approvals.
5. Preparation of soils and geologic reports to be considered in structural design.
6. The adoption and implementation of an Earthquake Disaster Plan.
7. Design of utility systems to withstand a serious earthquake.
8. Levee reinforcement and flood control facilities necessary to avoid the hazards of a 100 year intensity flood condition.

Water Supply

Failure to achieve an assured permanent supply of potable water from sources other than conventional wells will jeopardize the City's ability to assure water to new development. Several approaches to assuring an on-going entitlement to water has been under serious study since adoption of the General Plan in December, 1991. They include contracting for surface water with irrigation districts having adequate entitlements, the expansion of the City's well system under controlled conditions, and the conversion of agricultural water entitlements to urban use. The later approach poses a potential for reducing or losing continuing entitlements that will be needed for agricultural use as phased urbanization occurs. If any substantial reduction or loss were to occur, it could result in the premature commitment of agricultural lands to urban use.

Mitigation Measures:

1. Development within Stewart Tract and Mossdale Village shall be withheld until the extent of development to be approved is supported by assurance that a firm supply of potable water will be obtained and available for use commensurate with the amount of urbanization to be served.
2. Any conversion of agricultural water entitlements for the Stewart Tract to urban use must assure the continued availability of water for on-going agricultural use until such time that conversion of lands to urban use is justified.

Wastewater Management

A new wastewater management system is being devised by the City, consisting of one or more treatment plants, effluent storage and effluent reuse systems, to serve new development in the existing city limits east of the I-5 freeway, in West Lathrop, and in other areas of future development. The new facilities

would be built in phases as expanded wastewater management services are required. Policies of the Lathrop General Plan provide important guidance to the provision of adequate wastewater management facilities, including the following:

1. One or more wastewater management systems may be required to serve West Lathrop.

2. Wastewater management capability is required under a phased program commensurate with the phasing of development.

3. Interim facilities may be required to serve Stewart Tract until substantial development occurs.

4. Recycling and reuse of treated wastewater for landscape and crop irrigation and for wildlife management and commercial site cleansing is essential to achieve a net reduction in the amount of water needed for urban use as compared to continued agricultural use.

The City of Lathrop currently is developing plans for meeting wastewater management requirements of West Lathrop, and for other parts of the existing city limits where sewer service is inadequate or unavailable. These plans are examining several alternatives for treatment plant and disposal pond location, and are also being analyzed as to their potential environmental impact on a site-specific basis. The alternatives being examined include:

1. Expansion of the existing Lathrop plant at Site 3b along Howland Road to meet short-term needs for development in the existing city limits east of the I-5 freeway, and possibly part of the first-phase development of Stewart Tract.

2. A new City of Lathrop facility to be constructed on one of two sites now under consideration, including a site on the Stewart Tract east of the I-5/I-205 freeway merge (Site 4), and Site 4 along Howland Road adjacent to the existing 0.60 MGD City plant east of I-5 and north of SR 120.

3. Connection to the regional facility operated by the City of Stockton.

4. Connection to the facility operated by the City of Manteca . This facility already serves much of the developed areas within Lathrop's city limits.

As a practical matter, several of these alternatives may be pursued simultaneously because of the costs associated with selecting a single ultimate system in an atmosphere of uncertainty regarding the extent of urbanization that may occur in West Lathrop over the next 20 years. This would be especially true for the Stockton connection alternative which would require extending a large diameter trunk line (and associated pumping stations) from Stewart Tract and Mossdale Village north and parallel to I-5 on the west to the vicinity of French Camp Road, some six miles north of Louise Avenue. Lateral trunk lines extending east of the freeway would be required to intercept existing lines within the City and to provide capacity for areas of the City that are under-served or not served at all by existing facilities.

Connection to the Manteca treatment facility could reduce the length of trunk line extensions required to serve industrial areas along the McKinley Avenue corridor and the Lathrop Road and Louise Avenue corridors between the two railroads. This alternative carries with it the need for considerable ultimate expansion of the land disposal acreage now held by Manteca, and the possible need for acquiring acreage well outside the planning areas of Manteca and Lathrop.

The results of this on-going analysis will be incorporated into the development engineering that will be required for first phase development of Stewart Tract and Mossdale Village. At this point, environmental concern is focused on the type and size of wastewater management system(s) that will be most appropriate for development under the West Lathrop Specific Plan, regardless of treatment facility location. A site capable of serving all of West Lathrop is being considered for planning purposes at the southeast corner of Stewart Tract, east of the I-5/SR 120/I-205 merge along the San Joaquin River (Site 4). This site is in fact part of the Specific Plan proposal, with alternative land use configurations also being proposed under the Specific Plan if the plant is located elsewhere.

Drainage and Flood Control

Surface water drainage from streets and other paved surfaces will contain petroleum distillates, grease and chemicals that can degrade the quality of receiving waters of the San Joaquin River and its tributaries. Flooding of the Stewart Tract that occurs during periods of heavy rainfall, or that could occur from a break in the levee system, has the potential for serious damage to property and personal injury. Areas where underground water combines with loose soils pose serious hazards to urbanization.

Mitigation Measures:

1. Systems needed to remove hydrocarbon and other contaminants from surface drainage water prior to disposal to watercourses are to be installed prior to occupancy of project areas under development. A capability for on-going monitoring of the system(s) will be required.
2. The potential for flooding of the Stewart Tract requires that levees be reconstructed and strengthened to standards of the Corps of Engineers as has already been accomplished for the levee along the east bank of the San Joaquin River. Affected levees will be those along Old River, the west bank of the San Joaquin River and Paradise Cut which may require reconstruction around the entire Tract to carry out land use proposals of the Specific Plan. [see measure 3, below].
3. In connection with and in addition to Measure 2, above, a variety of approaches to flood-proofing have been considered which are incorporated into the Specific Plan. They include the use of on-site detention basins having multi-use as wildlife habitat, golf courses and lakes, the super-elevation of areas of population concentration above flood levels, and the super-elevation of open space corridors in proximity to areas of resident and visitor concentrations.

Lake Management

The Project proposes an interconnected system of lakes on Stewart Tract to be used for on-site transportation, aesthetics, wildlife habitat, water sports, surface water management, flood control and storage for emergency fire flow. Potential problems associated with these beneficial uses include inadequate design and management of the lake system, causing problems of water quality, safety and hazards to public health such as algal bloom (eutrophication), stagnant water and vector control (insect abatement), bacteria concentration, unsightly visual characteristics, and adverse effects downstream on fisheries and the quality of water used for agricultural and open space irrigation. Nutrients, sediments and various contaminants and pollutants may enter in-flowing water, giving rise to several of the problems listed. A potential also exists for an incompatibility of lake functions.

Mitigation Measures:

The lake system is to be designed and managed to avoid the kinds of problems listed above. Some of the more important measures that may be required include, but are not limited to: automatic aeration and/or frequent flushing; the use of automatic equipment to maintain appropriate lake elevations; lake sealing; the use of electrically powered boats at reduced speeds; and aquatic vegetation management to meet State and EPA standards.

Biological Resources

Fish and Wildlife:

Baseline studies and information provided in Parts III, IV and V of this document indicate that the Swainson's hawk habitat will be adversely affected by development of Stewart Tract and Mossdale Village. The principal impact will be the loss of foraging habitat, the possible abandonment of nesting territories, and relocation of the hawk to other suitable habitat if available. If suitable nesting territories are not available to support relocation in relation to other hawk territories, then a net loss in the hawk population could result which would further exacerbate the condition of the hawk as a threatened species.

Because of the possibility that other rare, endangered or threatened species of fish and wildlife exist within the Planning Area, which were not observed during field surveys conducted in February/April, 1991, extensive baseline studies were conducted in the field along with special studies of the potential for habitat of the Riparian Brush Rabbit, the Riparian Woodrat and Kit Fox. None of these species were observed.

The fisheries of the San Joaquin River and its proximate tributaries were also examined and analyzed. These fisheries may be threatened by the potential for contamination of waters by urban runoff and up-stream agricultural drainage.

Mitigation Measures:

1. The City will adopt a Habitat Management Plan (HMP) prepared during preparation of the Specific Plan which provides for the phased implementation of the HMP as development is approved and before development occurs. This approach can allow for reasonable urban expansion while retaining Swainson's hawk populations into perpetuity.
2. Proposals of the Specific Plan call for habitat retention and habitat enhancement to deal with known and as yet unknown sensitive species of plants and animals. However, additional biological field surveys conducted to State and Federal standards as part of the Specific Plan preparation process indicate that no other sensitive species are present on the Project site.
3. The quality of river waters is to be protected from urban runoff by the collection and disposal of potential contaminants prior to surface water disposal to the San Joaquin River or its tributaries. The protection of river water from upstream contamination by agricultural drainage requires control by the Regional and State Water Quality Control Boards.

Riparian Vegetation, Wetlands and Watercourses:

Riparian vegetation, wetlands and watercourses are potentially threatened by the prospect of urbanization.

Mitigation Measures:

Policies of the General Plan and Specific Plan call for the protection and enhancement of riparian vegetation, existing wetlands and watercourses, and the creation of new wetlands for wildfowl management through the ponding and distribution of properly treated wastewater from wastewater treatment facilities to be constructed to serve urban development within Stewart Tract.

Fisheries:

Fisheries existent in the waters of the San Joaquin River and its tributaries could be adversely affected by the contamination of these watercourses as the result of urbanization.

Mitigation Measures:

Mitigation measures include the removal of surface water contaminants, sediment and debris before drainage to watercourses, protection of the Chinook Salmon run and other sensitive species, maintenance and enhancement of water quality, fish salvaging, screening of water diversions, the strengthening of Project levees, careful construction and operation of marina facilities, and appropriate levee bank maintenance.

Noise Effects

Noise from freeways already adversely affects the residential environment immediately east of Interstate 5, and has the potential for exceeding standards of exterior noise in planned residential areas of Mossdale Village and Stewart Tract. Similarly, railroad noise has the potential for adverse impact on residential areas planned along the west side of the S.P. Railroad within Stewart Tract.

Mitigation Measures:

1. Require noise attenuation for freeway and railroad-generated exterior noise to meet State noise standards, including use of commercial buildings as noise buffers, and sound walls and/or landscaped berms as appropriate.

2. Require interior noise attenuation through building construction as a means to mitigate excessive railroad-generated noise.

3. Require noise attenuation as required by State standards for commercial and industrial operations.

4. Plan for the accommodation of uses along freeways wherever possible which are not sensitive to traffic-generated noise.

Light and Glare

A potential exists for adverse effects of neon and area lighting in Stewart Tract commercial centers on residential development directly east of the San Joaquin River. The worst impacts would be from the "bounce" effect of commercial center lighting during nights of low overcast or fog. A potential also exists for adverse effects of lights from traffic on residential areas adjacent to the planned Gold Valley Parkway and Gold Rush Blvd. expressways providing access to Stewart Tract.

Mitigation Measures:

1. Mitigation of direct off-site glare can be achieved in part through the hooding of exterior commercial lighting, and especially that lighting mounted high on building walls, poles, roofs and commercial recreation equipment and facilities.

2. Light generated by freeway and expressway traffic can be mitigated considerably by heavy tree and high shrub landscaping along the outside edge of transportation corridors adjacent to residential development. Residential lots which back onto such corridors will aid in this objective.

Land Use, Population and Housing:

Impacts and mitigation measures associated with land use patterns and the magnitude and distribution of population and housing envisioned by the Specific Plan are functions of other topics analyzed as part of the Specific Plan and this EIR.

Public, Municipal Utility and Energy Services

The impacts on public utility systems will be those which generate the need for new or expanded gas, electrical, telephone, and cable service lines and appurtenant facilities. The demand for energy will be sufficiently great to require the installation of new and altered electrical distribution facilities which provide service to the planning area.

Solid waste management will become a major requirement of service to the urban area, with considerable truck traffic to be generated under conventional means of pickup and disposal.

School services will be affected substantially, with requirements for as many as six elementary schools and one high school, involving three separate school districts. Schools will be needed at or close to the time of that type of housing occupancy which generates school-age children.

Mitigation Measures:

1. All gas, electrical, telephone and cable distribution lines are to be placed underground.
2. A highly efficient system of solid waste pickup, hauling and disposal will be required, including a major diversion to recycling, because of the significant solid waste generation expected from large-scale commercial and residential use.
3. The Specific Plan calls for fair-share financing of school facilities generated by new development, in addition to the school impact fee structure already in place. The School District and City should develop an equitable formula for levying fees to off-set costs of land acquisition and core school facilities which are not covered by the school impact fee structure already in place.

Safety and Health

Any natural or man-made disaster, whether by fire, flood, explosion or earthquake, has the potential for jeopardizing the safety of thousands of people concentrated on Stewart Tract.

Mitigation Measures:

1. An emergency response and evacuation plan is to be in place and operational prior to the opening of any commercial recreation attractions, lodging and housing facilities to public use.

2. Stewart Tract is to be graded to provide large areas that are elevated to provide "safe ground" for people needing areas of temporary safety.

Archaeological and Cultural Resources

Known archaeological and cultural resources could be inadvertently damaged through the development process. It is possible that archaeological and cultural resources that have not been found and mapped may be unearthed during the construction process and become damaged or lost.

Mitigation Measures:

1. Mitigation against the potential loss of known archaeological and cultural resources can be avoided at the time of development application in accordance with the procedures of CEQA Guidelines, Appendix K. Locations cannot be made known to the general public if vandalism of important finds is to be avoided. The alternatives for development design in areas of known resources must be reviewed by Native Americans having competence in understanding the importance of the resources and of the desired methods to assure their preservation.
2. Mitigation against the potential loss of as yet unknown archaeological and cultural resources will require close monitoring of construction activities by the City. The close proximity of properties intended for development to natural watercourses should be taken as a signal of the potential for unearthing yet unknown resources. In such cases, the City should instruct developers and construction foremen of the potential for damage to artifacts and provide written instructions as to the importance and necessity of halting all excavation work until the significance of the finds can be evaluated by competent archaeological and Native American specialists.

Recreation

The marinas proposed along the San Joaquin River pose the potential for adverse impacts on the river environment during construction and operation.

Mitigation Measures:

1. Environmental analysis of potential significant environmental effects will be required at such time as specific marina projects are proposed. This analysis should include the impact on boating capacity of the river, and the impact on water quality and biological resources.

Transportation/Circulation/Traffic

The Project has the potential for serious adverse impacts upon the freeway system, including aggravation of significant ambient congestion, the increase of traffic congestion at key interchanges along Interstate 5 (at Louise Avenue), along I-205 (the proposed new Paradise Road interchange) and requiring freeway lane expansion along I-5, the I-5 "merge" between State Route (S.R. 120 and I-205) and along I-205 west of Gold Rush City. It is noted, however, that this potential exists either with or without the Project.

Serious regional and inter-regional congestion of the freeway system already exists as the product of continuing growth in population and economic activity within the San Francisco Bay Area and the Northern San Joaquin Valley. A meaningful commitment to transit services is needed in the near future to off-set traffic impacts on the freeway system. The areas of most significant regional impact would occur westerly along I-205 through Tracy to its interchange with I-580, along I-5 between Lathrop and Stockton, and along S.R. 120 between I-5 and Freeway 99.

would occur westerly along I-205 through Tracy to its interchange with I-580, along I-5 between Lathrop and Stockton, and along S.R. 120 between I-5 and Freeway 99.

Mitigation Measures:

1. Golden Valley Parkway is proposed parallel to and west of I-5 and the I-5/I-205 merge, and parallel to and north of I-205. The Parkway would extend from Lathrop Road south, southwest and west through the Stewart Tract to Paradise Road in the vicinity of a new Paradise Road/I-205 interchange. This facility is essential to augment I-5 and I-205 capacity through the Lathrop planning area for the 20-30 year period of Stewart Tract buildout projected by the Specific Plan. The section of this facility between Lathrop Road and Stewart Tract may not be required until after the year 2005. In the interim, Gold Rush Blvd. would be extended to Stewart Tract as the primary means of access to Stewart Tract, connecting with the western section of Golden Valley Parkway when needed.
2. State Route 120 will require expansion to six lanes of traffic between I-5 and Freeway 99. This facility currently is being reconstructed as a 4-lane facility as part of Caltrans' current State Transportation Improvement Program [STIP].
3. A phased commitment to interregional, regional and local transit and TDM programs described under the topic of Air Quality is absolutely essential to mitigating the traffic circulation impacts listed above.
4. Freeway improvements that may be required because of Lathrop-generated traffic are to be financed in part through payment of a fair-share transportation improvement fee for all new development projects; improvements required to the local Arterial street system because of Lathrop-generated traffic are to be financed in part through a fair-share traffic improvement fee for all new development projects.
5. Arterial street improvements will be required along Louise Avenue and Lathrop Road from I-5 east to Lathrop's east city limits requiring fair-share contributions from the Project.
6. Manteca and Lathrop should both impose traffic impact fees to help pay for improvements to inter-community expressways/arterial streets.

Air Quality

Large quantities of air pollutant emissions can be expected from both vehicle and stationary sources under full project development. These emissions will aggravate air quality conditions within the regional air basin.

Mitigation Measures:

1. Mitigation through construction management to include: control of fugitive dust during site construction; early paving of streets and parking areas; and ability for the City to contact contractors to employ soil erosion and dust control measures, or to cease operations due to high wind conditions.
2. Mitigation through transportation system management actions (TSM) will become an important means to reduce the effects of vehicle emissions, once major commercial investors become known.
3. Development of a transportation plan that will promote the use of and offer incentives for ridesharing and transit.

PART II

DESCRIPTION OF THE PROJECT

INTRODUCTION

The West Lathrop Specific Plan

The proposed project is the West Lathrop Specific Plan, as supplemented by the Addendum to the Specific Plan, prepared for the areas shown on Figure II- 1. A discussion is provided at the end of Part II of subsequent projects which may need only limited environmental review after adoption of the Specific Plan.

The Specific Plan covers two distinct but closely related areas, as shown on Figure II-2. The **Mossdale Village** area lays between the Interstate 5 freeway and the San Joaquin River, containing approximately 1,161 acres; the **Stewart Tract** lays immediately west of Mossdale Village and the river, containing approximately 5,794 acres. Development of these areas is predicated on satisfying policies of the Lathrop General Plan, adopted in December, 1991, which call for the preparation and adoption of a Specific Plan for any area which lays west of Interstate 5 before development may be approved by the City.

Mossdale Village is essentially a residential community with supporting public facilities, Village commercial and regionally-oriented commercial development; **the Stewart Tract** would be developed in phases as a complex of region-serving recreation-oriented commercial and residential uses, with supportive public facilities and services. The central feature of the complex would be a theme park reflecting the State's historic Gold Rush era of the mid 1800's.

Related Documents

The environmental consequences of General Plan policies and proposals for Mossdale Village and the Stewart Tract have been reviewed already as part of the "Comprehensive General Plan & Environmental Impact Report for the City of Lathrop, California" certified by the City Council in December, 1991. The General Plan and EIR were published as a single document. Summaries of key proposals and policies of the General Plan, and of impacts and required mitigation measures, are included in various appropriate sections of this Specific Plan EIR. However, the reader is encouraged to become familiar with the entire General Plan and its EIR.

Several technical appendixes are available which cover certain topics described in Parts IV and V of this document in greater detail. They are listed in the Table of Contents and summarized in Appendix B of this EIR. Other documents included by reference are a Development Agreement and a proposed Finance Agreement between the City and Stewart Tract developers, an Annexation proposal for approval by the San Joaquin County Local Agency Formation Commission (LAFCO), and a series of background documents pertaining to various topics of environmental analysis. These documents and the actions proposed are essential to defining and implementing the policies of the Specific Plan.

Copies of the General Plan, the technical appendixes, the proposed development agreement, financing agreement, annexation proposals and background documents are available for public review at the general public counter at Lathrop City Hall, located in Suite 1 at 16775 Howland Road, Lathrop. The phone number is (209) 858-2860, Ext. 327. Copies of the technical appendixes have also been provided to the State Clearinghouse.

ALTERNATIVES

As determined by the General Plan EIR in 1991, the "no project" alternative is the environmentally superior alternative, since it would not require any development west of Interstate 5. Of the alternatives that would involve development west of Interstate 5, the alternative of further reducing the area of urban expansion would be the most environmentally superior alternative, followed by the General Plan (and Specific Plan) as proposed. These alternatives are summarized in Part VI of this EIR and are described in Part 8-E of the General Plan.

Several design alternatives are also described in Part VI for Stewart Tract and Mossdale Village. In each case, they include more job-intensive and conservation-oriented development patterns. The conservation-oriented alternatives for Mossdale Village and Stewart Tract result in greater open space. In the case of Mossdale, however, more compact development constrains choice in the housing market to an extent inconsistent with the policies of the General Plan on residential density and intensity. In the case of Stewart Tract, the compact pattern would allow retention of some agricultural acreage, but would eliminate the opportunity to relate recreation residential use with golf course development as proposed by the Specific Plan, and limits options for on-site retention of surface and flood waters within open space corridors which are well-distributed throughout Stewart Tract.

Alternatives which seek greater employment for Mossdale and Stewart Tract are also constrained by what is possible under General Plan policy. For Mossdale Village, some modest increase in Freeway Commercial and Service Commercial is possible without creating an inconsistency with the General Plan. But any significant increase in employment could set the land use relationships of the General Plan out of balance to the point where a General Plan amendment might be required.

ALTERNATIVE E

The most important discussion of alternatives concerns the reconfiguration of land use and express-way/arterial roadways on either side of the Southern Pacific Railroad which parallels the I-5/I-205 merge. Referred to as Alternate "E" in the text of Parts II and V, this alternative was considered essential to avoiding the very serious long-term impacts on freeway traffic associated with the Mossdale Road interchange as proposed by the Specific Plan. It also reflects the realities of current Caltrans policy which was formulated only recently (spring, 1995), after the Specific Plan was published. Caltrans has determined that the existing Mossdale Road interchange with the I-5/I-205 merge can be utilized for only a very limited PM peak hour traffic of about 700 inbound vehicles. This effectively requires the elimination of major commercial land use proposals along the west side of the freeway merge west to the railroad, and a shifting of other commercial uses to locations west of the railroad where access would be provided from Gold Rush Boulevard and the eventual extension of Golden Valley Parkway to Stewart Tract. Only a 50 acre farmers' market remains along the merge.

Alternative E becomes the preferred land use and circulation arrangement for the eastern part of Stewart Tract, and is fully described in an Addendum to the Specific Plan. As a practical matter, the intensity of traffic and air quality impacts associated with Alternative E remain virtually the same as those associated with the Specific Plan (without Alternative E). A separate traffic analysis was completed for Alternative E to assure that mitigation measures under Alternative E will be adequate and that further environmental analysis will not be required.

CUMULATIVE AND GROWTH INDUCING IMPACTS

General Considerations

Specific Plan policies and proposals commit substantial acreage to residential, commercial, public and other use, consistent with the Lathrop General Plan. Most of the land to be developed in urban use under the Specific Plan will result in the conversion of agricultural lands. Proposals of the Specific Plan seek to accommodate all urban expansion within the boundaries of a planning area that also prescribes logical boundaries for the City's Sphere of Influence, reflecting policies and proposals of the City's General Plan adopted in December, 1991. The boundaries of the planning area and proposed sphere-of-influence are the same as those established by LAFCO.

The proposed Project (Specific Plan) is justified now in order to permit phased urban expansion west of Interstate 5 consistent with Lathrop's General Plan. The adoption of specific plans is required by the General Plan prior to annexation.

The Most Potentially Serious Cumulative Impacts

Notwithstanding the policies and proposals of the General Plan and Specific Plan to confine urban expansion, and of the role of LAFCO in maintaining the integrity of the City's sphere-of-influence, there is always a risk that nearby agricultural lands could eventually be targeted for urban expansion. Of special concern would be agricultural lands of Roberts Island which lay north of Stewart Tract and lands west of Paradise Cut within Tracy's sphere-of-influence. Roberts Island has been designated as an Agricultural Preserve by the County, and lays within the boundaries of the Delta Protection Commission's primary protection zone. Any urban expansion onto Roberts Island would place natural resources of the Delta in jeopardy of damage, loss or impairment. Such impacts are not expected because of the State mandate for affected counties to implement policies of the Delta Protection Plan now that it has been adopted by the Commission.

Cumulative Impacts on Public Services

The cumulative impacts on public services, including schools, fire and police protection service, water-sewer-drainage, and recreation will occur incrementally and gradually as the urban area expands. A key policy of the Specific Plan requires the phasing of development in a manner which will not place undue strain on the ability of local government to provide adequate levels of public service. This policy is embodied in the Plan's program of implementation, which sets forth a schedule of needed public improvements and the capability for financing improvements in a manner consistent with the policy of avoiding strain on local government service capabilities.

Other Cumulative Impacts

The cumulative impact of large-scale destination resort commercial recreation, and of residential buildout under the Specific Plan on the nearby cities of Manteca, Stockton and Tracy may be to slow somewhat the pace and extent of urban expansion that might otherwise occur in these cities. However, a lesser extent of urbanization could also be expected if the regional economic effects of Stewart Tract commercial development do not materialize.

Growth-Inducing Impacts

The growth-inducing impact of the Specific Plan will be to encourage an increase in economic activity and population growth within the sub-region, including the cities of Stockton, Manteca and Tracy. For Lathrop, it will stimulate further urban expansion consistent with the General Plan, and all of the public and private facilities and services needed to serve increased economic activity and growth of the resident and visiting population.

USE OF THIS EIR (by the City and other public agencies)

It is the intent of the City that this EIR be used for the following purposes:

1. As a basis for judging all specific development projects that may be proposed consistent with policies and proposals of the Specific Plan and mitigation measures of this EIR. Further environmental analysis will be required where the extent of environmental impact cannot now be determined for lack of site-specific project details that may have a significant effect beyond that described in this EIR.

2. As a basis for formal annexation proposals for the area covered by the Specific Plan for consideration by LAFCO.

3. In developing and implementing a mitigation and monitoring program for project EIRs as required by State Law.

4. It is the further intent of the City that this EIR be used as the vehicle to avoid preparation of unnecessary EIR's for development projects and programs which are consistent with the Specific Plan by using the Mitigated Negative Declaration process where this EIR is adequate for the purpose.

5. In utilizing this EIR for the consideration of subsequent projects proposed under the Specific Plan, it will be possible to avoid unnecessary redundancy, the waste of time or unnecessary or premature speculation. This will allow focus on those issues which remain for environmental review and decision as compared to those already decided.

6. In adopting development agreements with land owners and developers.

This EIR is also intended to be used by the following local public agencies having jurisdiction within the area covered by the General Plan:

1. The Manteca Unified School District.
2. The Banta Elementary School District
3. The Tracy High School District
4. The San Joaquin County Community Development Department.
5. The San Joaquin County Public Works Department.
6. The San Joaquin County Local Agency Formation Commission.
7. The San Joaquin County Council of Governments
8. The San Joaquin County Mosquito Abatement District
9. The San Joaquin Valley Unified Air Pollution Control District

This EIR is also intended for use by any agencies of State or Federal Government that have responsibilities as Trustee or Responsible agencies as defined by CEQA. They include, but are not limited to the following:

1. State Department of Fish & Game
2. State Department of Water Resources
3. State Lands Commission
4. State Department of Boating & Waterways
5. State Department of Conservation, Division of Mines & Geology

6. State Department of Conservation, Division of Oil & Gas
7. State Mining and Geology Board
8. State Water Rights Board
9. Regional Water Quality Control Board, Central Valley Region
10. State Water Resources Control Board
11. State Reclamation Board
12. State Department of Health Services
13. State Department of Transportation (Caltrans)
14. California Integrated Waste Management Board
15. Office of Historic Preservation and Native American Heritage Commission
16. State Department of Housing and Community Development
17. U.S. Army Corps of Engineers
18. U.S. Coast Guard

MITIGATION MONITORING PROGRAM

As the Lead Agency, the City is required to establish a mitigation monitoring program to cover all mitigation that may be required during the course of buildout within the planning area. The program has been prepared separately by the City for consideration prior to City Council certification of this EIR. Upon City Council certification of the EIR and adoption of the Specific Plan, the Mitigation Monitoring Program will be included in the final publication of the Final EIR. A summary of mitigation monitoring requirements is presented in Table I-2.

TECHNICAL APPENDIXES

Several base-line studies prepared in conjunction with the Specific Plan are available as Technical Appendixes for review by interested parties. Topics covered are biological resources (including the proposed Habitat Management Plan for the Swainson's hawk, wetlands delineation, fisheries, kit fox survey and brush rabbit survey) and water resources (including water supply, wastewater management, flood control, and drainage). Copies of these Technical Appendixes have been made available to those local, state and federal agencies having a "responsible agency" or other type of jurisdictional concern. All Technical Appendixes are on file with the Lathrop Community Development Department at City Hall, 16775 Howland Road, Suite #1, Lathrop. A study of cultural resources is being withheld from public review because State Law requires that the location of significant archaeological "finds" be kept confidential to avoid vandalism of sites and artifacts.

TABLE I-2

SUMMARY OF MITIGATION MONITORING REQUIREMENTS

TOPIC	Responsibility for Implementation	Mitigation Measure Required	When Monitoring is Required	When Mitigation is Completed	Who Needs to Verify Completion
SPECIFIC PLAN PREPARATION & ADOPTION	City of Lathrop in cooperation with developers	Finer grained urban design and environmental analysis	Throughout Specific Plan preparation process	Upon adoption of the Specific Plan(s) by the City of Lathrop	Lathrop Planning Commission & City Council
FOUNDATION SAFETY	Developers	Adequate foundation soils engineering	During preliminary project design stage	Upon submission to and approval of plans by City	City Engr. & City Building Official
AIR QUALITY	Gold Rush City	Staged program of providing rail transit	At or soon after theme park opening	On-going staged program to assure transit	Lathrop, County Transportation Agency
	Developers	Fugitive dust control	During project construction	Completion of construction	City Public Wks. Dept.
	Large employers	Trans. management	On-going	On-going	City, company management
	Stationary sources	Emission control	On-going	On-going	Air Basin Control Dist., EPA, ARB
FARMLAND CONVERSION	City	Phased development	On-going	On-going	City Plan. Dept., City Council
WATER	Gold Rush City	Flood proofing	During project construction	Prior to occupancy permits	Corps of Engrs., Reclamation Dist. & City
	City, Gold Rush City	Obtain entitlement to adequate firm supply	Prior to project construction	Prior to project construction	City of Lathrop
	Developers/City	Construct staged facilities for reclamation reuse	First facility prior to development west of I-5	Prior to occupancy permits	City, Regional Water Qual. Control Bd.
	Developers	Drainage collection & disposal facilities	During project construction	Prior to occupancy permits	City of Lathrop
BIOLOGICAL RESOURCES	Developers	Habitat replacement, enhancement & expansion	During or prior to project construction	Somewhat ongoing - when results are evident	Dept. F & G, Corps of Engrs.' F & W Service, State Lands

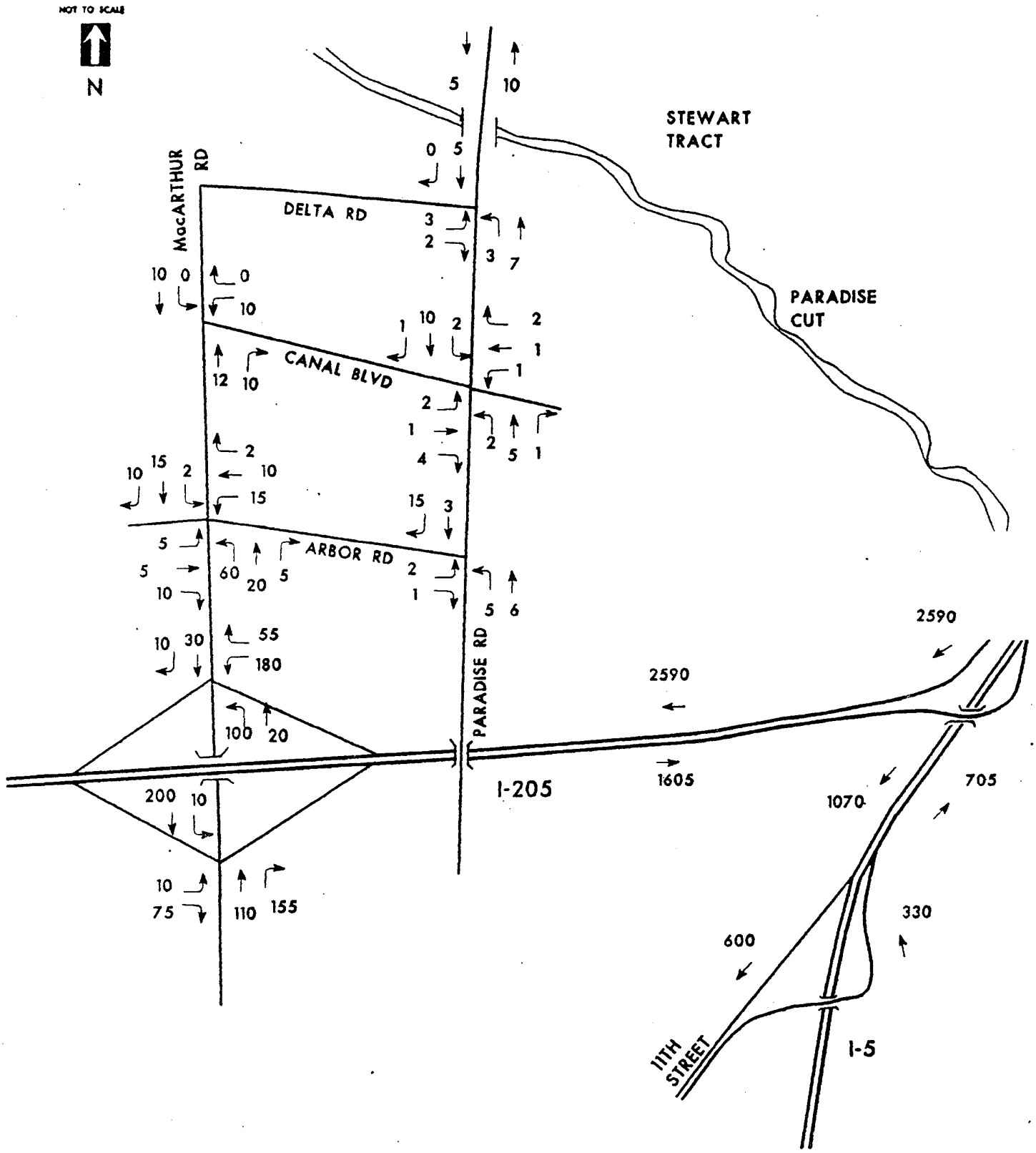
TABLE I-2 cont.

TOPIC	Responsibility for Implementation	Mitigation Measure Required	When Monitoring is Required	When Mitigation to be Completed	Who Needs to Verify Completion
CIRCULATION & TRAFFIC	Developers	On-site and off-site street improvements	During project construction	Prior to occupancy permit	City Engr./Pub. Works Dept.
	Developers/ City/County/Caltrans	Freeway & interchange improvements	On-going; & during Caltrans STIP	At completion of contract construction	Caltrans, City Engr., County Public Works
	City/County	Improvements to exist. Arterial & Collector streets	During Capital Improvement Program	At completion of contract construction	City Engr., City & County Pub. Works Depts.
NOISE	Developers	Noise attenuation	Project approval & construction	Prior to occupancy permit	City Pub.Works/ Planning
ENERGY UTILITIES	Developers	Planning & installation of facilities	Specific Plan stage	Prior to occupancy permit	P.G. & E./ City Pub. Wks.
HUMAN HEALTH	Developers	Hazard./toxics; qualified process engineering	Project design & approval	Prior to occupancy permit	City Engr./Pub. Wks./Dept. of Health Services
AESTHETICS	Developers	Achieve urban design and bldg. quality	Project design & approval	Prior to bldg. permit	City Planning/ Developer design review
OPEN SPACE/-RECREATION	Developers/ City/School Dist.	Park & open space improvements	Project design & approval	Prior to occupancy permit	City Planning/ Pub. Wks./Rec./ School District
SCHOOLS	Developers/ Manteca Unified School District	School planning & construction	Project construction, Capital Improve, Prog.	Project construction, on-going	Manteca Unified School District/ City Planning
REDEVELOPMENT	City Redevelop. Agency	Plans & improvements	On-going	On-going	Redevelopment Agency
DEVELOP. REGULATION	City staff, Plan Comm.,Council	Development permits	Specific Plan, zoning & sub. ord. admin.	On-going	City Planning/ Commission & Council

FIGURE III-3-C

EXISTING AM PEAK HOUR SUMMER, 1993, TRAFFIC VOLUMES

Along I-205 West of I-5 and I-5 South of I-205
(Weekday, 7:00 - 8:00 AM)



PROPOSED LAND USE AND CIRCULATION

Mossdale Village

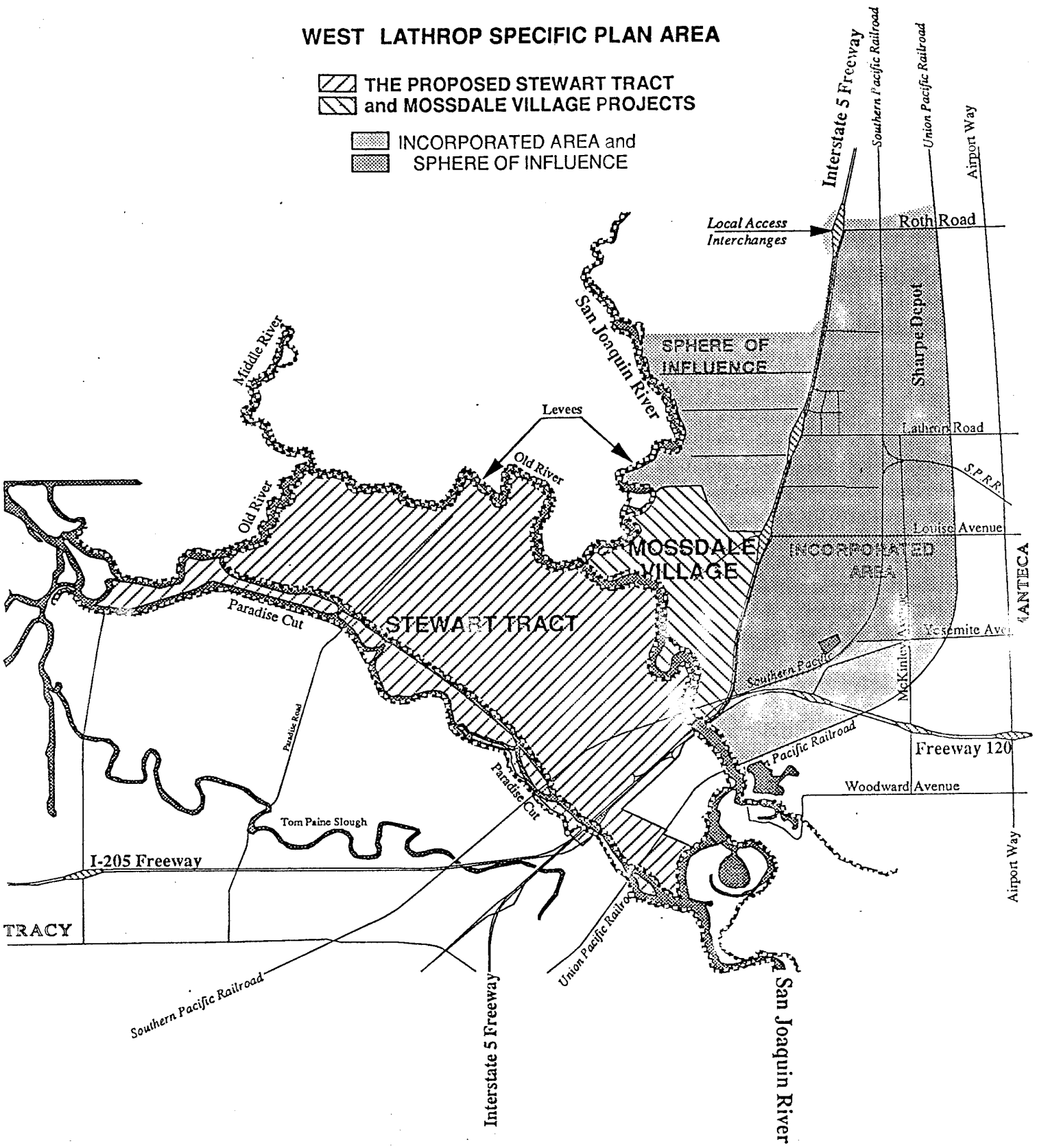
Land use and circulation proposals for Mossdale Village (as shown on Figure II-2 and as listed in Table II-1) are based upon the creation of two residential neighborhoods, separated by the southwesterly extension of Louise Avenue. This extension (designated as Gold Rush Boulevard) would become a principal means of access to the Stewart Tract which lays west of the San Joaquin River. Each neighborhood is served by centrally located elementary school/neighborhood park sites that will become focal points for a broad variety of educational, cultural and recreational activities. These neighborhoods will be linked by River Road, a collector street that loops through the residential areas connecting major activity centers and provides access to homes along lateral minor streets. Surface continuity for vehicle traffic between neighborhoods would be accomplished by running River Road under the approach to a new bridge extending Gold Rush Boulevard over the San Joaquin River.

The neighborhoods will also be served and unified by a single Village Center which would accommodate a variety of shops, restaurants, professional and business services, and public and semi-public community facilities needed to serve the neighborhoods on a day-to-day basis. The Village Center will be made accessible to residents on foot, bicycle and other non-motorized means of transportation via a system of trails and landscaped corridors. Higher density housing is located near the Village Center to encourage more residents to be within convenient reach of the Center and to inhabit the Center throughout evening as well as daytime hours. Along the eastern edge of Mossdale Village are freeway-oriented uses referred to by the General Plan as Freeway Commercial and Service Commercial. These uses will act as both visual and noise buffers to traffic along Interstate 5 for residential areas of the Village.

The San Joaquin River runs along the westerly edge of the Village, separated from the Village by a levee which has been reinforced to the standards required by the Federal Government to withstand the forces of a 100 year flood event. This levee and a band of public open space will create a long open space corridor running the entire length of Mossdale Village. Several parks, a proposed marina, and two natural areas would adjoin the open space corridor along the river. The northerly park will be developed and maintained as passive recreation open space; the park near the Village Center would be developed more for activities compatible with the Village commercial area, including plazas for outdoor performing arts and Village promotion. The Mossdale Crossing County Park at the southern end of the open space corridor along the river would continue to provide boat launching access to the river. A future high school site is shown at the northern boundary of the planning area which would also be connected to the open space corridor system.

The principal roadways traversing the Village are Gold Rush Boulevard (the Louise Avenue extension west of Interstate 5) and Golden Valley Parkway (designated by the General Plan as Stanford Boulevard). Gold Rush Boulevard will become the major gateway to the Stewart Tract and its commercial recreation attractions from Interstate 5 (I-5). It will also provide a necessary linkage with the existing residential areas and employment centers of the city east of I-5 . Golden Valley Parkway extends through the Village on a north-south alignment parallel to the I-5 freeway and will provide access to the easterly part of the Stewart Tract close to the alignment of the Southern Pacific Railroad. These facilities will be developed as multi-lane expressways with limited access control and the visual appearance of parkways. Golden Valley Parkway will also incorporate right-of-way for public transit, including buses and fixed rail. Transit service is intended ultimately to be comprehensive in its application to meet local and sub-regional needs, with extensions north to Stockton and the Stockton Metropolitan Airport, and west through the Stewart Tract to the City of Tracy.

FIGURE II-1


WEST LATHROP SPECIFIC PLAN AREA
THE PROPOSED STEWART TRACT and MOSSDALE VILLAGE PROJECTS
INCORPORATED AREA and SPHERE OF INFLUENCE
Interstate 5 Freeway
Southern Pacific Railroad
Union Pacific Railroad
Airport Way
Local Access Interchanges
Roth Road
SPHERE OF INFLUENCE
Sharpe Depot
San Joaquin River
Middle River
Levees
Old River
Old River
Lathrop Road
S.P.R.R.
Louise Avenue
MOSSDALE VILLAGE
INCORPORATED AREA
MANTECA
Paradise Cut
STEWART TRACT
Yosemite Ave
Southern Pacific
McKinley
Paradise Road
Paradise Cut
Pacific Railroad
Freeway 120
Woodward Avenue
Tom Paine Slough
I-205 Freeway
TRACY
Union Pacific Railroad
Southern Pacific Railroad
Interstate 5 Freeway
San Joaquin River
Airport Way

PROPOSED LAND USE AND CIRCULATION

Mossdale Village

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LEGEND FOR

WEST LATHROP SPECIFIC PLAN DIAGRAM

STEWART TRACT

- RECREATION COMMERCIAL (C-REC)
- RESORT COMMERCIAL (C-RSRT)
- FREEWAY COMMERCIAL (CH)
- VILLAGE COMMERCIAL (CV)
- REGIONAL COMMERCIAL (CR)
- RESIDENTIAL LOW (R-L)
- RESIDENTIAL MEDIUM (R-M)
- RESIDENTIAL HIGH (R-H)
- PUBLIC (P)
- RESOURCE CONSERVATION/ OPEN SPACE (RCO)

MOSSDALE VILLAGE

- RESIDENTIAL LOW (R-L)
- RESIDENTIAL MEDIUM (R-M)
- SERVICE COMMERCIAL (CS)
- FREEWAY COMMERCIAL (CH)
- WATERFRONT RESORT COMMERCIAL (CW)
- RECREATION COMMERCIAL (C-REC)
- VILLAGE COMMERCIAL (CV)
- PUBLIC (P)

FIGURE II-2

WEST LATHROP SPECIFIC PLAN DIAGRAM

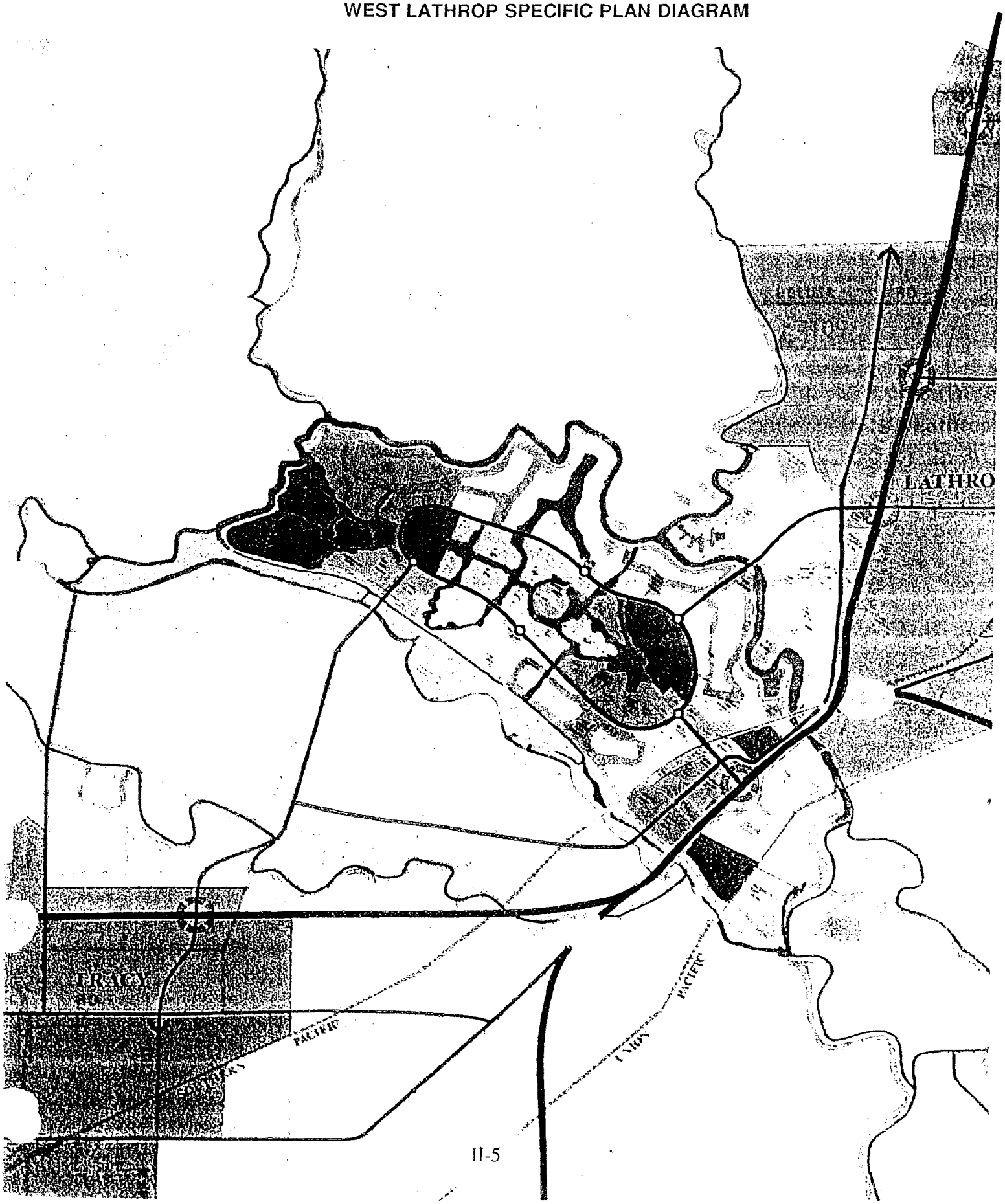


TABLE II- 1

LAND USE DISTRIBUTION, MOSSDALE VILLAGE

TYPE OF LAND USE	ACREAGE
Low Density Residential (ave. 5.5 DU's/Ac.)	442.5
Medium Density Residential (ave. 12 DU's/Ac.)	82.0
Village Center	23.5
Freeway Commercial	20.0
Service Commercial	68.0
Waterfront Commercial	4.0
K-8 Schools/Parks	36.0
High School	50.0
Marina (water only)	18.0
Riverfront Park	20.5
Neighborhood Parks	16.0
Mossdale Crossing County Park	9.0
Open Space	112.0
Waterway	67.0
Internal Streets	134.0
Interstate 5 right-of-way (r-o-w)	45.5
Southern Pacific Railroad r-o-w	13.0
TOTAL	**1,161.0**

Manthey Road currently extends along the west side of Interstate 5 for the length of the City limits from Roth Road on the north to Louise Avenue on the south. From Louise Avenue, it extends southerly to the river, crosses the river onto the Stewart Tract, and terminates at the Mossdale interchange with Interstate 5. Manthey will be utilized for several years to provide access to the Stewart Tract from the Louise Avenue/I-5 interchange as Phase I development of the Stewart Tract proceeds. After Gold Rush Blvd. and Golden Valley Parkway are completed to the Stewart Tract, Manthey would become an access road serving adjacent freeway commercial and service commercial from Louise Avenue to a southern terminus near the river.

The Stewart Tract

Land use and circulation proposals for the Stewart Tract (as shown on Figure II-2 and as listed in Table II-2) reflect relevant policies and proposals of the City's Comprehensive General Plan. The Stewart Tract is a master-planned community integrating an historical theme park, futuristic theme park, water park and wild animal park with recreation-oriented residential villages, activity centers, vacation resorts, shops, entertainment and sports facilities, commercial recreation enterprises, a regional commercial center and business park and lodging.

The Stewart Tract is planned with a focal area of activity inside a circle drive (Califia Drive) -- a looped boulevard which extends over much of the length of the planning area. At the east end of Califia Drive will be the historical theme park -- Gold Rush City. At the west end of Califia Drive will be the futuristic theme park -- "Califia" and the adjacent wild animal park. Situated between these two theme parks will be a series of residential/cultural villages reflecting the diversity of heritage included in the Gold Rush era. The cultural villages are connected to the village center and to the destination resort hotels with a recreational lake system which runs the entire length of the destination resort. The perimeter residential areas are integrated by a system of golf courses, open space corridors and local streets.

The Gold Rush City theme park is proposed as a full scale theme park based on San Francisco circa 1850 and the Gold Rush era. Several individual sub-themes are to be developed, providing a wide range of entertainment opportunities for the entire family. Supporting the two major theme parks will be secondary attractions of a wildlife park and a water park. Other recreational facilities will include hotels, lodgings, sports centers, ranches and camping facilities. Resorts will offer a range of accommodations, from first class, high quality hotel suites and time-share condominiums, to family hostelries, second home vacation units, retirement units and RV camp grounds. Sporting facilities will include horseback riding, cycling, swimming, three+ golf courses and tennis.

Development will take advantage of the proximity of the site to the San Joaquin Delta by offering a 30 acre marina with boating, water skiing, canoeing, fishing, wildlife excursions and other water-related activities. The marina will be developed initially inside the existing levee system on Stewart Tract. Construction will include a new levee constructed within the existing levee system. Once construction of the marina and new inner levee are completed, a portion of the existing levee will be removed to provide direct river access to the marina. A nine acre resort hotel will be constructed in conjunction with and in addition to the 30 acre marina.

A sports stadium (arena), and convention center are planned to provide a variety of entertainment and vacation activities. All of Paradise Cut along the southern boundary of Stewart Tract will be preserved and enhanced as natural habitat for a variety of wildlife native to the area.

TABLE II-2

LAND USE DISTRIBUTION, STEWART TRACT

GEN. PLAN DESIGNATION	TYPE OF LAND USE	ACREAGE
RC (Recreation Commercial)	Gold Rush City Theme Park	174.0
RC	Second Theme Park	102.0
TS	Commuter Park & Ride	14.5
TS	Transit/Multi-Modal Station	9.0
RC	Water Park	40.0
RC	Wildlife Park	266.5
RC	Main St. Entertainment Center	20.0
RC	Specialty/Themed Retail	59.5
RC	Golf Course	571.0
RC	Marina (San Joaquin River)	30.0
RecR (Recreational Residential)	Hotels	181.5
RecR	Motels	39.0
RecR	Chalets	217.5
RecR	RV Park	103.5
RecR	Campground	34.0
VC	Village Center	55.0
VC	Neighborhood Retail	15.0
RegC (Regional Commercial)	Farmers Market	50.0
RegC	Business Park/Transit Commercial	138.0
RecR (Housing)	Low Density Medium Density High Density	851.0 443.5 12.5
OS (Open Space)	Lakes	449.5
OS	Park/Schools	40.0
OS	Paradise Cut	900.0
0S	Levee Open Space	137.2
OS	Other OS	146.0

[Table II-2 cont. Next page]

Table II-2, cont.

GEN. PLAN DESIGNATION	TYPE OF LAND USE	ACREAGE
FS	Fire Stations	2.0
AG	Wastewater Treatment Plant	75.0
Arterial/Collector Street System	Roundabouts Internal Streets	8.0 235.8
I-5 Freeway	I-5 r-o-w	134.0
Southern Pacific RR	S.P.R.R. r-o-w	50.5
Union Pacific RR	U.P.R.R. r-o-w	10.0
	TOTAL SITE ACREAGE	**5,794.0**

Because of the depth and variety of activity, it is anticipated that the average length of stay of visitors to Gold Rush City will be three days. Primary vehicular access from the north at buildout will be from Lathrop Road and Louise Avenue interchanges with Interstate 5 onto Golden Valley Parkway and the Gold Rush Blvd. extensions over the San Joaquin River. Primary access from the west will be from a future Paradise Drive interchange with I-205. Secondary access is proposed at the existing Mossdale interchange with the 1-5/I-205/S.R. 120 "merge" which passes through the easterly edge of Stewart Tract. During Phase I development of Stewart Tract, the existing Manthey Road frontage road, the Mossdale interchange and partial construction of Gold Rush Bouolevard are expected to satisfy requirements for vehicular access to Stewart Tract. Manthey Road would be terminated at Mossdale Crossing County Park at such time as Golden Valley Parkway is extended over the river from Mossdale Village.

Visitors to Gold Rush City will be able to park their cars for the duration of their stays either at the transit station, at the theme parks or at their place of lodging. They will be able to utilize a variety of means of on-site transportation, including high occupancy vehicles such as carriages, gondolas, jitneys, buses, ground rail, overhead rail, and boats of all types (other than high powered) over the network of internal waterways. To diversify the modes of travel to the site, additional transportation facilities include a multi-modal center for rail access via the San Joaquin County proposed Southern Pacific/Union Pacific commuter rail, and potential boat excursion trips from ports and marinas within the San Francisco Bay Area, the Sacramento-San Joaquin Delta and at Sacramento. As part of the regional transportation network, light rail and bus access from the Stockton Metropolitan Airport will also be an option. The proposed commuter park-and-ride facility will provide parking for theme park visitors on weekends as well as for regional commuters on weekdays.

Selected commercial uses are planned for all components of Stewart Tract development. Resorts and commercial recreation and entertainment facilities will provide employment opportunities for residents of the Lathrop area. Village commercial uses will be developed where appropriate to minimize traffic and to encourage pedestrian access. At the waters edge, specialty-theme retail (such as water-oriented) will provide distinctive shopping opportunities. Portions of Stewart Tract will be developed as a business park, a retail complex and a sports facility to be served by various forms of transportation, with full capabilities for telecommunication.

Given the anticipated activities and length of stay, a strong recreational residential element will complement the resorts and theme parks. A variety of recreation-oriented housing types are proposed,

including retirement homes, single-family units and condominiums, and second homes, to be integrated into a total recreation environment to enlarge and create opportunities for a vacation experience. Stewart Tract will also provide for some of its employee housing needs, with emphasis on the needs of executive/managerial personnel and of single individuals. The need for school services generated by this housing demand will be met by agreement with the Banta Elementary and Tracy High School Districts which serve the area covered by the Stewart Tract..

Following the Village concept of residential development established for Mossdale Village east of the San Joaquin River, the full range of recreation-residential use will be integrated by careful landscape architectural and architectural design. Since the goal of Gold Rush City is to provide a unique recreation experience for the family and the individual, a system of parks, championship golf courses, landscaped open space corridors and natural preserves will be included.

Flexibility in Land Use Arrangement and Circulation

Mossdale Village:

Some flexibility in land use arrangement and circulation for Mossdale Village is to be considered inherent in policies and proposals of the Specific Plan because of uncertainty as to how many separate developers may acquire property interests to accomplish final development. Examples of such flexibility include the design of the minor street system, the final location of school/parks, the final design of open space corridors, and the final configurations of various housing types.

Features of the Specific Plan which leave little room for change include the location of the Gold Rush Blvd. and Golden Valley Parkway expressways, the location of the Village Center, the location of Freeway Commercial and Service Commercial areas, and the residential densities prescribed. In the case of residential development, flexibility in housing type is allowed under Planned Unit development concepts of design, while holding generally to the maximum number of housing units allowed by the mix and acreage of residential densities prescribed by the Specific Plan.

Stewart Tract:

Overall flexibility in land use arrangement and use selection is to be allowed for Stewart Tract development because of the length of time expected to accomplish buildout and the uncertainties regarding uses that may not stand the tests of continued market attraction over 25-30+ years. Some of the uses developed during early phases may be changed significantly or replaced, as characteristics of market demand change. Other uses not planned for construction until latter phases of project development may not be developed at all, thus requiring substitutes. The need to allow for such flexibility is sound, as long as substitution of uses is consistent with the overall project conception and mitigation required for resulting environmental impacts. The West Lathrop Specific Plan describes a limited number of alternative land use arrangements which meet these tests. Selected planning alternatives are described at the end of Part II and are evaluated as to their impacts and needed mitigation in Part V.

One of the positive aspects of change expected over time is the potential for better mitigation or even avoidance of environmental impacts anticipated under current technologies. Traffic management and the availability of sophisticated auto and transit systems that are relatively emission-free and congestion-free serve as examples. While such advances in technology cannot be assumed to mitigate impacts under current conditions of project conception and phasing, the prospects for eventually realizing such benefits in the future can be viewed with cautious optimism.

The General Plan addresses the need for flexibility in commercial development by the following statements [see pp 4-A-20 & 21]:

> "Commercial recreation and entertainment attractions which typically will generate the greatest volumes of traffic are to be concentrated in close proximity to the transit and expressway facilities necessary to provide access to Gold Rush City from the freeway system and S.P. Railroad. Key transportation facilities in this regard are: 1) the extension of the Louise Avenue expressway from the northeast onto the Stewart Tract; 2) the extension of the Stanford Boulevard expressway southwesterly from SPA #2 (Mossdale Village) across the San Joaquin River onto the Stewart Tract in close relationship to the alignment of the Southern Pacific Railroad; and 3) the provision of expressway access to the southeast end of the Stewart Tract from Interstate 5 via the State Route 120/Yosemite Avenue interchange.
>
> As suggested previously, the concept of flexibility in the selection of uses to be included in the various commercial recreation attractions becomes a central policy of overriding importance. Similarly, it is an important policy that the location of uses be considered flexible within the general limits of access described under the topic "Commercial Concentrations", above. This degree of flexibility is needed as the market feasibility of use selections becomes better understood and as the most promising physical relationship among uses can be identified. To a lesser but still important extent, flexibility will also be important in the selection and distribution of resort, commercial lodging and recreation residential proposals of the Plan."

The Specific Plan provides abstracts of or references to all relevant statements concerning the character and extent of flexibility that is allowed by the General Plan in developing the Stewart Tract.

WATER RESOURCES

The General Plan requires that development within Stewart Tract and Mossdale Village be withheld until the extent of development to be approved is supported by assurance that a firm supply of water will be obtained commensurate with the amount of urbanization to be provided. The possible need for phasing-in urban water supplies is recognized. To meet this test, the City, in conjunction with the project proponents, has been exploring several approaches for providing water supplies to the planning area, including contracting for surface waters that would be provided by the South San Joaquin Irrigation District, conversion of appropriative rights and riparian rights, and expansion of the City's existing groundwater well system.

The primary options being considered for short-term water supply are the conversion of water rights from agricultural to urban use, or use of ground water from on-site or off-site wells. The Stewart Tract currently has riparian and appropriative water rights for up to 40,000 acre feet per year that could potentially be converted to urban use. Either of these options would require on-site treatment of the water to meet drinking water standards.

An option for providing long-term water supplies would be for the City of Lathrop to participate with the South San Joaquin Irrigation District (SSJID) and the Cities of Tracy, Manteca and Escalon in connection with the acquisition of water and construction of a regional treatment and conveyance system. An initial study by SSJID has demonstrated the merit of SSJID being a major wholesaler of treated water to valley communities, including Lathrop. Negotiations, including engineering and financial feasibility studies, are currently underway between SSJID and the above-listed cities for the acquisition of water supplies and construction of a treatment plant that would be located southeast of the City of Lathrop. Under this option, treated water would need to be transported from the treatment plant to the City of Lathrop and the Specific Plan area. The water supplied by SSJID would be augmented by the City's current or expanded ground-water system.

Other alternatives for long-term water supply include conversion of agricultural water rights to urban use and the use of groundwater from on-site or off-site wells. Either of these options would require on-site treatment of the water to meet drinking water standards.

For further discussion of water resources, see Specific Plan pages 60-66.

WASTEWATER MANAGEMENT

Short-term provision of wastewater treatment capacity for the Specific Plan area involves the expansion of the current 0.6 MGD Kearny Ventures/City of Lathrop sewage treatment plant (the "KV Facility") to 1.2 MGD or larger. 50% of the increased capacity would be allocated to the Stewart Tract and 50% would be allocated to the rest of the City, including Mossdale Village. Detention ponds would be constructed on Stewart Tract as holding areas for the treated effluent from the expanded facility, which would then be sprayed onto Stewart Tract agricultural lands. The expansion of the KV Facility would provide adequate capacity for the City of Lathrop as well as early phases of the Project.

There are three long-term options being considered for provision of wastewater treatment for the Specific Plan area: 1) the Stockton option; 2) the Manteca option; and 3) the Lathrop option:

The Stockton Option. The City of Stockton is currently processing a "can and will serve" letter to the City of Lathrop to provide as much as 10 MGD of wastewater treatment capacity. A draft of this letter is included in the technical appendix to this EIR. Under the Stockton option, effluent from the City of Lathrop, Mossdale Village and the Stewart Tract would be conveyed in a newly constructed force main to existing Stockton sewer interceptors in the area of Weston Ranch, located north of Roth Road along the west side of the I-5 corridor.

The Manteca option. Under this option, the City of Manteca would provide wastewater treatment capacity to the City of Lathrop through the expansion of the Manteca wastewater treatment plant which currently serves the City of Lathrop in part. Provision of service would require an expansion of the Manteca plant and would require the acquisition of land disposal and discharge permits.

The Lathrop option. The City of Lathrop is currently conducting a $250,000 feasibility study directed at permitting and constructing the City's own wastewater treatment facility for long-term needs of urban expansion envisioned by the General Plan. The Specific Plan identifies a 75.5 acre site ("Site 4") for the Lathrop plant at the eastern end of the Stewart Tract bounded by the Union Pacific railroad, Paradise Cut, and the San Joaquin River. (Specific Plan, Figure 8) Alternatively, a second site ("Site 3b") is being investigated, which is located adjacent to the KV Facility. The selected facility would also provide for wastewater reclamation and reuse. Limited expansion of the KV Facility is also being proposed to meet short-term needs of urban expansion within the existing City limits while the City pursues a long-term wastewater treatment capability.

For further discussion of wastewater management, see Specific Plan pages 66-70.

LEVEE SYSTEM

The Specific Plan requires that levees surrounding the Specific Plan area must be designed and constructed to meet standards set by the U.S. Corps of Engineers, the Federal Emergency Management Agency (FEMA), the California Reclamation Board, and the California Department of Water Resources. The levees which border Mossdale Village already meet these standards. The Specific Plan proposes to upgrade the entire levee system around the Stewart Tract to meet current FEMA engineering standards.

An option being considered by the project proponents in this regard involves phasing the upgrades to the Stewart Tract levee system, which would involve the use of on-site "cross-levees."

For further discussion of the levee system, see Specific Plan pages 32-33, and 140 and the Planning Alternatives supplement to the Specific Plan.

DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

Population and economic characteristics of the project are summarized in Tables II-3 and II-4.

Mossdale Village

At buildout, Mossdale Village would have a population of approximately 9,460, and nearly 3,200 housing units. Of total housing, about 2,265 or 70.8% would be Low Density single-family at an average of 5.5 dwelling units per net acre, with the remaining 935 units (29.2%) being Medium Density multi-family at an average of 10 units per net acre..

Non-residential land use would include the Village Center (22.1 acres), Freeway Commercial (21.0 acres), Service Commercial (68.7 acres), specialized Waterfront Commercial (3.7 acres), two elementary school/park sites (36 acres), a future high school site (50 acres) and parks and open space along the San Joaquin River.

Stewart Tract

During the anticipated 30 year period of project construction, several thousand temporary construction jobs will be created. The initial theme park investment is estimated at $200 million; investment in supportive facilities will be in the range of $1 to $2 billion. At buildout, it is conservatively estimated that Stewart Tract development will create up to **17,000 jobs.** Estimates prepared by Economics Research Associates (ERA) indicate that a major investment theme park could reach an annual attendance range of 3.0 to 3.5 million visitors. At this level of investment and attendance, total expenditures would be in the range of **$203-$231 million**, local tax revenues would be in the range of **$8.7-$9.9 million**, and jobs would be created in the range of **4,350-4,950.**

Combined with theme park related impacts, local tax revenues from all Stewart Tract development (at buildout) would range from **$29.5 to $33.7 million** annually, with total theme park employment in the range of **3,750** to **6,900 jobs.**

DEVELOPMENT PHASING

Mossdale Village

The development of Mossdale Village is envisioned in four phases, consistent with probable housing and commercial market demand (as shown on Figure II-3), as follows:

> Phase 1 would involve approximately 830 housing units concentrated on either side of Golden Valley Parkway, with a population of about 2,408. Low density single-family units would comprise about 520 units, or 62.6% of all units. Remaining units (310) would be medium density, involving a variety of housing types ranging from patio homes to garden apartments. A 3.0-acre park, and 12.5 acres of riverfront park will be constructed with adjoining housing.

TABLE II-3

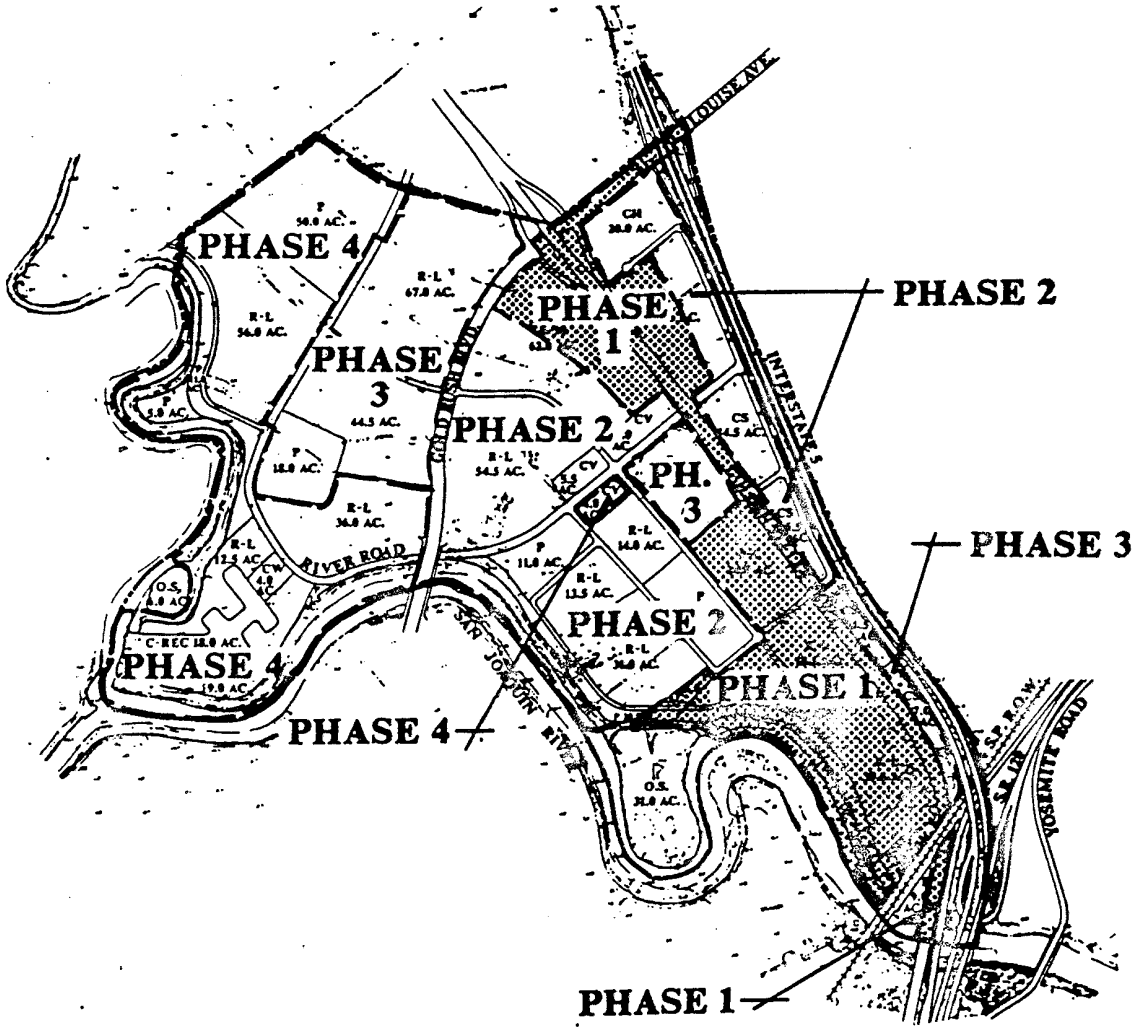
SELECTED PROJECT CHARACTERISTICS, MOSSDALE VILLAGE

CHARACTERISTIC		Residential Uses	Village, Freeway & Service Commercial	COMBINED TOTALS
LAND AREAS				
Land Area	(Acres)	708	116	**824**
RESIDENTIAL USES				
Population		9,459		**9,459**
Housing Units		3,199		**3,199**
Employed Residents		4,923		**4,923**
Average Household Income		$ 57,606		**$ 57,606**
Retail Purchases	($ 000's)	$ 99,645		**$ 99,645**
SHOPPING, OFFICE, INDUSTRIAL & COMMUNITY ("SOIC") USES				
Building Area	(000's sq. ft.)	5,593	902	**6,495**
Employment			1,802	**1,802**
Retail Sales	($ 000's)		$ 104,965	**$ 104,965**
Lodging Units			139	**139**
Lodging Revenues	($ 000's)		$ 2,095	**$ 2,095**
Average Daily Customers			23,549	**23,549**
COMBINED RESIDENTIAL AND "SOIC" USES				
Average Daily Traffic	(Trip ends, 000's)	30.4	42.4	**72.8**
Development Costs	($ 000's)	$ 546,251	$ 74,191	**$ 546,251**
Selected City Revenues		$ 1,063,728	$ 873,961	**$ 1,063,728**

Source: John W. Cone, Project Characteristics, May 1995

FIGURE II-3

MOSSDALE VILLAGE PHASING



APRIL 7, 1995

pbr

Other commercial development would be limited to about 17.5 acres of Service Commercial between Golden Valley Parkway and the Manthey Road frontage road, Golden Valley Parkway would be constructed to a 6-lane divided width with signalized intersections and left turn lanes at intersecting Collector streets providing access to residential areas. Gold Rush Blvd. would be constructed initially between I-5 and Golden Valley Parkway, with an ultimate 6-lane divided roadway with limited direct access. A portion of the 2-lane Collector (River Road) which will run along the levee's edge will be built.

Phase 2 would involve approximately 932 housing units and a population of about 2,734, with 622 units of low density single-family (67%) and 310 units of medium density (33%). Housing would be extended southerly between the San Joaquin River and Golden Valley Parkway, with medium density housing to be concentrated around the Village Center. The second stage of Village Commercial (12.5 acres) would provide for convenience shopping needs of surrounding residents. The nearby 11.0 acre park would also be built. Another 38 acres of Service Commercial and the extension of Gold Rush Boulevard to the San Joaquin River crossing would complete Phase 2. More of River Road would be built along with eight acres of riverfront park.

Phase 3 would add another 813 housing units and a population of about 2,442, with 613 units of low density single-family and 200 units of medium density. Housing areas would fill-in remaining undeveloped medium density housing areas designated by the Specific Plan south of Gold Rush Boulevard, but would primarily be built on land west of Gold Rush Boulevard. The Village Center would be completed (13.5 acres). A second elementary school/park of 18 acres would be added.

Phase 4 would involve approximately 679 low density housing units, including 173 units of marina housing, and a population of about 2,174 on the land nearer the San Joaquin River. Housing is concentrated along the 34 acre open space corridor where River Road would be extended. The Village Center would be completed (4.0 acres). Waterfront Commercial (4.0 acres) would be added to the marina area along with marina housing. The 50 acre high school site would be constructed in Phase 4. The remaining length of River Road and 12.5 acres of riverfront park are also included.

Stewart Tract

Stewart tract development is envisioned in four phases over a period of 30 years, with the first two phases (involving approximately 50% of traffic demand) being constructed and occupied around the year 2010. [See phasing proposals on Figure II-4]

Phase 1 would occur close to initial points of access by rail, Interstate 5 and Golden Valley Parkway. It would center on the 174 acre Gold Rush City Theme Park. Commercial support facilities would include a 40 acre water park, motels on 37.5 acres, 123.5 acres of hotels, a 20-acre entertainment center, themed retail including a 50 acre farmers market, and 376 acres of golf course development constructed with low density residential. The low density residential area totals 393 acres, with 2,162 dwelling units; medium density residential would occupy 125 acres, with 1,000 dwelling units; and, high density residential would occupy 12.5 acres, with 262 dwelling units.. The first stage development of an internal system of waterways will begin. The public areas include a 15.5-acre park, a combined fire/police station on 2.0 acres and a 10 acre park/school. Other uses include a business park (129.5 acres), a transit facility (9.0 acres) and commuter parking on 14.5 acres. Open space of 61.5 acres, a marina on 30 acres, 32 acres of retail, 86 acres of lakes and wastewater treatment plant on 75.5 acres would complete Phase 1.

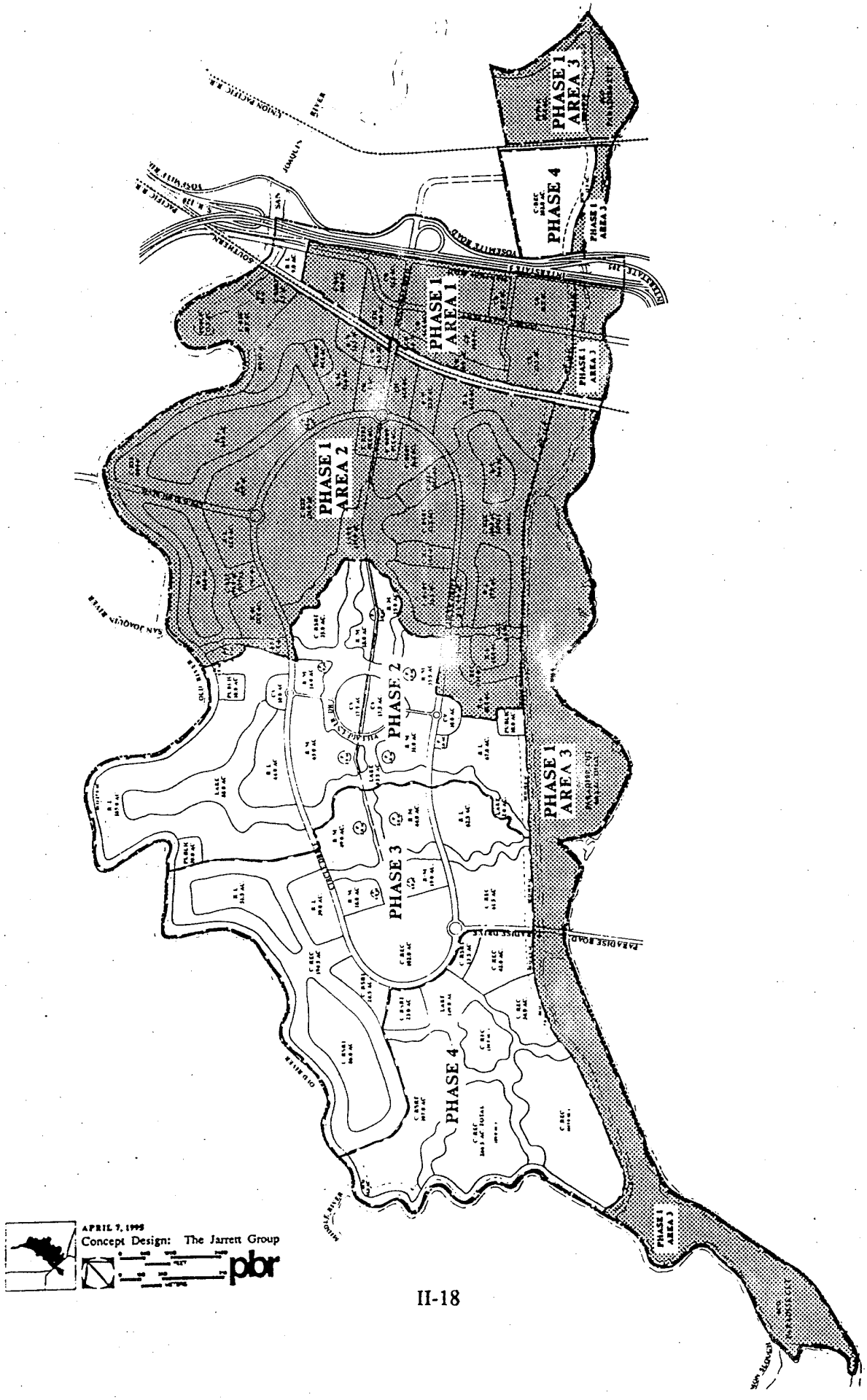
TABLE II-4

SELECTED PROJECT CHARACTERISTICS, STEWART TRACT

CHARACTERISTIC		Residential Uses	Resort & Commercial Areas	COMBINED TOTALS
LAND AREAS				
Land Area	(Acres)	1,139	2,870	4,009
RESIDENTIAL USES				
Population		19,810		19,810
Housing Units		7,170		7,170
Employed Residents		9,300		9,300
Average Household Income		$ 74,200		$ 74,200
Retail Purchases	($ 000's)	$ 94,900		$ 94,900
SHOPPING, OFFICE, INDUSTRIAL & COMMUNITY ("SOIC") USES				
Building Area	(000'S sq. ft.)	18,070	15,628	33,698
Employment			17,050	17,050
Retail Sales	($ 000's)		$ 563,904	$ 563,904
Lodging Units			10,370	10,370
Lodging Revenues	($ 000's)		$ 228,600	$ 228,600
Average Daily Customers			161,770	161,770
COMBINED RESIDENTIAL AND "SOIC" USES				
Average Daily Traffic	(Trip ends, 000's)	62	325	387
Development Costs	($ 000's)	$ 1,830,580	$ 2,328,500	$ 4,159,080
Selected City Revenues		$ 4,213,600	$ 29,540,000	$ 33,753,000

Source: John W. Cone, Project Characteristics, June 16, 1995

STEWART TRACT PHASING



Phase 2 would add commercial and recreation residential facilities. The Gold Rush Boulevard and and Golden Valley Parkway extensions over the San Joaquin River would be added to improve traffic access.

For low density residential areas, 296 acres will accommodate 1,628 dwelling units. Medium density residential will accommodate 1,508 dwelling units on 188.5 acres. A centrally located Village Center on 35 acres will serve all the surrounding housing areas. Three park/schools (10 acres each) and one or two small neighborhood centers totaling 9.0 acres will be distributed among the housing areas. Other facilities will include a 2.0 acre fire station, two 10-acre neighborhood retail sites off Circle Drive, a 35 acre Hotel, 39 acres of open space and 216.5 acres of lakes will complete Phase 2.

Phase 3 housing and lodging will include low density residential of 153 acres and 842 dwelling units, medium density at 130 acres and 1,040 dwelling units, chalets on 110.5 acres and an RV park on 61.5 acres. A golf course (194.5 acres) and a second theme park on 102 acres will provide recreation. Other uses will include four neighborhood centers on six acres, 57 acres of lakes, and 10 acres of open space.

Phase 4 would expand into the westerly end of Stewart Tract, adding a 266 acre wildlife park, 149 acres of adjoining chalets, a 34 acre campground and 42 acres for an RV park next to Paradise Drive. Along Circle Drive a 23 acre hotel and supporting specialty retail on 13.5 acres will overlook the final phase of the lake system -East of the I-5/I-205 "merge", a 102 acre arena/stadium would conclude Phase 4.

The phasing program for Stewart Tract is designed to minimize the impact of urbanization on existing agricultural operations on the Tract, and to allow agricultural operations to continue until the land is needed for development.

INTERCHANGEABLE ALTERNATIVE LAND USE CONFIGURATIONS

Three alternative land use configurations are described by the Specific Plan which are intended to be fully interchangeable with the land use arrangements proposed by the Specific Plan. Two of the alternatives are provided for Mossdale Village and one for Stewart Tract, as follows:

A. A lake oriented housing alternative [Mossdale Village]
B. A "no high school" alternative [Mossdale Village]
C. A marina-oriented housing alternative [Stewart Tract]

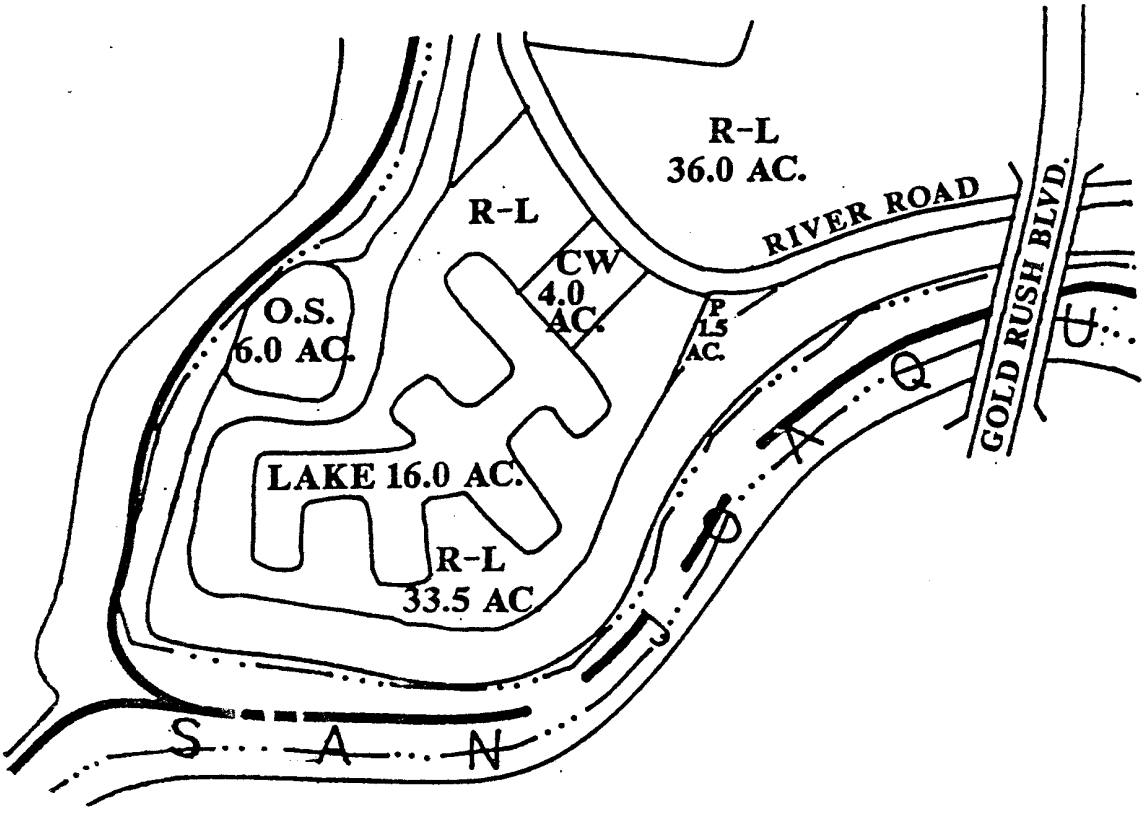
These alternative are described briefly below, and are given supplemental evaluation of their potential impacts and need for mitigation in Part V of this document. It is to be noted that the principal impacts are those affecting traffic. Except for the "no high school" alternative, the total traffic generated is essentially the same as or below the levels assumed for purposes of traffic modeling. As a consequence, primary concerns are with impacts on circulation, levee design and construction, and utility services.

Lake Oriented Housing for Mossdale Village (Land Use Alternative A - See Specific Plan, pp 35-38)

The Specific Plan proposes marina housing along the San Joaquin River at the point where it intersects with Old River. This proposal presupposes the feasibility of setback levee design and flood-proofing that will protect marina housing from periodic changes in river levels. The alternative (see below) is to construct the entire housing area with a lake orientation entirely east of the San Joaquin River levee,

involving about the same number of housing units. This would eliminate any direct interface of housing with the river environment, and would involve only a small in-channel marina along the river.

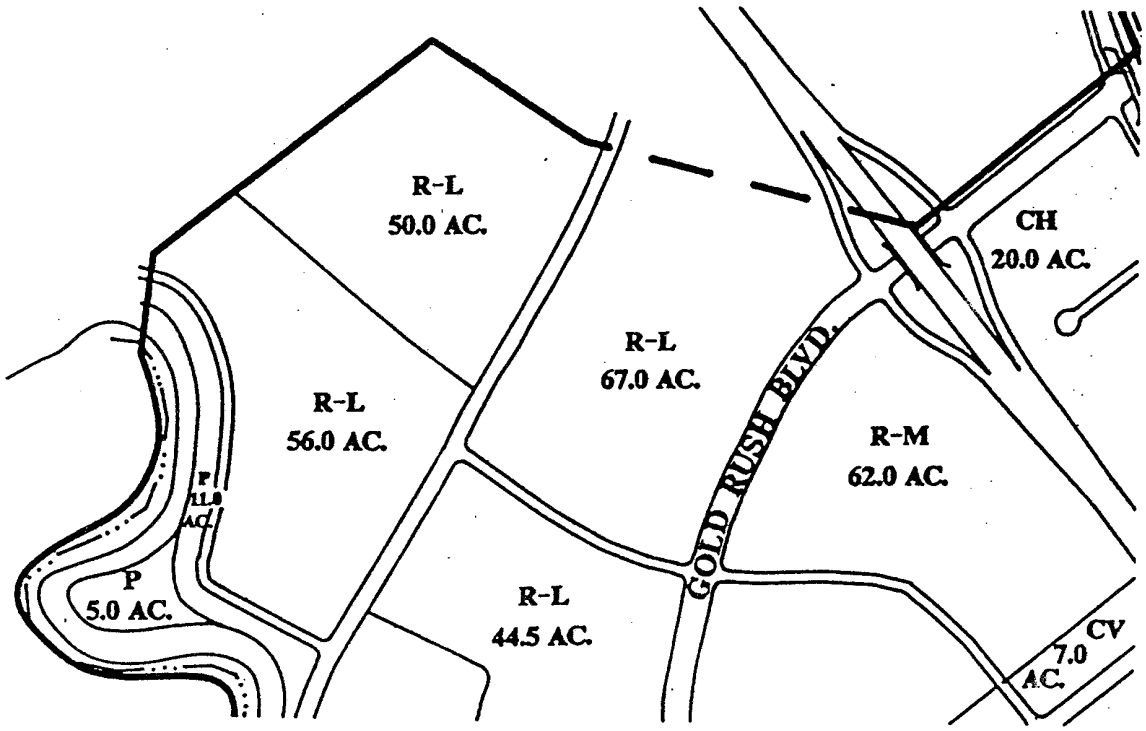
Mossdale Village - Lake Oriented Housing (Land Use Alternative A)



A No High School Alternative for Mossdale Village (See Specific Plan, pp 40-41)

This alternative would be necessitated by a decision of the Manteca Unified High School District not to utilize the property for school use. An appropriate alternative (see below) would be low density housing which would add about 275 housing units to Mossdale Village. Overall traffic generation for low density housing would be in the order of 2,750 trips per day, as compared to about half as much for a high school. However, the major impact of housing would be the addition of peak hour commute traffic to I-205, as compared to virtually no peak hour traffic being added by a high school except for localized high school-related traffic using the freeway system during the AM peak hour.

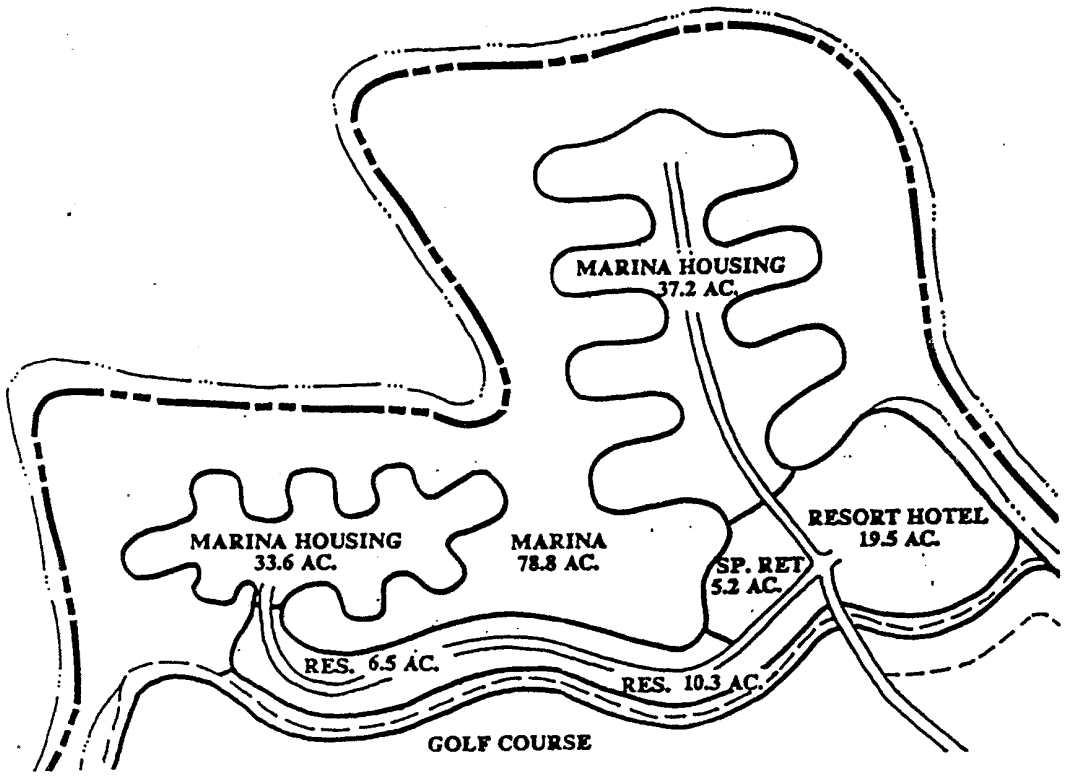
Mossdale Village - No High School (Land Use Alternative B)



A Marina-Oriented Housing Alternative for Stewart Tract (See Specific Plan, pp 47-49)

Located about midway along the Stewart Tract frontage on Old River, this alternative (see below) would substitute a marina oriented housing area for the lake oriented housing area proposed by the Specific Plan. Rather than construct the housing area outside the levee of Old River, it would be constructed inside the river levee. The number of recreation housing units would be about the same as that proposed by the Specific Plan. A 15 acre resort hotel would be located at the entrance to the complex.

Stewart Tract - Marina Oriented Housing (Land Use Alternative C)



ALTERNATIVE E - A LAND USE CONFIGURATION NECESSARY TO MATCH TRAFFIC CAPACITY LIMITATIONS OF THE MOSSDALE INTERCHANGE AND THE MERGE

Introduction

Alternate E has been developed as a separately published Addendum to the Specific Plan to reflect a determination by Caltrans on the maximum amount of peak hour traffic to be allowed to access Stewart Tract from the Mossdale interchange. Caltrans' determination stems from a concern for traffic safety along a freeway section that is already operating with some difficulty, and which can only worsen if Project traffic is allowed to access the freeway without restriction under current conditions.

The two-mile length of the I-5/I-205 merge is, in effect, an elongated freeway-to-freeway interchange. While the Mossdale interchange violates current State and Federal highway design standards, it was constructed originally for the very limited purposes of providing access to nearby agricultural lands and farmsteads, and to small marinas and mobile home parks on either side of the merge along the San Joaquin River. Under this determination, a combination of no more than 1,200 vehicles entering and leaving the site will be permitted, with no opportunity for traffic to access the main part of Stewart Tract which lays west of the S.P. Railroad. This traffic limitation dictates the need for a major alteration in the land use proposed in the vicinity of the Mossdale interchange, which is described here as Alternative E.

Development Concept

As an alternative to the entire Specific Plan, Alternative E ("Alt. E") presents a plan for a multi-faceted regional center for entertainment and recreation. [Note: throughout the discussion which follows, reference to the "Specific Plan" is the Specific Plan document as proposed before Alternative E became a necessity. Technically, Alt. E becomes a component of the original document. It differs from the Specific Plan primarily by land use and circulation proposals for the approximate 450 acres between the freeway merge and the S.P. Railroad, and for the corridor of land along the west side of the railroad extending to the Gold Rush Boulevard bridge over the San Joaquin River..

Like the full array of land use proposed by the Specific Plan, Alt. E includes theme parks, theaters, a regional commercial center, restaurants, sports facilities, shops, resorts, campgrounds, marina and a wildlife park. The regional center will link retail operations with a wide variety of entertainment activities similar in character (if not size) to new trend facilities of this type which have been developed in Los Angeles (City Walk) and Minneapolis (Mall of America). Guest accommodations include resort hotels, motels, chalets, lodges, and condominiums, and employee housing in close proximity to major commercial centers. The central lake system provided as part of the Specific Plan, and Circle Drive, are retained.

Alternative E is shown on Figure II-5, and land use comparisons with the Specific Plan are provided in Table II-5. The business park previously proposed close to the Mossdale interchange has been deleted, and only the 50 acre farmers market remains in this area. Remaining lands between the freeway merge and the railroad would be mostly retained in agricultural use with the exception of commuter and transit parking facilities accessible only from the west side of the railroad. About 280 acres of agricultural land are designated as "urban reserve" in the event that traffic problems associated with Mossdale interchange impacts on freeway operations eventually are solved.

The regional retail/entertainment center will have a high employment ratio with the capability for attracting as many as 8,000 - 12,000 guests per day. Many of these guests will originate from surrounding hotels and other attractions on Stewart Tract. The center will offer a one-stop parking opportunity, connecting with multiple transit modes providing transportation service throughout West Lathrop. A nearby transit center and related parking areas will have a skyway connection to the center. All of the options for non-auto transportation will reduce the amount of new traffic generated within West Lathrop.

The circulation pattern for Alt. E assumes freeway access to the plan area from I-5 via the Louise Avenue interchange and Gold Rush Boulevard, and from I-205 via Paradise Road. The existing buttonhook ramps at the Mossdale interchange will remain for use by surrounding landowners and visitors to the farmers market. No improvements to the existing Mossdale interchange are assumed. Golden Valley Parkway is realigned under this alternative through the southernmost part of Mossdale Village, crossing the river parallel to and west of S.P. Railroad. This alignment would accommodate sufficient right-of-way for a light rail transit facility between the elevated Parkway and the railroad, and would also serve as a levee for flood protection. Eventually, the Parkway is to be extended westerly, connecting with I-205 at a new interchange with Paradise Road. These basic changes in circulation from the Specific Plan result in a modified arterial and collector roadway system in the eastern one-third of Stewart Tract.

Land Use Program

Alternative E is comprised of: 1) a core group of uses related to commercial recreation and entertainment; 2) a wide variety of guest accommodations; 3) village center and other commercial uses; and 4) housing at various densities; and 5) supporting elements including lakes, parks, open space corridors and schools.

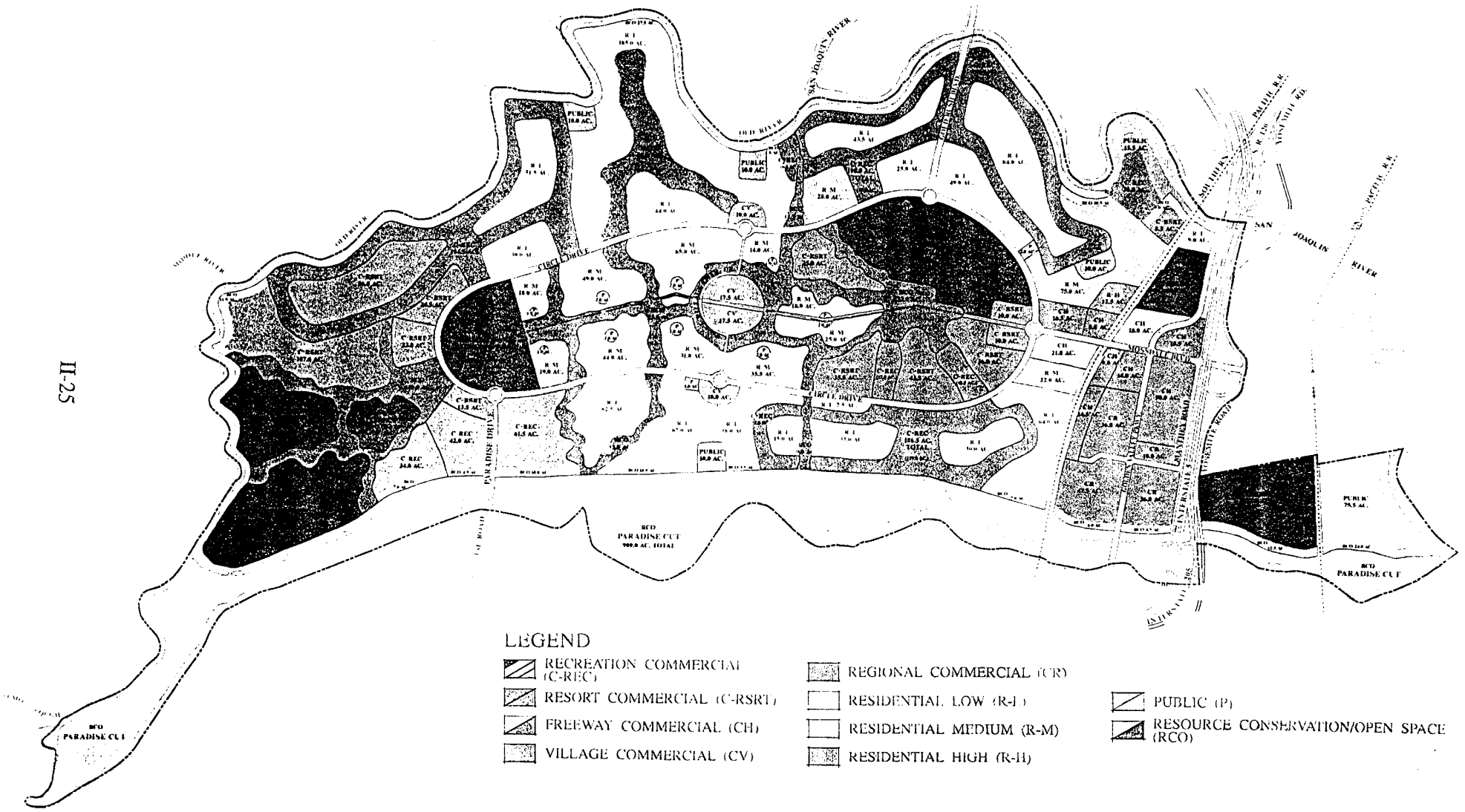


FIGURE II-5

ALTERNATIVE "E", STEWART TRACT
WEST LATHROP SPECIFIC PLAN

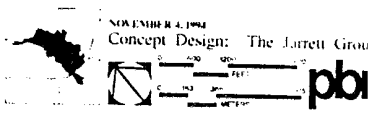


TABLE II-5

COMPARATIVE LAND USE PROGRAMS, ALTERNATIVE "E" v. SPECIFIC PLAN

General Plan Designation	Type of Land Use	Specific Plan [Acres]	Alternative "E" [Acres]	Difference [Acres]
RC - Recreaqtion Commercial	Gold Rush City Theme Park	174.0	174.0	000.0
RC	2nd Theme Park	102.0	102.0	000.0
TS	Commuter Park-and-Ride	14.5	0.0	- 14.5[1]
RC	Water Park	40.0	25.0	- 15.0
RC	Wildlife Park	266.5	266.5	000.0
RC	Main Street Entertainment	20.0	20.0	000.0
RC	Specialty/Theme Retail	59.5	13.5	- 46.0
RC	Golf Course	571.5	571.5	+ 0.5
RC	Marina-S.J. River	30.0	30.0	000.0
RecR - Recreation Residential	Hotels	181.5	181.5	000.0
RecR	Motels	39.0	45.0	+ 6.0
RecR	Chalets	217.5	217.5	000.0
RecR	RV Park	103.5	103.5	000.0
RecR	Campground	34.0	34.0	000.0
VC	Village Center	55.0	55.0	000.0
VC	Neigh. Commer.	15.0	15.0	000.0
RegC - Regional Commercial	Farmers' Market	50.0	50.0	000.0
RegC	Retail/Entertain.	0.0	148.0	+148.0
RecR - Recreation Residential	Low Density Medium Density High Density	842.0 443.5 12.5	690.5 438.5 13.0	151.5 - 5.0 + 0.5
RecR	Business Park Transit Parking	129.5 9.0	000.0 10.0	-129.5 + 1.0

[1] Under Alternative "E", commuter parking is now dispersed among three remote parking lots located north along I-5, east along State Route 120, and west along I-205.

PART III

THE ENVIRONMENTAL SETTING

INTRODUCTION

The description of the environmental setting provides considerable detail on the existing physical conditions affecting the Project site and its surroundings. Further description of existing conditions is provided, as necessary, for each of the impact topics covered in Part V of this EIR.

REGIONAL PERSPECTIVE

The location of the City of Lathrop and the West Lathrop Planning Area in the region is shown on Figure III-1. Lathrop is strategically located at the crossroads of highway, rail, air transportation, water, and electric power facilities which provide access to and/or serve much of the entire State. Lathrop is also located at the southern edge of the Sacramento-San Joaquin Delta, which is perhaps the most ecologically complex and varied region of the State. The Delta contains much of the State's remaining wetlands, significant fisheries and wildlife habitat, productive agricultural lands, water resource facilities important to the statewide system of water distribution, and major recreation resources. As shown on Figure III-4, Lathrop lays in proximity to a series of regional faults which have potential for serious earthquake activity in North-Central California.

LAND USE

Regional Conditions

Lathrop sets in close proximity to the Stockton metropolitan area to the north, the City of Manteca to the east and the City of Tracy to the west. Most of the intervening land is in agricultural use. However, residential, commercial and industrial development has been occurring on either side of I-5 from South Stockton and the unincorporated community of French Camp to Roth Road at Lathrop's north city limits. Major projects have included the Weston Ranch residential community, several small industrial parks and a multi-modal transportation center (on Roth Road). A mixed pattern of older residential acreage, industries and service commercial uses, and vacant parcels limits development opportunity in a number of areas along the I-5 freeway.

When viewed on an even broader scale (see Figure III-1), Lathrop sets in the middle of a large and highly productive agricultural area which comprises the northern part of the San Joaquin Valley and the southern and eastern reaches of the Sacramento-San Joaquin Delta.

Local Conditions

The environmental setting of the West Lathrop Planning Area (see Figure III-2) is dominated by agricultural lands and farmsteads on either side of the San Joaquin River, with a scattering of non-farm residences along Manthey Road close to the River and a small mobile home residential marina at the Manthey Road bridge on Stewart Tract. The Planning Area contains approximately 6,955 acres and is essentially devoid of urbanization. All of the urban development that has occurred in the vicinity in recent years has involved residential, freeway commercial and industrial expansion within the Lathrop City Limits east of Interstate 5.

Table II-5, continued

General Plan Designation	Type of Land Use	Specific Plan [Acres]	Alternative "E" [Acres]	Difference [Acres]
UR - Urban Reserve	**Urban Reserve**	000.0	382.0	**+382.0**
RecC - Recreation Commercial	**Arena**	102.2	000.0	**-102.2**
FC - Freeway Commercial	**Mixed Commer./ Retail**	000.0	17.5	**+ 17.5**
RecR - Recreation Residential	**Low Density** **Medium Density** **High Density**	842.0 443.5 12.5	690.5 4 38.5 13.0	**-151.5** **- 5.0** **+ 0.5**
R	Exist. Residential	9.0	9.0	000.0
OS - Open Space	Lakes	508.5	420.5	**- 88.0**
OS	School - Parks	40.0	40.0	000.0
OS	Paradise Cut	900.0	900.0	000.0
OS	Levee OS	137.2	137.2	000.0
OS	Other OS	146.0	147.0	**+ 1.0**
Public	**Park**	15.5	25.0	**+ 9.5**
FS	Fire Stations	4.0	4.0	000.0
WWM - Wastewater Management	Wastewater Treat-ment Plant	75.5	75.0	000.0
Arterial/Collector Street System	**Round-a-bouts** **Internal Streets**	8.0 235.8	8.6 223.0	**+ 0.6** **- 12.8**
I-5 Freeway	**I-5 right-of-way**	134.0	139.0	**+ 5.0**
S.P. Railroad	**SPRR r-o-w**	50.5	51.2	**+ 0.7**
U.P. Railroad	UPRR r-o-w	10.0	10.0	000.0
TOTAL SITE ACREAGE		5,794.0	5,794.0	000.0

The Alt. E land use program (see Table II-V) differs from the Specific Plan in three primary ways: 1) the business park has been replaced by an urban reserve designation because of projected limitations in access from the Mossdale interchange; 2) A Phase 1 residential/golf course area has been replaced with a regional commercial retail/entertainment designation which diversifies the land use program; and 3) the arena site east of I-5 has been replaced with an urban reserve designation. The access changes have caused a changed in Project phasing assumptions, such that the phasing plans for Mossdale Village and Stewart Tract described in Chapter VII - Implementation of the Specific Plan also have changed. These three primary land use changes have necessarily led to a rearrangement of some of the other uses, as described below.

In the 450 acre corridor between I-5 and the S.P. Railroad, most of the acreage has been designated Urban Reserve. Exceptions are the existing 9.0 acres of existing residential along the river and the 50.0 acre farmers market near Mossdale Road which remain unchanged. Under Alt. E, the park-and-ride has been removed from the site to three locations at interchanges along the freeway system outside of West Lathrop. A 10 acre transit-parking area formerly located near the business park has been relocated to the northerly corner of the corridor.

Under Phase 1, most of the land immediately west of the S.P. Railroad has been rearranged along with the supporting street system. Only the 30 acre marina along the river near the S.P. Railroad remains unchanged. As a minor modification, the public park that wraps around the marina along the levee is reduced slightly to 15.0 acres. The adjoining hotel and transit station occupies 9.0 acres. A new park has been created next to the marina involving 10 acres. Adjoining those uses to the south are the water park, a 14 acre motel site and 13 acres of high density residential. A medium density residential site close by occupies 92 acres, along with a 10 acre school/park. The former alignment of Mossdale Drive has been shifted to the south, creating a low density residential area on a 60 acre site.

A regional commercial retail/entertainment complex is located on a 148 acre site between the complex of use described above and Gold Rush Boulevard. Along the westerly edge of Gold Rush Boulevard are three sites for highway commercial use. The 17.5 acre site at the intersection of Gold Rush Boulevard and Circle Drive is intended for mixed commercial/retail activities. The other two sites of 15.5. acres each are designated for motel use. The two acre fire station has been placed next to the mixed retail/commercial site on Circle Drive. These uses replace 134 acres of low density residential and 105 acres of golf course. Along the northern perimeter of the plan area, a lake of 88 acres has been converted to 105 acres of golf to off-set the loss of golf acreage resulting from creation of the regional commercial retail/entertainment center. That acreage, combined with 88.5 acres of golf closer to Gold Rush Boulevard creates space for a full 18 hole course. In the process, 229 acres of low density residential is reduced to 214 acres for development under Phase 2.

Within Circle Drive, the 20 acre Main Street entertainment center has been moved to become a focal point along a new street linking the hotel/transit/marina complex with the Gold Rush City Theme Park. Along this corridor, the skyway system has been rerouted to connect these uses, with an added skyway linkage into the regional commercial center. Although there are no further acreage changes within Circle Drive, a 36 acre resort hotel has been moved from near Mossdale Drive to a location along Circle Drive just west of its intersection with Gold Rush Boulevard.

The arena formerly planned east of the I-5/I-205 merge on 102 acres is redesignated as urban reserve under Alt. E. Combined with the 280 acres of urban reserve created west of the freeway merge, the total area devoted to urban reserve is 382 acres.

Except for the changes described above, Alternative E and the Specific Plan remain the same. The environmental consequences of these changes are described at the end of Part V of this EIR. As noted in Part I - Executive Summary, the changes result in important reductions in traffic and air quality impacts otherwise would be experienced under the Specific Plan as proposed without Alt. E.

Demographic and Economic Characteristics

Population and economic characteristics of Alternative E (Stewart Tract) are summarized in Table II-6. The selected socio-economic characteristics presented in Table II-6 can be compared with those for the Stewart Tract part of the Specific Plan as originally proposed [see Table II-4, p.II-17]. Since the characteristics for Mossdale Village remain essentially unchanged under Alternative E, the description which follows relates only to the Stewart Tract.

The job creation and level of capital investment required under Alternative E will rival that for the Specific Plan as proposed. Important downward changes will occur in several of the indexes as the result of less land to be developed and less acreage in commercial development, including population, housing, employed residents, retail purchases, building areas, retail sales and average daily traffic. Increases are expected for retail sales, lodging units, and selected City revenues. The reductions in traffic will produce corresponding decreases in air pollutant emissions; the reductions in developed land area will retain more land in agricultural use as foraging habitat for the Swainson's Hawk.

Development Phasing

The proposed phasing of development for Mossdale Village and Stewart Tract is depicted on Figures II-6 and II-7, respectively.

SUBSEQUENT PROJECTS WHICH MAY QUALIFY FOR LIMITED ENVIRONMENTAL REVIEW

This Environmental Impact Report (EIR) is designed to allow the City, and other agencies, to reduce the scope of environmental review of subsequent projects that will be consistent with the Specific Plan. In consideration of the level of environmental analysis provided in this document, many of the different types of land use proposed may singly, or in combination, qualify for reduced environmental review under this EIR. Under Section 15182 of CEQA Guidelines, residential projects which are covered adequately by a Specific Plan (and Plan EIR) may be exempt from further environmental analysis, as follows:

15182

a) Exemption. Where a public agency has prepared an EIR on a specific plan after January 1, 1980, no EIR or Negative Declaration need be prepared for a residential project undertaken pursuant to and in conformity to the specific plan if the project meets the requirements of this section.

b) Scope. Residential projects covered by this section include but are not limited to land subdivisions, zoning changes, and residential planned unit developments.

c) Limitation. This section is subject to the limitation that if after the adoption of the specific plan, an event described in Section 15162 should occur, this exemption shall not apply until the city or county which adopted the specific plan completes a subsequent EIR or a supplement to an EIR on the specific plan. The exemption provided by this section shall again be available to residential projects after the Lead Agency has filed a Notice of Determination on the specific plan as reconsidered by the subsequent EIR or supplement to the EIR.

TABLE II-6

SELECTED PROJECT CHARACTERISTICS UNDER ALTERNATIVE E, STEWART TRACT

CHARACTERISTIC		Residential Uses	Resort & Commercial Areas	COMBINED TOTALS
LAND AREAS				
Land Area	(Acres)	983	2,210	3,193
RESIDENTIAL USES				
Population		17,025		17,025
Housing Units		6,307		6,307
Employed Residents		7,902		7,902
Average Household Income		$ 73,900		$ 73,900
Retail Purchases	($ 000's)	$ 83,200		$ 83,200
SHOPPING, OFFICE, INDUSTRIAL & COMMUNITY ("SOIC") USES				
Building Area	(000'S sq. ft.)	15,850	14,990	30,840
Employment			16,650	16,650
Retail Sales	($ 000's)		$ 754,000	$754,000
Lodging Units			10,490	10,490
Lodging Revenues	($ 000's)		$ 229,800	$ 229,800
Average Daily Customers			165,700	165,700
COMBINED RESIDENTIAL AND "SOIC" USES				
Average Daily Traffic	(Trip ends, 000's)	53	318	371
Development Costs	($ 000's)	$ 1,607,800	$ 2,214,800	$ 3,822,600
Selected City Revenues		$ 3,698,200	$ 31,376,400	$ 35,07[illegible]00

Source: John W. Cone, Project Characteristics, June 16, 1995

FIGURE II-6

MOSSDALE VILLAGE PHASING UNDER ALTERNATIVE E

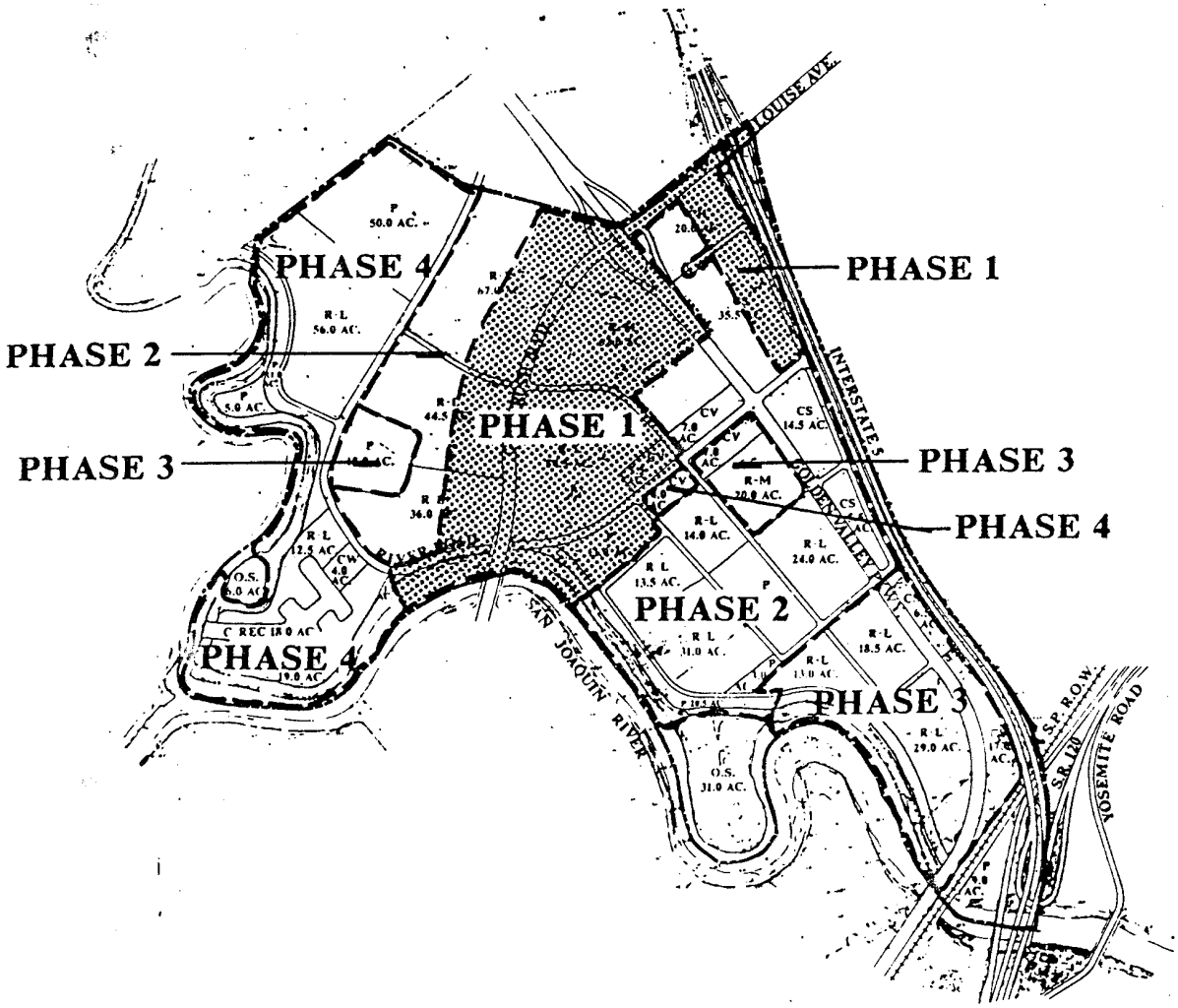
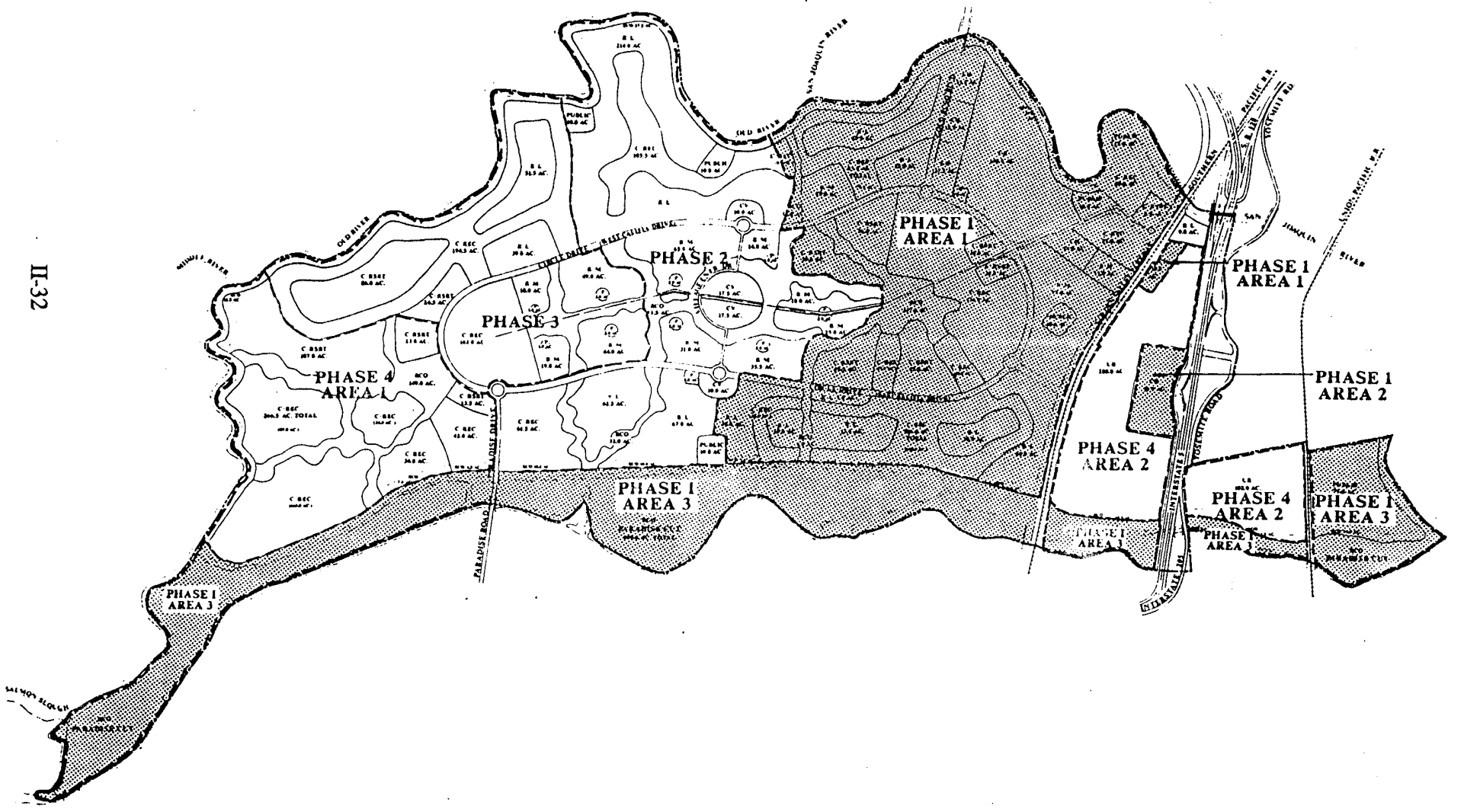


FIGURE II-7

STEWART TRACT PHASING UNDER ALTERNATIVE E



A companion Section of CEQA Guidelines (Section 15181) also allows approvals for the construction of neighborhood commercial facilities with the use of the EIR on the specific plan. Whether or not a subsequent project qualifies under Sections 15181 and 15182 of CEQA Guidelines, all subsequent projects will be subject to review in the form of an Initial Study at the time of submitting applications to the City for development regulation review and approval. The Initial Study shall be prepared in accordance with guidelines and requirements of the California Environmental Quality Act (CEQA), as amended. The Initial Study shall provide the following:

1. An analysis of whether the subsequent project may cause any significant effect on the environment not previously examined in the EIR.

2. A determination of whether the subsequent project was described in the EIR as being within the scope of the Specific Plan.

For projects which qualify under CEQA Sections 15181 and 15182, that the proposed subsequent project will have no "additional significant effect on the environment" that was not already identified in the Specific Plan EIR, and that no new or additional mitigation measures or alternatives are required, the City's Lead Agency review would be complete if accompanied by a written finding stating that the proposed subsequent project is "within the scope of the project covered by the Specific Plan EIR"

FIGURE III-4-A

EXISTING PM PEAK HOUR SUMMER, 1993, TRAFFIC VOLUMES

Along I-5 North of SR 120 and SR 120

(Friday, 4:00 - 5:00 PM)

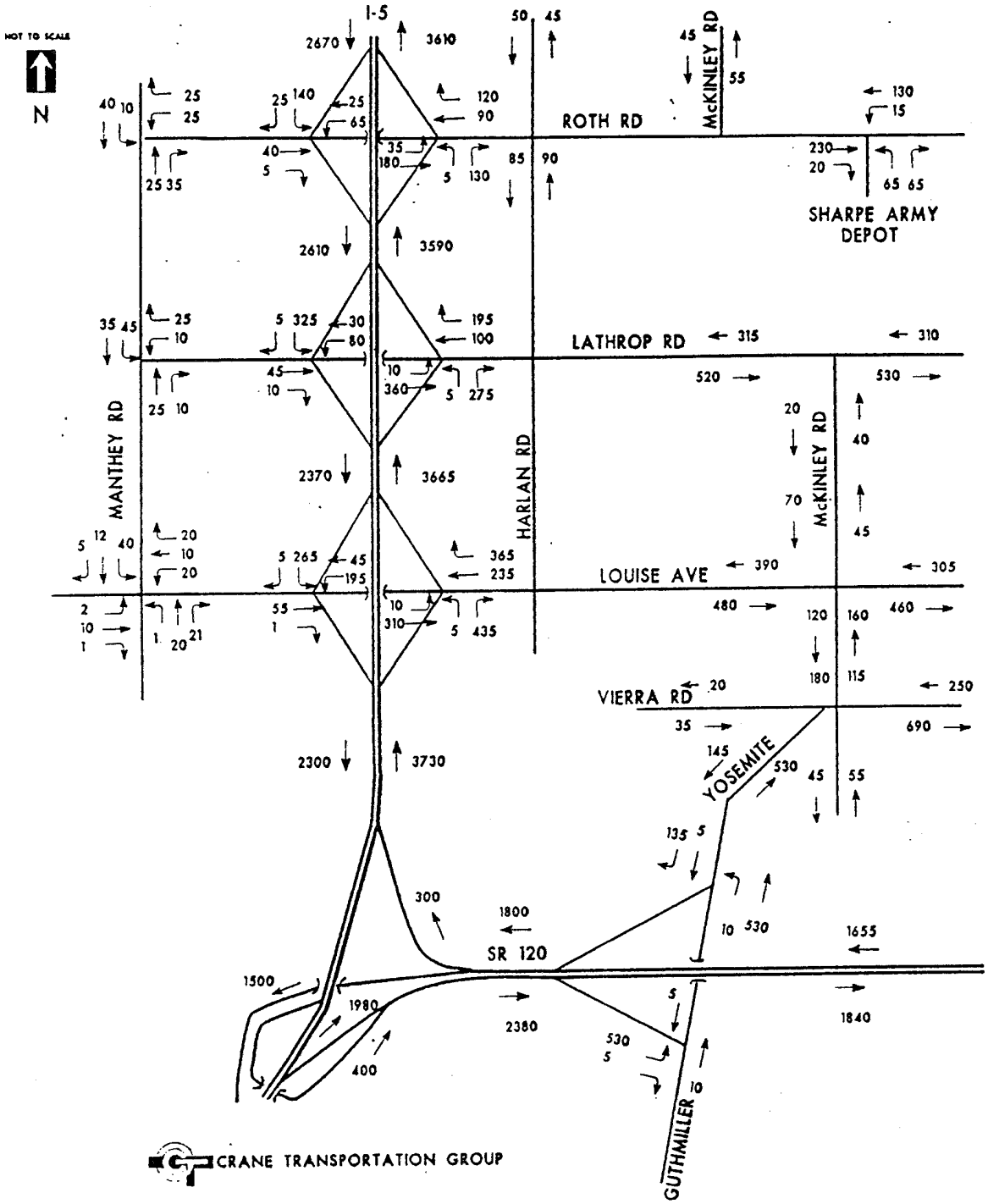
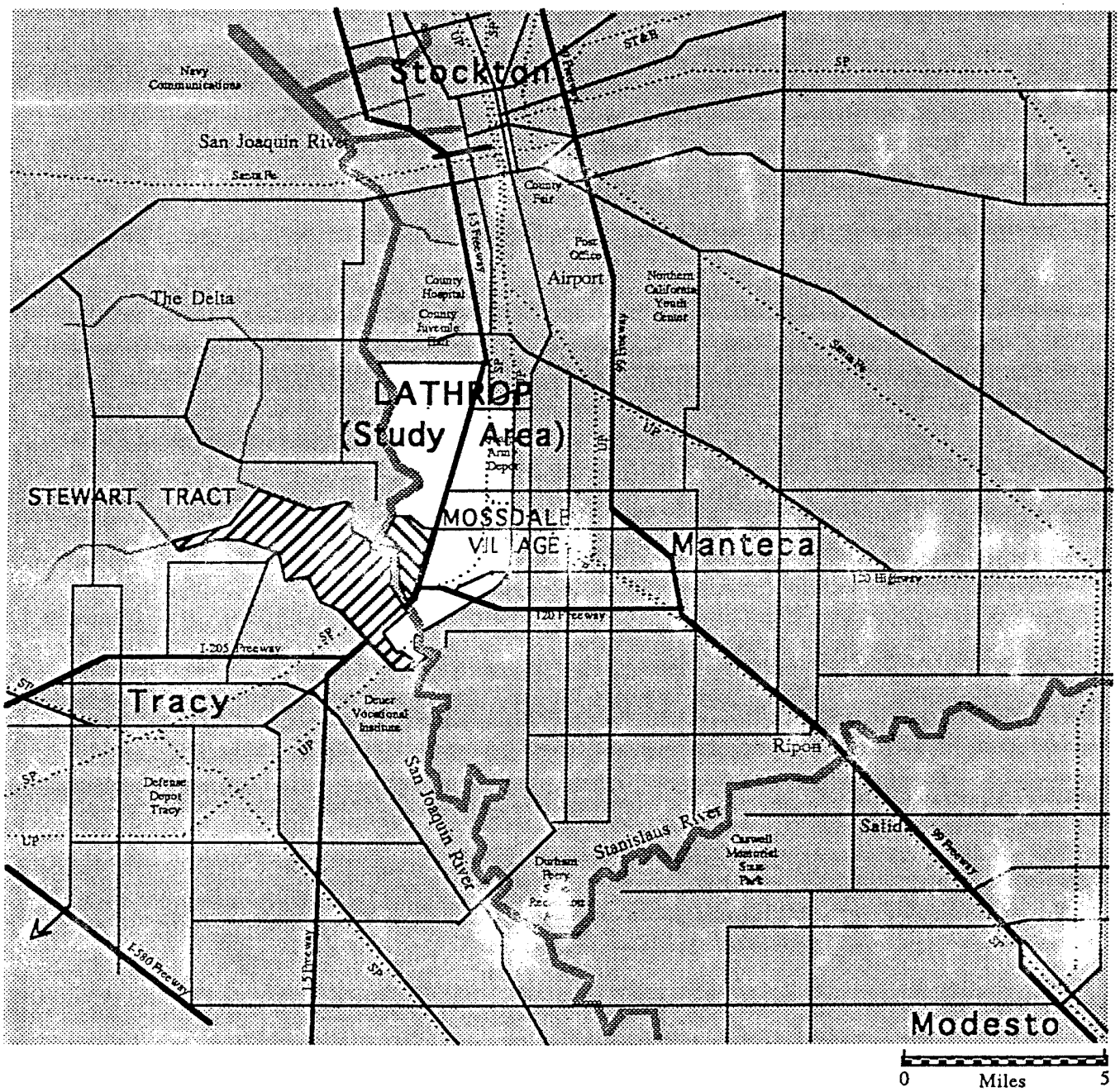


FIGURE III-1

LOCATION IN THE REGION

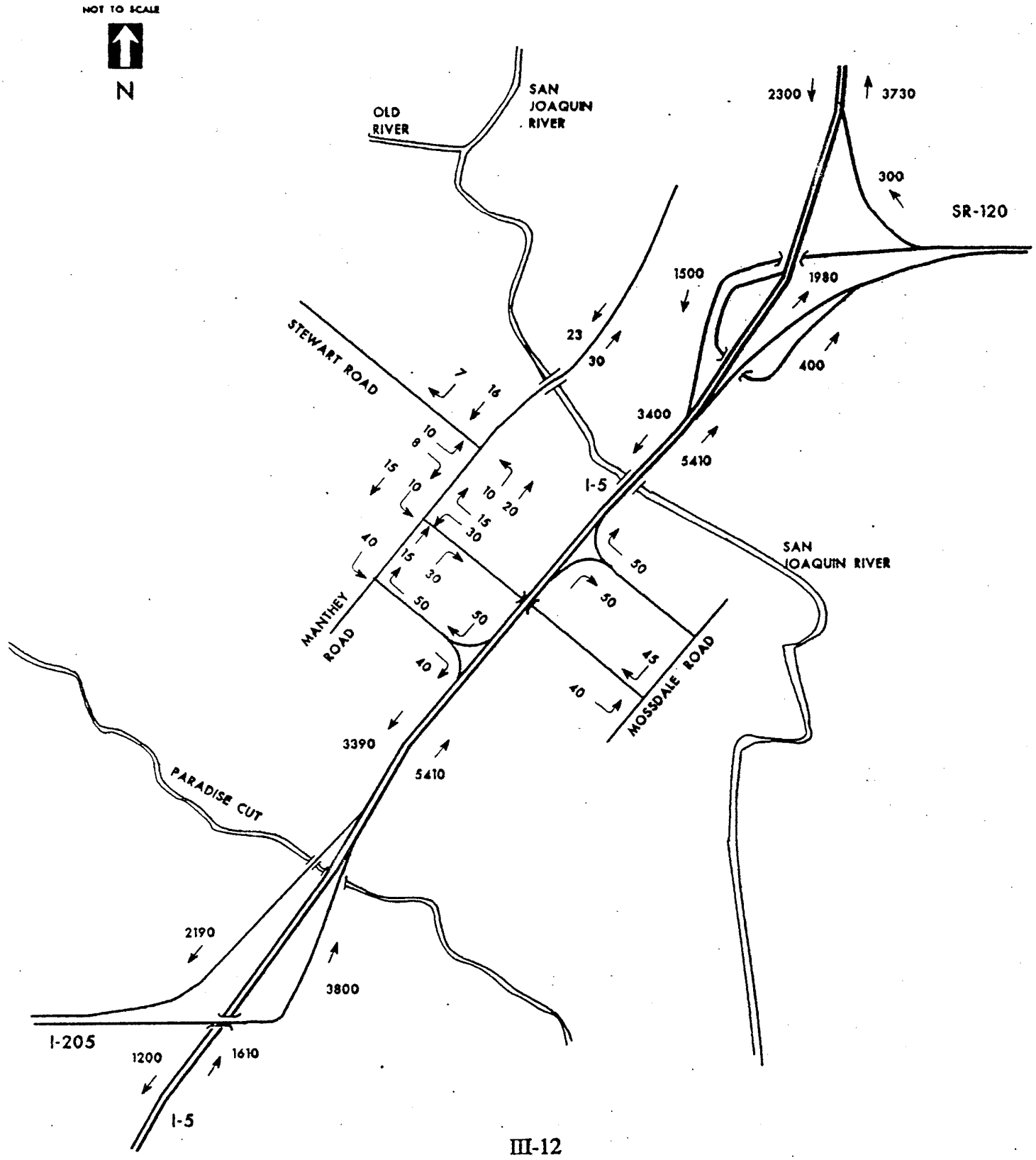


Grunwald & Associates ... JWC

FIGURE III-4-B

EXISTING PM PEAK HOUR SUMMER, 1993, TRAFFIC VOLUMES

Along I-5 From I-205 To SR 120, Including Manthey and Mossdale Ramps
(Friday, 4:00 - 5:00 PM)



CRANE TRANSPORTATION GROUP

FIGURE III-4-C

EXISTING AM PEAK HOUR SUMMER, 1993, TRAFFIC VOLUMES

Along I-205 West of I-5 and I-5 South of I-205
(Friday, 4:00 - 5:00 PM)

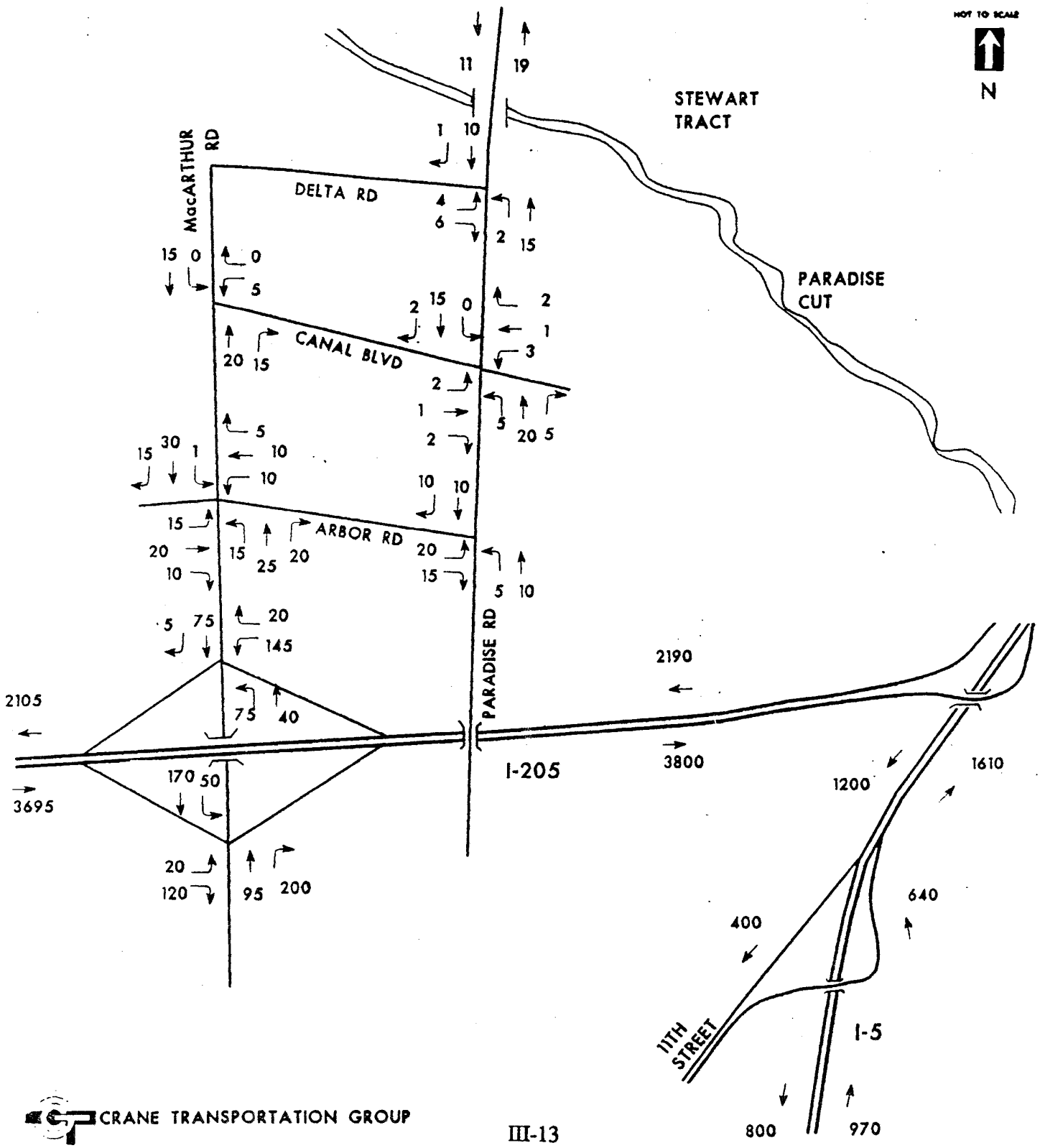


FIGURE III-5-A

EXISTING SATURDAY PEAK HOUR SUMMER, 1993, TRAFFIC VOLUMES
Along I-5 North of SR 120 and SR 120
(11:00 AM - 12:00 PM)

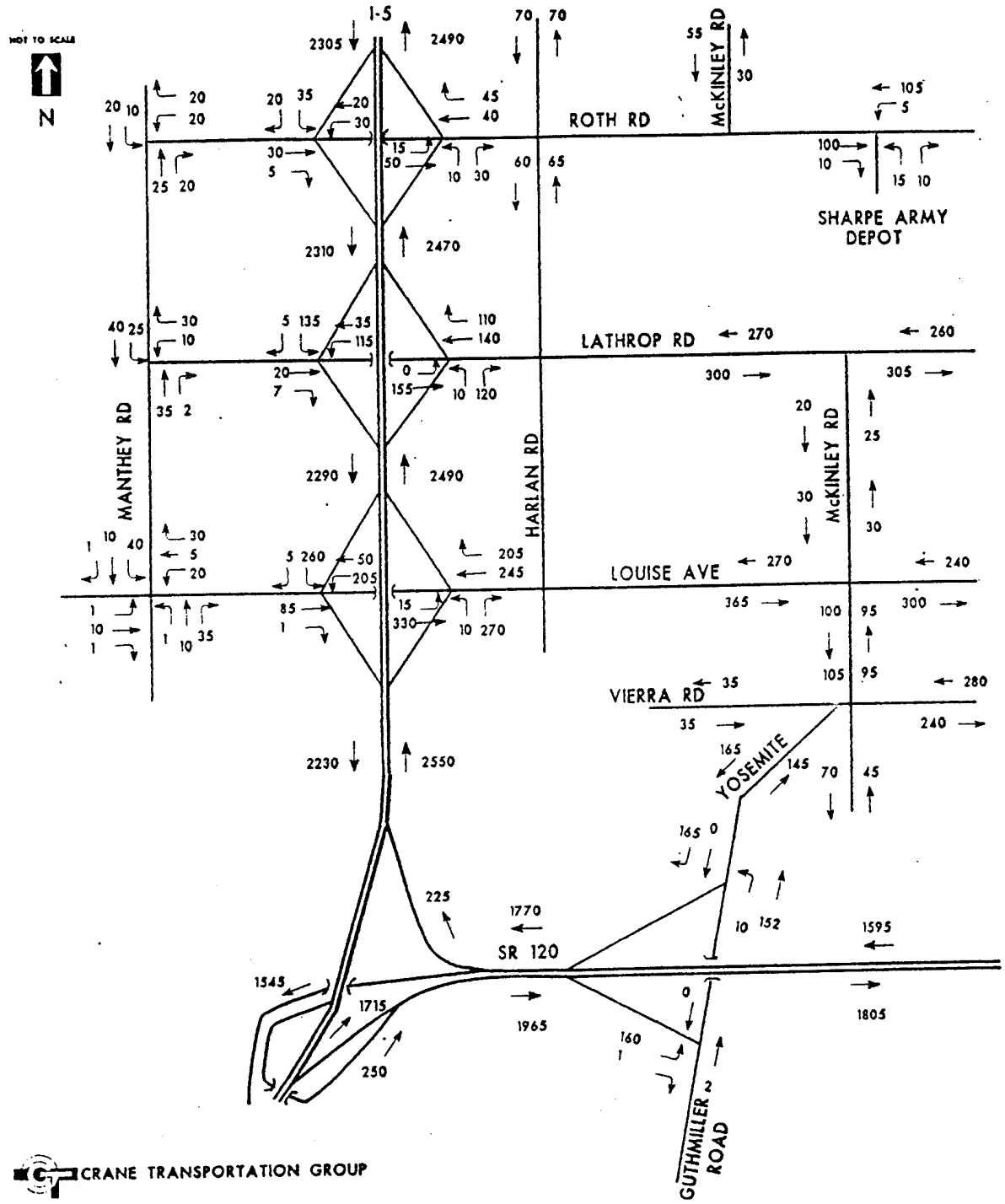


FIGURE III-5-B

EXISTING SATURDAY PEAK HOUR SUMMER, 1993, TRAFFIC VOLUMES

Along I-5 from SR 205 to SR 120, Including Manthey and Mossdale Ramps
(11:00 AM - 12:00 PM)

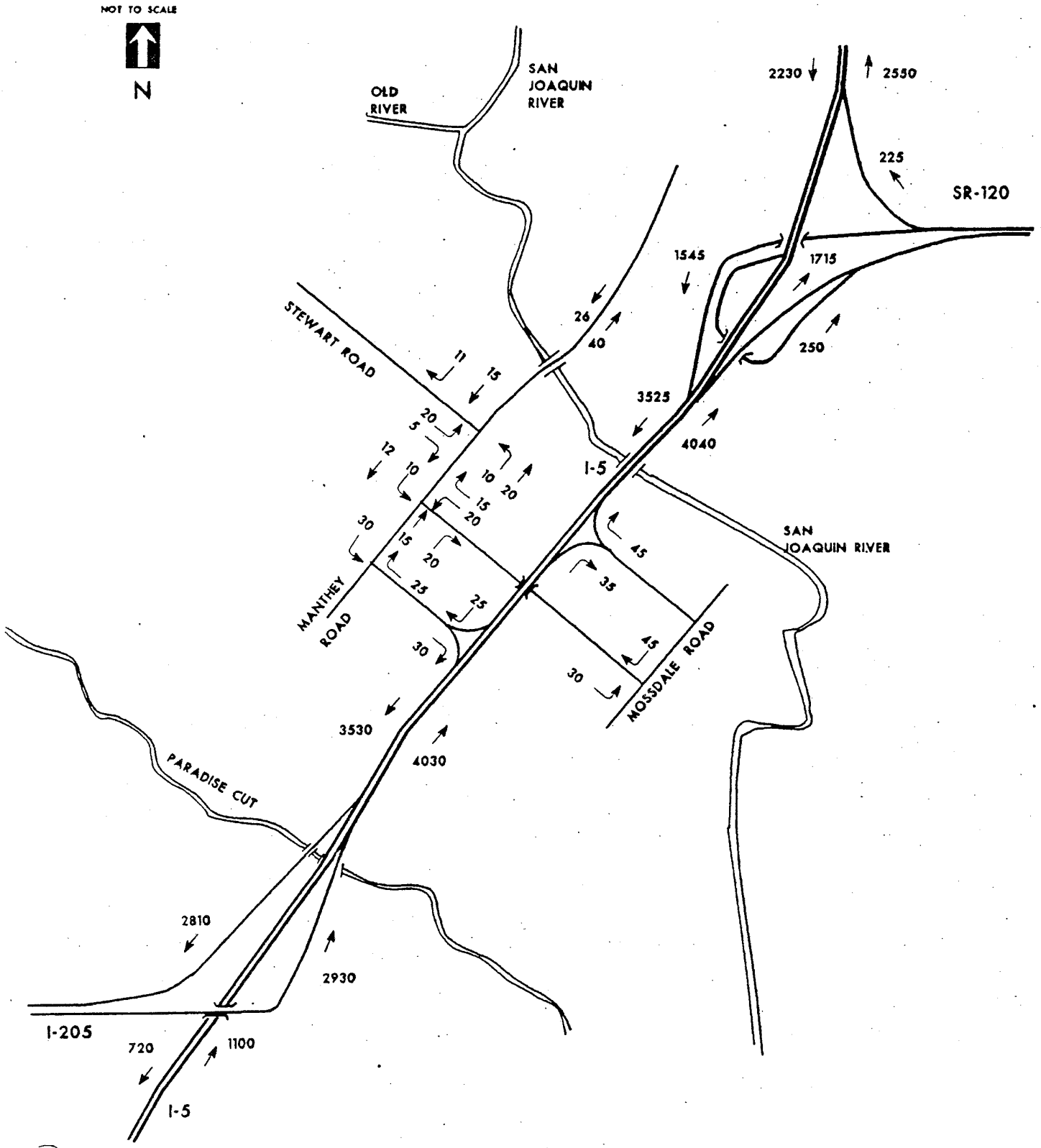
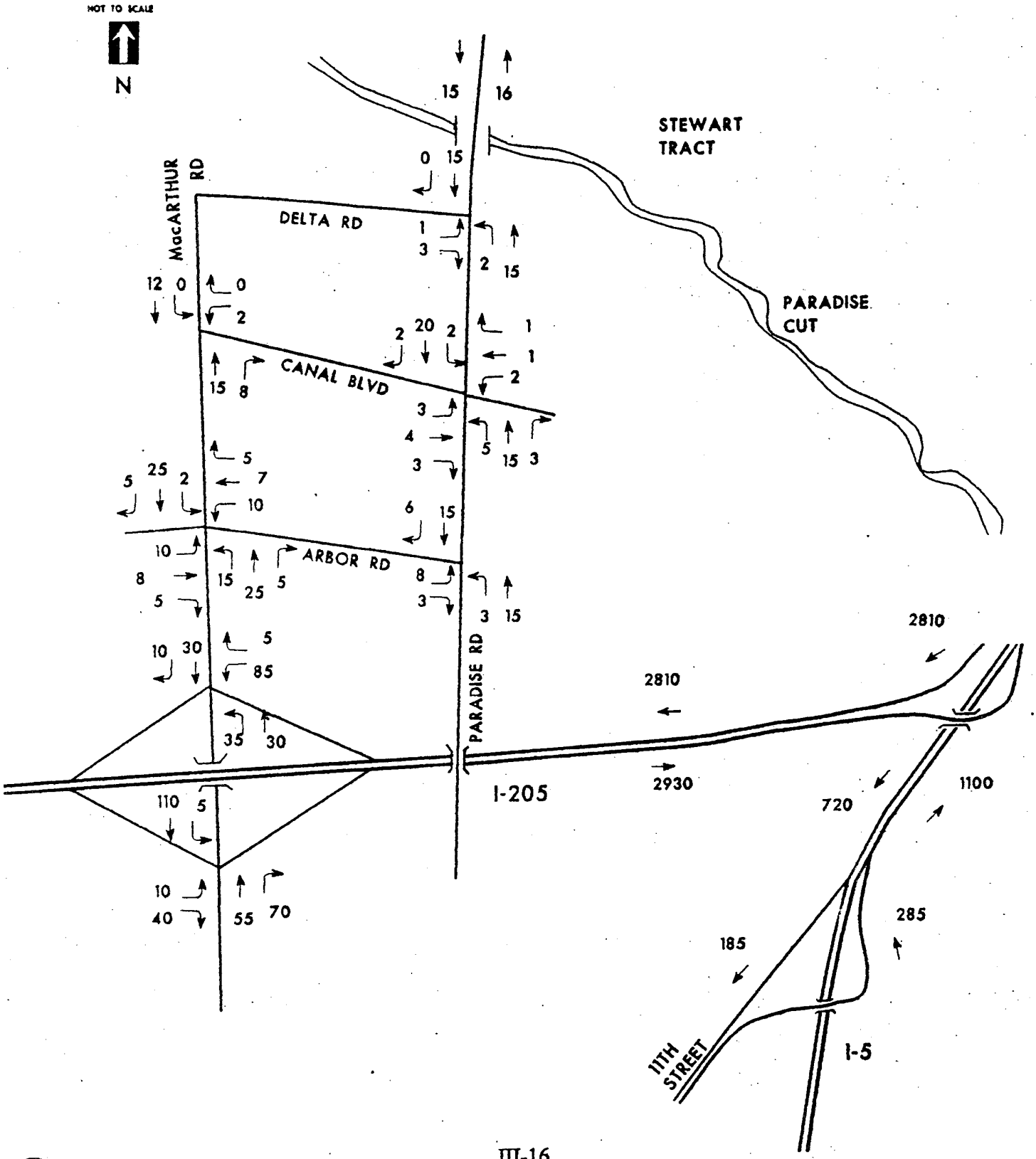


FIGURE III-5-C

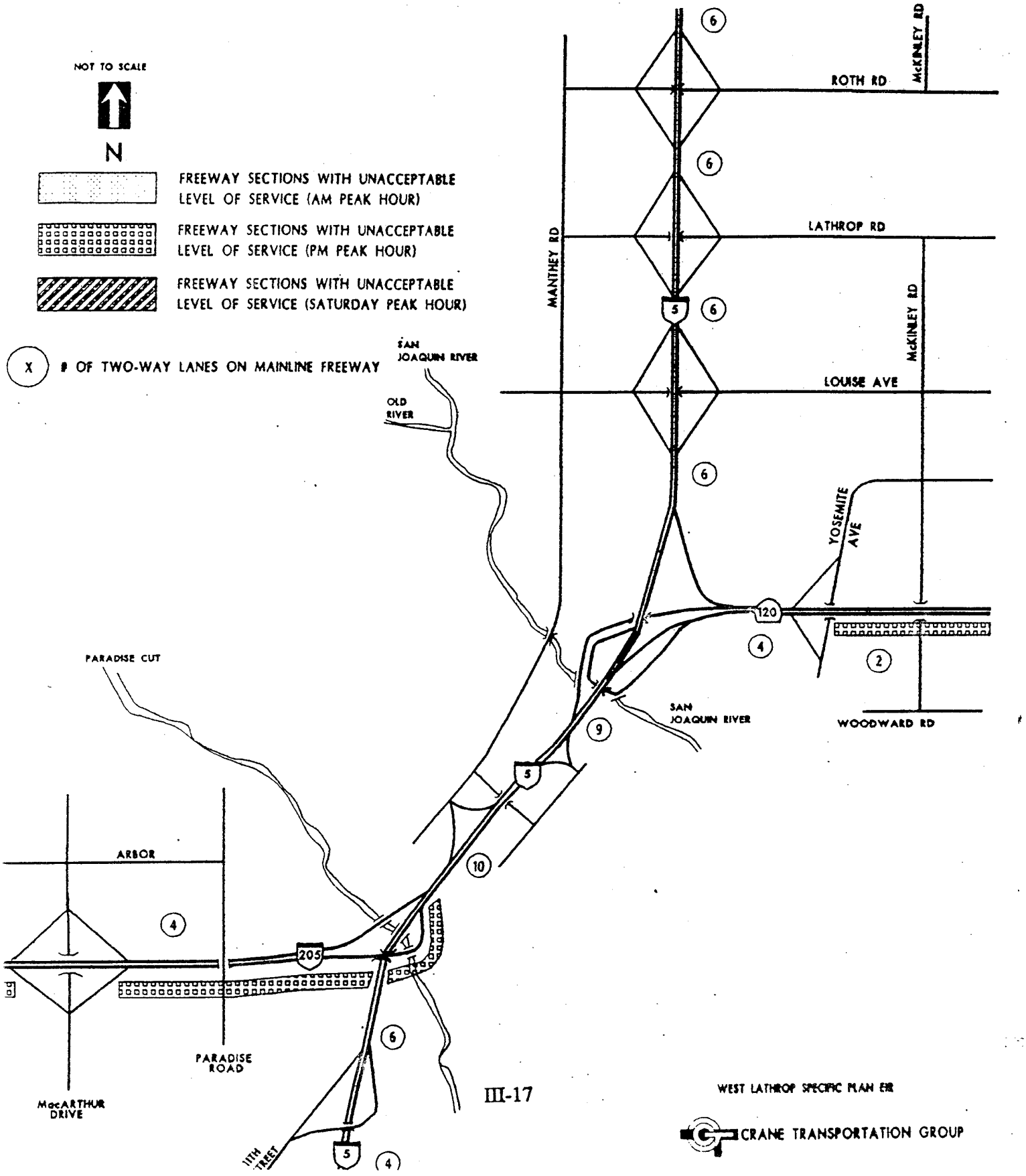
EXISTING SATURDAY PEAK HOUR SUMMER, 1993, TRAFFIC VOLUMES
Along SR 205 West of I-5 and I-5 South of SR 205
(Saturday 11:00 AM - 12:00 PM)



CRANE TRANSPORTATION GROUP

FIGURE III-5-D

EXISTING UNACCEPTABLE LEVEL OF SERVICE
WEEKDAY AND SATURDAY AM/PM PEAK HOUR VOLUMES



Existing Circulation System Concerns

1. The roadway system on Stewart Tract has poor pavement condition in may locations. Road widths are minimal and shoulder areas non-existent in most areas. Many roadway curves have minimal radii of curvature, requiring vehicles to slow to 10-20 mph.

2. The Manthey Road bridge across the San Joaquin River is 24' wide, with a pedestrian walkway on the east side of the bridge. Bridge travel lanes do not meet current AASHTO design standards.[5]

3. The design of the existing Mossdale interchange hook ramps connecting to I-5 (horizontal and vertical curvature and acceleration area) does not allow some on-ramp vehicles to accelerate to the prevailing 65-70 mph speeds on the mainline freeway, particularly for RV's and trucks.

Transit Service

Currently, the following fixed route transit service is provided within and to/from the City of Lathrop:

1. County Area Transit (CAT) provides weekday service with one route between Lathrop and the hospital in French Camp (to the north) and between Lathrop and the shopping areas in Manteca (to the east). Buses make five northbound trips per weekday from 7:00 AM to 4:30 PM. Transfers can be made at the County Hospital to the Stockton Metropolitan Transit District Route #1 for travel to/from downtown Stockton.

2. The San Joaquin County Regional Transit Agency (SMART) provides fixed route regional service connecting Tracy to Lodi via Stockton and Lathrop (Route #20). Buses travel east of I-5 on Louise Avenue, Lathrop Road and 5th Street (in Lathrop). Eleven buses each weekday serve Lathrop from approximately 6:30 AM to 6:30 PM.

3. BART Express Bus service and other regional transit service between San Joaquin County and the San Francisco Bay Area does not currently provide service to Lathrop.

Park-and-Ride Facilities

Currently, there are no park-and-ride facilities provided within or near the City of Lathrop.

SOCIO-ECONOMIC CONDITIONS

Regional Conditions

The regional population, extending to Stockton and Lodi on the north and Modesto-Turlock on the south, and from the Sierra foothills east of Manteca to the foothills of the Coast Range west of Tracy, is rapidly approaching 1 million. However, because of the extent to which residents of the region commute to the Bay Area for work, economic development and especially basic employment is not keeping pace with population growth of the region. Achieving a balance between jobs and housing is becoming more illusive as the region becomes more of a net exporter of labor out of the region. As discussed below, Lathrop is a notable exception.

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5 **A Policy on Geometric Design of Highways and Streets**, American Association of State Highway and Transportation Officials, 1994.

Existing Population and Households

The City had a January, 1995 population of approximately 8,735 [State Department of Finance], with 2,445 households and 2,615 housing units. The population reported for April, 1990 by the Census Bureau was 6,841, with 1,927 households and 2,040 housing units. The ratio of single-family to multi-family units is about 3:1, with single-family units comprising 75% of the total.

Economic Characteristics

Total employment in 1990 was approximately 5,600, with 2,720 in services, 100 in retail and 2,780 in industries. The ratio of employment to population continues to be high (@ .80 jobs per capita), indicating that Lathrop continues to be a net importer of employees to local industries and services. Lathrop's jobs/housing balance is lop-sided in favor of the community, with a ratio of 2.85 jobs for every housing unit. By comparison, the jobs/housing ration for San Joaquin County is about 1.13 jobs/housing unit. The main private industrial uses are the Libby Owens Ford (LOF) auto glass manufacturing facility, the Simplot fertilizer and pesticide manufacturing plant, and the E.R. Carpenter plant. New facilities recently constructed include WestPac and Nestle's. The major public employer is the Sharpe Depot which stores and distributes military supplies.

LAND RESOURCES

Agricultural Land, Slope and Soils

Land resources surrounding the urban area have been devoted to the diversified production of field crops, vegetables, pasture and some deciduous nuts and fruits on prime and near-prime agricultural soils. Most of the agricultural lands within Mossdale Village and Stewart Tract which are proposed for urbanization under the General Plan and Specific Plan are under Williamson Act contracts with San Joaquin County (see Figure III-6). The terrain is relatively flat, with slopes falling gently to the north at a gradient averaging less than one percent (1%) in the area between Interstate 5 and the San Joaquin River.

Soils within the planning area are of two basic class/associations, as follows:

- East of the San Joaquin River, soils are mostly alluvial fan/terraces of the Delhi-Veritas-Tinnin Associations.

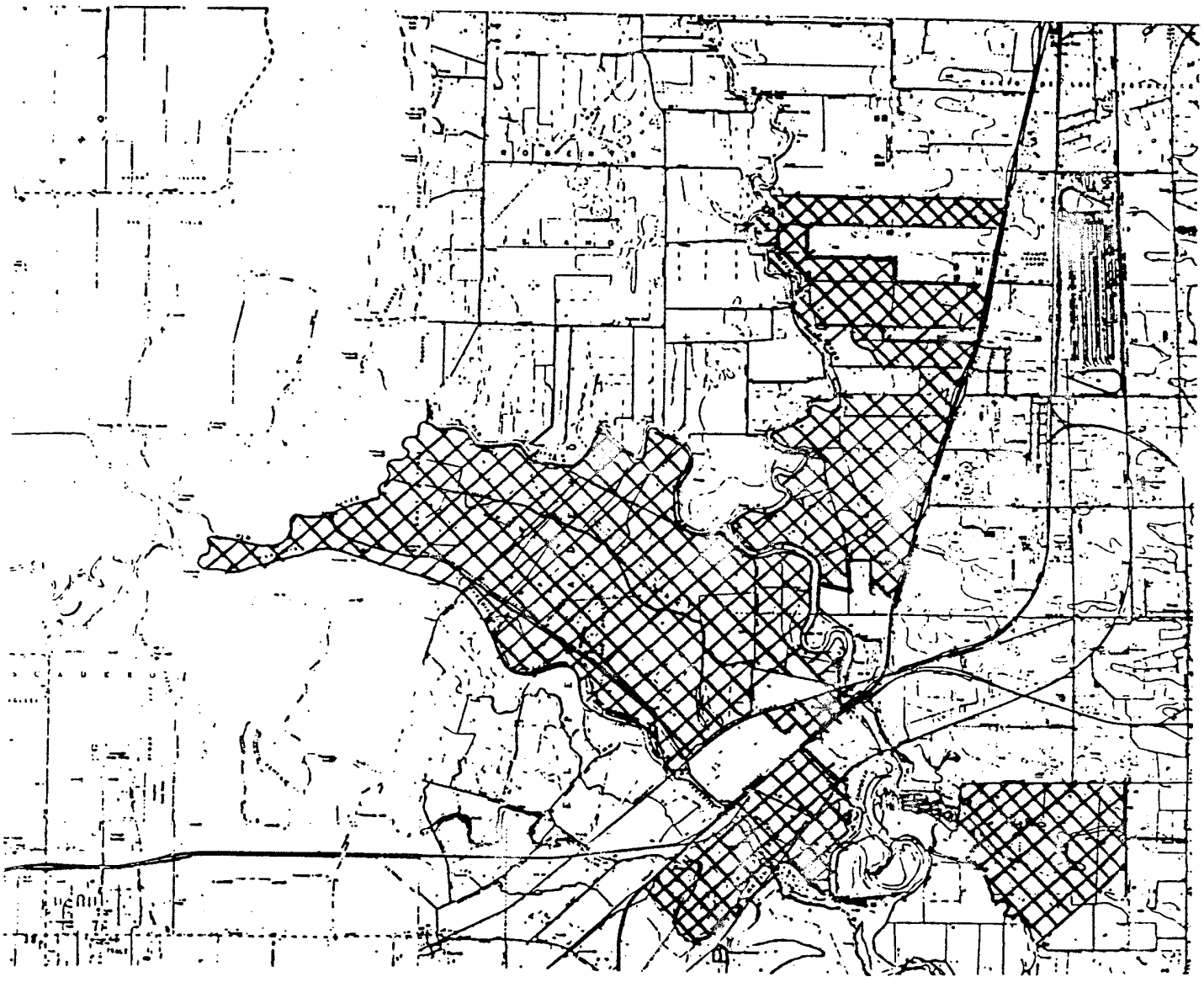
- West of the River for most of the Stewart Tract, soils are mostly delta/floodplain of the Merritt-Grangeville-Columbia Associations, with Peltier-Egbert Associations appearing in the westerly part of the Tract.

Soils of the alluvial and fan terrace classification comprise sand and silty clay. They drain moderately well with slow to rapid permeability. Shrink-swell potential is low to moderate; water erosion potential is moderate; and, limitation for on-site sewage systems is considered moderate to severe. All soils of this class and association are subject to high wind erosion.

Soils of the delta flood plain classification have a dominant texture of silty clay or sandy clay. They drain poorly with slow permeability, and are deeply developed organic soils. Their shrink-swell potential is moderate (Merritt-Grangeville-Columbia) and moderate to high (Peltier-Egbert); water erosion potential is low to moderate; soils are subject to a high water table; and, limitation for on-site sewage systems is severe. All soils of the class may contain hydric components (capability of supporting wetlands habitat).

FIGURE III-6

WILLIAMSON ACT CONTRACT LANDS



Major limitations for urbanization include a high potential for flooding and for subsidence due to organic decomposition and compaction. These naturally-occurring conditions require special engineering evaluation for determining appropriate foundation design for structures.

Seismicity

Seismicity involves the distribution, recurrence and intensity of earthquakes over a period of time in a given region. Earthquakes most often result from the release of stored energy from subterranean rock formations which may be found miles below the earth's surface. Such a release can cause the rupture of brittle earth materials. The rupture surface along which earth is displaced is called a "fault". A fault line is the visual or physical manifestation of the displacement which takes place on either side of the rupture surface. As in the case of the recently destructive Northridge earthquake in the San Fernando Valley, subterranean "thrust" faults have proven to be of significant potential for damage due to vertical rather than horizontal displacement. Thrust faults are known to exist in close proximity to the San Joaquin and Sacramento Valleys, with the closest to Lathrop located southwest of Tracy.

The amount of energy released at the epicenter of an earthquake is measured and recorded by sensitive devices, and the magnitude registered is expressed by the so-called Richter (Magnitude) Scale. This scale is logarithmic in that each successively higher Richter magnitude reflects an increase of nearly 31.5 times in the amount of energy released.

As an example, the energy released by a Richter scale of 8.0 is approximately 1,000 times greater than that released by a magnitude of 6.0. In terms of ground motion, each successive increase in Richter magnitude reflects about a tenfold increase in ground motion associated with an earthquake.

The seismicity of the Lathrop area is primarily related to the San Andreas Fault system. Major faults of this system within the region extending west to the Pacific Ocean and east to the foothills of the Sierra Nevada mountains are shown on Figure III-7 in relation to Lathrop. The Tracy-Stockton fault is highlighted on Figure III-7 only because of its close proximity to Lathrop. Geologists consider this fault to be inactive for lack of geomorphic evidence of recent faulting.

Other faults pose far more serious potential for an earthquake of damaging magnitude, as shown on Table III-1. From the table, the San Andreas, Hayward, Calaveras and Green Valley-Concord have the greatest potential. For comparison, the Loma Prieta earthquake near Watsonville that occurred in October, 1989 was felt in the Lathrop area with a magnitude of approximately 6.0, and in the City of San Francisco at near 7.0. This quake did hundreds of $ millions damage within Santa Cruz County and the southern half of the San Francisco Bay Region, and with loss of life. The damages caused by this quake have yet to be fully repaired.

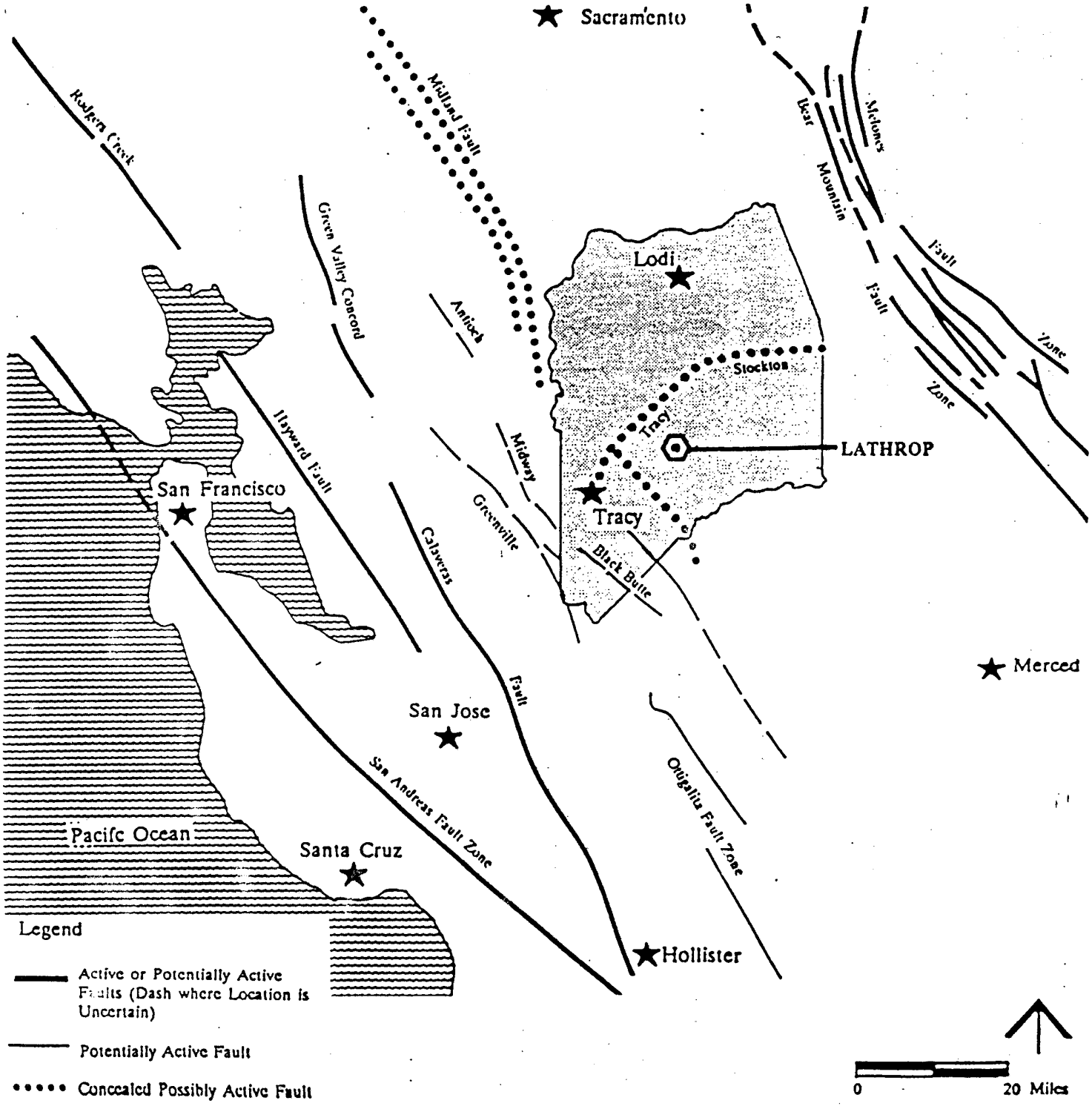
For the Lathrop planning area, and more particularly for lands below levees which surround the Stewart Tract, foundation engineering becomes critical to avoiding the damage that can occur from earthquake-induced levee and soil failures due to the decomposition and "liquefaction" of soils.

WATER RESOURCES

Groundwater currently is Lathrop's sole source of domestic water supply. The groundwater basin is recharged primarily by rainfall infiltration, storm water runoff, infiltration from irrigated ditch flows and seepage in the bottoms of the San Joaquin River and its tributaries, and water conservation recharge to natural sloughs in the nearby agricultural area. The current long-term regional trends, including the Lathrop area, are of a gradual lowering of potable groundwater elevations and of a more saline water

FIGURE III-7

REGIONAL FAULTS OF NORTH-CENTRAL CALIFORNIA



SOURCE: From Figure 4.37, **Draft EIR, San Joaquin County Comprehensive Planning Program**, Baseline Environmental Consulting, June.

TABLE III-1

MAJOR FAULTS POTENTIALLY AFFECTING THE LATHROP PLANNING AREA

FAULT	Distance From Stockton (Miles)	Maximum Probable Quake[6]	Maximum Credible Quake[7]	Recurr. Interval (Years)	Maximum Intensity of Max Cred. Eartquake [local]	Years of Historic Damaging Quakes[8]
San Andreas Zone	66	7.8-8.5	8.25-8.5	300, 140	VIII-IX	1838 1906 1989
Calaveras	42	6.75	6.75-7.3	150	VIII-IX	1861
Hayward	48	7.25	7.0-7.5	264	VIII-IX	1836 1868
Green Valley-Concord	44	6.70	6.5-7.25	319	VII-VIII	1955
Antioch	30	6.60	5.75-6.6	--	VII-VIII	1889? 1965
Greenville	30	6.80	6.90	>10,000	VI-VIII	1980
Midway	24	6.30	6.30	2,651	VII-VIII	None Known
Ortigalita	32	6.70	6.70	10,000	VII-VIII	None Known
San Joaquin	32	6.60	Unknown	1,083	Unknown	None Known
Foothills Zone	13	6.80	6.00	>10,000	VIII-IX	1975
Midland	19	--	7.00	Unknown	VIII-IX	1889?

SOURCE: From Table 4.38, **Draft EIR, San Joaquin County Comprehensive Planning Program,** Baseline Environmental Consulting, June, 1990

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[6] Maximum probable earthquake is the maximum earthquake that appears to be reasonably expected within the next 100-year period.

[7] The maximum credible earthquake is the maximum earthquake that might reasonably occur under the conditions presently known.

[8] Those years followed by question marks (?) are estimated.

table. Before extensive pumping began in the area, groundwater from east of the Lathrop area moved generally westward from the Sierra Nevada toward the San Joaquin River. Now, groundwater in the unconfined aquifer also moves toward local pumping depressions. Isolated cones of depression are found near areas of high pumping which lay east of Stockton and Manteca.

The regional overdraft of groundwater supplies countywide is estimated at about 71,000 acre-feet per year.[9] Between 1947 and 1984, the rate of groundwater lowering has been about 1.7 feet per year. As a consequence of the removal of fresh groundwater, saline waters have migrated as a front eastward from the Delta at a rate of about 140-150 feet per year. Saline waters have become noticeable in Delta lands only a few miles northwesterly of Lathrop. With continued pumping, this currently "safe" distance could be expected to dimish gradually over the decades ahead. Depth to groundwater in the Lathrop planning area (measured in spring, 1988) was in the range of 10' to 20' east of the San Joaquin River, and from 5' to 8' within Stewart Tract.

The construction of upstream dams on tributaries to the San Joaquin River, and levee reinforcement along the east side of the San Joaquin River in the area between Lathrop and Stockton has substantially reduced many flood problems and has virtually eliminated the potential for flooding within the planning area east of the San Joaquin River. However, the potential for flooding remains on the Stewart Tract due to a combination of conditions, including weak levees, loose soils, a high water table, and generally low surface elevations. The entire Tract lays within the 100-year floodplain.

Several potential sources of potable water needed to supply Stewart Tract and Mossdale Village were identified by the Lathrop General Plan. Recognizing limits to the long-term availability of a reliable groundwater source, the City is actively pursuing participation with the South San Joaquin Irrigation District (SSJID) for surface water delivery. Studies have demonstrated the merit of SSJID becoming a major supplier of treated water to several communities, including Lathrop. A detailed study completed in February, 1994, further confirms the potential availability of SSJID water to the City of Lathrop, requiring a new treatment plant. This topic is discussed in greater detail in Part V of this report.

CLIMATE AND AIR QUALITY

Climate:

The climate of California is dominated by the Pacific Ocean and the presence of a large-scale atmospheric high pressure cell (commonly known as the Pacific High) over the Pacific's eastern reaches. Because of the marine influence, coastal areas of the State experience mild winters, cool summers, small daily and seasonal temperature ranges, and high relative humidity. Interior regions, including the Project area, experience more extreme variations of daily and seasonal temperatures and generally lower relative humidity.

While the climate of Lathrop and of San Joaquin County is semi-arid, it is not typical of most of the San Joaquin Valley where summer temperatures are known to exceed 100 degrees F. for more than 30 days at a time. The Lathrop area is heavily influenced seasonally by marine breezes which flow through the Carquinez Strait and generally follow the course of the San Joaquin River in the Delta, and which are also released through Altamont Pass west of Tracy. Average annual rainfall varies considerably between less than seven inches during drought years to over 14 inches during wet years. Afternoon humidity averages

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[9] **Draft EIR, San Joaquin County Comprehensive Planning Program**, Chapter 4: Hydrology and Water Quality, Baseline Environmental Consulting, June, 1990.

58% for the year and 34% in July. Average maximum temperatures are 78.1 degrees for the year, 90.4 degrees in July and 53.4 degrees in January.

Important climatic influences accrue from the seasonal mobility of the Pacific High. Moving northward in the summer, it diverts westward-moving storm fronts far north of the State. Thus, California receives little or no precipitation during this period. In winter, the Pacific High retreats southward, permitting storms to swing into and across the State. These storms bring widespread moderate precipitation, typically over a period of from 2 to 5 days, followed by from 7 to 14 days of dry weather.

The Pacific High also has an important effect on the vertical motion of the air over California. During the late spring, summer, and early fall, descending warm air from the Pacific High blankets a cooler layer of air closer to the ground. This large-scale temperature inversion inhibits upward mixing from the atmosphere's surface layers. Although this overall behavior is much less pronounced in winter, smaller-scale inversions commonly form when surface layers of air are cooled by contact with the ground (valley floors in mountainous areas of the State are especially susceptible to this regime). Temperature inversions play a major role in inhibiting the dispersion of air pollutants, and induce periods of heavy fog in winter.

Regulations Governing Air Pollutants:

Criteria Pollutants. The 1970 Clean Air Act gave the U.S. Environmental Protection Agency (EPA) the authority to set federal ambient air quality standards to protect public health and welfare. It also required that these federal standards be designed to protect people most susceptible to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by illness, and persons engaged in strenuous work or exercise (all termed "sensitive receptors"). Pollutants subject to federal ambient standards are referred to as criteria pollutants because the EPA publishes criteria documents to justify the choice of standards.

Currently, most of the effort to improve air quality in the United States is directed toward the control of five criteria pollutants: photochemical oxidants (ozone), carbon monoxide (CO), suspended particulate matter[10], nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). Fifteen years ago, suspended particulate lead would have been included in this list but today the widespread availability and use of unleaded gasoline has effectively eliminated lead as a pollutant of concern.

The federal and State standards (the latter established in California starting in 1969, pursuant to the Mulford-Carrell Act), shown in Table III-2, are thought to provide sensitive receptors with adequate protection during the given exposure times from the adverse health effects detailed in Table III-3.

The 1977 Clean Air Act Amendments (passed after many states failed to meet the Clean Air Act's five-year deadline for achieving the federal standards) required that each state identify areas within its borders that did not meet federal standards (termed non-attainment areas) and devise a State Implementation Plan (SIP), subject to EPA approval, which would guarantee attainment no later than the end of 1987. The Clean Air Act Amendments did not specify what course of action should be undertaken by the EPA if states failed to meet the 1987 attainment deadline.

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[10] The standard for particulate matter was originally applied to particulates of any diameter, termed "total suspended particulates" or TSP. The standard has been changed recently to apply only to particulates less than 10 microns in diameter, termed PM_{10}.

TABLE III-2

FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

POLLUTANT	Averaging Time	Federal Primary Standard	Federal Secondary Standard	California Standard
Ozone	1-hour	0.12 ppm[10]	0.12 ppm	0.09 ppm
Carbon Monoxide	1-hour 8-hour	35.0 ppm 9.0 ppm	35.0 ppm 9.0 ppm	20.0 ppm 9.0 ppm
Nitrogen Dioxide	1-hour Annual	--- 0.03 ppm	--- 0.05 ppm	0.25 ppm ---
Sulfur Dioxide	1-hour 24-hour Annual	--- 0.14 ppm 0.03 ppm	--- --- ---	0.25 ppm 0.05 ppm ---
Suspended Particulates[11]	24-hour Annual	150 ug/m^3 [12] 50 ug/m^3	--- ---	30 ug/m^3 30 ug/m^3

[10] ppm = parts per million

[11] State and Federal standards are for particulate material less than 10 microns in diameter.

[12] ug/m^3 = micrograms per cubic meter

TABLE III-3

HEALTH EFFECTS SUMMARY OF THE CRITERIA AIR POLLUTANTS

POLLUTANT	Adverse Effects
Ozone	- eye irritation; - respiratory function impairment
Carbon Monoxide	- impairment of oxygen transport in the bloodstream, increase of carboxyhemoglobin - aggravation of cardiovascular disease - impairment of central nervous system function - fatigue, headache, confusion, dizziness - can be fatal in the case of very high concentrations in enclosed places
Sulfur Dioxide	- aggravation of chronic obstructive lung disease - increased risk of acute and chronic respiratory illness
Nitrogen Oxide	- risk of acute and chronic respiratory disease
Suspended Particulates	- increased risk of chronic respiratory disease with long exposure - altered lung function in children - with SO_2, may produce acute illness - particulate matter 10 microns or less in size may lodge in and/or irritate the lungs

Many states did not meet the 1987 deadline and continue to experience violations of federal air quality standards. After 1987, the EPA could have imposed sanctions in non-attainment areas, but chose to wait for Congress to amend the Clean Air aCT.

The 1990 Clean Air Act Amendments represent a major revision of the original statute. They specify new strategies for attaining federal air quality standards including: mandatory 3% annual reductions of air pollutant emissions in areas exceeding federal standards, the requirement that new stationary sources of air pollutants must more than offset their emissions (1.2 tons of offsets for every ton of pollutant emitted), the scheduled introduction of low-emitting cars and trucks into the motor vehicle fleet, and the development of alternatives to the private automobile as the primary means of transportation.

The California Clean Air Act (CCAA), which became effective January 1, 1989, provided a planning framework for attainment of the California ambient air quality standards (CAAQS). Non-attainment areas in the State were required to prepare plans for attaining the CAAQS. The CCAA provided for the classification of regions within the State into four classes: moderate; serious; severe; and extreme. Regional classifications are determined by monitoring data taken during the 1989-1991 baseline period. The monitoring criteria were set as follows:

For Ozone:

Classification	Highest One-Hour Level
Moderate	0.09 ppm to 0.12 ppm
Serious	0.13 ppm to 0.15 ppm
Severe	0.16 ppm to 0.20 ppm
Extreme	> 0.20 ppm

For Carbon Monoxide:

Moderate	9.0 to 12.7 ppm
Serious	> 12.7 ppm

For areas classified as severe, the CCAA specified the following attainment strategies:

- Reduce non-attainment pollutant emissions by 5% per year (relative to 1987 baseline emissions) until either all CAAQs are attained or every feasible emission control measure has been implemented.
- Allow no new net increase in pollutant emissions from stationary sources.
- Reduce motor vehicle trips, use and miles traveled.
- Increase average motor vehicle ridership to 1.5 persons per vehicle during commute hours by January 1, 1999.
- Reduce population exposure to non-attainment pollutants by 25%, by December 31, 1994.
- Establish Best Available Retrofit Control Technology (BARCT) requirements for existing stationary sources by December 31, 1993.

- Develop emission control programs for indirect and area sources.

Toxic Air Pollutants. In addition to the major criteria air pollutants, many other substances are known or suspected to be highly injurious to human health. Their adverse health effects can manifest themselves either as acute, debilitating symptoms after a short-term heavy dose or by the development of various cancers after long-term low-level exposure. The EPA has established a list of over 400 "extremely hazardous" substances and has promulgated emission standards (known as National Emissions Standards for Hazardous Air Pollutants or NESHAPS) for nine of these compounds (i.e., arsenic, asbestos, benzene, beryllium, cadmium, coke oven emissions, mercury, radionuclides, and vinyl chloride). California has designated several substances as "toxic air contaminants" (i.e., asbestos, benzene, cadmium, chromium, dioxin, ethylene dichloride, and ethylene dibromide) and is reviewing about 40 others under the process established by the State Legislature.

Although no federal or State ambient air quality standards have been set for toxic air pollutants, the Air Toxics "Hot Spot" Information and Assessment Act of 1987 (AB 2588) requires the gathering of information on airborne compounds that may pose an acute or chronic threat to public health. The Act specifies that each local Air Pollution Control District determine which facilities must prepare a health risk assessment. This assessment must include a comprehensive analysis of the dispersion of hazardous substances in the environment, the potential for human exposure, and a quantitative assessment of both individual and population-wide health risks associated with those levels of exposure.

Regional and Local Air Quality Problems

Air quality does not presently meet state or federal standards for ozone and Carbon Monoxide (CO) for the regional air basin for several days during the period May through October. San Joaquin County is also not in attainment for standards of fine particulate as adopted by EPA. California's one-hour ozone standard is 0.10 ppm (parts per million, by volume), not to be equaled or exceeded. The Federal standard for ozone is 0.12 ppm, not to be exceeded more than three times in any three year period. Ozone standards now are typically exceeded about six times per year at most monitoring stations. CO standards typically are violated only a few times per year, and then primarily because of mobile source emissions associated with vehicle traffic along the freeway corridors. To a significant extent, local air quality is adversely affected by ozone and CO emissions resulting from inter-regional transfer of pollutants from the San Francisco Bay Area. Standards for particulates small enough to be inhaled and which can cause lung damage (PM_{10}) are violated more frequently than other standards because of the amount of fine peat-based particles that are carried by winds from the Delta to the more urbanized parts of the County.

Periods of air pollution are heightened during the fall months when the temperature inversion common to the San Joaquin Valley traps pollutants within a warm air mass below a layer of cool air. In the winter, this inversion pattern reverses, trapping cool air below the warm air mass and creating conditions favorable to frequent heavy fog conditions. The seasonal periods of heavy fog are particularly impacting on the Lathrop area, with the heaviest occurrences during the months of December and January.

Regional. Ozone is the most severe air quality problem in the State. Unlike many other air pollutants, ozone is not emitted directly into the atmosphere, but is produced therein by sunlight-enhanced reactions between hydrocarbons (HC) and nitrogen oxides (NO_x). Large areas of the San Joaquin Valley suffer from high ozone levels. Population, industrial, and agricultural centers in the Valley emit ozone precursors in great quantities and dispersion is limited by surrounding mountain ranges and strong summertime temperature inversions.

Carbon monoxide (CO) is a non-reactive pollutant with one major source, motor vehicles. Thus, ambient CO distributions closely follow the spatial and temporal distributions of vehicular traffic. CO levels are highest in the State's urban areas during the winter months, when nocturnal temperature inversions limit dispersion during peak commute hours. Interior areas are more susceptible to the formation of winter inversions than coastal areas. CO standard violations are not uncommon in many cities of the San Joaquin Valley because of the high concentration of motor vehicle traffic. In contrast, CO levels in rural areas are invariably much lower because traffic volumes are lower.

Problems with suspended particulates are widespread in California. Many rural areas have a high natural particulate background as a result of soil particles carried by the wind. Human activities can add significant amounts of particulates to the air through plowing and the burning of field waste in rural areas, and through fuel combustion and the suspension of dust by motor vehicles and construction equipment in urban areas. Ambient particulate concentrations in the San Joaquin Valley are frequently high enough to violate State standards and reduce visibility.

Nitrogen dioxide (NO_2) is the most abundant form of ambient NO_x. The major sources of NO_x, compounds which have an important role in the formation of ozone, are vehicular, residential, and commercial fuel combustion. The NO_2 standard is currently being met throughout the San Joaquin Valley. The refining of high sulfur oil or the burning of high sulfur fuels are the major sources of ambient SO_2. The SO_2 standard is currently being met throughout the State.

Local. Table III-4 summarizes the highest measured criteria pollutant concentrations and the frequency of standard violations at monitoring stations in San Joaquin County. Ozone data from Stockton clearly illustrates the degree to which the Valley suffers from ozone. Experience has shown that areas affected by high ozone concentrations are typically many square miles in extent. Therefore, the Lathrop planning area should be exposed to about the same levels of ozone as recorded in Stockton.

Stockton, San Joaquin County's largest city, clearly experiences occasional violations of the eight-hour CO standard. But the problem can be expected to be much less severe in more rural areas of the County. CO levels should be lower in outlying areas near Lathrop.

State PM_{10} standard violations have been recorded in Stockton. Since the Lathrop planning area is located in an area which experiences a dry climate, naturally produced particulates, when added to anthropogenic emissions from nearby cities and roadways, probably contribute to a generally high PM_{10} levels. Pesticides sprayed in agricultural areas in the vicinity of the project also can be considered local sources of air pollution.

State and Local Air Quality Control

The California Air Resources Board (CARB) has ultimate jurisdiction over all air pollution control programs in California. The CARB monitors air quality throughout the State, limits allowable emissions from vehicular sources, and serves as the official liaison with the federal government. The CARB has divided the State into many air basins (i.e., areas which share similar pollutant problems and climatic conditions) and has delegated significant authority for air quality control within them to local Air Pollution Control Districts (APCDs) or multi-county Air Quality Management Districts (AQMDs).

In recognition of the common topographical and meteorological factors which link air quality problems of the eight Valley counties (in north-to-south order: San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kings, and Kern), the eight counties have joined together as the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD). Until late 1992, the District's main instrument of air quality

TABLE III-4

STOCKTON AIR POLLUTANT DATA SUMMARY[14]

Hazleton (STKH), Claremont (STKC) and E. Mariposa St. (STKM) Monitoring Stations

POLLUTANT	1991			1992			1993		
	STKH	STKC	STKM	STKH	STKC	STKM	STKH	STKC	STKM
OZONE									
Highest 1-hour	0.11	NM[15]	0.12	0.11	NM	0.11	0.11	NM	0.13
Days > 0.12 ppm	0	NM	0	0	NM	0	0	NM	1
Days > 0.09 ppm	10	NM	22	7	NM	18	7	NM	11
CARBON MONOXIDE									
Highest 1-hour	14.0	15.0	NM	11.0	11.0	NM	10.0	10.0	NM
Days > 35.0 ppm	0	0	NM	0	0	NM	0	0	NM
Days > 20.0 ppm	0	0	NM	0	0	NM	0	0	NM
Highest 8-hour	11.4	11.0	NM	7.4	8.3	NM	6.3	6.9	NM
Days > 9 ppm	1	2	NM	1	0	NM	0	0	NM
NITROGEN DIOXIDE									
Highest 1-hour	0.11	NM	NM	0.19	NM	NM	0.16	NM	NM
Days > 0.25 ppm	0	NM	NM	0	NM	NM	0	NM	NM
SULPHUR DIOXIDE									
Highest 24-hour	NM	NM	NM	NM	NM	NM	NM	NM	NM
Days > 0.05 ppm	NM	NM	NM	NM	NM	NM	NM	NM	NM
PARTICULATES (PM_{10})									
Highest 24-hour	251	NM	NM	140	NM	NM	104	NM	NM
Days > 50 ug/m^3	22	NM	NM	21	NM	NM	13	NM	NM
Annual average	43.3	NM	NM	43.0	NM	NM	32.9	NM	NM
Years > 30 ug/m^3	Yes	NM	NM	Yes	NM	NM	Yes	NM	NM

14 **California Air Quality Data,** Air Resources Board, Annual Summaries, 1991-1993

10 NM = Not Monitored

control was the requirement that all significant stationary sources (as defined in their rules and regulations) operate under APCD-issued permits. However, in December, 1992, the APCD completed a Valley-wide Air Quality Attainment Plan (AQAP), as mandated by the California Clean Air Act. This Plan gives the APCD significant new powers to limit the growth of emissions from transportation sources.

As a "severe" non-attainment area, the San Joaquin Valley is subject to the most stringent requirements of the California Clean Air Act, and must apply all feasible measures to reduce emissions. [Note: the measures which apply to the West Lathrop Specific Plan are described in Part V.]

Air quality problems in the San Joaquin Valley have been classified as "severe" because attainment and maintenance of the ozone and CO standards could not be predicted by the end of 1977. With this classification, the California Clean Air Act requires the implementation of all feasible measures to reduce emissions. Ozone precursor emissions are to be reduced by 5% per year, based on 1987 emission levels. The State's Plan presents specific county-by-county targets for CO emissions reduction based on the 5% per year reduction requirement and linear rollback, as appropriate. Despite the number of specific emissions reduction measures of the Plan, the measures are not predicted to achieve the goal and the Plan calls for additional emissions control measures at State and Federal levels.

Air Quality Planning and Control in the San Joaquin Valley

Planning for the attainment and maintenance of NAAQS/CCAA standards in the San Joaquin Valley is the responsibility of the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD). To make all deliberate progress toward attainment of CAAQS (as mandated by the CCAA), the District finalized an Air Quality Attainment Plan (AQAP) in January, 1992. The AQAP includes all feasible emission control measures which are under the jurisdiction of the District to implement. However, the AQAP does not (and cannot) achieve the 5% per year reductions called for by the CCAA, nor does it project specific attainment dates for any of the pollutants which currently exceed CAAQS. The District currently is developing a regional air quality modeling system which it hopes will be available for use as a planning tool when the AQAP is updated in 1994.

The AQAP has implemented 46 "retrofit" control measures to reduce emissions from existing stationary sources, and has revised the New Source Review to achieve no net increase in emissions from new or modified stationary sources. All new stationary sources will require Best Available Control Technology (BACT) and offsets for any emissions of non-attainment pollutants; an Emission Reduction Credit Banking system has been established to facilitate offset transfers.

The AQAP has also implemented new controls on mobile sources; indirect source controls (i.e., facilities that generate or attract motor vehicles) include the following:

- Enhanced SJVUAPCD review of and comment on new projects selected during the CEQA process.

- Promotion of the inclusion of Air Quality Elements in city and county General Plans.

- Development of a New and Modified Indirect Source Review Rule. This Rule would require project applicants to mitigate or offset emissions of ozone precursors from indirect sources by one or more of the following strategies:

- Site design or location that encourages alternative transit modes and/or reduces vehicle miles traveled.
- On-site/off-site mitigation of emissions.
- Payment of a mitigation fee to fund emission reduction programs.
- Air quality permit prior to construction or operation for "larger" projects.

Transportation control measures (TCMs) include the following:

- *Traffic flow improvements* which increase traffic flow speed through signalization and increased traffic capacity.

- *Public transit* which increases the proportion of people to whom transit service is available by expanding routes, schedules and equipment.

- *Passenger rail and support facilities* which increase inter-city ridership and provide for multi-modal stations linking public and private transit systems.

- *Ridership programs* which increase the use of carpools/vanpools.

- *Park and ride lots* which provide parking lots at strategic locations to facilitate rideshare and transit connections.

- *Bicycling programs* to accommodate the use of bicycles as an alternative to motorized transport by establishing bikeways.

- *Trip reduction programs* which require employers to reduce vehicle trips through flexible work hours, ridesharing and similar programs.

- *Parking management* to remove existing spaces, reduce parking space requirements for new developments, and/or set aside preferential space for carpools/vanpools.

- *Telecommunications* to reduce travel through the use of electronic communication systems.

- *Fleet operator alternative fuels programs* to begin replacing gasoline or diesel trucks with low-emitting fuel models. This would apply initially to fleet operators with more than fifty vehicles and eventually to operators with more than 20 vehicles.

The SJVUAPCD estimates that even with the projected increases in population and employment for San Joaquin County over the next eight years (i.e., 29% growth in population from 2.77 million to 3.58 million and 35% increase in employment from 1.04 million to 1.41 million jobs), emissions would be reduced by the amounts shown in Table III-5 if all the control measures proposed by the AQAP were fully implemented.

While the AQAP does not specifically address PM_{10} control, it is expected that control measures which reduce ROG and NO_x emissions will have a beneficial impact on levels of fine particulate. Future air quality plans will deal more directly with PM_{10} problems.

TABLE III-5

SAN JOAQUIN VALLEY AIR POLLUTANT EMISSION ESTIMATES[16]

POLLUTANT	Emissions (tons/day)			
	1987	1994	1997	2000
ROG (SJV)				
Without AQAP	750	662	672	679
With AQAP	-0-	635	549	539
% Reduction (from 1987)	-0-	15%	27%	28%
NO_x (SJV)				
Without AQAP	586	531	523	530
With AQAP	-0-	432	415	418
% Reduction (from 1987)	-0-	18%	29%	29%
CO (Fresno)				
Without AQAP	418	363	337	315
With AQAP	-0-	350	319	297
% Reduction (from 1987)	-0-	16%	24%	29%
CO (Bakersfield)				
Without AQAP	425	395	377	361
With AQAP	-0-	386	364	346
% Reduction (from 1987)	-0-	9%	14%	19%
CO (Stockton)				
Without AQAP	370	311	294	278
With AQAP	-0-	302	281	273
% Reduction (from 1987)	-0-	18%	24%	26%
CO (Modesto)				
Without AQAP	252	215	203	193
With AQAP	-0-	207	194	188
% Reduction (from 1987)	-0-	18%	23%	25%

16 Emission estimates taken from the 1991 Air Quality Attainment Plan, San Joaquin Valley Unified Air Pollution Control District, 1992.

Significance Criteria

The SJVUAPCD has established the following criteria for judging the significance of air quality impacts:

- Air pollution emissions from stationary sources regulated under APCD permit powers are significant if they exceed Best Available Control Technology (BACT) thresholds and must be reduced to the maximum extent that current control technology allows. Furthermore, if those emissions surpass an "offset" threshold, emissions from existing sources within the air basin must be reduced so that no new net increase in air pollution emissions occurs. The following BACT and Offset thresholds have been established:

Pollutant	BACT Threshold	Offset Threshold
CO	550 lbs/day	550 lbs/day
TOG	0 lbs/day	0 lbs/day
NO_x	0 lbs/day	0 lbs/day
SO_x	0 lbs/day	0 lbs/day
PM_{10}	0 lbs/day	80 lbs/day

BIOLOGICAL RESOURCES

Literature Search and Consultations

Information on the biology, distribution, taxonomy, legal status, and other aspects of the special-status species was obtained from documents on file in the library of Sycamore Environmental Consultants, and from data furnished by the U.S. Fish and Wildlife Service in a letter dated August 16, 1993. Standard references used for the biology and taxonomy of plants included Abrams (1923-1960); Hickman (1993); Mason (1957); and Munz (1959). Standard references used for the biology and taxonomy of wildlife included Behler (1979); Ingles (1965); Peterson (1941, 1961, 1990); Stebbins (1966); Udvardy (1977); Verner and Boss (1980); and Whitaker (1980).

A computerized search of the California Natural Diversity Data Base (RareFind, 1993), was conducted for the Lathrop and Union Island U.S.G.S. topographic quads. This was done to determine if there were any known occurrences of state- or federal-listed species recorded from the project area that could be affected by the proposed facilities. Additional surrounding quads were searched as part of special studies conducted for the San Joaquin Kit Fox Biological Assessment. The Biological Assessment for the kit fox is a separate document that will be submitted to the FWS for review.

Consultations were conducted with the California Department of Fish and Game (DFG) regarding special-status species and mitigation issues. Discussions with DFG included Swainson's hawk, Riparian brush rabbit, Riparian woodrat, California black rail, Western yellow-billed cuckoo, and Giant garter snake. DFG specifically requested in a meeting with the Region 2 Environmental Services Supervisor, that surveys be conducted for the California black rail, Western yellow-billed cuckoo, and Giant garter snake. Discussions were conducted with the U.S. Fish and Wildlife Service (FWS) regarding San Joaquin kit fox study protocol and related issues, and with the Army Corps of Engineers (Corps) regarding wetland issues.

Pre-Application Interagency Meeting

To assist in identifying issues of concern to the regulatory agencies, Sycamore Environmental Consultants arranged and attended a Pre-Application Interagency Meeting at the Corps on 2 September 1993. In attendance were representatives from the Corps, DFG, U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, the City of Lathrop, and Gold Rush City.

Biological Field Surveys

Detailed biological field surveys of the Gold Rush City and Mossdale study areas began in April 1993 and continued into July 1993. Work was conducted by R. John Little, Ph.D., and was assisted by Jeffery Little and Damon Reische of Sycamore Environmental Consultants. Surveys were conducted to identify the major plant communities and to determine wildlife species inhabiting or transiting the study area. Surveys were also conducted to determine if any sensitive wildlife or plant species occur within the study area that are not mentioned in the RareFind printout.

Checklists were made of all plant and wildlife species encountered that were identified. Table III-6 presents a list of plant species recorded from the study areas. Wildlife or their sign observed in the study area are listed in Table III-7.

Wetland Delineation

A jurisdictional wetland delineation was conducted between May and August, 1993. Observations were made in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual (USCOE, 1987). The results are described in the Wetland Delineation Report for Stewart Tract Project, San Joaquin County, California (Little, 1993).

Wetlands: Waters of the U.S. and Jurisdictional Wetlands

Waters of the U.S. and jurisdictional wetlands subject to Section 404 of the Clean Water Act (CWA), are regulated by the U.S. Army Corps of Engineers. The types of waters of the U.S. and jurisdictional wetlands in the study area include drainage channels, ponds, rivers, and wetlands. Channelized creeks and rivers are subject to regulation as waters of the U.S. Wetlands in the study area are represented by tidal and non-tidal wetland habitats.

A total of 347.5 acres of jurisdictional wetlands occur within the project study area, composed of approximately 136.86 acres of palustrine and 210.64 acres of riverine habitats involving three natural bodies of open water -- the San Joaquin River, Old River, and Paradise Cut. Most of these areas would not be affected by construction of the project. A total of 121.7 acres of palustrine wetlands are found in the Stewart Tract project area, mostly within Paradise Cut. A total of 15.16 acres of palustrine wetlands are found in the Mossdale Village project area.

Special-Status Species and Communities Evaluated

Special-status species and communities occurring on the RareFind printout for Lathrop and Union Island quads are discussed below. In addition to the RareFind printout, Sycamore Environmental reviewed the current list of Special Animals prepared by the California Department of Fish and Game Natural Diversity Data Base (DFG, 1992); and the current list of State and Federal Endangered and Threatened Animals of California (DFG, 1993). Special-status plant and wildlife species evaluated for the DEIR are listed in Table III-7. Biological resources of the planning area are shown on Figure III-8.

TABLE III-6

PLANT SPECIES OBSERVED AT STEWART TRACT AND MOSSDALE VILLAGE STUDY AREAS 1993-1994.

FAMILY/Scientific Name	Common Name
MONOCOTS	
CYPERACEAE	
Cyperus esculentus	Nutsedge
Scirpus acutus var. occidentalis	Tule
Scirpus pungens	Common threesquare
JUNCACEAE	
Juncus balticus	Baltic rush
POACEAE	
Arundo donax	Giant reed
Avena barbata	Slender wild oats
Bromus diandrus	Ripgut grass
Cynodon dactylon	Bermuda grass
Elymus glaucus	Blue wild rye
Hordeum murinum ssp. leporinum	Barley
Leymus triticoides	none
Phalaris minor	Canary grass
Polypogon monspeliensis	Annual beard grass
Sorghum halepense	Johnson grass
Spartina sp.	Cord grass
Sporobolus airoides	Alkali sacaton
TYPHACEAE	
Typha angustifolia	Narrow-leaved cattail
DICOTS	
ACERACEAE	
Acer negundo	Box elder
AMARANTHACEAE	
Amaranthus albus	Tumbleweed
Amaranthus powellii	Amaranth
APIACEAE	
Anthriscus caucalis	Bur-chervil
Berula erecta	Cutleaf water parsnip
Conium maculatum	Poison hemlock
Foeniculum vulgare	Sweet fennel
ASTERACEAE	
Anthemis cotula	Mayweed
Artemisia douglasiana	Mugwort
Baccharis salicifolia	Mulefat
Carduus pycnocephalus	Italian thistle
Centaurea iberica	Iberian thistle
Centaurea solstitialis	Yellow star thistle
Cirsium occidentale	Thistle
Cirsium vulgare	Bull thistle
Conyza canadensis	Horseweed

Table III-6, Continued

Cynara cardunculus	Cardoon
Gnaphalium palustre	Cudweed
Grindelia camporum	Gumplant
Helenium puberulum	Sneezeweed
Helenium annuus	Common sunflower
Xanthium strumarium	Cocklebur
BORAGINACEAE	
Amsinckia intermedia	Fiddleneck
Heliotropium curassavicum	Heliotrope
BRASSICACEAE	
Brassica napus	Rapeseed
Brassica nigra	Black mustard
Capsella bursa-pastoris	Shepherd's purse
Erysimum sp.	Wallflower
Lepidium latifolium	Peppergrass
Rorippa palustris	Watercress
CAPRIFOLIACEAE	
Sambucus mexicana	Mexican elderberry
CARYOPHYLLACEAE	
Spergularia bocconii	Sand-spurrey
CHENOPODIACEAE	
Atriplex sp.	Saltbush
Atriplex phyllostegia	Arrowscale
Chenopodium album	Pigweed
Salsola tragus	Russian thistle
FABACEAE	
Lathyrus sp. (not L. jepsonii)	Wild pea
Lotus sp.	Trefoil
Lupinus benthamii	Spider lupine
Lupinus sp.	Lupine
Melilotus alba	Sourclover
Robinia pseudoacacia	Black locust
FAGACEAE	
Quercus lobata	Valley Oak
GERANIACEAE	
Erodium botrys	Storksbill
JUGLANDACEAE	
Juglans californica var. hindsii	Northern Calif. black walnut
MALVACEAE	
Malva nicaeensis	Cheeseweed
Sida rhombifolia	False mallow
POLYGONACEAE	
Rumex crispus	Curly dock
Rumex salicifolius	Willow dock
Eriogonum sp.	Buckwheat
ROSACEAE	
Rosa californica	California rose
Rubus discolor	Himalayan blackberry
RUBIACEAE	
Cephalanthus occidentalis var. californicus	California button willow
SALICACEAE	
Populus fremontii	Fremont cottonwood

Table III-6, Continued

SALICACEAE	
Salix exigua	Narrow-leaved willow
Salix gooddingii	Goodding's black willow
Salix laevigata	Red willow
Salix lasiolepis	Arroyo willow
SOLANACEAE.	
Datura stramonium.	Jimson weed.
Nicotiana glauca.	Tree tobacco.
Solanum umbelliferum.	Nightshade.
URTICACEAE.	
Urtica urens	Dwarf nettle

TABLE III-7

WILDLIFE SPECIES RECORDED FROM STEWART TRACT AND MOSSDALE VILLAGE AREAS

Scientific Name	Common Name
AVIAN	
Agelaius phoeniceus	Blackbird, Red-winged
Euphagus cyanocephalus	Blackbird, Brewer's
Psaltriparus minimus	Bushtit, Common
Fulica americana	Coot, American
Phalacrocorax auritus	Cormorant, Double-crested
Molothrus ater	Cowbird, Brown-headed
Corvus brachyrhynchos	Crow, Common
Numenius americanus	Curlew, Long-billed
Zenaida macroura	Dove, Mourning
Columba livia	Dove, Rock
Casmerodius albus	Egret, Great
Carpodacus mexicanus	Finch, House
Colaptes cafer	Flicker, Northern
Myiodynastes luteiventris	Flycatcher, Ash-throated
Carduelis tristis	Goldfinch, American
Podilymbus podiceps	Grebe, Pied-billed
Guiraca caerulea	Grosbeak, Blue
Circus cyaneus	Harrier, Northern
Accipiter cooperii	Hawk, Cooper's
Buteo jamaicensis	Hawk, Red-tailed
Accipiter striatus	Hawk, Sharp-shinned
Buteo swainsoni	Hawk, Swainson's
Nycticorax nycticorax	Heron, Black-crowned Night
Ardea herodias	Heron, Great Blue
Butorides striatus	Heron, Green-backed
Calypte anna	Hummingbird, Anna's
Aphelocoma coerulescens	Jay, Scrub
Falco sparverius	Kestrel, American
Charadrius wilsonia	Killdeer
Tyrannus verticalis	Kingbird, Western
Ceryle alcyon	Kingfisher, Belted
Pica nuttalli	Magpie Yellow-billed
Anas platyrhynchos	Mallard
Sturnella neglecta	Meadowlark, Western
Mimus polyglottos	Mockingbird, Northern
Gallinula chlorupus	Moorhen, Common
Icterus galbula	Oriole, Northern
Tyto alba	Owl, Barn
Bubo virginianus	Owl, Great Horned
Contopus sordidulus	Pewee, Western Wood
Phasianus colchicus	Pheasant, Ring-necked
Sayornis nigricans	Phoebe, Black

Callipepla californica	Quail, California
Turdus migratorius	Robin, American
Lanius ludovicianus	Shrike, Loggerhead

Table III-7, Continued

Zonotrichia albicollis	Sparrow, White-throated
Zonotrichia atricapilla	Sparrow, Golden-crowned
Passer domesticus	Sparrow, House
Melospiza melodia	Sparrow, Song
Sturnus vulgaris	Starling, European
Hirundo rustica	Swallow, Barn
Hirundo pyrrhonota	Swallow, Cliff
Stelgidopteryx serripennis	Swallow, North Rough-winged
Tachycineta bicolor	Swallow, Tree
Piranga olivacea	Tanager, Western
Sterna caspia	Tern, Caspian
Sterna forsteri	Tern, Forester's
Toxostoma redivivum	Thrasher, California
Catharus guttatus	Thrush, Hermit
Parus inornatus	Titmouse, Plain
Pipilo fuscus	Towhee, California
Pipilo erythrophthalmus	Towhee, Rufous-sided
Cathartes aura	Vulture, Turkey
Melanerpes formicivorus	Woodpecker, Acorn
Picoides pubescens	Woodpecker, Downy
Picoides nuttallii	Woodpecker, Nuttall's
Thryomanes bewickii	Wren, Bewick's
Troglodytes aedon	Wren, House
Chamaea fasciata	Wrentit

REPTILES

Pituophis melanoleucus	Snake, Gopher
Sceloporus occidentalis	Lizard, Western Fence
Gerrhonotus multicarinatus	Lizard, Southern Alligator
Clemmys marmorata	Turtle, Western Pond

AMPHIBIANS

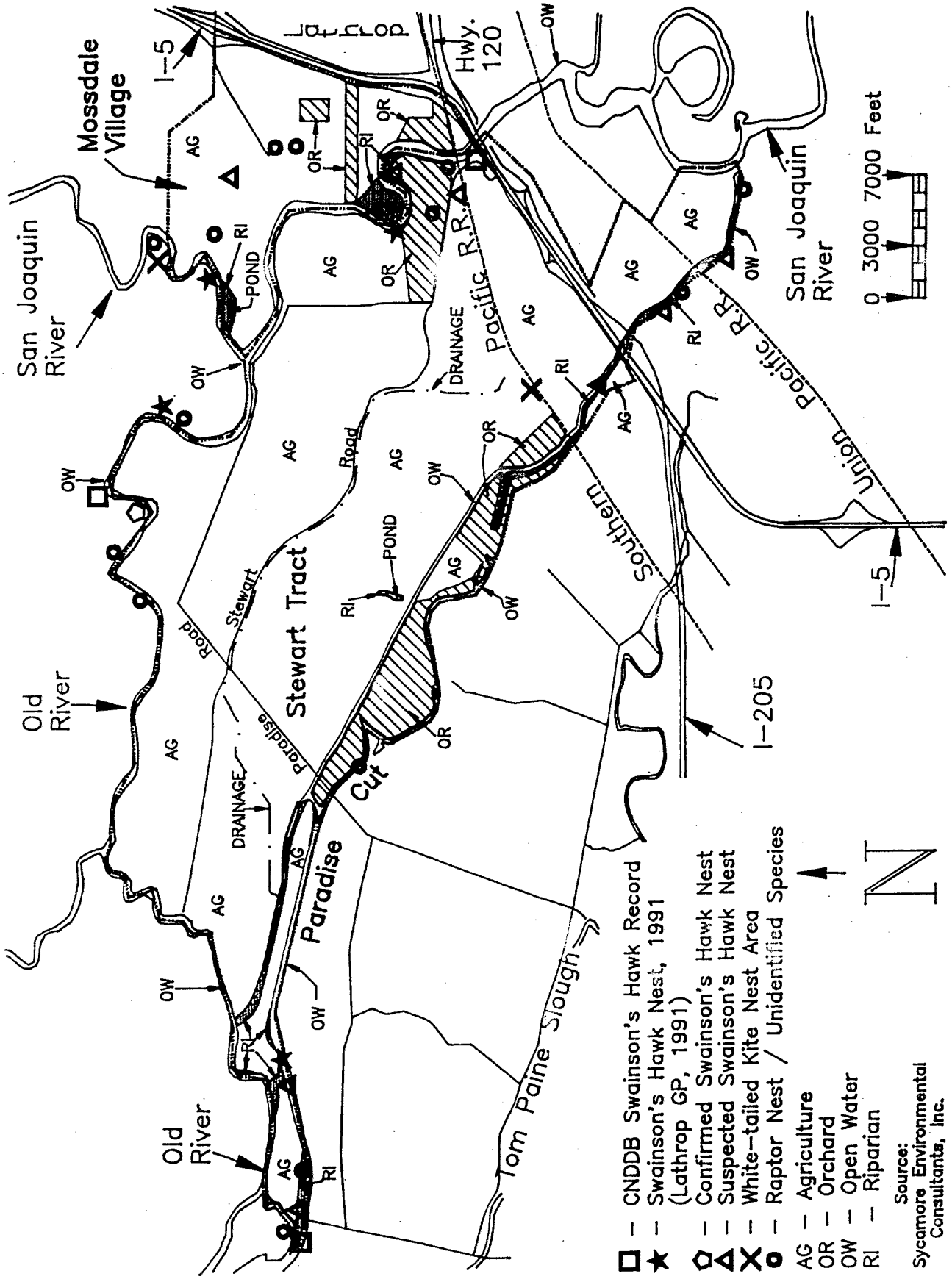
Rana catesbeiana	Bullfrog
Psuedacris regilla	Pacific Chorus Frog

MAMMALS

Castor canadensis	Beaver
Sylvilagus audubonii	Cottontail, Desert
Urocyon cinereoargenteus	Fox, Gray
Peromyscus maniculatus	Mouse, Deer
Ondatra zibethicus	Muskrat
Didelphis virginiana	Opossum
Lepus californicus	Jackrabbit
Procyon lotor	Raccoon
Mephitis mephitis	Skunk, Striped
Sciurus griseus	Squirrel, Western Grey
Rattus rattus	Rat, Black

FIGURE III-8

BIOLOGICAL RESOURCES OF THE PLANNING AREA



Sensitive Plant Communities:

The RareFind printout for the Union Island quad lists the Great Valley Valley Oak Riparian Forest as a sensitive community occurring along Paradise Cut. Valley oaks are a widespread species, but threatened due to the loss of riparian habitat in the Central Valley (CNPS, 1988). No other sensitive communities are noted for either the Lathrop or Union Island quads.

Special Status Plant Communities Evaluated:

The RareFind printout for the Lathrop quad lists Delta button celery, and the Union Island quad lists Caper-fruited tropidocarpum as special-status plant species. Also evaluated were three plant species described in the FWS letter of August 16, 1993. Surveys were conducted for these species within the project boundaries, however, none were found. Special-status plant species evaluated are listed in Table III-8.

Special-Status Wildlife Species Evaluated:

The RareFind printout for the Lathrop quad lists Swainson's hawk and Tricolored blackbird, and the Union Island quad lists Swainson's hawk, Tricolored blackbird, and San Joaquin pocket mouse as special-status plant species. Also evaluated were 16 wildlife species described in the FWS letter of August 16, 1993. General surveys were conducted for these species or their habitat within the project boundaries. Of these, only Swainson's hawk and Western pond turtle were found. Swainson's hawk was previously known to inhabit the project vicinity. Special-status wildlife species evaluated for the DEIR are listed in Table III-7.

Specialized surveys that involved written or suggested protocol were conducted for Valley elderberry longhorn beetle, Giant garter snake, California black rail, San Joaquin kit fox, Riparian brush rabbit, and San Joaquin Valley woodrat. However, none were found in either the Stewart Tract or the Mossdale Village project areas. These surveys have been published as Technical Appendixes to the EIR.

Stewart Tract Project Area

Vegetation

The major plant community and wildlife habitat types occurring in the Stewart Tract study area include irrigated agriculture (field and row crops and alfalfa), orchards, riparian habitat, open water (rivers), and canals. Stewart Tract is intensively managed for agriculture. Typical crops include alfalfa, safflower, and corn. Most of Paradise Cut is planted in walnuts. The remaining acreage rotates between safflower, sugar beets, and corn. Most vegetation along the levees surrounding Stewart Tract is cut down and/or burned, apparently in accordance with levee maintenance requirements of the U.S. Army Corps of Engineers. Frequently, the burns also encroach into the riparian vegetation adjacent to the levees along Paradise Cut. As a result, all habitats within the study area have been greatly modified by human activities; there are no natural or undisturbed vegetative communities on the island. The vegetative communities of the Stewart Tract study area are shown on Figure III-8.

TABLE III-8

WILDLIFE AND PLANT SPECIES EVALUATED

LISTED SPEC.	COMMON NAME	STATE STATUS	FEDERAL STATUS	POTENTIAL HABITAT PRESENT?	SEEN?	FOCUSED SURVEY CONDUCTED
Invertebrates						
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	–	T	Yes	No	Yes
Fish						
Hypomesus transpacificus	Delta smelt	T	T	Yes	No	Yes
Reptiles						
Thamnophis gigas	Giant garter snake	T	T	Yes	No	Yes
Birds						
Branta canadensis leucopareia	Aleutian Canada goose	–	T	Marginal	No	–
Buteo swainsoni	Swainson's hawk	T	–	Yes	Yes	Yes
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	E	–	Marginal	No	Yes
Laterallus jamaicensis coturniculus	California black rail	T	C2	Marginal	No	Yes
Mammals						
Vulpes macrotis mutica	San Joaquin kit fox	T	E	No	No	Yes
Plants						
Eryngium racemosum	Delta button celery	E	C1	Marginal	No	Yes
Lilaeopsis masonii	Mason's lilaeopsis	R	C2	Marginal	No	Yes
CANDIDATE & PROPOSED SPECIES & SPECIES OF SPECIAL CONCERN						
Invertebrates						
Lytta moesta	Moestan blister beetle	–	C2	Yes	No	–
Fish						
Pogonichthys macrolepidotus	Sacramento splittail	CSC	PT	Yes	No	Yes
Spirinchus thaleichthys	Longfin smelt	–	C2	Yes	No	Yes
Amphibians						
Ambystoma californiense	California tiger salamander	CSC	C2	No	No	–
Rana aurora draytonii	California red-legged frog	CSC	PE	Marginal	No	–
Scaphiopus hammondi hammondi	Western spadefoot toad	CSC	2R	Yes	No	–
Reptiles						
Clemmys marmorata marmorata	Northwestern pond turtle	CSC	C2	Yes	Yes	–
Clemmys marmorata pallida	Southwestern pond turtle	CSC	C2	Yes	Yes	–
Birds						
Accipiter cooperi	Cooper's hawk	CSC (nesting)	–	Yes (foraging)	Yes	–
Accipiter striatus	Sharp-shinned hawk	CSC (nesting)	–	Yes (foraging)	Yes	–
Agelaius tricolor	Tri-colored blackbird	CSC	C2	Marginal	No	–
Ardea herodius	Great blue heron	* (rookery)	–	Yes	Yes	–
Athene cunicularia	Burrowing owl	CSC (burrow sites)	–	Yes	No	–

Table III-8, Continued

CANDIDATE & PROPOSED SPECIES & SPECIES OF SPECIAL CONCERN						
Casmerodius albus	Great egret	* (rookery)	--	Yes	Yes	--
Charadrius montanus	Mountain plover	CSC	C2	Marginal	No	--
Circus cyaneus	Northern harrier	CSC (nesting)	--	Yes	Yes	--
Elanus caeruleus	White-tailed kite	* (nesting)	--	Yes	Yes	--
Lanius ludovicianus	Loggerhead shrike	--	C2	Yes	Yes	--
Numenius americanus	Long-billed curlew	CSC	--	Yes	Yes	--
Nycticorax nycticorax	Black-crowned night heron	* (rookery)	--	Yes	Yes	--
Phalacrocorax auratus	Double-crested comorant	CSC (nesting)	--	Yes	Yes	--
Sterna caspia	Caspian tern	* (nesting colony)	--	Marginal	Yes	--
Sterna forsteri	Forster's tern	* (nesting colony)	--	Yes	Yes	--
Mammals						--
Perognathus inornatus inornatus	San Joaquin pocket mouse	CSC	--	No	No	--
Plecotus townsendii townsendii	Pacific western big-eared bat	CSC	C2	No	No	--
Sylvilagus bachmani riparius	Riparian brush rabbit	SCE	C1	Marginal	No	Yes
Neotoma fuscipes riparia	San Joaquin Valley woodrat	CSC	C1	Marginal	No	Yes
Plants						
Cirsium crassicaule	Slough thistle	--	C2	Marginal	No	Yes
Hibiscus californicus	California hibiscus	--	C2	Marginal	No	Yes
Lathyrus jepsonii ssp. *jepsonii*	Delta tule-pea	--	C2	Marginal	No	Yes
Quercus lobata	Valley oak	--	--	Yes	Yes	Yes
Trichocoronis wrightii	Trichocoronis	--	--	No	No	Yes
Tropidocarpum capparideum	Caper-fruited tropidocarpum	--	C2	No	No	Yes
Sensitive Communities						
	Great Valley valley oak riparian forest	--	--	Yes	Yes	--

[1]Status Categories

E = Endangered
T = Threatened
R = Rare
P = Proposed
SCE = California candidate for listing as endangered
CSC=DFG Species of Special Concern.
C1 = Category 1: Taxa for which the Fish and Wildlife Service has sufficient biological information to support a proposal to list as endangered or threatened.
C2 = Category 2: Taxa for which existing information may warrant listing, but for which substantial biological information to support a proposed rule is lacking.
C3C = Category 3C: Taxa that are widespread or too common to list
2R = Recommended for Category 2 status
* = DFG "Special Animal"

Riparian habitat occurs around most of Stewart Tract along the San Joaquin River, Paradise Cut and Old River, but the primary concentration occurs within Paradise Cut. This riparian corridor continues to be substantially disturbed due to the clearing of brush from canal edges. The existing plant communities that occur in Paradise Cut consist of palustrine emergent, palustrine forested, and palustrine scrub-shrub, in accordance with the terminology of Cowardin (1979). Under the Cowardin classification, Riverine Systems are defined as "all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and with water containing ocean-derived salts in excess of 0.5%." In addition, water is usually, but not always flowing in the Riverine System.

The dominant overstory vegetation in Paradise Cut interbreeds among three remnant riparian community types: Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, and Great Valley Oak Riparian Forest (Holland, 1986). The dominant tree species include Fremont cottonwood, Valley oak, and Goodding's black willow, and shrubs such as willows (Salix sp.), and California button willow (Cephalanthus occidentalis var. californicus).

Fallow ground and edges of fields in the study areas contain primarily introduced, herbaceous species. Common annual species include Black mustard, Yellow star thistle, Rapeseed, Filaree, and bromes. Common herbaceous perennials include Johnsongrass, Bermuda grass, and Curly dock.

Wildlife

Prominent wildlife habitat features in the study area include agricultural fields and orchards, and the riparian and wetland habitats along the San Joaquin River, Paradise Cut and Old River. Wildlife in the study area consists of mammals, numerous bird, and various reptile species. Common wildlife species observed in the Stewart Tract study area include Desert Cottontail, Opossum, Jackrabbit, and Striped Skunk. [see Tables III-6 and 7, and Figure III-8]

Swainson's hawk, a state-listed threatened species was previously known to occur in the area (Grunwald & Associates, 1993), and was observed during the DEIR studies.

Fallow ground can provide nesting and foraging habitat for burrowing animals and other terrestrial wildlife. Grasslands also provide foraging habitat for birds such as raptors (birds of prey), yellow-billed magpies, mourning doves, scrub jays, ring-necked pheasants, and blackbirds.

Wetlands

The types of waters of the U.S. and jurisdictional wetlands in the study area include drainage channels, ponds, rivers, and wetlands (Little, 1993). Specific wetland features in the Stewart Tract study area include the San Joaquin River, Paradise Cut and Old River, a large permanent pond, and an intermittent drainage canal adjacent to Stewart Road. Stewart Tract, on which the Stewart Tract project is located, is surrounded by river and slough wetland systems. Wetland habitats in the study area can be divided into two major types: riverine and palustrine, in accordance with the terminology of Cowardin, et. al. (1979).

The western section of Paradise Cut is tidally influenced via connections with Old River. Water flow in other portions of Paradise Cut is influenced by farm operations which pump water into and out of the channels of the Cut. A rock dam (called Paradise Dam) has been constructed at the easterly end of Paradise Cut at the intersection of the Cut and the San Joaquin River. During the spring and summer, water is normally pumped from the San Joaquin River into Paradise Cut to support farm operations on

Stewart Tract. Paradise Dam normally prevents water from flowing into Paradise Cut from the San Joaquin River, except in high winter flows or flood stage events. However, there may be some influx of water into Paradise Cut from the San Joaquin River through Paradise Dam or via subsurface aquifers. Flood protection from the San Joaquin River and Old River on Stewart Tract is provided by levees constructed of dirt and rip-rap.

Mossdale Village Project Area

The major plant community and wildlife habitat types in the Mossdale Village study area include riparian habitat, a permanent pond, irrigated field and row crops, and orchards.

Vegetation

Fallow ground and edges of fields in the study areas contain primarily introduced, herbaceous species. Common annual species include Black mustard, Yellow star thistle, Rapeseed, Filaree, and bromes. Common herbaceous perennials include Johnsongrass, Bermuda grass, and Curly dock. The vegetative communities of the Mossdale Village study area are presented in Figure III-8.

A narrow band of riparian vegetation occurs along the San Joaquin River which separates the Mossdale Village site from Stewart Tract. The dominant vegetation types include various species of trees, such as Fremont cottonwood, Valley oak, and Goodding's black willow, and shrubs such as willows, and California button willow. The dominant overstory along the San Joaquin River consists of remnant Great Valley Cottonwood Riparian Forest.

Thirty-one acres of land owned by the Reclamation District adjacent to the San Joaquin River are designated as a Valley elderberry longhorn beetle mitigation site. This area has been planted in elderberry shrubs. The dominant overstory vegetation in this area consists of Fremont cottonwood and Valley oak. Since this area is owned by the Reclamation District, it is not part of the project impact area, but is nevertheless an important wildlife oasis because of the large number of mature trees.

Wildlife

Wildlife in the study area consists of various mammal, bird, and reptile species. Wildlife or their sign observed in the study area are listed in Table III-7. Common wildlife species observed in the Mossdale Village study area include Desert Cottontail, Opossum, Jackrabbit, and Striped Skunk. Swainson's hawk, a state-listed threatened species was previously known to occur in the area (Grunwald & Associates, 1993), and was observed during the DEIR studies.

Fallow ground can provide nesting and foraging habitat for burrowing animals and other terrestrial wildlife. Grasslands also provide foraging habitat for birds such as raptors (birds of prey), yellow-billed magpies, mourning doves, scrub jays, ring-necked pheasants, and blackbirds.

Wetlands

Wetland features in the Mossdale Village study area include the San Joaquin River and a permanent pond (Little, 1993). The Mossdale Village study area is intensively managed for agriculture. Typical crops include alfalfa, safflower, and corn. Most vegetation along the levees is cut down and/or burned, apparently in accordance with levee maintenance requirements of the U.S. Army Corps of Engineers. Flood protection from the San Joaquin River is provided by levees constructed of dirt and rip-rap.

Fisheries

Taken together, the Sacramento and San Joaquin Rivers form one of the largest and most important estuaries in the world. This estuary provides important habitat for a diverse assemblage of fishes, including anadromous and resident, freshwater, marine and brackish water species. Numerous human-induced and natural events have contributed to changes in populations, diversity, distribution and habitat conditions for the fishery resources in the estuary. Many of the changes began over 100 years ago, with hydraulic mining having destroyed large salmon runs. Other events which have led to declining fish stocks include: dams and water diversions for domestic, agriculture, industrial, and power-generation uses; flood control projects; drought conditions; commercial fishing; and, the introduction of non-native fish species.

In an attempt to restore declining fish stocks in the Sacramento-San Joaquin estuary, state and federal agencies have been conducting numerous studies and analyses, including:

1. Fish salvage operations at the state and federal water pumping facilities.

2. Implementation of temporary barriers, one of which is located on Upper Old River near the San Joaquin River, adjacent to the project site.

3. Fishery resources data collection throughout the estuary; and

4. Integration of information, via Bay-Delta hearings, in an attempt to identify critical habitat, water quality, water temperature and flow requirements for fish species of *special concern.*

The long-term objective of these studies is to augment declining stocks, in general, and to double the runs of the chinook salmon by the year 2000, in particular.

Several distinct ecological fish zones throughout the estuary have been recognized, which are shown on Figure III-9. In the vicinity of the proposed project, the San Joaquin River provides a habitat rich in fish diversity. At least 22 fish species from 22 families have been recorded from trawl, seine, and fyke net surveys (see Table III-8). When viewed from a fishery resources management perspective, the list includes fish species of *special concern.*

Species of special concern include those which are state- and/or federally-listed as *endangered, threatened,* or *rare;* or are *Category 1 or 2 Candidates* for federal listing. A Category 1 species is one which the U.S. Fish and Wildlife Service (USFWS) has substantial evidence to support a proposal for listing as endangered or threatened. A Category 2 species is one in which available information indicates that a proposal for listing is possibly inappropriate, but that the data available are not conclusive. In addition, a species may be treated as "rare or endangered", even if it is not on one of the official lists, if it meets any of the following criteria:

1. Its survival and reproduction in the wild are in immediate jeopardy;
2. If the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; and
3. If it seems to conform to the state or federal definitions of a threatened or endangered species.

In addition to the species of special concern, the Striped Bass (Morone saxatilis) is important, both as a food web organism and as a recreational species.

The *special status* fish species which have either been collected in the vicinity of or may inhabit the project area include the fall-run chinook salmon, the Delta smelt, the Sacramento splittail, and the longfin smelt [see Table III-9]. In addition, the striped bass is an important recreational species. And, although the *threatened* (USFWS) winter-run chinook salmon does not use the San Joaquin River watershed, many are lost through pumping operations at State Water project and Federal Central Valley Project facilities. Any water withdrawals from either or both of these systems could affect this race of chinook salmon.

Although not on any state or federal list, the fall-run chinook salmon meets the requirements for a *threatened* or *endangered* species (Moyle, 1992). The Delta smelt has been listed as *threatened* by the USFWS. Both the longfin smelt and the Sacramento splittail are listed as Candidate Species by the USFWS. The USFWS is recommending that the longfin smelt be a Category 2 Candidate species. The splittail is a Category 2 species.

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FIGURE III-9

FISH ZONES OF THE SAN JOAQUIIN RIVER SYSTEM

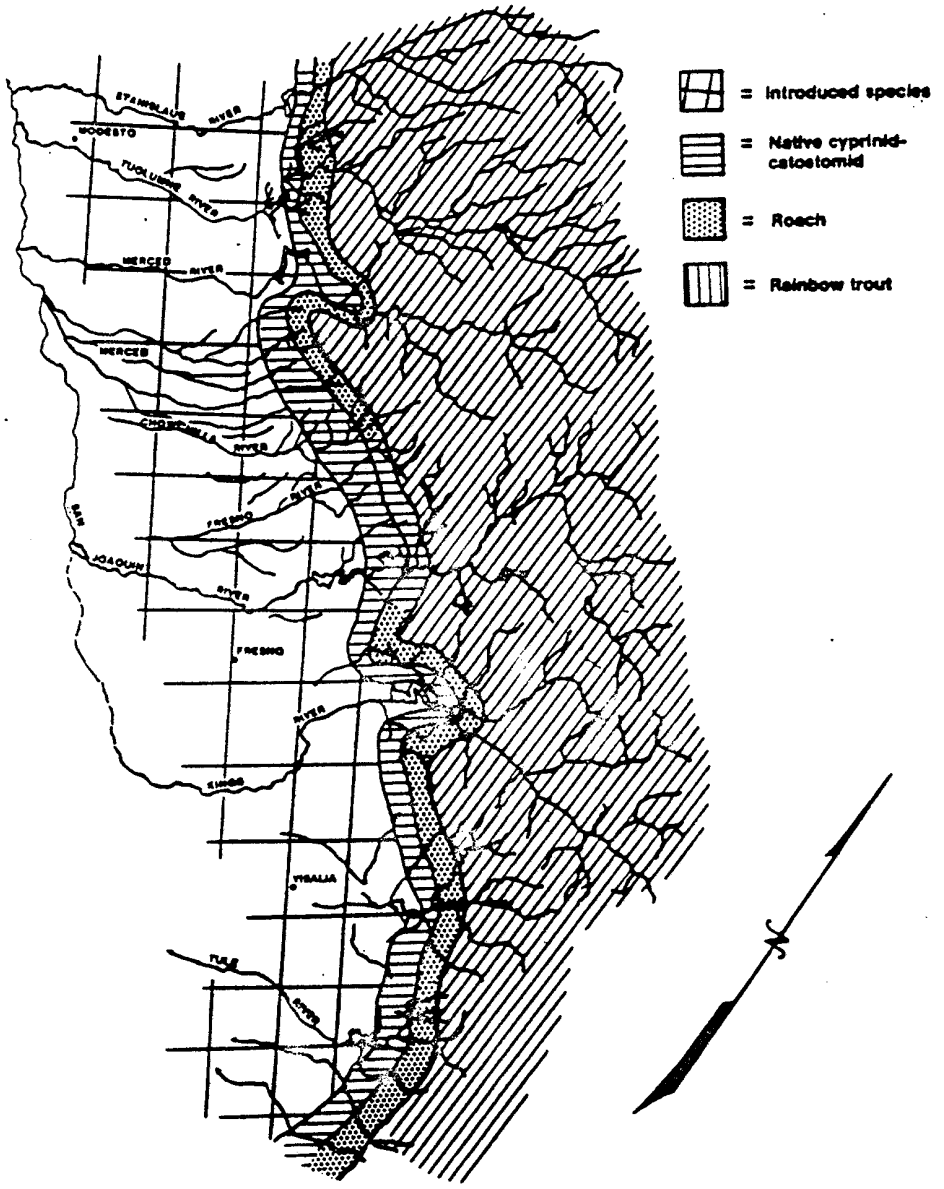

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TABLE III-9A

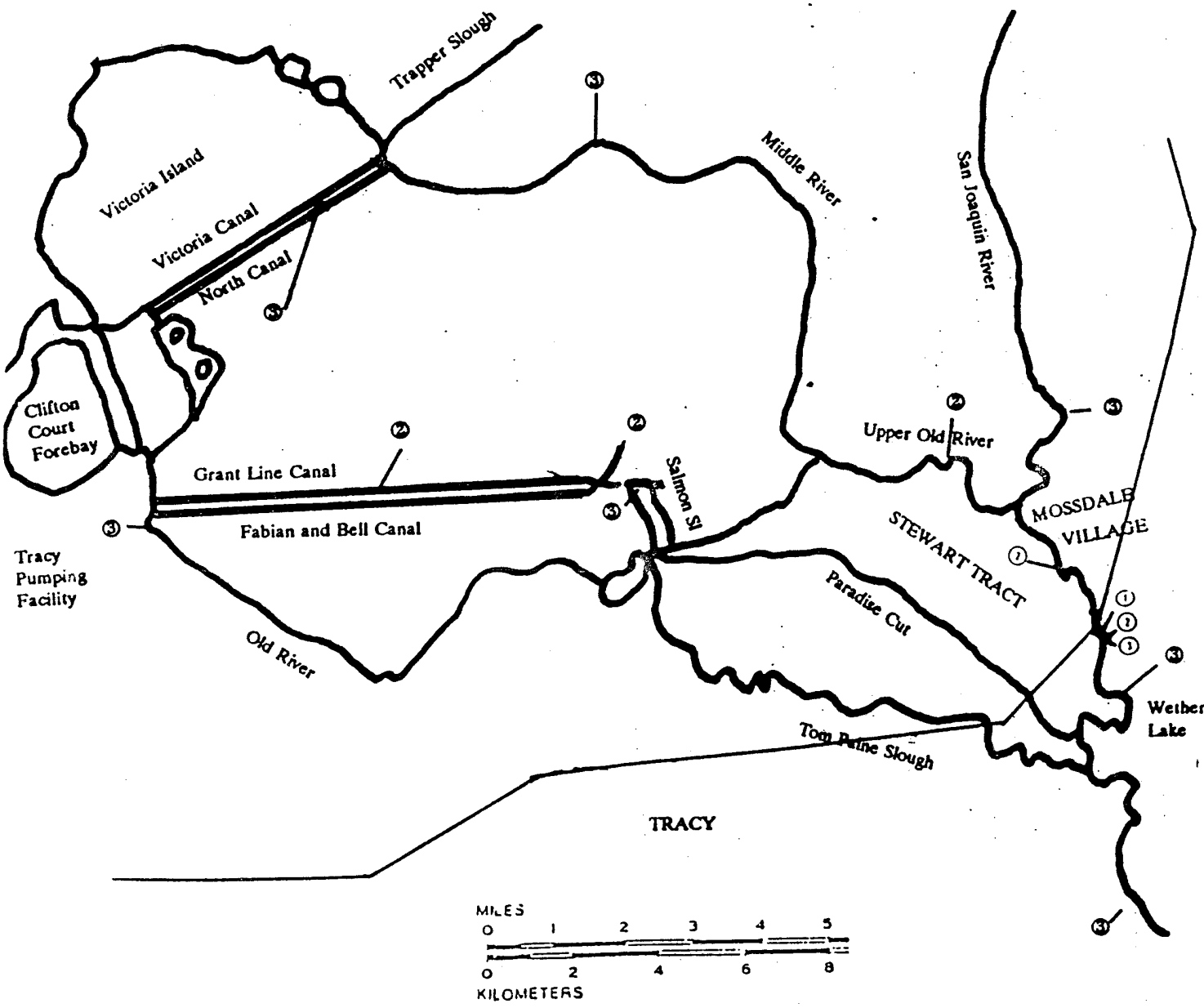
FISH SPECIES WHICH HAVE BEEN COLLECTED IN THE VICINITY OF THE PROJECT SITE

COMMON NAME	SCIENTIFIC NAME	LOCALE [See also #s on Figure III-11]
Pacific Lamprey	Lampetra tridentatus	San Joaquin River [1]
White Sturgeon	Acipenser transmontanus	San Joaquin River [1]
Threadfin Shad	Dorosoma petenense	San Joaquin River [1,2] Fabian Canal [2]
American Shad	Alosa sapidissima	San Joaquin River [2] Fabian Canal [2]
Chinook Salmon	Oncorhynchus tshawytscha	San Joaquin River [1,2,3], Upper Old River [2], Fabian Canal [2]
Steelhead Trout	Oncorhynchus mykiss	San Joaquin River [1]
Delta Smelt	Hypomesus transpacificus	San Joaquin River [2] Fabian Canal [2]
Longfin Smelt	Spirinchus thaleichthys	San Joaquin River [2]
Sacramento Blackfish (Minnow)	Orthodon microlepidontus	San Joaquin River [1]
Sacramento Splittail (Minnow)	Pogonichthys macrolepidontus	San Joaquin River [1]
Golden Shiner (Minnow)	Notemigonus chrysoleucas	San Joaquin River [1]
Carp	Cyprinus carpio	San Joaquin River [1]
Black Bullhead	Ictalurus melas	San Joaquin River [1]
Brown Bulhead	Ictalurus nebulosus	San Joaquin River [1]
White Catfish	Ictalurus catus	San Joaquin River [1]
Channel Catfish	Ictalurus punctatys	San Joaquin River [1]
Mississippi Silverside	Menidia audens	San Joaquin River [1]
Striped Bass	Morone saxatilus	S an Joaquin River [1,2], Fabian Canal [2], Upper Old River [2], Grant Line Canal [2]
Bigscale Logperch	Percina macrolepida	San Joaquin River [1]
Tule Perch	Hysterocarpus traski	San Joaquin River [1,2], Fabian Canal [2], Grant Canal [2]

[1] CFG Chinook Salmon Smolt Trapping, San Joaquin River, Mossdale (Loudermilk, 1994)
[2] CFG Trawl (Turner and Kelley, 1966)
[3] Interagency Ecological Studies (Hovecamp, 1994; Herrgesell, 1993)
Note: See Figure III-10 for Fish Collection Sites

FIGURE III-10

FISH SPECIES COLLECTED IN THE VICINITY OF THE PROPOSED PROJECT AREA



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ENERGY RESOURCES

There are no direct sources of energy within the planning area except those resulting from privately owned solar power generating units. All energy sources (other than wood burning) are provided by the Pacific Gas & Electric Company. [see Part V for further discussion]

ARCHAEOLOGICAL AND CULTURAL RESOURCES

Record Searches

Record searches of the planning area were conducted in 1991 and 1993, and field studies were completed in 1993. The precise location of mapped sites researched in 1991 by Western Ecological Services Company of Novato, CA., and in 1993 by Far Western Anthropological Research Group of Davis, CA., is being kept confidential to prevent vandalism or other damage as required by terms of agreements with the Central California Information Center at California State University, Turlock. The 1991 record search indicated that the mapped sites collectively involve the following cultural resources: a major Yokuts Indian village; various collections of Indian artifacts; and, several burial sites. The Village was reported as containing manos and metates, large bowl mortars and interments that ranged from 3500 B.C. to possibly as late as the 1830's. The malarial outbreak of the 1830's is

believed to have caused abandonment of the Village. The Village was completely destroyed in 1972 when excavated for fill dirt in the construction of Interstate 5.

The 1993 records search revealed that several intensive archaeological surveys have occurred in the vicinity of the study area. Napton (1991) examined 200 acres for a proposed gravel quarry at the southeastern corner of Stewart Tract without finding cultural resources. Werner (1984) conducted record searches and field examination of several parcels on Stewart Tract, involving 1,473 acres, without recording any new archaeological sites. Further studies by Napton (1988) and by West and Scot (1990) have confirmed the widespread disturbance and destruction of archaeological sites along the San Joaquin River.

The 1993 records search also revealed that two archaeological sites are recorded within the planning area. Site SJO-3 was recorded as a large occupation mound with human burials, mortars, pestles, and metates, located within the Mossdale Village site east of the river. SJO-19 is recorded as being close to SJO-3. It was recorded as a possible prehistoric cemetery location, with no signs of midden. The record search and literature review indicate that archaeological sites in this area tend to be located on high ground to avoid seasonal floods. Natural levees would have been the preferred site location, but these are now incorporated into the enhanced levees constructed since Euroamerican settlement. The Mossdale Village area is considered to be particularly sensitive, given previously recorded sites.

Field Surveys

There have been seven cultural resource surveys made within the Planning Area between 1986 and 1993. Four cultural resources have also been recorded within a one mile radius of the Planning Area boundaries. The Information Center has also checked the National Register of Historic Places, Points of Historic Interest files, the California Inventory of Historic Resources (1976) and the California Historic Landmarks files (1990).

The most recent field studies are those commissioned as part of the West Lathrop Specific Plan program. An archaeological reconnaissance of Stewart Tract and Mossdale Village was performed by Far Western Anthropological Research Group in the fall of 1993. The results of this survey have been published as a confidential report to the City of Lathrop, on file with the Community Development Department.[17] The sampling strategy incorporated a sensitivity model with practical considerations involved in surveying active agricultural lands and private residential properties. All levees and areas within 50 meters of watercourses on the Stewart Tract were examined. Since Napton (1988) surveyed all levees east of the San Joaquin River (Mossdale Village area), they were not reexamined. Areas targeted for intensive examination included vicinities of previously recorded sites. During the course of field work, an area reported by local residents to have been the former location of a prehistoric habitation mound was intensively examined, including shovel probes.

Sample coverage of lower elevation areas under cultivation was done in large blocks, corresponding to particular field conditions and crops. Emphasis on Stewart Tract was given to areas which appeared to be relatively undisturbed. Special attention was also given to drainages and depressions shown on the U.S.G.S. 1914 and 1915 Lathrop and Union Island topographic sheets. Fields in dense crops (e.g., sugar beets, corn) were not examined due to lack of ground visibility. Fortunately, relatively little land contained such crops at the time of the survey.

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[17] Far Western Anthropological Research Group, **A Cultural Resource Survey of the Stewart Tract and Mossdale Areas of the West Lathrop Specific Plan, San Joaquin County, California**, January, 1994.

The survey was conducted using 6-person crews spaced at 25 meter intervals. All prehistoric and historic resources were recorded to the standards outlined by the California Department of Parks and Recreation Handbook (DIR 422 A-I, 1989). No artifacts were collected, but two pestles in the possession of local residents were loaned for documentation.

A total of 2,790 acres was examined, with 2,290 acres on Stewart Tract and 500 acres within Mossdale Village. Eight miles of levees were surveyed on Stewart Tract; all remaining levees were examined during the block survey of parcels adjacent to levees. All sensitive areas were examined with the exception of the Silveira property (about 20 acres) east of the San Joaquin River for which access was denied by the owner. Consequently, this area must be examined by a professional archaeologist before any development under the Specific Plan can be allowed to occur by the City of Lathrop.

Three archaeological sites and six isolated finds were recorded during the survey. Site ST-1 was identified by area residents as a former location of an occupation mound. These reports are considered very reliable since the location was designated independently by separate individuals. Materials described as former contents include human bone and bowl mortars, clearly indicating that a major occupation and/or burial site once stood in that location. Informants report that the site was leveled more than 40 years ago, presumably to be used as fill for depressions which once pockmarked Stewart Tract. Reconnaissance at the location of the former mound revealed four artifacts dispersed over an area of about 400 x 375 meters. From shovel probes conducted at the site, it appears that no intact portion of the former mound remains. It also appears that if the alleged prehistoric mound ever existed, it has since been removed and used for fill at another location.

Site SJO-19 was located and re-recorded during the survey. While originally recorded as a possible prehistoric cemetery lacking midden deposit (Bennyhoff 1958), current evidence indicates the presence of a midden deposit, abundant shellfish and faunal remains, many pieces of disarticulated human bone, and numerous artifacts.

Site MD-1 is an unusual archaeological site in that it is composed almost entirely of small fragments of freshwater shellfish. It is conceivable that the remains are not of prehistoric or historic age, but of modern cultural or even non-cultural origin.

Isolated finds were made at six locations, with one being historic and the others prehistoric. Isolate 1 consists of horse drawn cutters, rakes and wagons. Two of the prehistoric isolates (3 and 4) are clustered on Stewart Tract, with two well-made pestles reputed to have been found there by farm laborers.

Built resources found within the study area date from the historic period, prior to 1945, and preliminarily have been classified into the three categories of residential structures, agricultural structures and facilities, and transportation facilities. Built resources have not been evaluated, and await the expertise of a qualified architectural historian.

SCENIC RESOURCES

The scenic resources that exist within the planning area consist of farmland, stands of Valley Oaks, the San Joaquin River and its tributaries surrounding Stewart Tract, riparian vegetation along waterways, old farm structures, and the Southern Pacific Railroad Bridge and the old Highway 50 bridge which cross the San Joaquin River parallel to and along the alignment of Manthey Road, respectively. The visual accessibility of these scenic resources is related to their distance from transportation corridors

and from areas of open space where they can be observed. Principal views within the planning area are provided by the freeway corridors and by County roads west of Interstate 5 which extend to the San Joaquin River and onto the Stewart Tract.

Because of their general elevation above adjacent lands, views from the freeway corridors provide both middleground and background views of the agricultural areas to the west and south, and to the Coast Range of mountains to the west. Views of the Sierra Nevada are more restricted than are views of the Coast Range because of atmospheric conditions. Views of the San Joaquin River are wholly restricted except at bridges or on the top of bordering levees because of the height of the levee system. Views of remaining stands of Valley Oaks within Mossdale Village are clearly visible from traffic along I-5, north of SR 120. Views of remaining riparian vegetation within Paradise Cut and along the San Joaquin River are limited primarily from the levees which border the Cut and the River, but which are not open to public access.

THE NOISE ENVIRONMENT

Introduction

Potentially significant noise sources within the West Lathrop planning area are intermittent railroad operations along the Southern Pacific and Union Pacific Railroads, and steady vehicle traffic along I-205, I-5 and State Route 120. Along the railroad rights-of-way, noise generated by a single event of through railroad freight traffic may exceed 95 dBA. Lesser noise levels of 65 dBA are generated by occasional trucks along Louise Avenue, Manthey Road and Stewart Road. Farm equipment can generate noise levels similar to that generated by trucks. There are no noise sensitive uses such as schools, hospitals, convalescent homes and housing for the elderly currently located within the planning area..

Noise is often described as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. Researchers have generally agreed that A-weighted sound pressure levels (sound levels) are well correlated with subjective reaction to noise. The unit of sound level measurement is the decibel (dB), sometimes expressed as dBA. Variations in sound levels over time are represented by statistical descriptors, and by time-weighted composite noise metrics such as Day-Night Average Level (L_{da}). Throughout the description which follows, A-weighted sound pressure levels are used to describe environmental noise unless otherwise indicated.

Existing Noise Environment

The West Lathrop Specific Plan area is generally flat, bounded primarily by water courses to the north, west and south, and by Interstate 5 to the east. Most of the planning area is currently used for agricultural purposes, but residential uses and a marina are also present. The greatest concentration of residential use is located along and near Manthey Road, north of the junction of I-5 and SR-120. The existing noise environment is defined primarily by freeway traffic and railroad operations. The effects of these noise sources are limited mostly to the eastern portion of the planning area.

The planning area is not significantly affected by aircraft operations from Stockton Metropolitan Airport, or helicopter training activities associated with Sharpe Army Depot northeast of the planning area. No significant noise-producing commercial or industrial uses were identified within the immediate vicinity of the planning area, although the use of farm equipment results in localized short-term increases in ambient noise levels within agricultural portions of the planning area.

Traffic Noise Levels

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was employed for the prediction of surface traffic noise levels. The FHWA model is the analytical method currently favored for traffic noise prediction by most state and federal agencies, including Caltrans. The model is based on the CALVENO noise emission factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is considered to be accurate within 1.5 dB. To predict L_{dn} values, it is necessary to determine the day/night distribution of traffic, and adjust the traffic volume data to yield an equivalent hourly traffic volume.

Inputs to the noise prediction model include average daily traffic volume (ADT), the day/nighttime traffic distribution, medium and heavy truck percentages and vehicle speed. The ADT's for all roadways were obtained from the Crane Transportation Group which serves as the traffic consultant in preparation of this EIR. The day/night traffic distribution, truck mix assumptions, and average vehicle speeds were obtained from Brown-Buntin Associates file data and Caltrans traffic counts. Noise due to traffic on I-5 was measured at the locations shown on Figure III-11 on May 4, 1994, at 10:15 am. A concurrent count of I-5 traffic was conducted, which was projected to obtain an hourly traffic volume. Because the planning area is so predominantly affected by I-5 traffic, no traffic noise level measurements were conducted for other roadways in the planning area.[18]

The purpose of traffic noise level measurements was to determine the accuracy of the FHWA model in describing the existing I-5 noise environment. Noise measurement results were compared to the model results by entering the observed traffic volumes, speed and distance as inputs to the model. The results of this comparison are shown in Table III-9.

TABLE III-9B

COMPARISON OF FHWA MODEL TO MEASURED NOISE LEVELS
Interstate 5 at Lathrop, May 5, 1994

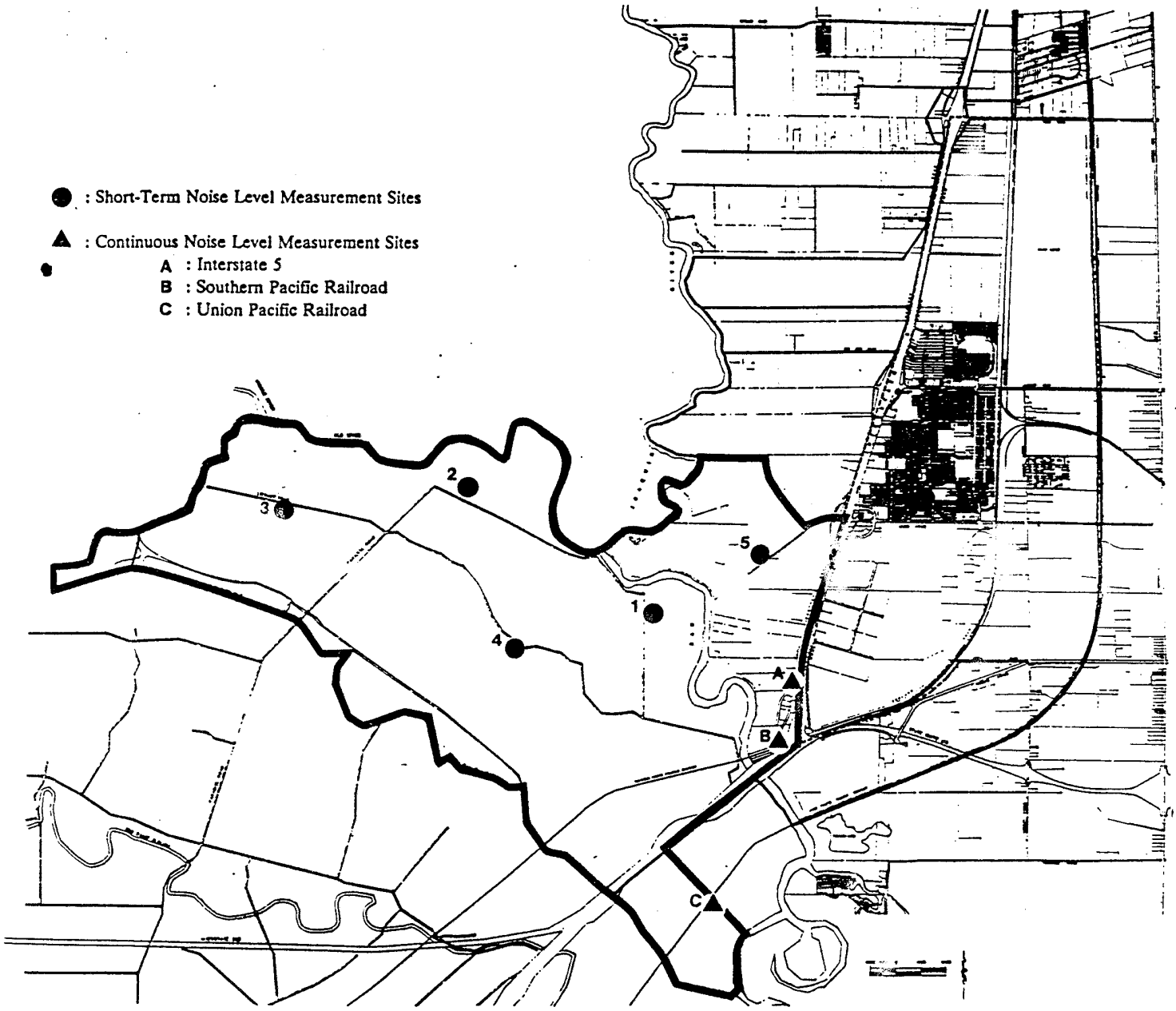
Highway Position	Vehicles/Hour			Estimated Speed	Distance (feet)	Measured L_{eq} dB	Modeled[19] L_{eq} dB
	Autos	Med.Truck	Hvy. Truck				
At Grade	2136	100	672	65	100	76.5	75.7
Elevated	2136	100	672	65	100	66.1	75.7

18 Instrumentation used in developing noise measurements consisted of a Larson-Davis Laboratories (LDL) Model 700 and 820 integrating sound level meters which were calibrated before use with a LDL Type CA-250 acoustical calibrator. The equipment used meets all pertinent specifications of the American National Standards Institute for precision sound level measurement systems.

19 Acoustically "soft" site assumed.

FIGURE III-11

NOISE MEASUREMENT LOCATIONS
West Lathrop Planning Area



Brown-Buntin Associates

TABLE III-10

FHWA TRAFFIC NOISE PREDICTION MODEL INPUTS
West Lathrop Planning Area

ROADWAY/SEGMENT	ADT		Day/Nite %	% Medium Trucks	% Heavy Trucks	Speed (mph)
	Existing Weekday	Existing Saturday				
Interstate 5:						
1. Roth Rd. to Lathrop Rd.	43,900	47,800	70/30	3.0	16.9	65
2. Lathrop Rd. to Louise Ave.	42,900	47,800	70/30	3.0	16.9	65
3. Louise to SR 120	42,800	47,800	70/30	3.0	16.9	65
4. SR 120 to I-205	59,700	75,600	70/30	2.7	13.6	65
5. South of I-205	17,750	18,200	70/30	3.7	19.3	65
State Route 120:						
6. Yosemite Ave. to I-5	31,800	37,350	70/30	2.9	15.5	60
Interstate 205:						
7. I-5 to MacArthur Rd.	41,950	57,400	70/30	3.2	14.9	60
Lathrop Road:						
8. Manthey Rd. to I-5	370	670	83/17	2.0	3.0	30
9. East of I-5	5,950	5,250	83/17	2.0	3.0	35
Louise Avenue:						
10. Manthey to I-5	490	1,400	83/17	2.0	3.0	30
11. East of I-5	7,850	10,500	83/17	2.0	3.0	35
Manthey Road:						
12. Roth to Lathrop	550	750	83/17	2.0	3.0	40
13. Lathrop to Louise	270	370	83/17	2.0	3.0	40
14. Louise to Stewart Rd.	350	770	83/17	2.0	3.0	40
15. South of Stewart Rd.	230	500	83/17	2.0	3.0	40
Paradise Road:						
16. Delta to Canal	170	350	83/17	2.0	3.0	45
17. Canal to Arbor	230	480	83/17	2.0	3.0	45
18. Arbor to I-5	150	360	83/17	2.0	3.0	45
Roth Road:						
19. Manthey to I-5	550	700	83/17	2.0	3.0	30
20. East of I-5	4,700	1,650	83/17	2.0	3.0	35
Stewart Road:						
21. West of Manthey	170	410	83/17	2.0	3.0	

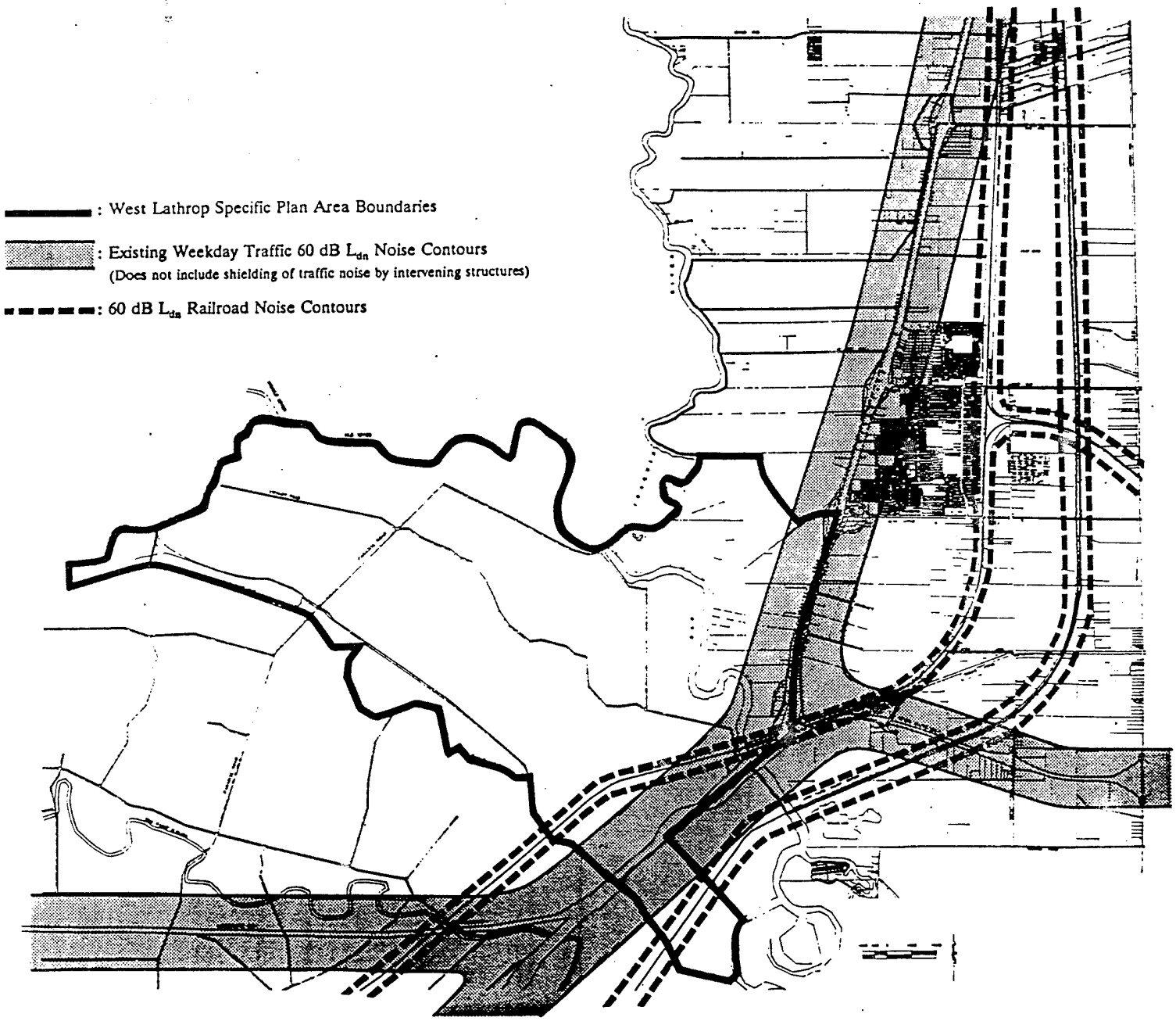
TABLE III-11

EXISTING TRAFFIC NOISE LEVELS
West Lathrop Planning Area

ROADWAY	L_{dn} dB @ 100' from Roadway Centerline		Distance to L_{dn} Noise Contours (ft.) for Existing Weekday Traffic		
	Existing Weekday	Existing Saturday	70dB	65dB	60dB
Interstate 5:					
Roth Rd. to Lathrop Rd.	79	49	371	799	1721
Lathrop to Louise Ave.	78	49	367	787	1695
Louise to SR 120	78	49	365	786	1692
SR-120 to I-205	79	80	420	906	1951
	75	75	214	462	996
SR-120:					
Yosemite Ave. to I-5	76	77	266	573	1234
I-205:					
I-5 to MacArthur	78	79	316	681	1466
Lathrop Road:					
Manthey Rd. to I-5	47	50	3	7	14
East of I-5	60	59	20	44	95
Louise A venue:					
Manthey to I-5	49	53	4	8	17
East of I-5	61	62	25	53	114
Manthey Road:					
Roth to Lathrop	51	52	5	11	23
Lathrop to Louise	47	49	3	7	14
Louise to Stewart Rd.	49	52	4	8	17
South of Stewart	47	50	3	6	13
Paradise Road:					
Delta to Canal	46	50	3	6	12
Canal to Arbor	48	51	2	7	15
Arbor to I-205	46	50	2	5	11
Roth Road:					
Manthey to I-5	49	50	4	9	18
East of I-5	59	54	18	38	81
Stewart Road:					
West of Manthey	46	50	3	6	12

FIGURE III-12

EXISTING WEEKDAY HIGHWAY AND RAIL TRAFFIC NOISE CONTOURS
[@ 60 dB L_{dn}]



Brown-Buntin Associates

The data from Table III-9 indicate that the model reasonably predicted I-5 traffic noise levels at the noise measurement location which was at grade with the roadway. At the elevated location (SPRR crossing), the model over-predicted I-5 noise levels by approximately 10dB. Therefore, the FHWA model was used without adjustment to predict existing and future I-5 traffic noise levels within the planning area vicinity where I-5 is relatively at grade with the planning area. At the elevated locations, the model was calibrated to account for shielding provided by the elevated roadway.

The input data used with the FHWA model are shown in Table III-10, and the results of analysis using this data at a representative distance of 100 feet from roadway centerlines are shown in Table III-11. Table III-11 also shows the distances to the 60, 65 and 70 dB L_{dn} traffic noise contours for existing weekday traffic. The approximate locations of the existing traffic contours for these dB levels are shown on Figure III-12. Table III-9 and Figure III-12 show that the planning area is affected by existing traffic on I-5, but that it is not affected by I-205, SR-120 or internal street traffic. Due to the low existing traffic volumes on the internal surface streets, the existing noise contours for those roadways are effectively located within the roadway right-of-way. As a result, those contours are too small to plot on the planning area base map.

Railroad Noise Levels

Railroad noise measurements were conducted by Brown-Buntin Associates (BBA) at two locations on May 2-4, 1994. The monitoring sites were located approximately 50 feet from the Union Pacific and Southern Pacific railroad lines at the locations shown on Figure III-12.[20] The purpose of the measurements was to determine a typical sound exposure level (SEL) for railroad line operations within the planing area. The data thus derived could then be used to describe the railroad noise environment, and an annual average L_{dn} could be calculated. Locomotive noise was found to be the major contributor as defined by SEL. The results of railroad noise level measurements are shown in Table III-12. The measured hourly noise levels adjacent to the railroad tracks are shown on Table III-13.

TABLE III-12

RAILROAD NOISE LEVEL MEASUREMENT RESULTS
West Lathrop Planning Area

RAILROAD	Monitoring Period	Number of Apparent Railroad Operations			Mean Sound Exposure Level (SEL) @ 50 feet
		Daytime	Nighttime	Total	
Southern Pacific	43 hours	4	0	4	103 dB
Union Pacific	42 hours	16	11	27	105 dB

[20] Instrumentation consisted of LDL Model 820 and 700 precision integrating sound level meters which were calibrated before and after use to ensure the accuracy of measurements. The microphones were placed five feet above the ground, with an unobstructed view of the railroad tracks. The equipment used meets all pertinent specifications of the American National Standards Institute for precision sound level measurement systems.

TABLE III-13

RAILROAD NOISE LEVELS
West Lathrop Planning Area

RAILROAD	L_{dn} dB, 100 feet from tracks	Distance to Railroad L_{dn} Noise Contours [feet]		
		70 dB	65 dB	60 dB
Southern Pacific	63	63	136	293
Union Pacific	70	100	215	464

Railroad operational data were obtained from the Southern Pacific and Union Pacific Railroad dispatchers to determine existing and predicted future rail traffic volumes. Existing operations include eight Union Pacific and five Southern Pacific trains per day, on an unscheduled basis. No estimates of future rail activity were available. However, discussions with Amtrak and San Joaquin County staff indicate that plans are underway for adding passenger service on the UP line, with an initial service of two trains per day, with ultimate service dependent on demand. Amtrak/commuter operations generally are expected to occur during the daytime period.

Based on the data contained in Table III-11, approximately 15 railroad operations per 24-hour period occurred on the Union Pacific line, while only two operations per 24-hour period occurred on the SP line. For a conservative estimate of existing railroad noise exposure, it was assumed that 15 daily operations occur on the UP line rather than the eight operations reported by UP officials. Similarly, five daily operations were assumed for the SP line as compared to the two operations observed.

Using the SEL values reported in Table III-11, and the assumed number of daily operations described above, the L_{dn} contribution of each train type may be calculated as follows:

$$L_{dn} = \overline{SEL} + 10 \log N_{eq} - 49.4 \text{ dB, where:}^{21}$$

The results of this analysis are shown in Table III-12. The approximate distances to the 60, 65 and 70 dB L_{dn} railroad noise contours are also shown in Table III-12. The approximate location of the 60 dB L_{dn} railroad noise contour is shown on Figure III-12.

Aircraft Noise Levels

The West Lathrop planning area is located well south of the Stockton Metropolitan Airport. Airport noise exposure contours have been prepared recently for this airport for the FAR Part 150 Airport Noise Compatibility program. According to those noise exposure maps, the planning area is located well beyond both the existing and projected future 60 dN CNEL noise contours.

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21 SEL is the mean SEL of the train passage, N_{eq} is the sum of the number of daytime events (7:00 am to 10:00 pm) per day plus 10 times the number of nighttime events (10:00 pm to 7:00 am) per day, and 49.4 is 10 times the logarithm of the number of seconds per day.

An analysis of helicopter operations associated with the Sharpe Army Depot has been prepared recently for the Valley Haven residential/commercial development in northeast Lathrop. That analysis indicates that the worst-case noise generation of that facility occurs during seasonal helicopter training exercises, but that the West Lathrop planning area is located beyond the 60 dB CNEL noise contours generated under worst-case operations.

General Ambient Noise Levels

A short-term noise level measurement survey was conducted to describe the general ambient noise levels within the planning area at locations not affected by major highway vehicle traffic or railroad noise sources. The survey involved short-term ambient noise level measurements at five locations on May 4, 1994, as shown on Figure III-12. The results of the ambient noise level measurements are shown on Table III-13.

TABLE III-14

MEASURED AMBIENT NOISE LEVELS IN THE ABSENCE OF MAJOR NOISE SOURCES
West Lathrop Planning Area, May 4, 1994

SITE	Time	Measured Ambient Noise Level, dB[22]				Noise Source(s)
		L_{eq}	L_{max}	L_{50}	L_{90}	
1	11.05 am	47	67	38	36	Distant traffic
2	11:25 am	52	70	42	37	Birds
3	11:40 am	49	67	40	37	Local traffic
4	11:55 am	53	68	46	39	Distant traffic
5	12:10 pm	51	69	42	39	Farm equipment

PUBLIC SERVICES

Public services of importance to the purposes of the General Plan include the domestic water, sewerage and drainage systems, solid waste disposal, law enforcement, fire protection, parks and recreation and schools.

Sewer and Water Services

Sewer and water services are provided by the City of Lathrop after its having assumed responsibility for the operations of the Lathrop County Water District as of July 1, 1991. While the City maintains

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22 The L_{eq}, L_{max}, L_{50} and L_{90} descriptors refer to the average, maximum, median and background noise levels, respectively.

the sewage collection system, sewage treatment is provided by the Manteca Wastewater Treatment Facility which serves as a regional plant to serve Lathrop as well as Manteca. The City is entitled to about 14.7% of the Facility's design flow capacity. The City has also purchased a similar percentage of treatment capacity in the recently constructed Phase II expansion of the Manteca Treatment Facility, which allows urban expansion for only part of the acreage extending north of Lathrop Acres to the vicinity of Squires Road east of Interstate 5.

Sewage treatment capacity is also provided to the Kearney Ventures (Crossroads) industrial park, located east of I-5, west of the Southern Pacific Railroad and north of SR 120, by the construction of a separate treatment plant within the industrial park. There is no sewage treatment capacity currently available which could provide service to lands that would develop west of Interstate 5. The General Plan calls for one or more new plants to serve the West Lathrop planning area.

Water service is only available from wells which tap into groundwater aquifers. The City's water system consists of wells, a pump station, an elevated storage tank and water lines for distribution to system users. The annual safe groundwater yield available to Lathrop has been estimated at 3,078 acre feet per year for a 5-well system. Records indicate that the system provided about 1,289 acre feet of water in 1988. None of the existing water system facilities are capable of serving lands within the West Lathrop planning area.

Storm Water Drainage

Storm water drainage consists of surface runoff in new developments to detention ponds, with conveyance to the San Joaquin River by a 30" pipe. Drainage in older developed and partially developed areas of the City is either lacking or of marginal character because of the lack of capability for positive off-site disposal. All drainage lines are sized based on a 10 year intensity 48-hour storm. None of the existing drainage facilities are capable of serving lands within the West Lathrop planning area.

Solid Waste Removal Service

Solid waste removal is handled under a franchise agreement with a private disposal company. The franchise includes both residential and commercial sources of waste. Disposal has been either to a transfer station a mile northeast of town, or to the relatively new Foothill Landfill which is located about 35 miles northeast of Lathrop. The Contractor has sole discretion in selecting the solid waste facility to which waste is transported. The Foothill Landfill has a design capacity that is not expected to be reached until the middle to latter part of the next Century.

Law Enforcement

Police service is provided to the City under contract with the San Joaquin County Sheriff's Department. Since City incorporation, police service has been greatly expanded to where patrol units operate throughout a 24 hour period, providing routine patrol of the entire City. Additional assistance can also be summoned as needed under a mutual aid agreement with other cities of the County.

Fire Protection

About one-half of the Stewart Tract lays within the boundaries of the Tracy Rural Fire District, with the remainder being served by the City. Fire protection, suppression and first response emergency medical services within the City is provided by the Manteca-Lathrop Fire Protection District. The

District's fire fighting force consists of paid personnel and reserve call personnel. Major equipment includes pumpers, aerial ladder, rescue unit and water tender. Also provided to the community is the hurst-tool ("jaws of life"). All firefighting personnel are Emergency Medical Technicians (EMTs). The station is staffed 24 hrs. by a minimum of five personnel, including a Captain and Battalion Duty Chief. On duty during the 40 hour work schedule is a Fire Chief, Administrative Secretary, Fire Marshall and two Assigned Battalion Chiefs. Additional assistance is available from two outlying stations, and from surrounding cities, San Joaquin County and State Fire agencies upon call through mutual aid agreements. A Fire Facility Fee is charged to new development to off-set the cost of additional equipment and fire stations.

Public Schools

Lathrop, including Mossdale Village, is served by the Manteca Unified School District, while Stewart Tract is located entirely within the Banta Elementary and Tracy High School Districts. The Lathrop Elementary School serves grades K-8, and is the only school in Lathrop. Students are bused to the high school in Manteca. The District is badly in need of a second elementary school facility in Lathrop because of the substantial increase in elementary grade enrollment that has occurred from residential expansion in the last few years. A new K-8 school site has been provided in the Country Squires subdivision located north of Lathrop Acres and east of I-5. The District-wide increase in school child population has resulted in a multiplier of approximately 0.74 per residence for grades K-8 and 0.18 per residence for grades 9-12.

The Manteca District levies the maximum developer fees allowed by law to help finance classroom facilities, but the amount is inadequate for permanent classrooms and core facilities. To off-set the difference, the District requires developing areas to annex to a Mello-Roos special district.

Parks and Recreation

The City maintains a nine acre community park and community center building located on Fifth Street close to the Lathrop Elementary School. Outdoor facilities include two softball diamonds, basketball and volleyball courts, a tot lot, and picnic shelter. Indoor facilities include a gymnasium, multi-purpose rooms and an office. A neighborhood park is located northwest of the intersection of Fifth and Lathrop Road in a developing residential subdivision. Also, three storm drainage basins have been converted to use for outdoor recreation. Public boat landing facilities are located along the San Joaquin River at the west end of Dos Reis Road and at Mossdale Landing in the southern part of the planning area. These facilities are located outside of the City Limits, but will be important areas of recreation service as the community expands to the west.

Gas, Electric and Telephone Services

Gas and electric service is provided by the Pacific Gas & Electric Company. Because of Lathrop's proximity to major transmission lines and substation facilities serving south central San Joaquin County, facilities can be planned and constructed to serve current and anticipated growth. Telephone service to Lathrop is shared by the Pacific Bell Telephone Company and the Continental Telephone Company (CONTEL). CONTEL provides service to almost all of the area within the City Limits south of Lathrop Road, excepting a 500' wide strip along the east side of Interstate 5.

PART IV

IMPACTS MITIGATED BY PROJECT PROPOSALS

INTRODUCTION

Sources of Mitigation embodied in this EIR

In developing this EIR, relevant mitigation has been abstracted from the EIR prepared for the Lathrop General Plan, from baseline environmental studies conducted during preparation of the Specific Plan, and from proposals of the Specific Plan which have the effect of mitigating impacts. Additional mitigation is provided (see Part V) for impacts not mitigated to a level of less than significant by measures contained in Specific Plan proposals as described here in Part IV. Separate findings are required for those impacts that cannot be mitigated to a level of less than significant. The sources and relationships of relevant mitigation which combine as the final products of environmental analysis are shown in Figure IV-1.

Relationship to Mitigation Measures Required by the General Plan EIR

The discussion of impacts and mitigation measures provided in this Part IV of the EIR incorporates the impacts and mitigation measures discussed in the EIR for the Lathrop General Plan. This assures that relevant General Plan mitigation requirements are given appropriate attention by the Specific Plan.

Mitigation Required as the Result of Additional Baseline Environmental Studies

The discussion of mitigation in Parts IV and V of this EIR goes beyond the mitigation requirements of the General Plan EIR as the result of extensive environmental baseline studies conducted early during the Specific Plan formulation process. Of special importance are extensive studies of biological resources, archaeological and cultural resources, geotechnical analysis of surface and sub-surface conditions (including levees), analysis of the potential for flooding, and the "testing" of land use, transportation and circulation proposals on the ability of existing and proposed roadway systems to function at appropriate levels of service. Several baseline studies have been published separately as technical appendixes.

Self-Mitigating Proposals of the Specific Plan

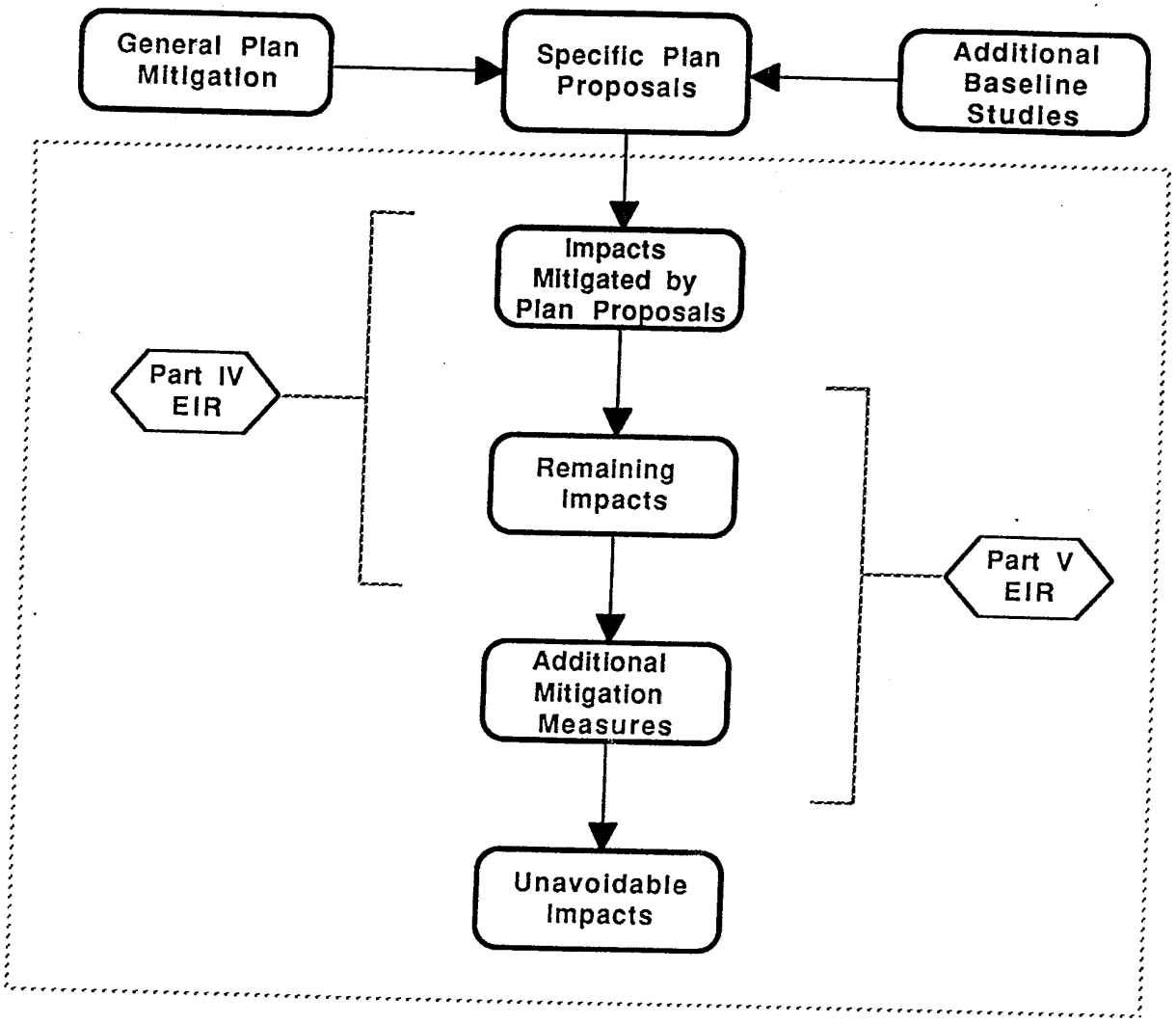
This Part IV of the EIR indicates those mitigation measures which are embodied in policies and proposals of the West Lathrop Specific Plan that have the effect of avoiding or substantially reducing the potential for adverse environmental impacts of the Project. References to where mitigation measures can be found in the Specific Plan are provided in brackets after each mitigation measure listed.

Format

For ease of comparison, the format is the same as that followed in Part V. The topical discussion often applies to both Mossdale Village and Stewart Tract. Where it applies to only one area, it is preceded by a notation in brackets of either [M] for Mossdale or [S] for Stewart Tract. Where the discussion applies to both areas, it is preceded by [B]. The relative importance of an impact within the CEQA definition of "significant effect" is indicated by brackets and bolding (e.g., [**significant**]). For each environmental topic, impacts that could occur are listed, followed by the mitigation measures that are embodied in policies and proposals of the Specific Plan. Discussion for each topic concludes with statements supporting the level to which impacts will be mitigated.

FIGURE IV-1

SOURCES AND RELATIONSHIPS OF MITIGATION TO PREPARATION OF THE EIR



COMPONENTS OF THE EIR

Criteria for determining whether a particular type of environmental impact is "significant" are included in either Part IV or Part V of this EIR, as follows. Where an impact is mitigated to a level of less than significant solely by mitigation measures included in the Specific Plan proposals, and that impact is therefore discussed only in Part IV of this EIR, the significance criteria for that impact are included in Part IV. Where an impact is not fully mitigated in Part IV, and further discussion of the impact and relevant mitigation measures are contained in Part V, the significance criteria for that impact are included in Part V.

LAND RESOURCES

Compaction and Overcovering of the Soil

Significance Criteria:

Under CEQA Guidelines [Appendix G, (f), (g), (I) and (q)], a project would have a significant effect on the environment if it would substantially degrade water quality, contaminate a public water supply, substantially interfere with groundwater recharge, or cause substantial flooding, erosion or siltation.

Impacts:

[B] 1. Vacant and agricultural soils will be compacted for building construction and overcovered with exposed impervious surfaces such as roofs, driveways, streets and off-street parking areas. The extent of overcovering will be determined by site plans submitted for City approval for each separate construction project. The more extensive compaction and overcovering of soils that will occur will increase surface water runoff **[potentially significant]** and the potential for wind erosion during land grading and construction. **[potentially significant]**

[S] Project Mitigation:

[Note: Applicable project mitigation called for by the General Plan EIR which has relevance to the West Lathrop Specific Plan is shown in Table IV-1.]

[B] 1. a. Positive drainage will be required for each site consistent with overall master plans of drainage for Mossdale and Stewart Tract that will avoid adverse impacts on other properties. Specific drainage improvements for a given project would be determined at the time of Site Plan Review (or equivalent) under provisions of the Specific Plan or the City's Zoning and Subdivision Ordinances. [see Specific Plan (SP), pp. 72-79]

[B] 1. b. The design of surface water detention and conveyance facilities provides for multi-purpose recreational and wildlife habitat use of surface waters within recreation and other open space corridors. Detention reservoirs will be designed to control the rate of surface water runoff, and for the control of debris, sediment and contaminants. [see SP, pp 76-77]

[B] 1. c . Positive control of surface water runoff and sediment during wet weather is required for all types of construction activity. This includes requirements for trapping sediments and debris, prohibition of grading during periods of rainfall or when soil moisture is high, requirements for stockpiling and reuse of native (or agricultural) topsoil, and revegetation or temporary methods of controlling erosion of barren areas to avoid sedimentation of drainageways.

TABLE IV-1

SUMMARY OF MITIGATION MONITORING LISTED IN THE GENERAL PLAN EIR HAVING APPLICABILITY TO THE SPECIFIC PLAN

TOPIC	Applicable Specific Plan Policies	Applicable Specific Plan Mitigation	When Monitoring Is Required	When Mitigation Is Completed
Specific Plan Preparation & Adoption	All policies of the Specific Plan	Finer grained urban design and environmental analysis	Throughout Specific Plan preparation process	Upon adoption of the Specific Plan(s) by the City of Lathrop
Foundation Safety	Assure protection from effects of seismic hazards	Adequate foundation soils engineering	During preliminary project design stage	Upon submission to and approval of plans by City
Air Quality	Transit capability to be provided	Staged program of rail transit	At theme park opening	On-going staged program
	Protect air quality during project construct.	Fugitive dust control	During project construction	Completion of construction
	Reduce auto traffic	Trans. management	On-going	On-going
	Avoid stationary emissions	Emission control	On-going	On-going
Farmland Conversion	Reduce impacts of farm land conversion	Phased development	On-going	On-going
Water	Protection from flooding	Flood proofing	During project construction	Prior to occupancy
	Assure adequate water supply	Obtain entitlements	Prior to project construction	Prior to project construction
	Reduce water requirements	Construct staged facilities for reclamation reuse	First facility prior to development west of I-5	Prior to occupancy permits
	Provide positive surface drainage	Drainage collection & disposal	During project construction	Prior to occupancy
Biological Resources	Developers	Habitat replacement, enhancement & expansion	During or prior to project construction	Somewhat ongoing - when results are evident

TABLE IV-I cont.

TOPIC	Applicable Specific Plan Policies	Applicable Specific Plan Mitigation	When Monitoring is Required	When Mitigation to be Completed
Circulation & Traffic	Provide adequate traffic capacity for streets	On-site and off-site street improvements	During project construction	Prior to occupancy
	Provide adequate freeway and interchange capacity	Freeway & interchange improvements	On-going; & during Caltrans STIP	At completion of contract construction
	Improve capacity of existing streets	Improvements to exist. Arterial & Collector streets	During Capital Improvement Program	At completion of contract construction
Noise	Protection from adverse noise levels	Noise attenuation	Project approval & construction	Prior to occupancy
Energy Utilities	Provide adequate electrical service and energy conservation	Planning & installation of facilities	Specific Plan stage	Prior to occupancy
Human Health	Avoid industries with hazardous characteristics	Hazard./toxics; qualified process engineering	Project design & approval	Prior to occupancy
Aesthetics	Preserve & enhance visual environment	Protect views; achieve urban design and bldg. quality	Project design & approval	Prior to bldg. permit
Open space/-recreation	Meet outdoor recreation needs of the community	Park & open space improvements	Project design & approval	Prior to occupancy
Schools	Meet elementary and secondary education needs	School planning, fees & construction	Project construction, Capital Improve, Prog.	Project construction, on-going
Development Regulation	Development regulations consistent with Specific Plan	Development permits	Specific Plan, zoning & sub. ord. admin.	On-going

The Specific Plan provides that in both the Stewart Tract and Mossdale Village areas, provisions to meet anticipated National Pollution Discharge Elimination System (NPDES) requirements shall be made prior to stormwater being discharged to the San Joaquin River, Old River and Paradise Cut. [see SP, p 74] Further discussion of this mitigation is provided in Part V of this EIR.

[B] 1. d. Mitigation of particulates through the employment of dust control measures is described under the subsequent topic of Air Quality in Part IV of this EIR.

Effect of Project Mitigation:

The above described impacts of the Project on compaction and overcovering of the soil will be reduced by the above Project mitigation to a less than significant level. The Project mitigation will ensure that construction-related water quality impacts associated with building materials and wastes resulting from the Project will be minimized by developing and implementing a Storm Water Pollution Prevention Plan (SWPPP) as required by the NPDES program.. Post-construction runoff water quality impacts will also be minimized by implementation of a SWPPP, and the Project proponents will be responsible for the operation and maintenance of Best Management Practices to prevent water quality impacts.

Potential for Soil Liquefaction

Significance Criteria:

See discussion under Geology and Seismic Hazards contained in Part V/

[S] **Impacts:**

2. Soils within and under the levees surrounding Stewart Tract are subject to the potential for liquefaction and levee failure during a severe earthquake. **[potentially significant]** The potential for levee failure is increased if an earthquake were to occur during times of high flood conditions exceeding that created by a 100 year event. **[potentially significant]** Such a combination of hazardous events could seriously jeopardize the health and safety of thousands of people within Stewart Tract. **[potentially significant]**

Project Mitigation:

Mitigation of the potential for liquefaction involves extensive soils and foundation engineering and special construction techniques. Baseline studies conducted during formulation of the Specific Plan support the following policies that serve to mitigate project impacts: [see SP under Site Plan Review, p 150, and Part V of this EIR]

[S] 2. a. Soil compaction tests, and geotechnical analysis of soil conditions and behavior under seismic conditions are required of all subdivisions and of all commercial, industrial and institutional structures over 6,000 square feet in area (or in the case of institutional structures, those which hold 100 or more people).

[B] 2. b. A preliminary soils report is to be prepared by a registered geo-technical engineer for any residential development project, based upon field soil samples and laboratory tests. If the report indicates the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects, the developer shall provide for and submit the findings of a soil investigation of each housing site proposed. The soil investigation shall be prepared by a state-

registered civil engineer and shall recommend corrective action to prevent structural damage to each dwelling to be constructed. Prior to the issuance of a building permit, any recommended action approved by the Building Official shall be incorporated into the construction plans and specifications of each dwelling or structure.

[B] 2. c. A preliminary soils and geologic report, prepared by a state-certified engineering geologist and based on adequate test borings and laboratory investigations, shall be submitted to the Building Official for every subdivision, planned development or other residential project at the time of submitting a tentative map or other type of development application to the City.

[B] 2. d. If the preliminary geologic report indicates the presence of critically expansive soils or other soil problems (e.g., potential for liquefaction which if not corrected could lead to structural defects), the developer shall provide such additional soils investigation for each development site as may be requested by the Building Official. The geologic investigation shall be prepared by a state-certified engineering geologist and shall recommend further corrective action to prevent structural damage to dwelling units. Prior to the issuance of a building permit, any recommended action approved by the Building Official shall be incorporated into site preparation and the construction of each dwelling.

[B] 2. e. The provisions of policy nos. 2.a. - 2.d., above, shall be applicable to all commercial, industrial, institutional and public development projects.

[B] 2. f. Areas where building construction has been determined to be inappropriate because of hazardous conditions have been made a part of the recreation and open space systems.

[B] 2. g. Special measures required for flood control are described under the topic of Water Resources.

Effect of Project Mitigation:

The Project mitigation will partially mitigate impacts associated with potential soil liquefaction in the event of a severe earthquake by ensuring that building construction will be avoided where soils and geologic tests determine that such construction would be inappropriate because of hazardous conditions. Additional mitigation measures are discussed in Part V. As a practical matter, the unknown severity of future seismic events makes it infeasible to fully mitigate impacts associated with potential for soil liquefaction in the event of a severe earthquake. Consequently, a statement of overriding considerations will be required for Items 2.a through d, above prior to certification of the Project EIR.

Agricultural Land Conversion

Significance Criteria:

See discussion under Agricultural Land Conservation contained in Part V.

Impacts:

[B] 1. The eventual conversion of approximately 5,800 acres of productive agricultural land to urban use under the West Lathrop Specific Plan will be irreversible, since it is not reasonable to assume that later re-conversion to agricultural use will ever become economically feasible. [significant]

[B] 2. The cumulative loss of value of agricultural production that would occur at buildout would be in the order of $6.2 million (current dollars).[1] The annual loss of field crops at buildout would represent about 0.93% of current county-wide field crop value. For vegetables, the annual loss would be about 3.10% of current county-wide vegetable crop value; for fruit and nut crops, the annual loss would be about 0.35% of current county-wide fruit and nut crop value. **[significant]** The cumulative impact of these losses to the State's economy as a whole would be in the order of $24.8 million.[2] **[significant]**

[B] 3. Other potential impacts involve a shifting in the location where urban-agricultural conflicts may occur from the current interface between urban and agricultural lands to other locations where urban expansion occurs. **[potentially significant]**

[B] 4. The conversion of farm land to urban use will have some positive benefits, such as eliminating the use of agricultural pesticides, dust from plowing and discing operations and farm wastes. **[significant positive]**

Project Mitigation:

[B] Mitigation measures to minimize this impact are provided in Part V of the General Plan pertaining to Open Space for Managed Resource Production and Open Space for Shaping Urban Growth. They include the policy on phased development and maintaining a rate of population growth which will not exceed the ability of the City to provide needed urban services. The policy on phasing has been incorporated into the Specific Plan. [see SP, p 122, 3rd para.] It is important to note that the measures called for by the General Plan EIR can only postpone the irreversible loss and ease conditions during the interim. A new measure under the Specific Plan is to purchase land and dedicate conservation easements over agricultural land as permanent mitigation for the loss of Swainson's hawk foraging habitat. This topic is also discussed further in Part V of this EIR.

Effect of Project Mitigation:

The above Project mitigation will partially mitigate impacts associated with agricultural land conversion by avoiding the fracturing or fragmentation of the urban pattern, providing for the gradual outward conversion of agricultural lands, and assuring a rational and economically feasible and more efficient pattern of urban services. The mitigation measures are intended to minimize those impacts on agricultural operations that will be replaced gradually over the 20-30 year period required for Project buildout. Additional mitigation measures are discussed in Part V. The ultimate and irreversible loss of agricultural land to urban use will remain an unavoidable significant impact, and will require a statement of overriding considerations prior to certification of the project EIR.

Seismic Hazards

Significance Criteria: See discussion under Geology and Seismic Hazards contained in Part V.

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[1] Derived from the **San Joaquin County Agricultural Crop Report, 1990**, San Joaquin County Agricultural Commissioner's Office, and based on the average $ yield per acre for field crops, vegetables and fruit and nut crops representative of crop patterns in the Lathrop Planning Area.

[2] The California Crop and Livestock Reporting Service estimates that every farm dollar generates an additional three dollars in the State's economy.

Impacts:

[S] 1. The occurrence of an earthquake exceeding 6.5 on the Richter scale poses a potential for soil liquefaction and levee failure within Stewart Tract, particularly within extended periods of high water in adjacent watercourses, along with a consequent possibility for the loss of life and property due to flooding and structural failure. **[potentially significant]**

[S] **Project Mitigation:**

[B] 1. a. Flood control and drainage works construction will be designed to meet standards set by the U.S. Corps of Engineers, the Federal Emergency Management Agency (FEMA), the California Reclamation Board, and the California Department of Water Resources. [see SP, p32, Objective 8A, para. 3]

[S] 1. b. Levees along the San Joaquin River, Old River and Paradise Cut will be constructed to elevations that meet Project Levee Standards. The required increase in levee height at each location will be based on field mapping and soils investigations completed during preparation of the Specific Plan. [see SP, p150 Site Plan Review]

[S] 1. c. Areas of population concentration will be designated and designed to provide sufficient space above flood levels to provide "safe ground" until evacuation from affected sites becomes possible. [[see SP, p32, Objective 8A, para. 2]

[B] 1. d. The Specific Plan provides for the construction, equipping and manning of fire stations at appropriate locations to assure capability to deal effectively with emergency service demands resulting from natural or man-made disasters or other causes. [see SP, p32, Objective 7A]

Impacts:

[S] 2. A devastating earthquake has the potential for generating panic among thousands of participants at a theme park or similar recreation facility and among spectators at major sporting events, with the possibility of loss of life and personal injury. **[potentially significant]**

Project Mitigation:

[S] 2. a. An earthquake and flood protection plan will be prepared for the Stewart Tract to assure capabilities for evacuation and to deal effectively with crowd control so as to avoid panic at major activity centers and public events. The means and capability to assure swift emergency response by medical, police and fire protection services will be in place before the opening of any theme park or other major recreation commercial use on Stewart Tract. [see SP, p32, Objective 8A, para. 2] Further discussion of this topic is provided under the topics of Health and Safety in this part of the EIR and in Part V.

[S] 2. b. Flood control works are proposed by the Specific Plan which will assure capability to control flood waters from inundating all parts of Stewart Tract, and to confine floodwaters to the smallest possible areas of impact consistent with the extent of flooding involved. This includes providing works to protect areas from flooding due to levee breaks. [see SP, pp 72-79] Further discussion of this topic is also provided under the topics of Drainage and Flood Control in this part of the document.

Effect of Project Mitigation:

The above project will partially mitigate impacts associated with potential risk of damage caused by strong groundshaking and levee failure during seismic events by ensuring that flood control and drainage works, including levees, will be constructed to meet applicable Federal and State standards to reduce the potential for damage during seismically-induced groundshaking. They will further ensure that the areas of population concentration will be designed to provide "safe ground" until evacuation from affected areas becomes possible. However, the risks associated with groundshaking and liquefaction during earthquakes cannot be completely mitigated, and will remain a significant unavoidable impact. Additional mitigation measures are discussed in Part V.

WATER RESOURCES

Water Supply

Significance Criteria:

See discussion under Water Resources contained in Part V.

Impacts:

[B] 1. Dependence on expanding water supplies by drilling new wells will place the growing community in serious jeopardy as the quality of water from underground aquifers continues to deteriorate because of increased salinity. Failure to achieve an assured permanent supply of potable water from non-well sources will jeopardize the City's ability to supply needed water in the future. **[potentially significant]**

[S] 2. The conversion of agricultural water entitlements for the Stewart Tract to urban use has the potential for reducing or eliminating continuing entitlements that will be needed for agricultural use as phased urbanization occurs. The loss of entitlements necessary to assure continued agricultural use of non-urbanized lands could result in the premature commitment of lands to urban use. In the event that the level of urbanization envisioned for Gold Rush City does not materialize, loss of agricultural water entitlements could commit the entire Tract to some other forms of urbanization in the future. **[potentially significant]**

Project Mitigation:

[B] 1. The General Plan EIR requires that development within Stewart Tract and Mossdale Village be withheld until the extent of development to be approved is supported by assurance that a firm supply of water will be obtained commensurate with the amount of urbanization to be provided. The possible need for phasing-in urban water supplies is recognized. To meet this test, the City has been exploring several approaches singly, and in combination, including conversion of appropriative rights, riparian rights, well field expansion, and contracting for surface waters that would be provided by the South San Joaquin Irrigation District. [see SP, p 60, 2nd para.]

[S] 2. Any conversion of agricultural water entitlements for the Stewart Tract to urban use must assure the continued availability of water for on-going agricultural use until such time that phased conversion of lands to urban use is justified. [see SP, p 61, top para]

Effect of Project Mitigation:

The above Project mitigation measures will partially mitigate Project impacts on water resources by assuring that an adequate supply of potable water and water needed for agricultural irrigation will be available as phased development occurs. Additional mitigation meaures are discussed in Part V.

Wastewater Management

The Specific Plan document describes current efforts of the City to provided for long-term management of wastewater generated by the Project and by other urbanization anticipated under the Lathrop General Plan. The discussion covers the City's sewer system master plan, estimated rates of wastewater generation and peak flows, design assumptions, preliminary system design and a commitment to wastewater reclamation and reuse. [see SP, pp 66-72]

Because the approach to wastewater management for West Lathrop is embodied in the approach being examined for all of Lathrop's current and future urbanization, the reader is directed to the discusssion of this topic in Part Vfor a better understanding of how wastewater management proposals for West Lathrop fit and integrate with the larger perspective required.

Drainage and Flood Control

Significance Criteria:

See discussion under Drainage and Flood Control in Part V.

Impacts:

[B] 1. Within all areas covered by the Specific Plan, surface water drainage from streets and other paved surfaces will contain petroleum distillates, grease and chemicals that can degrade the quality of receiving waters of the San Joaquin River and its tributaries. These constituents of surface water drainage are picked up from paved surfaces that carry auto and truck traffic, from excessive use of water from landscape irrigation, and from outdoor washing of vehicles and building surfaces. Adverse impacts on fish and wildlife and on downstream users would occur. **[significant]**

[S] 2. Flooding of the Stewart Tract that occurs during periods of heavy rainfall, or that could occur from a break in the levee system, has the potential for serious damage to property and personal injury. **[potentially significant]**

Project Mitigation:

[B] 1. The Specific Plan calls for the capability to remove hydrocarbon and other contaminants from surface drainage water prior to disposal to off-site water courses. A capability for on-going monitoring of the system(s) is proposed as part of the mitigation monitoring program summarized in Part I of this document and described in a separate document to be approved by the City Council. [see SP, p74] This topic is also discussed further in Part V of this EIR.

[S] 2. a. The potential for flooding of the Stewart Tract requires that levees be reconstructed and strengthened to standards of the Corps of Engineers as has already been accomplished for the levee along the east bank of the San Joaquin River. Affected levees will be those along Old River, the west bank of the San Joaquin River and Paradise Cut, which eventually may require reconstruction

around the entire Tract to carry out land use proposals of the General Plan and Specific Plan. (see measure 3, below). [see SP, p 32, Objective 8A]

[S] 2. b. In connection with and in addition to Measure 2a, above, a variety of approaches to flood-proofing are covered by the Specific Plan to close the gap to floodwater that otherwise would exist between Old River and Paradise Cut west of the Southern Pacific Railroad. Ways have been devised during preparation of the Specific Plan to assure adequate flood-proofing as phased development occurs. They include elevation of roadways, the sites of major activities, and open space corridors, and the depression of recreation, lake and other open space areas to detain floodwaters during an emergency. [see SP, pp 72-79]

[S] 2. c. Other mitigation required to prevent loss of life and property during a natural or man-made disaster are described under the topics of Health and Safety in part IV of this document and in Part V..

Effect of Project Mitigation:

The above Project mitigation measures will partially mitigate impacts associated with drainage and flood control by assuring that contaminated stormwater will be removed before discharge to surrounding water courses, and that flood protection will be provided for at least a 100 year intensity event. Additional mitigation measures are discussed in Part V.

Lake Management

The Specific Plan describes generally the integration of the proposed system of lakes for Stewart Tract as an integral part of the stormwater drainage system for central and eastern portions of Stewart Tract. [see SP, pp 76-77] Standards of width, depth and fluctuation of surface levels for lakes and interconnecting canals are prescribed. However, the more specific aspects of lake management which have significance for avoiding adverse environmental effects are presented and discussed in Part V of this EIR.

BIOLOGICAL RESOURCES

Significance Criteria:

See discussion under Wildlife and Fisheries sections contained in Part V.

Fish and Wildlife

Impacts:

Information provided in Part III of this document indicates that both nesting and foraging areas of Swainson's Hawk habitat will be adversely affected by urban development proposed by the Specific Plan. Considerable acreage of foraging habitat will be converted to urban use, and nests will be encroached upon by urban use. Information on the existing fishery of the San Joaquin River and its tributaries in the immediate vicinity of the planning area also indicates a potential for adverse impact. Extensive field studies conducted during formulation of the Specific Plan indicates the absence of any other rare, endangered or threatened species of wildlife.

[B] 1. The principal impact on the Swainson's Hawk will be the loss of foraging and nesting habitat, and the potential abandonment of local nesting territories. **[significant]**

Project Mitigation:

[B] 1. Policies of the Lathrop General Plan and EIR, as well as a Stipulated Judgement on the General Plan/General Plan EIR, require that the City either adopt its own Habitat Management Plan Stockton. Other local jurisdictions are also in need of participation with Stockton, or other locally sponsored HMP (e.g., the San Joaquin County COG), including Lodi, Tracy and the County of San Joaquin. A multi-jurisdictional approach can allow for reasonable urban expansion while retaining the Swainson's hawk populations in perpetuity. Because Stockton's program has been postponed indefinitely and the COG program may not be in place for several years, the City is proceeding on its own, along with Stewart Tract and Mossdale Village proponents of the Specific Plan, to assure appropriate mitigation of Swainson's hawk impacts for the first phase of development for a period of approximately five years extending through the year 2000. This program involves identifying and assuring the availability of suitable foraging habitat into perpetuity, and to create new nesting habitat along watercourses in areas like Paradise Cut. [see SP, pp 129-132, and the Technical Appendix describing details of the Habitat Management Plan]

Impacts:

[B] 2. If suitable nesting territories are not available to support relocation in relation to other Swainson's hawk territories, then there could result a net loss in the hawk population which would further exacerbate the condition of the hawk as a threatened species. **[significant]**

[B] 3. The fishery of the San Joaquin River and its tributaries is threatened by the potential for contamination by urban runoff and up-stream agricultural drainage. **[significant]**

Project Mitigation: [see SP, pp 129-132, and the Technical Appendix describing details of the Habitat Management Plan]

[B] 2. a. Areas of foraging habitat replacement are being sought within the South Delta subpopulation of the Swainson's hawk which is bounded by lower Robert's Island, the City of Tracy, the San Joaquin River and Old River. Whether by land purchase or conservation easement, the quality of the habitat is being considered to include suitable nesting habitat as well as foraging habitat such as alfalfa.

B] 2. b. Based on additional biological surveys conducted early in the Specific Plan formulation process, policies and proposals of the Specific Plan call for habitat retention and habitat enhancement to deal with known sensitive species of plants and animals.

[S] 2. c. Paradise Cut has been designated as the major area where habitat retention and enhancement is to be accomplished, to achieve the following:

- The integration of waterway habitat areas as part of the areawide system of open space.
- The preservation of all stands of vegetation along waterways which provide habitat, and achieving a standard of "no net loss of wetland acreage".
- The careful introduction of public and private recreation activities within habitat areas which will not disturb natural conditions either through intensity of operations, high levels of noise generation, or scarring of the landscape through development activity.
- The retention of hedgerows and other habitat areas within intensively farmed acreage which are compatible with agricultural operations.

- The protection of fisheries by preventing discharge of contaminated surface waters to waterways, or the discharge of waters containing significant Bio Chemical Demand (BOD) which could reduce the dissolved oxygen content of downstream receiving waters.

[M] 2. d. To the extent that they can feasibly be applied to the smaller acreage of Mossdale Village, the same objectives of habitat retention and enhancement listed under 2.c., above also apply to Mossdale Village.

[B] 2. e. The designation of new areas, including Paradise Cut and perhaps off-site areas for habitat enhancement by the Specific Plan provides a significant trade-off to the general environmental impacts on biological resources associated with development under the Plan. The objective of habitat enhancement is to enhance habitat that has been degraded and to create new habitat where feasible. Enhanced and new habitat will be created along recreation and open space corridors within Stewart Tract and Mossdale Village, including the following:

- The improvement of natural habitat along waterways.
- The creation of new habitat within multi-purpose open space area designated for reuse of treated wastewater, surface water drainage for wildlife management and recreation and lagoons and lakes intended as water features of development.
- Provision of habitat within parks, parkways and golf courses.

[B] 3. Fisheries will be protected by reducing the amount of chemicals, petroleum distillates, pesticides and fertilizers contained in urban runoff through extraction, and by the design of waterway projects to protect fish populations. [see also previous discussion under topics of drainage and flood control]

Effect of Project Mitigation:

The above Project mitigation measures will partially mitigate impacts on fish and wildlife. These mitigation measures will both protect and enhance fish and wildlife resources of the planning area in accordance with plans and proposals which, as they were being developed, have stood the tests of scrutiny and review by state and federal agencies having jurisdiction. This process has taken more than two years of extensive field survey, analysis, report preparation and discussion to complete. Additional mitigation measures are discussed in Part V.

Riparian Vegetation, Wetlands and Watercourses

Significance Criteria:

See discussion under Vegetation and Wetlands sections contained in Part V.

Impacts:

[B] 1. There is a potential for damage to existing riparian vegetation, wetlands and watercourses due to urban development. **[potentially significant]**

Project Mitigation:

[B] 1.a. General Plan policies call for the protection of all existing riparian vegetation, wetlands and watercourses. Policies and proposals listed under Item 2., above, provide for the protection and enhancement of vegetation.

[S] 1.b. The Project applicant must mitigate the impacts of development that could destroy or have the potential for destroying wetlands by providing a comparable or superior quantity and quality of habitat to compensate for the loss.

[B] 1.c. The on-going mitigation monitoring program provides for the monitoring of habitat restoration and enhancement projects to assure the prospects for project success.

Effect of Project Mitigation:

The above Project mitigation measures will partially mitigate impacts on riparian vegetation, wetlands and watercourses by ensuring that such vegetation will be protected where feasible, and requiring impacts on wetlands to be compensated by providing a comparable or superior quantity and quality of habitat. Additional mitigation measures are discussed in Part V.

NOISE

Significance Criteria:

See discussion under Noise contained in Part V.

Impacts:

[M] 1. Noise effects of development proposals for Mossdale Village on Mossdale Village do not pose problems for land use within the Village or in other parts of the community. **[less than significant]** The principal concern is for the effects of freeway-generated noise on residential development within Mossdale Village. Noise levels from freeway traffic are high, and are expected to continue as freeway traffic increases. **[potentially significant]**

[M] 2. The noise effects of commercial recreation development proposals for Stewart Tract on Mossdale Village have the potential for adverse impacts on the Mossdale Village residential environment close to the San Joaquin River. **[potentially significant]**

[S] 3. The noise effects of commercial recreation development proposals for Stewart Tract have the potential for adverse impacts on recreation residential and lodging areas proposed for Stewart Tract. **[potentially significant]**

Project Mitigation:

[M] 1. Policies of the Specific Plan for Mossdale Village require the placement of service commercial structures along Manthey Road, between I-5 and proposed residential areas of the Village so as to block the transmission of freeway noise to residential areas. [see SP, p33, Objective 9B]

[B] 2. Land use proposals for Stewart Tract provide a wide spatial buffer of golf course development and lodging areas to adequately attenuate noise effects of theme park and related activities. [see SP, p. 33, Objective 9A]

[S] 3. Residential areas of Stewart Tract will be kept far enough away from theme park activities as to attenuate sound by distance. Aesthetically designed walls and landscaping will further attenuate sound emanating from commercial recreation activities surrounding the theme parks. [see SP, p.33, Objective 9A]

[S] **Effect of Project Mitigation:**

The above Project mitigation measures will partially mitigate Project impacts associated with Noise by arranging the land uses to block or at least reduce the transmission of freeway noise to residential areas. Additional mitigation measures are discussed in Part V.

LIGHT AND GLARE

Significance Criteria:

Under CEQA Guidelines [Appendix G, (b)], a project would have a significant effect on the environment it would have a substantial, demonstrable negative aesthetic effect. For purposes of this section, impacts on light and glare are considered to be significant if the Project would increase substantially the ambient light levels for adjoining areas.

Impacts:

[S] 1. Views of the night sky will be diminished and perhaps totally obscured by the glare from night-time commercial operations. **[significant]**

[S] 2. A related impact would be the adverse effects of neon and area lighting of Stewart Tract commercial recreation centers on residential development within Stewart Tract and directly east of the San Joaquin River within Mossdale Village. **[potentially significant]**

[M] 3. A potential exists for adverse effects of lights from vehicle traffic on residential areas adjacent to Gold Valley Parkway and Gold Rush Boulevard through Mossdale Village. **[potentially significant]**

Project Mitigation:

[S] 1. The key aspect of reducing the effects of light and glare in Mossdale Village from large-scale commercial operations on Stewart Tract is the buffer zone provided between the major theme park and related commercial areas and the San Joaquin River. However, full mitigation of this impact will not be possible.

[S] 2. Mitigation of direct off-site glare is to be achieved by the width of open space corridors along the river and westerly of recreation commercial centers on Stewart Tract, and by hooding and directing of exterior commercial lighting away from residential areas. Special attention will be given to the hooding and/or direction of lighting mounted high on building walls, poles, roofs, equipment and other facilities. [see SP, p91, 1st para.]

[M] 3. The potential for glare from vehicle traffic on residential areas will be mitigated by the construction of aesthetically designed walls and installation of landscaping along the perimeter of expressways in order to screen views of traffic from residential areas. [see SP, p88, 1st para.]

Effect of Project Mitigation:

The above Project mitigation measures will mitigate Project impacts associated with light and glare to the maximum extent feasible. All impacts will be reduced to a level of less than significant, except for the incremental increase in the amount of long-term sky glare as development within the entire community, and especially on Stewart Tract, occurs, which will remain an unavoidable significant impact.

PUBLIC, MUNICIPAL UTILITY AND ENERGY SERVICES

Significance Criteria:

See discussion under Public, Municipal Utility and Energy Services contained in Part V.

Impacts:

[S] 1. Commercial operations on the Stewart Tract will generate very large daily tonnages of solid wastes requiring recycling and/or disposal to appropriate waste disposal facilities. [**significant**] Failure to adequately manage such operational wastes could cause adverse visual and health effects if waste material was allowed to accumulate or be strewn over areas within and adjacent to Stewart Tract. [**potentially significant**]

[S] 2. The amount of electrical and natural gas energy required for Stewart Tract operations will be very substantial. Residential demands alone, including lodging, could be in the order of 58 million kW (kilowatts), at an average consumption of 5,800 kW per housing unit (or housing unit equivalent for lodging facilities). Requirements for commercial recreation operations could equal demands for residential use. [**significant**]

Project Mitigation:

[B] 1.a. General Plan and Specific Plan policies and proposals require the provision of all public utility, municipal utility and energy services needed to serve permanent and transient housing occupancy, and the daily transient population of visitors to Stewart Tract. This includes streets, public schools, parks and recreation facilities and open space corridors, civic and cultural facilities, fire and police services, emergency services, and water supply, sewerage, drainage/flood control, and solid waste management systems.

[B] 1.b Stewart Tract operations will include daily pick-up (in compliance with the City's Integrated Solid Waste Management Plan) of any waste products strewn over commercial grounds and parking areas by visitors; wastes from commercial and residential operations will be separated for recycling of paper, cans and plastics, and glass, with storage at on-site transfer stations for later hauling by re-use operators or County/City approved places of disposal; recycling of solid wastes from residential areas will be conducted on a scheduled basis. [see SP, p 79, 2nd-last para.]

[S] 2. Electrical and natural gas energy requirements and service needs are described under the Energy Service section of Part V. The project sponsor for Stewart Tract has collaborated with the Pacific Gas & Electric Company in determining specialized needs and requirements for power delivery throughout Stewart Tract.

Effect of Project Mitigation:

The above Project mitigation measures will partially mitigate impacts associated with provision of public, municipal utility and energy services. Additional mitigation measures are discussed in Part 5.

SAFETY AND HEALTH

Impacts on safety and health are described under related topics of geologic hazards, flood control, and noise topics of Part IV, augmented by discussion of emergency response and evacuation in Part V.

URBAN DESIGN/VISUAL QUALITY

Significance Criteria:

Evaluation of aesthetic/visual impacts is guided by CEQA Guidelines and public agency plans and policies. CEQA Guidelines [Appendix G] state that an adverse impact occurs if a project will "have a substantial, demonstrable negative aesthetic effect." The Environmental Checklist Form [Guidelines Appendix I] specified that the issue is whther theb proposal would result in the "creatrion of an aesthetically offsensive sight open to public view" or "the obstruction of any scenic vista or view open to the public". These standards are narrow; few projects that are otherwise acceptable to most communities will be demonstrably negative in aesthetic effect, or create an aesthetically offensive sight open to public view.

Impacts:

[B] 1. The character of urban development under the Specific Plan will enhance the visual quality of the City, and of the visual experience of those residing or visiting the planning area. This will be achieved by the land use and circulation proposals of the Specific Plan, and by the design, development and maintenance standards included as part of the Plan. [see SP, p79] [**significant positive**]

[B] 2. The urbanization of lands within the project area will gradually eliminate views of agricultural lands beyond developing areas as currently seen from highways and rural roads. [**less than significant**]

[B] 3. The urbanization of lands will gradually block or partially obscure the far view scenic backdrop of Mt. Diablo and the Coast Range, except as viewed from elevated levees, elevated building sites and expanses of open space such as golf courses and open space corridors. [**less than significant**]

Project Mitigation:

[B] 1. The principal mechanism for reducing any adverse visual impacts of the Project will be the implementation of City design standards, as described in the Specific Plan, Sections VI and VII. The Urban Design Concept required b y the Specific Plan for Mossdale Village and Stewart Tract will refine the Project's site layout, building plans, landscaping, building design and handling of specific site and Project features to reduce the potential for adverse visual impacts of the Project. [see SP, pp 143,145]

[B] 2. The loss of limited existing agricultural views will be replaced by an urban landscape that will contribute significantly to the aesthetic qualities of the area. Given the continued preservation of agricultural lands on nearby properties, and the containment of urban development within an

existing levee system, this trade-off does not constitute an irreparable loss of visual quality but rather a change in its character.

[B] 3. Views of the mountain backdrop to the west will be framed under different conditions rather than lost to the occupant or visitor. The orientation of streets and open space corridors, and the location of parks and major outdoor recreation areas (e.g., golf courses), will provide better opportunities to enjoy the scenic backdrop than is now afforded only from roads and highways, moving at required speeds, or the tops of levees which are not easily accessible under existing conditions. [see SP, p79]

Effect of Project Mitigation:

The above described visual impacts of the Project are less than significant or will be mitigated to a less than significant level by the above Project mitigation measures. These measures ensure that any adverse visual impacts will be eliminated or reduced to an acceptable level by implementation of City design standards, as described in Specific Plan Section VI and VII. The Urban Design Concept required by the Specific Plan for Mossdale Village and Stewart Tract will refine the Project's site design, architectural and landscape features to reduce adverse visual impacts of the Project.

ARCHAEOLOGICAL AND CULTURAL RESOURCES

Extensive literature search and field investigation of the entire planning area was conducted by competent professionals during formulation of the Specific Plan to identify actual or potential finds of significance that require special mitigation under requirements of CEQA. The discussion of impacts and mitigation which follow are abstracted from the report submitted in January, 1994, so that sensitive information is not disclosed.[3] Three archaeological sites and six isolated finds were recorded, along with built resources consisting of farm outbuildings, equipment and farm residences. The reader is directed to Part III of this EIR for a general description of finds having significance to the purposes of this EIR.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (j)], a project would have a significant effect on the environment if the project would disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site, except as part of a scientific study.
Impacts:

[B] 1. The three archaeological sites meet various criteria of significance for preservation under federal and state law. Failure to protect these resources from loss or damage during development and occupation of the affected areas of Mossdale Village and Stewart Tract would be irreparable and contrary to federal and state law. **[significant]**

[B] 2. The project area lays in a zone of thick Holocene alluvial deposition, and thus has some potential for buried archaeological deposits which might be disturbed by subsurface construction activities. Because of changes in elevations over the centuries, there is no way to predict where such deposits may be found, if at all. **[potentially significant]**

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[3] A Cultural Resource Survey of the Stewart Tract and Mossdale Areas of the West Lathrop Specific Plan, San Joaquin County, California, Far Western Anthropological Research Group, Inc., Davis, CA, January, 1994.

[B] 3. Isolated finds consist of historic farm equipment at one location and pre-historic flakes, a projectile point and a flake tool at others. Failure to protect these resources from loss would not violate federal and state law, but could result in their loss as representative fragments of prehistoric occupancy. **[potentially significant]**

[B] 4. Built resources identified, such as silos, barns and sheds, could also be lost or damaged if not protected at their sites or removed to other appropriate sites. **[potentially significant]**

Project Mitigation: [see SP, p50]

[B] 1. The project design team has taken careful note of the location of the three archaeological sites in developing land use proposals for Mossdale Village and Stewart Tract. These areas will be protected into perpetuity by their inclusion within areas of permanent open space. Two of the archaeological sites meet significance criteria for such protection. The third site, although problematical with respect to meeting significance criteria, will similarly be protected.

[B] 2. Mitigation against the potential loss of unknown archeological and cultural resources of significance at subsurface locations shall be avoided through close monitoring by the City of Lathrop of construction activities. The City will instruct developers and construction foremen of the potential for damaging prehistoric sites or artifacts, and provide written instructions as to the importance and necessity of halting all excavation work until the significance of the finds can be evaluated by competent archaeological and Native American specialists. Procedures to be followed will be those set forth by CEQA Guidelines, Supplementary Document J.

[B] 3. The project sponsor for Stewart Tract will protect and display all isolated finds as representative of the prehistory of the project site, in keeping with the purposes of the historic Gold Rush City theme park proposed. Isolated finds located within Mossdale Village will be preserved as conditions of development approval by the City.

[B] 4. Built resources within the Stewart Tract will be preserved and displayed at their existing or other appropriate locations as part of the historic character of theme park development. Built resources within Mossdale Village will be preserved under conditions of development approval by the City.

Effect of Project Mitigation:

The above described impacts of the Project on archaeological and cultural resources will be reduced by the above Project mitigation measures to a less than significant level. The Project mitigation measures will ensure that the archaeological sites within Mossdale Village and Stewart Tract will be protected into perpetuity by their inclusion within areas of open space. Any loss of unknown archaeological and cultural resoucres of significance within the Project site will be avoided through close monitoring by the City of construction activities as described above.

IMPACTS ON NEIGHBORING CITIES AND THE COUNTY OF SAN JOAQUIN

This topic is discussed at the end of Part V of this EIR.

TRANSPORTATION, CIRCULATION AND TRAFFIC

Significance Criteria:

Significance criteria for each of the subsections listed below are contained in Part V.

Freeways

Impacts:

Lathrop's General Plan EIR prepared in 1991 included assumptions about the extent of freeway system improvements that could be expected during the next 20 years. More recently, however, Caltrans has informed the City that previously anticipated improvements will not be forthcoming during the next 20 year planning period. They include: 1) additional lanes will not be added to I-5 north of SR 120; 2) I-205 west of I-5 will be widened to only six lanes (three in each direction) rather than to eight lanes; 3) the I-5/I-205 merge will not be widened to six lanes in each direction from the existing five lanes; and 4) SR 120 east of I-5 will not be widened from two lanes to three in each direction. Without these improvements, previously anticipated impacts of development under the West Lathrop Specific Plan become greater as noted under Items 1.- 5., below.

[B] 1. Interstate 5 north of SR 120 will operate above capacity during peak hours. While inadequate capacity will be due to increases in regional as well as local traffic, the extent of local mitigation required becomes more significant than before. **[significant]**

Project Mitigation:

1. a. The General Plan and Specific Plan call for the construction of Golden Valley Parkway from Gold Rush Boulevard southerly and westerly to Stewart Tract, parallel to I-5 and the I-5/I-205/S.R.120 merge.[4] Initial construction would be as a 4-lane divided facility. In addition, Gold Rush Boulevard would be extended as the main entrance to Stewart Tract from the north, extending southwest from the Louise Avenue interchange. If required, expansion of Golden Valley Parkway to 6-lanes would occur in advance of need. [see SP, p 53, 2nd para.]

[B] 1. b. Golden Valley Parkway will be extended north of Louise Avenue to Lathrop Road. as traffic warrants indicate through the on-going traffic monitoring program. It is to be understood that Golden Valley Parkway has been planned as a parallel facility to I-5 in keeping with General Plan policy to protect "...the through traffic functions of Interstate and State Route freeways serving the Lathrop area by planning expressway and arterial street alignments which will avoid the need or desire to utilize freeway sections for short, local area interval trips as if they were elements of the local expressway/arterial system." [see SP, p53, 3rd para.] Costs of this extension would be shared by adjacent development served as well as by West Lathrop development as proposed.

[B] 1. c. The City and Stewart Tract developers propose programs to significantly increase local and regional transit, and its ridership, and thereby reduce dependence on auto use of the Stewart Tract and regional roadway system. This program will also include a very large-scale park and ride facility, BART Express Bus and a rail transit parking facility on Stewart Tract, to serve the interregional needs of the San Joaquin Valley and lower Sacramento Valley commuters to central and southern reaches of the San Francisco Bay Area. [see SP, p56, Transit section]

[B] 1. d . The City will participate on a "fair-share" basis with Caltrans, the County, the City of Stockton and new development served to extend Golden Valley Parkway north to the City of Stockton as a parallel facility to I-5 so as to further the purposes of protecting through traffic functions of the

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[4] Golden Valley Parkway was previously named Stanford Boulevard in the General Plan.

freeway as described under Mitigation 1.b., above. The timing of this improvement will be determined by traffic monitoring and the availability of funding.. Preservation of the eventual right-of-way to Stockton is required at an early date. [see SP, p53, 3rd para.]

Impacts:

[B] 2. I-205 west of I-5 will have a peak direction demand over capacity during peak commute hours due to local and regional traffic increase, requiring greater commitment to mitigation through managing traffic to and from Stewart Tract and Mossdale Village. **[significant]**

[B] 3. The I-5/I-205 merge will have a peak direction demand over capacity during peak commute hours due to local and regional traffic increase, requiring greater commitment to managing traffic to and from Stewart Tract and Mossdale Village. **[significant]**

[B] 4. The SR 120 freeway east of I-5 to Yosemite Avenue will have a peak directional demand over capacity during peak commute hours due to local and regional traffic increase, requiring greater commitment to mitigation through managing traffic to and from Stewart Tract and Mossdale Village. **[significant]**

[S] 5. The existing Mossdale/Manthey Road interchange along the I-5/I-205/S.R. 120 merge may require restricted use because of State and Federal standards of operation and access at and near a freeway-to-freeway interchange. **[significant]**

Project Mitigation:

[B] 2. a. Golden Valley Parkway will be extended south and then west of Stewart Tract as an expressway parallel to I-205, with a new interchange connection to I-205 at Paradise Road. This facility will be available when needed (as determined by traffic monitoring) to ease traffic demands upon the Louise Avenue/I-5 interchange. . [see SP, p53, 4th para.]

[S] 2. b. The City will participate on a "fair-share" basis with Caltrans, the County and the City of Tracy to extend Golden Valley Parkway west to the Paradise Road/I-205 interchange. Further discussion of this topic is provided in Part V of this EIR.

[S] 3. Off-sets to peak hour traffic impacts will result from off-peak hour and weekend travel to Stewart Tract.

[S] 4. See further discussion in Part V of this EIR.

5. See further discussion in Part V and Part VI of this EIR.

Effect of Project Mitigation:

The above Project mitigation measures will partially mitigate Project impacts on the freeway system. These mitigation measures will assure acceptable levels of service within the West Lathrop planning area and on the freeway system as generated by the Project, exclusive of impacts generated by other projects elsewhere within and outside of the region which will contribute to regional traffic demand in future years. To the extent that cumulative traffic impacts on the freeway system may not be reduced to acceptable levels, statements of overriding considerations will be required prior to EIR certification. Additional mitigation measures are discussed in Part V.

Expressways and Interchanges (2025 Horizon Year)

Impacts:

[B] 1. The existing Roth Road/I-5 and Lathrop Road/I-5 interchanges will be adversely impacted due to unacceptable levels of service at the ramp intersections without significant ramp and surface street improvements. **[significant]**

[B] 2. The Louise Avenue/I-5 and Yosemite Avenue/SR 120 interchanges will operate above capacity during peak hours without significant ramp and surface street improvements. **[significant]**

[B] 3. Golden Valley Parkway will function acceptably as a 4-lane facility north of Gold Rush Blvd. to Lathrop Road, and as a 4-6-lane facility south of Gold Rush Blvd. to Stewart Tract. **[less than significant]**

[B] 4. A 4-6 lane Gold Rush Blvd. from I-5 west to Stewart Tract will be operating at acceptable levels. **[less than significant]**

[B] 5. Conventional approaches to the design of the street system will discourage later efforts to provide for various modes of transit required within the planning area covered by the Specific Plan. **[significant]**

Project Mitigation:

[B] 1. The Specific Plan calls for ramp improvements at the I-5/Louise Avenue/Gold Rush Boulevard, and I-5/Mossdale Road interchanges, as well as a new I-205/Paradise Road interchange by 2017. [see SP, pp 54-55]

[B] 2. The General Plan and Specific Plan call for improvements to the Louise Avenue interchange at such time as either Gold Rush Blvd. or Golden Valley Parkway require extension to Stewart Tract. However, ramp improvements will be required in any event as specified by a recent PSR (Project Study Report) prepared for the interchange. [see SP, p 55]

[B] 3. Further mitigation is discussed in Part V.

[B] 4. Further mitigation is discussed in Part V.

[B] 5. In keeping with policies of the General Plan, the design of expressway and arterial streets provides for bus stops, with right-of-way for the inclusion of light rail or other off-street transit mode provided for expressways. Local and regional transit is to be a commitment for Mossdale Village as soon as sufficient residential development occurs to establish the feasibility of a minimum level of patronage for continuous City transit routes. Both local and regional transit is to be a commitment for Stewart Tract beginning with the opening of the first theme park and recreation residential living environment. This commitment to transit is described further under the subjects of Rail, Air, Transit and Air Quality.

Many of the above mitigation measures will require a "fair share" approach to financing among the affected cities, the County and Caltrans.

Effect of Project Mitigation:

The above Project impacts on expressways and freeway interchanges are less than significant or will be partially mitigated by the above Project mitigation measures. Additional mitigation measures are discussed in Part V.

Arterials and Collectors

Impacts:

[B] 1. Access to Stewart Tract via Manthey Road can be provided during Phase 1 development, to accommodate project construction traffic. **[less than significant]** However, Manthey Road will not function acceptably if depended on for access to a theme park or other large traffic generator prior to the construction of either Golden Valley Parkway or Gold Rush Blvd. for access to Stewart Tract. **[significant]** In addition, the interim use of Manthey Road during first phase Project construction on Stewart Tract may damage the pavement surface to where remedial improvements and traffic control will be required. **[potentially significant]**

[B] 2. All Arterial and Collector streets are planned for the levels of traffic to be generated by the areas they will serve. This includes intersections where signalization is proposed by the Specific Plan. **[less than significant]**

[B] 3. Arterial and Collector streets will have substantial expanses of paved surfacing which lacks redeeming visual qualities. **[potentially significant]**

Project Mitigation: [see SP, pp 52-54]

[B] 1.a. Manthey Road will be replaced by Golden Valley Parkway and Gold Rush Blvd. extensions to Stewart Tract prior to when Manthey may no longer function at an acceptable level.

1.b. Interim roadway maintenance during Stewart Tract construction will be provided to Manthey Road as a Project cost if roadway damage occurs as the result of truck traffic generated by construction activities.

[B] 2. No further mitigation is required.

[B] 3. Arterial and some Collector street sections will include boulevard landscape treatment and meandering sidewalks to soften the visual effects of paved surfacing. No further mitigation is required.

[B] 4. Traffic signals will be timed to manage the levels of traffic anticipated at and between signalized intersections. No further mitigation is required.

Effect of Project Mitigation:

The above Project impacts on arterial and collector streets are less than significant or will be partially mitigated by the above Project mitigation measures. These mitigation measures will provide for acceptable levels of service along all segments of the local street system.

Highway Transportation in the Perspective of Rail and Air Transportation and Transit

Highway Transportation in the Perspective of Rail and Air Transportation and Transit

Impacts:

[B] 1. Development proposed under the West Lathrop Specific Plan and the actions of Caltrans to drop its previous proposals for freeway lane improvements poses significant potential for creating traffic problems on the freeway system and on the local arterial street and county road systems serving the south-central part of San Joaquin County as well as other parts of Lathrop. The most significant impacts would occur if vehicle traffic were to increase to excessive levels before affected street and freeway sections were improved to match the anticipated traffic impact. **[significant]** Dependence on the auto and all but minor use of transit modes would further exacerbate already existing and emerging problems of freeway congestion and air pollution. **[significant]**

[S] 2. Significant numbers of Stewart Tract visitors are expected to arrive in the area by commercial airlines, utilizing Stockton Metropolitan Airport, and to a lesser extent major commercial airports at San Jose, Oakland, San Francisco and Sacramento. **[potentially significant]** However, most visitors will arrive by auto via the Interstate and State Highway System from other parts of the region, the State and the Nation. **[significant]**

Project Mitigation: [see SP, pp 51-59]

1. The schedule of improvements planned in connection with implementation of the Specific Plan calls for all necessary street improvements to be in place at or before time of need. In addition, a significant commitment to transit is planned for introduction from the beginning of Phase 1 operations. [see discussion under Items 2., and 4., below] [see SP pp 51-59]

[B] 2. The majority of visitors arriving to Stewart Tract by commercial airlines will be bused to Stewart Tract from Stockton Airport. As arrivals increase from other regions of the State, the Nation and from international points of origin, buses will be augmented by rail transportation, if rail transportation is provided to Stewart Tract. The percentage of visitors arriving by air and using rental cars is expected to be small compared to total visitation. [see SP, p 58]

Effect of Project Mitigation:

The above Project mitigation measures will partially mitigate Project impacts associated with highway transportation. Additional mitigation measures are discussed in Part V.

Impacts:

[B] 3. With or without development under the Specific Plan, there is every possibility that traffic congestion on the freeway system will extend the AM and PM peak hours to multi-hour periods extending from very early morning to mid-morning, and from early afternoon to mid-evening. **[significant]** The testing of traffic impacts under various access scenarios for Stewart Tract indicates that certain high generating traffic uses have the potential for creating high levels of traffic congestion at various times throughout the work week and during weekends. **[significant]**

Project Mitigation:

[B] 3. a. A large-scale park and ride facility is planned in proximity to the Mossdale interchange along the I-5/I-205 merge that has the potential for removing upwards of 2,500 vehicles per day from the I-205 corridor leading to and from employment centers in the San Francisco Bay Area. This facility is proposed as a permanent use. This facility will immediately improve regional traffic capacity along I-205, and more than off-set traffic impacts of out-bound commuters from Mossdale Village or of in-bound commuters to Stewart Tract along this corridor. It will also buy time in which to perfect and enhance the capacity of train, bus and any other transit modes which currently are being proposed for the region and which will be supplemented by project proposals to reduce freeway traffic demands of the project. [see SP, p58, 1st para.]

[S] 3. b. A multi-modal transit center is proposed in close proximity to the park and ride facility along the Southern Pacific railroad right-of-way. [see SP, p58, 1st para.]

[S] 3. c. The generally off-peak hour and weekend operations of visitor-serving uses on Stewart Tract will have the effect of minimizing impacts on freeway traffic; the high employment produced on Stewart Tract will create favorable conditions for achieving good balance in the relationship of jobs and housing in the local area, resulting in no additional significant impacts to commute activity on Interstate 580 over the Altamont Pass..

[S] 4. The long-term mitigation described under Item 3.a., above, will have a potentially significant positive impact. Remote parking lots north along the I-5/Southern Pacific RR corridor and west along the I-205/Southern Pacific and Union Pacific railroad corridors will permit access to and from Stewart Tract by trains, especially during major events. The initial commitment to non-auto modes is planned to produce the following percentages of attendance via various transit modes, by the year 2005:

Mode	% of Attendance
Car	68%
Bus	15%
Train	10%
Air	5%
Water	2%

As transit operations are expanded in relation to Stewart Tract attendance, train travel will increase to about 15%. Overall, and based on existing technology, the commitment by Stewart Tract developers to transit by 2010 is expected to be 25%, with 30% occurring by the year 2015. Transit is to be considered as much a part of the proposal as any other type of infrastructure needed, such as water supply and liquid waste treatment and disposal. As such, the various transit modes are to be available from the beginning, with service expansion as needed. This approach constitutes a major departure in planning to meet the transportation requirements of a large-scale and traffic-intensive project. [see SP, pp 51-59]

Effect of Project Mitigation:

The above Project mitigation measures will partially mitigate Project impacts associated with traffic on the freeway system. Additional mitigation measures are discussed in Part V.

Impacts:

[M] 4. As Mossdale Village development and other planned community expansion east of the San Joaquin River occurs, there is a danger that short-trips will add considerable traffic to I-5 within the City limits. **[significant]**

Project Mitigation:

[S] 4. The intended commitment to regional transit will be matched by various modes of on-site transit for the convenience of visitors to Stewart Tract, including boats, shuttles, light rail, and overhead vehicles. Transit vehicles will convey visitors to and from the theme parks and the multi-modal transportation station and parking facilities planned in close proximity to rail and boulevard expressway access. As Stewart Tract develops westerly, the primary ring road street system also will serve as transit corridor allowing visitors to move within and around the entire Tract without having to use automobiles. A high intensity transit corridor or "spine" will connect major activity centers with major concentrations of visitor motel, hotel and housing facilities. This commitment to high-intensity on-site transit will be matched by low intensity vehicles such as golf carts for movement among housing and outdoor recreation areas and facilities. The objective will be to minimize (if not totally eliminate) dependence on the auto for on-site movement of people. [see SP, p56, Transit section, 1st para.] Implementation of the City's Bicycle Master Plan may eventually result in bicycle traffic accounting for as much as 1% or more of total on-site traffic.

[M] 5. Local transit is also to be provided within Mossdale Village, connecting the Village with other activity centers of the community, including, shopping, schools and major employers. Initially, transit service will be provided by buses. However, the Golden Valley Parkway corridor will include sufficient land to accommodate a rail transit right-of-way which eventually would provide connecting service with the communities of Stockton, Manteca and Tracy. [see SP, p56, Transit section, 2nd para.]

Bicycle and pedestrian ways separated from the auto will connect major activity centers within all of Mossdale Village via a system of open space corridors that will be extended as Lathrop expands north of Mossdale Village under policies of the General Plan. Bike riding and walking separate from street corridors along off-street trails is expected to become a significant means of people movement within the town among all age groups. [see SP, p56, Trails section]

The above Project mitigation measures will partially mitigate Project impacts associated with traffic on the freeway system. Notwithstanding the design of the street system and interchange facilities as mitigation of potential impacts, the commitment of the Project to transit modes for access to and within the site offers exceptional promise for long-term mitigation of on-site and off-site traffic congestion. Additional mitigation measures are discussed in Part V.

AIR QUALITY

Significance Criteria:

See discussion under Air Quality contained in Part V.

Impacts:

[B] 1. The project has the potential of contributing significant mobile source and stationary source emissions to the atmosphere of the San Joaquin Valley Air Basin, exacerbating already serious problems of air pollution due to non-attainment of federal and air quality standards for ozone, carbon monoxide, oxides of nitrogen and fine particulate matter. These pollutants take their toll on human health by aggravating chronic respiratory conditions, on agricultural production by reducing production and quality per acre, and on the visual quality of the Valley by obscuring views of the natural and man-made environment. **[significant]**

[B] 2. Emissions of particulate (PM_{10}), Carbon Monoxide (CO), and the so-called reactive organics (ROG) can prove to be especially difficult to control during long periods as well as intermittent periods of project construction. Construction dust along freeways, during periods of high wind, can obscure vision and create traffic hazards. **[significant]**

[B] **Project Mitigation:**

[B] 1. a. By testing the effects of various development designs and their circulation systems on traffic during preparation of the Specific Plan, it has been possible to design and plan for freeway, expressway, interchange, arterial street, and air, bus and rail transit so as to minimize problems of traffic congestion associated with use of the automobile. By greatly reducing the potential for such congestion, the objective of emission reduction is served well. The design of the proposed on-site circulation system is adequate for the amount of traffic expected under five-year development phases. This approach is exemplary of transportation planning at its best, since it avoid problems before the fact of development rather than struggling to manage traffic after the effects of traffic congestion have set in. [see SP, pp 51-59]

[B] 1. b. The projects commitment to non-auto modes of transportation for moving people to and from the project area and moving people and goods within it will significantly reduce the potential for adverse air quality impacts associated with traffic congestion. Vehicles powered by electricity and clean burning fuels will be utilized. The extent of emissions reduction expected from both mobile and stationary sources is described in Part V of this document. [see SP, pp 51-59]

[B] 1. c. The reduction in freeway commute traffic due to park and ride, train and the availability of housing in close proximity to jobs is expected to have a significant positive overall impact on air quality.

[B] 2. a. The means of mitigating emissions associated with project construction are described in Part V of this document, since they involve a variety of temporary actions required during construction. As such, they are not then considered as "built-in" approaches to impact mitigation.

2. b. A significant reduction in particulates is expected from the gradual cessation of farming operations which disturb the soil.

[B] While it is not possible to fully mitigate all impacts on air quality, the full range of mitigation measures being proposed are described in Part V of this EIR..

Effect of Project Mitigation:

The above Project mitigation measures will partially mitigate Project impacts associated with air quality by emphasizing the use of non-auto modes of transportation and reducing the potential for traffic congestion on the Project site. Additional mitigation measures are discussed in Part V.

PART V

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

INTRODUCTION

Where the discussion of impacts and mitigation already provided under Part IV is deemed adequate (e.g., a particular impact is not significant or is mitigated to a level of less than significant by mitigation measures contained in Specific Plan proposals), the text in this Part V simply refers to the topic and page where the relevant Part IV discussion is provided. Where analysis is being provided in addition to or expanding upon the discussion in Part IV, it generally provides a finer-grained environmental assessment than that provided in Part IV, and/or addresses impacts that are not fully mitigated by Specific Plan proposals.. Wherever feasible, impacts are described under "worst-case" conditions. This is important since this EIR covers the indirect as well as direct effects of development which will occur under various phases and at full buildout under policies of the Lathrop General Plan and West Lathrop Specific Plan. For certain topics, such as traffic and air quality, worst-case analyses covers any eventuality in the final mix of land use proposed under the Specific Plan.

Design proposals of the Specific Plan which are described in Part II as "Interchangeable Alternatives" are discussed at the end of Part V. These alternatives are, in effect, counterpart substitutes for proposals of the Specific Plan shown on Figure II-2 (p II-5), and are not to be confused with the discussion of "project alternatives" provided in Part VI. These alternatives may, however, be adopted by the Lathrop City Council as part of the Specific Plan because they are covered by this EIR.

For ease of comparison, the format of this Part V is the same as that followed in Part IV. The topical discussion often applies both to Mossdale Village and Stewart Tract. Where it applies to only one area, it is preceded by a notation in brackets of either [M] for Mossdale or [S] for Stewart Tract. Where the discussion applies to both areas, it is preceded by [B]. The relative importance of an impact within the CEQA definition of "significant effect" is indicated by brackets and bolding (e.g., [**significant**]) under the discussions of impacts.

LAND RESOURCES

Compaction and Overcovering of the Soil

As set forth on pp IV-3 and -6 of Part IV, Project impacts associated with compaction and overcovering of the soil are fully mitigated by measures contained in the Specific Plan proposals. Further discussion is not required.

Agricultural Land Conversion

Impacts and mitigation measures related to the conversion of agricultural land and cumulative loss of agricultural value are covered in part on pp. IV-7 and -8 of Part IV. Impacts resulting from urban-agricultural conflicts are discussed below under "additional impacts". It is important to note that the phasing proposed for Mossdale Village will proceed from north to south, while the phasing proposed for Stewart Tract will proceed from east to west. These phasing programs (see phasing diagrams provided in Part II) are intended to avoid the "fracturing" of the agricultural land pattern and fragmentation of the urban pattern.

Significance Criteria for Determining Urban Agricultural Conflicts:

Under CEQA Guidelines [Appendix G, (y)], a project would have a significant effect on the environment if it would impair the agricultural activity of prime agricultural lands. In the case of farm lands on Stewart Tract and at Mossdale Village, they are "prime lands" because of their inclusion in the State Department of Conservation's "Important Farmland Mapping and Monitoring Program". While not all of these lands have been consistent producers of high value crops, their agricultural production has made an important contribution to the local economy. Urban-agricultural conflicts often occur at the interface between developed and developing urban lands and commercial agricultural operations. Such conflicts can be significant to the extent that they impair and increase the costs of agricultural operations, or pose a risk to individuals.

Additional Impacts:

[B] 1. It is reasonable to assume that conflicts will occur at the agricultural-urban interface as development occurs under the proposed plan of phasing. Conflicts affecting the farmland owners and operators concern trespass, vandalism, theft, major damage to equipment and liability in the event of harm to trespassers that may occur from normal farming operations or from unauthorized use of farm equipment. Conflicts affecting residential neighbors concern spray drift of pesticides and herbicides, noise from farm equipment, dust from farm operations and wind-borne odors. **[potentially significant]**

Additional Mitigation:

[B] 1.a. As development occurs under the phasing plan, fencing or other suitable barriers such as watercourses should be established at the interface between the phases which are developing and adjacent to agricultural lands so as to reduce the potential of urban-agricultural conflicts resulting from trespass, vandalism, crop and equipment damage, and theft.

[B] 1.b. To reduce the potential for adverse impacts from agricultural operations upon residential areas, a buffer zone of 50-100 yards shall be provided between the line of residential or commercial development and the nearest line of farmland, with fencing of each line to discourage trespass. This buffer should be assured as a condition of development approval, with removal of the buffer not to occur until the next phase of urban expansion is approved.

[B] 1.c To reduce the chance of spray drift hazards, agricultural operations should comply with San Joaquin County restrictions on the distance that pesticides can be applied to environmentally sensitive areas, such as residential areas, schools, parks, waterways and livestock. The distances required vary with the type of pesticide and method of application.

[B] 1.d. The City of Lathrop should moni . and ensure compliance with its "right to farm" ordinance which is designed to protect agricultural operations from urban-agricultural conflicts and inform residents about the types of agricultural operations that may occur in their vicinity. The ordinance protects properly operated farms from nuisance complaints. Proper notice to a prospective buyer is required at the time of property sale.

Effect of Additional Mitigation:

The inclusion of the above mitigation measures, together with relevant mitigation measures described in Part IV will reduce almost all impacts to less than significant levels. As stated in Part IV, the exception

is the ultimate and irreversible loss of agricultural lands which will remain an unavoidable significant impact, requiring a statement of overriding considerations prior to certification of the Project EIR. The mitigation measures listed above will ensure that potential conflicts between agricultural and urban uses are avoided or minimized through the implementation of, among other measures, buffer zones and barriers between these potentially conflicting uses.

Additional Impacts:

[S] 2. Construction of early phases of development on Stewart Tract will disrupt the irrigation and drainage of agricultural lands located west of Phase I on Stewart Tract. **[potentially significant]**

Additional Mitigation:

[S] 2. Revisions to the existing local irrigation and drainage systems on Stewart Tract will be necessary to keep the remaining farmland in operation. This could require additional pumps and ditches during early phases of development.

Effect of Additional Mitigation:

Implementation of the above mitigation measures will reduce impacts associated with disruption of agricultural irrigation and drainage systems located west of Phase I on Stewart Tract to less than significant levels by ensuring that these systems will remain operable.

Geology and Seismic Hazards

Impacts and mitigation measures related to the occurrence of an earthquake exceeding 6.5 on the Richter scale on pp. IV-7 and -8 with respect to the occurrence of an earthquake exceeding 6.5 on the Richter scale in combination with the potential for loss of life and property due to flooding and structural failure are covered in part on pp IV-8, -9 and -10 of Part IV. However, further description is warranted as guidance to the City and design engineers in preparing and reviewing structural drawings.

Existing Conditions:[1]

The project area is located at the transition between a deltaic system to the north and a major river distal alluvial fan basin system to the south. Surface and near surface geology in the vicinity consists of alluvial sediments deposited from San Joaquin River flows. The distribution of these sediments was strongly influenced by sea level changes during and after the last major ice age. The Modesto formation, with its predominantly clean fine-grained channel sands, is found in upland areas generally east of the San Joaquin River.

The Holocene formation is found over most of the Stewart Tract and along the western edge of Mossdale Village. This younger formation includes alluvial channel sands, overbank silty sands, clayey silts deposited in low areas and windblown sands. The clayey deposits are relatively expansive. Windblown sandy sediments are common along the western portion of Mossdale Village. Their source was the San Joaquin River bank and flood channel sediments exposed during low river flows, and were transported by dominant summer winds.

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[1] This discussion has been abstracted from an unpublished Draft Preliminary Geotechnical Report prepared by Roger Foott & Associates for the Califia Development Group, November 15, 1994.

The project site is in an area of low seismicity. Known faults that could have damaging effects on levees and structures within the planning area lay to the west, as shown on Figure III-7 (p. III-22). The larger of these faults are the San Andreas, Hayward and Calaveras. The Greenville-Mt. Diablo fault, though smaller, also has significant potential to cause damage. All four faults are historically active.

In recent times, another fault (a blind thrust fault) has been recognized by competent authority that is northtrending and dipping steeply westward. This fault is located along the western margin of the San Joaquin Valley. The magnitude 6.7 Coalinga earthquake of 1983 and the 1985 Avenal earthquake have provided evidence that blind thrust faulting is occurring at depth. Eaton (1986) postulates a similar fault system to the north as an explanation for the 1892 Vacaville/Winters earthquake and for recent microseismic activity observed in the area.

There is no known evidence of active surface faulting crossing the West Lathrop planning area. Also, there is some evidence of active subsurface faults that project into the project area. While the planning area will experience direct seismic shaking and possibly secondary effects of such shaking (liquefaction, lurching, lateral spreading, settlement), the area should not experience fault rupture. Estimates of limiting magnitudes for earthquakes for faults are shown in Table III- I (see p. III-23). Peak accelerations that might be expected in the bedrock beneath the West Lathrop planning area during such earthquakes are in the range of 0.10 to 0.20g (gravity), with a design value anticipated in the range of 0.20 to 0.25g.

Both aerial photo and field reconnaissance indicate that the site has changed little over the past 25 years, and that site geology is strongly influenced by the fluvial processes of the San Joaquin River and Paradise Cut. During site reconnaissance, discussions with owners and operators provided valuable insight into general soil conditions.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (r)], a project would have a significant effect on the environment if it would expose people or structures to geologic hazards. In this case, people and structures could be at risk as the result of earth-shaking, soil liquefaction and inadequate building foundations during high water flows in surrounding watercourses.

Additional Impacts:

[S] 1. The site will be exposed to seismic shaking, with some soils experiencing liquefaction during future high intensity earthquakes. A limited boring program indicated the presence of saturated, fairly clean sands and silts in a relatively loose state at shallow depths around parts of the site. These conditions indicate a significant potential for liquefaction which needs to be investigated in future geotechnical work assignments. [**significant**]

[S] 2. Other secondary seismic effects, such as lateral spreading and settlement, may also occur during future high intensity shaking. [**significant**]

Additional Mitigation:

[S] 1.a. Additional samples, field measurements, laboratory testing and analyses will be required before this liquefaction potential can be reliably assessed and appropriate foundation treatments recommended. This should be accomplished during preparation of preliminary engineering drawings, in accordance with applicable State and local governmental standards.

[S] 1.b. Several geotechnical approaches are available to mitigate the adverse effects of liquefaction under dwellings or other structures, including: excavation and recompaction; dynamic compaction; chemical or compaction grouting; and founding structures below the liquefiable layers.

[S] 2. The potential for secondary seismic effects should be evaluated in future work and if necessary mitigated through the use of relatively flat slopes, setbacks of building from steep slopes (of levees) and specialized soil treatment.

Effect of Additional Mitigation:

The inclusion of the above mitigation measures, together with relevant mitigation measures described in Part IV, will reduce almost all impacts associated with geologic and seismic hazards to less than significant levels. As stated in Part IV, the exception involves the unknown severity of future seismic events which makes it infeasible to fully mitigate impacts associated with the potential for liquefaction in the event of a severe earthquake. Consequently, a statement of overriding considerations will be required prior to certification of the Project EIR.

WATER RESOURCES

Water Supply

Impacts and mitigation measures related to water resources are covered in part on pp. IV-10 through -12 of Part IV. Further discussion is provided below, including the options available for achieving a firm supply of potable water for the Project, and including reuse of treated wastewater for non-potable uses such as landscape and agricultural irrigation.

Exiting Conditions:

As described in Part III (p. III-24), groundwater currently is the sole source of domestic water supply for the City of Lathrop. Regional trends show a gradual lowering of potable groundwater elevations and a more saline groundwater table. Cones of depression in the region are affecting groundwater flow, and a regional overdraft of groundwater supplies countywide continues to increase. The projected need for water to serve the West Lathrop planning area, plus other areas of projected urban expansion north of Mossdale Village and within the existing City limits, is estimated by the City and project engineers in a range up to 14.3 MGD (million gallons per day).

The City currently is supplied with domestic water from a groundwater aquifer, using five pumps located in the eastern part of the City. The yield from these pumps provide the water required for the current resident population and other development within the City. The pumps and aquifer are thought by competent authority to have reached the limits of their long-term water yield. The quality of water within this aquifer is also suspect for long-term water supply, with salt water intrusion from Delta waters degrading groundwater on a gradual basis. Both problems of supply and quality are caused by over-pumping of the aquifer and lack of up-slope fresh water recharge.

Agricultural irrigation wells serving Mossdale Village and Stewart Tract would not be suitable for the long-term production of domestic water for the City without adequate treatment of the water to meet State drinking water standards..

Based on policies of its General Plan, Lathrop's City Engineer published a Water System Master Plan in 1992. The Master Plan indicated that approximately 50% of the City's total water needs should come from

the groundwater supply, with the balance coming from a surface water source. Presently, the most attractive surface water source is from the South San Joaquin Irrigation District (SSJID), which has significant rights to waters of the Stanislaus River. As described in a draft report prepared in March of 1994, the proposed SSJID plan would (in brief) accomplish the following:[2]

1. Take water from the pool of water formed by a dam and new water intake in the Stanislaus River located near Van Allen Avenue;

2. Construct a water treatment plant southwest of the City of Manteca (south of SR 120) having an ultimate capacity of 225 MGD. The initial treatment plant would have a capacity of 100 MGD, which would be adequate to the year 2005. A second phase treatment plant would be built in 2005.

3. Treated water would then be distributed to the North Lathrop Connection (at Louise Avenue and I-5), and to the South Lathrop Connection (west of Manteca near the San Joaquin River and I-5).

Treated water from the North and South Lathrop Connections would enter the City of Lathrop's distribution system (now being planned by Siegfried Engineering of Stockton, California), and conveyed to and around the Specific Plan area as shown on Figure 27 and 28 of the Specific Plan.. If this SSJID water supply option is not developed in time for the City of Lathrop to provide water for the initial phase of West Lathrop development, Stewart Tract and Mossdale Village developers could, on an interim or permanent basis, either 1) draw water from vertical wells placed on Stewart Tract at minimum depths of 200' that will assure an adequate supply of potable water, with treatment provided as necessary, or 2) convert Stewart Tract agricultural rights to waters of the San Joaquin River for domestic use. These rights amount to approximately 34,000 (+ or -) Ac. Ft./Yr. Full conventional treatment and disinfection would be required. Under any of the above options, development would occur only to the extent it is supported by assurance that a firm supply of potable water will be available to serve that portion of the development then under consideration.

Based on the assumption that domestic water for West Lathrop would be available for distribution and storage, Siegfried Engineers has prepared Preliminary Plans indicating a potable water demand as follows:

Mossdale Village	=	1.58 MGD
Stewart Tract	=	6.78 MGD
Total daily demand	=	8.36 MGD

The system being designed for both Mossdale Village and Stewart Tract would be a looped system that crosses the San Joaquin River at two points. Five storage tanks would be included as follows:

Tank No. 1	=	5.0 mg [within central Mossdale Village]
Tank No. 2	=	6.0 mg [along the west side of Stewart Tract, off Circle Drive near Gold Rush Boulevard.]
Tank No. 3	=	5.0 mg [within the mid-west area of Stewart Tract, off Circle Drive.]
Tank No. 4	=	6.0 mg [along the north side of Stewart Tract, off Circle Drive.]
Tank No. 5	=	4.0 mg [at the east end of Stewart Tract]

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[2] Montgomery-Watson Engineers, South County WTP and Conveyance Study, March, 1994.

Of a total storage of 26.0 million gallons, 4.1 mg is allocated to fire flow and two days volume of daily demand is allocated as emergency storage. Water mains would range in size from 8 inch to 24 inch diameter. The distribution system is designed to operate between nodes at 30 psi to 60 psi. The following fire flow criteria would be met by this distribution system:

Residential	=	1000 gpm	2-hour duration
Commercial/Institutional	=	3000 gpm	4-hour duration
Theme parks and satellite uses (assuming building sprinklers)	=	4000 gpm	4-hour duration

Significance Criteria:

Under CEQA Guidelines [Appendix G, (h)], a project would have a significant effect on the environment if it would substantially degrade or deplete groundwater resources. For purposes of this section, impacts on water resources are considered to be significant if the intended supply were to prove unreliable or of inadequate quality for public consumption.

Additional Impacts:

[B] 1. Expansion of the City's municipal well field could have the eventual effect of lowering the quality of the City's drinking water supplies by increased levels of salinity. [**potentially significant**]

[B] 2. The City's existing domestic well water supply is not adequate for supplying the estimated volume of water (14.3 MGD) that will be needed by the year 2025, including West Lathrop. [**significant**][3]

[B] 3. Failure to practice urban water conservation through the reuse of treated municipal liquid waste would result in the over-consumption and waste of water from the various other sources available to the City. [**significant**]

Additional Mitigation: [Note: numbers assigned to mitigation measures correspond to the basic numbers assigned to the list of additional impacts. There may be several mitigation measures listed for a single impact.]

[B] 1.a. Water depths in existing and future wells will be monitored on a regular basis to determine if increased groundwater demands are adversely affecting the aquifer. For example, a sustained trend of declining water levels may signal that the aquifer is in a serious overdraft condition. In such an event, the City will consider prohibiting, or severely restricting the use of any new wells that can be expected to significantly intensify the condition.

1.b. The City will continue to monitor the quality of its well field groundwater in the interest of detecting the presence of potential contaminants; should the quantity or quality of groundwater pumped by the City begin to deteriorate, groundwater recharge programs will be implemented as supplemental sources of surface water become available.

1.c. City water consumption records will be monitored, and water meter repairs and testing programs will be maintained to pinpoint water system losses and inhibit excessive usage.

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[3] Ibid, [see Table 2.1, Section 2.]

1.d. Development on Stewart Tract and Mossdale Village will not be served with groundwater from the City's existing well field.

1.e. During the City's on-going investigations to locate additional long-term supplies of potable water for domestic use, further efforts will be required to determine if groundwater aquifers in the area will yield sufficient quantities of quality water suitable for domestic use.

[B] The potential for supplying adequate supplies of potable water rests with a combination of approaches pursued simultaneously, including those set forth below. The City will pursue each of these options, and shall withhold development for any phase of development under the West Lathrop Specific Plan until there is assurance of a firm supply of potable water commensurate with the amount of urbanization to be served. It is prudent to combine the available approaches based on the need for water conservation in a dwindling regional water environment.

2.a. To meet long-term water supply requirements, the City will continue to participate in a regional water project in which the South San Joaquin Irrigation District would provide the needed supply, construct the conveyance system and treatment infrastructure, treat the water to meet State Standards for domestic uses, and deliver the treated water to appropriate locations in or near the City of Lathrop. It is anticipated that several other cities will also participate in this water project. Studies and planning for this project currently are underway.

2.b Studies completed by Siegfried Engineering indicate that the use of groundwater obtained from wells on Stewart Tract can serve the needs of the development (on either an interim or permanent basis) if the water from this source is treated to meet State drinking water.[4]

2.c. Potable water may also be made available by converting riparian or appropriative water rights held by the Stewart Tract ownership in the amount of 34,000 acre feet per year. The City of Lathrop will file with the Water Rights Board to convert use of Stewart Tract appropriative rights in accordance with provisions of State Law. If utilized, this interim water supply will be treated to meet State Standards for M&I (Municipal & Industrial) use. Transfer of the agricultural water right for M&I use by the City will be approached under a program of phased development consistent with demand and need. This is needed to protect the existing agricultural water right until it is no longer needed for crop irrigation. The conversion of an agricultural appropriative by the City of Lathrop for M & I use is permitted by Section 1700 of the California Water Code.[5] This action could provide for all of the City's water needs contemplated under the Lathrop General Plan. A water treatment plant would be required to treat San Joaquin River water, and also for water from the Stanislaus River conveyed by SSJID.

2.d. Water obtained by the City from upstream sources (other than SSJID), if available, would be transported via the San Joaquin River channel or other surface water courses, treated and stored near areas of proposed development.

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4 Siegfried Engineering, Inc., **Alternate Water Supply, West Lathrop Specific Plan**, February 28, 1995.

5 Barring any protests, such a transfer of water rights is a relatively simple matter. Fees for the transfer are $100, to be paid to the State Water Resources Control Board for the expenses of processing the application, plus $800 for preparation of an Environmental Evaluation to be prepared by the Department of Fish and Game.

[B] 2.e. A domestic water supply will be provided to serve each phase of Stewart Tract and Mossdale Village before it is permitted to construct. The supply will be sufficient in reliability, quantity and quality in accordance with State Health regulations. The water supply system will be owned and operated by the City of Lathrop.

2.f. A distribution system of pipelines and storage tanks has been planned by Siegfried Engineering, Inc. which provides for five storage tanks with a capacities ranging from 4.0 to 6.0 million gallons (Total of 26.0 million gallons), to be located along the perimeter of Stewart Tract (#s 2-5) and within Mossdale Village south of Louise Avenue. These tanks will provide for emergency storage, fire flow and equalization storage.

2.g. As planned, the water mains appear adequate to carry water from proposed delivery points. If a water treatment plant is located on-site for treating San Joaquin River water, pump stations and water mains may require resizing and relocation during final design.

2.h. The water system is preliminarily planned to serve the needs of the proposed Project. When the Project proceeds to final design, the system will be reanalyzed and changes made to address a more accurate assessment of water demands.

2.i. Under phased development of the Project, phased development of the water system may be appropriate. In such event, storage, booster pumps and distribution lines may be less extensive than what will be required for ultimate development.

2.j. All water mains are to be looped or provided with appropriate line flushing facilities. In particular, water mains crossing the San Joaquin River are to be looped, at locations associated with bridges crossing the river if at all possible.

2.k. All water distribution facilities are to be constructed of durable materials and using construction practices to be approved by the City Engineer.

2.l. The development and the water system will be adequately protected from a 100 year flood event by improvements to the levees around Stewart Tract. In the case of power outages, standby power will be installed and properly maintained at all pumping stations to ensure a continuous supply of water.

2.m. Storage tanks are to be located below the horizon line where feasible, and landscaped to visually blend with the overall site and surrounding land use.

2.n. Adequate all-weather access from hard surfaced roads is required to all components of the water system, including right-of-way and ingress and egress routes for maintenance.

2.o. Line flushing and storage tank draining outlets are to be located to maximize the potential for water reuse opportunities.

3. Water conservation will be practiced by the City through the treatment and reuse of effluent for landscaping and agricultural irrigation by providing low water demand landscaping, water conserving methods of irrigation and the use of low-flow water fixtures.

Effect of Additional Mitigation:

The inclusion of the above mitigation measures, together with relevant mitigation measures described in Part IV, will reduce all impacts associated water resources to less than significant levels. This will be accomplished by ensuring that the City's existing municipal well field will not be adversely affected by water demands of the Project and that potable domestic water will be available to serve phased development under the Specific Plan when such development is ready for occupancy and operation.

Wastewater Management

As considered in this discussion, wastewater is limited to liquid waste originating from human sources, industrial wastes, liquid wastes from commercial developments, including restaurants, and other liquid waste allowed into the City of Lathrop's sewage collection systems. As used here, "wastewater" does not include rainwater or water originating from surface water flows.

Existing Conditions:

The City of Lathrop provides wastewater management services within its city limits through a system of sewage collection pipelines, pump stations and an interceptor pipeline to the City of Manteca's wastewater treatment plant. The City of Lathrop has a specific volume of treatment and disposal capacity in this plant, established by agreement with the City of Manteca under requirements of the Federal Clean Water Grant Program which was the principal source of funding for plant construction. The Manteca plant is currently operating near its design capacity, and planning for added capacity is underway. The City of Lathrop has requested that additional capacity for Lathrop be a consideration in Manteca's plans for wastewater management expansion.

A new wastewater treatment facility has been constructed by the City of Lathrop along Howland Road immediately north of the State Route 120 freeway, and east of I-5. This site is adjacent to the Kearney Ventures Crossroads industrial park which will be the principal beneficiary of the plant's current capacity of 0.6 MGD. The industrial park developer was responsible for all costs of construction. Because of its limited size, long-term treatment capacity for other development in Lathrop is not anticipated. The potential for limited expansion to 1.2 MGD for the short-term is described later in this section.

The Stewart Tract and Mossdale Village areas currently are served by privately owned septic and leaching field systems, none of which will be adequate for development proposed under the Specific Plan.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (s), a project would have a significant effect on the environment if it involves extending a sewer trunk line with capacity to serve new development. Significant effects could also result from the direct impacts of constructing a new wastewater treatment system and the discharge of treated effluent.

Wastewater Collection:

The collection system proposed under the West Lathrop Specific Plan is described generally in a technical appendix to the Specific Plan.[6] This Appendix was prepared assuming that the ultimate treatment facility

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[6] Siegfried Engineering, Inc., **Wastewater Collection System - Specific Plan Technical Appendix**, December, 1994

will be located at the southeast corner of the Stewart Tract. Some minor adjustments to this treatment site alternative would be required with respect to conveyance and the level of treatment anticipated for this facility. This facility could serve Stewart Tract and Mossdale Village either permanently or on an interim basis.

Wastewater Treatment Alternatives:

A new wastewater management system is being devised by the City, consisting of one or more treatment plants, effluent storage and effluent reuse systems, to serve new development in the existing city limits east of the I-5 freeway, in West Lathrop, and in other areas of future development. The new facilities would be built in phases as expanded wastewater management services are required. Policies of the Lathrop General Plan provide important guidance to the provision of adequate wastewater management facilities, including the following:

1. One or more wastewater management systems may be required to serve West Lathrop.

2. Wastewater management capability is required under a phased program commensurate with the phasing of development.

3. Interim facilities may be required to serve Stewart Tract until substantial development occurs.

4. Recycling and reuse of treated wastewater for landscape and crop irrigation and for wildlife management and commercial site cleansing is essential to achieve a net reduction in the amount of water needed for urban use as compared to continued agricultural use.

The City of Lathrop is currently planning a Wastewater Facilities Plan (WFP) that will address future wastewater management requirements of the entire City planning area, including the area covered by the Specific Plan. The WFP is considering two sites for treatment plant location. The first site would involve the expansion of the City's existing treatment facility, commonly referred to as "Site 3b", located in the Crossroads Commercial/Industrial Park north of State Route 120, between Interstate 5 and the Southern Pacific Railroad. The second would involve a 75 acre parcel on Stewart Tract east of the I-5/I-205/S.R. 120 freeway "merge" at the confluence of the San Joaquin River and Paradise Cut, commonly referred to as "Site 4".

The WFP will consider all options for the disposal of treated effluent, from full river discharge to zero discharge. Any option eventually adopted that has river discharge restrictions will require some degree of effluent storage and land disposal. The WFP will consider staged development of the City's existing treatment facilities. Located at Site 3b, the existing treatment plant has a capacity of 0.6 MGD with a design allowance up to 1.2 MGD. Recognizing the considerable time required to build a new treatment facility, the WFP will also address the staged improvement of the City's plant at Site 3b up to 3.5 MGD in order to meet short-term needs over the next few years until such time as a long-term plan is selected and implemented. This interim approach currently is the subject of a separate environmental assessment being conducted by the City.

In conducting the environmental review of the projects described above, the City is also examining two other alternatives, as follows:

1. Connection to the regional facility operated by the City of Stockton.

2. Connection to the facility operated by the City of Manteca (which currently serves much of the developed acreage within the City of Lathrop.

As a practical matter, these alternatives may be pursued simultaneously because of the costs associated with selecting a single ultimate system in an atmosphere of uncertainty regarding the extent of urbanization that may occur in West Lathrop over the next 20+ years. This would be especially true for the Stockton connection alternative which would require extending a large diameter trunk line (and associated pumping stations) from Stewart Tract and Mossdale Village north and parallel to I-5 on the west to the vicinity of French Camp Road, some six miles north of Louise Avenue. Lateral trunk lines extending east of the freeway would be required to intercept existing lines within the City and to provide capacity for areas of the City that are under-served or not served at all by existing facilities.

Connection to the Manteca treatment facility would reduce the length of trunk line extensions required to serve industrial areas along the McKinley Avenue corridor and the Lathrop Road and Louise Avenue corridors between the two railroads. This alternative carries with it the need for considerable ultimate expansion of the land disposal acreage now held by Manteca, and the possible need for acquiring acreage well outside the planning areas of Manteca and Lathrop.

The results of this on-going analysis will be incorporated into the development engineering that will be required for first phase development of Stewart Tract and Mossdale Village. At this point, environmental concern is focused on the type and size of wastewater management system(s) that will be most appropriate for development under the West Lathrop Specific Plan, regardless of treatment facility location. A site capable of serving all of West Lathrop is being considered for planning purposes at the southeast corner of Stewart Tract, east of the I-5/SR 120/I-205 merge along the San Joaquin River. This site is in fact part of the Specific Plan proposal, with alternate land use configurations also being proposed under the Specific Plan if the plant is located elsewhere.

Wastewater Treatment Plant for Wastewater Reclamation and Reuse:

When development under the Specific Plan reaches a size where it generates wastewater volumes capable of feasible reuse for landscape irrigation, wastewater will be treated to a level suitable for irrigation of golf courses, agricultural land and landscaped areas to the standards prescribed by Title 22 of the California Administrative Code. The level and quality of treatment required will be determined by issuance of a discharge permit by the Regional Water Quality Control Board covering wastewater reclamation. As additional phases of development occur, the level of treatment required may be increased to the tertiary standard through the use of chemical coagulation and filtration processes and upgrading of the disinfection system.

The treatment plant will be sized initially to handle a design flow of approximately 1.2 MGD. The plant layout will facilitate future expansions in case provision of an ultimate solution to serve all of Lathrop and its projected growth is delayed. The treatment processes to be utilized include headworks, secondary treatment and disinfection. Secondary treatment will be used to biologically oxidize the soluble organics in the wastewater stream through the growth of microorganisms, followed by removal of the solids generated by this process through clarification. Solids would then be conveyed to a sludge digester for further treatment and storage. Ultraviolet radiation will be used for effluent disinfection. Projected effluent quality is shown in Table V-1.

TABLE V-1

PROJECTED EFFLUENT WATER QUALITY

PARAMETER	EFFLUENT CONCENTRATION (mg/l)
BOD5	15
Suspended Solids	15
Total Dissolved Solids	750
Turbidity	<5
Coliform Bacteria (MPN/100 ml)	23

Sludge will be stabilized through digestion in an aerated tank. The sludge will be dewatered to reduce its volume and to comply with regulations for sludge disposal. Ultimate disposal of sludge can occur by composting, spreading or discing on agricultural land and by land filling.

The wastewater treatment plant(s) will be designed for continuous reliable performance with provisions for component malfunction, alarms and power failure. All critical mechanical components in the process stream will have duplex or redundant units. In the event of an equipment malfunction, the secondary unit will automatically be started by the plant control system. All unit processes will be capable of rerouting for routine maintenance and repair while maintaining full compliance with effluent discharge specifications of the Regional Water Quality Control Board.

A standby power generator will be installed at the plant for use during interruptions in electrical power supply. The generator will automatically be started in the event of a disruption in service. The plant control system will monitor status and performance of the equipment and instrumentation utilized in the treatment processes. An alarm will be initiated and operating personnel will be contacted automatically if a problem is detected by the system,

Effluent Storage and Disposal:

For Phase 1 development, a reservoir will be required to store effluent during periods when irrigation is not possible, or a permit to discharge to surface water must be obtained. The reservoir will be sized based upon the average flows anticipated during the winter months and a rainfall year with a recurrence of once in 100 years. Studies currently underway by the City are examining the potential for using acreage between the freeway merge and the S.P. Railroad on Stewart Tract, close to the San Joaquin River for interim storage and disposal. If no discharge of treated effluent is permitted, and without wastewater reclamation, a permanent disposal area of approximately 900 acres will be required for Stewart Tract alone. For the entire area of urbanization envisioned by the General Plan, about 2,800 acres would be needed without effluent reuse. Part of the acreage required over the next 10-15 years could might be satisfied by utilizing Stewart Tract acreage to be held for the last phase of development. This would provide a mid-range approach to disposal until the ultimate approach to effluent storage and land disposal is determined.

Reclaimed Water Distribution Systems:

Distribution of reclaimed water requires a separate system from the potable water distribution system. These lines will run from the treatment plant to the effluent storage reservoir. This system will comply with American Water Works Association requirements for identification and construction of dual piping systems to prevent cross connections with the potable system and unauthorized use of the reclaimed water. The irrigation piping system will be color coded and warning tape will identify it as a reclaimed water system.

Reclaimed effluent will be pumped to the irrigation system that will provide water for the golf course(s) and other landscaped areas. Signs will be posted indicating the use of reclaimed water and measures will be taken to minimize public exposure. During the initial stages of development, reclaimed water may be sprayed on adjacent agricultural land within Stewart Tract. This will reduce initially the level of treatment required and the cost of treatment plant operation.. Ultimately, the primary use of reclaimed water will be for golf course irrigation. If additional reclaimed water is available, other sites to be irrigated might include boulevard corridors, landscaped medians, parks and other open space.

Operation and Maintenance of the plant will consist of daily visual checks of: treatment processes for problems; performance of preventive maintenance; sludge dewatering and disposal; repair and/or replacement of any malfunctioning equipment; sample taking; general housekeeping; and, report preparation.

Impacts:

[B] 1. Long-range sewerage capacity for the West Lathrop planning area requires wastewater management facilities that do not currently exist. Any new system(s) must meet the Waste Discharge Requirements established by the California Regional Water Quality Control Board, Central Valley Region (Regional Board). **[potentially significant]**

[B] 2. A matter of concern is whether additional treatment and disposal capacity is to be made available for Lathrop at the Manteca wastewater treatment facility, located east of McKinley Avenue and the Union Pacific Railroad, and north of State Route 120. **[potentially significant]**

Mitigation Measures: [Note: Numbers assigned to mitigation measures correspond to the basic numbers assigned to the list of impacts. Several mitigation measures may be listed for a single impact.]

[B] 1&2.a. Accommodating Lathrop's needs at the Manteca wastewater treatment facility is consistent with State policy and the intent of the Clean Water Grant Program under which plant construction was originally financed and authorized. If treatment capacity can be added for Lathrop, there would be fewer potential environmental consequences than would result from constructing one or more facilities to be managed separately by the City of Lathrop or connection to the Stockton plant.

[B] 1&2.b. Current limitations on the availability of land for effluent disposal at the Manteca facility may be satisfied in part by utilizing agricultural lands north of Yosemite Avenue both east and west of McKinley Avenue for the purpose. For the most part, these lands are being held as a buffer for existing industry rather than as sites having industrial potential. This acreage may also satisfy the need for land disposal if Site 3b adjacent to the existing Lathrop treatment plant is selected.

[B] 1&2.c. The wastewater management facilities required to serve West Lathrop will include collector sewers, pumping plants, a treatment plant (or expansion of the existing regional plant), storage,

effluent reuse and disposal systems capable of phased expansion of each component of the overall sewerage system with minimum system disruption and acceptable cost.

[B] 1&2.d. Future development under the West Lathrop Specific Plan shall not be permitted until adequate sewerage system facilities can be assured at the time of occupancy and/or operation of new developments.

[B] 1&2.e. Treated effluent is to be reused to the greatest extent feasible, for landscape and crop irrigation.

[B] 1&2.f. If adequate wastewater management facilities are not available in time to serve first phase development of Stewart Tract and Mossdale Village, then affected developers may, at their own expense, construct interim wastewater management facilities that are compatible with long-range wastewater management plans of the City of Lathrop. The costs of connecting to long-term facilities at a later date shall also be the responsibility of initial and subsequent developers requiring interim facilities.

[B] 1&2.g. With the exception of the Manteca and Stockton regional facilities, all wastewater management facilities located within or connecting to sewage sources operating within the city limits of Lathrop shall, upon acceptance and approval by the City of Lathrop and the Regional Water Board, be operated by the City of Lathrop.

[B] 1&2.h. All costs for interim or long-range wastewater management facilities will be charged by the City of Lathrop to the parties receiving the services; such charges may include costs for the following:

1) Planning and design;
2) Licensing and permitting;
3) Site acquisition and right-of-way
4) Construction;
5) Start-up
6) Operation & maintenance
7) Replacement

[B] 1&2.i. As Stewart Tract develops in phases over the time, a significant portion or portions of Stewart Tract will continue to be farmed and irrigated with treated effluent, and appropriate landscaping in developed areas will be irrigated with treated effluent when the quantities of effluent become sufficiently large to assure the feasibility of wastewater reclamation.

[B] 1&2.j . Wastewater management will be regulated at all times by Waste Discharge Requirements issued by the Regional Water Board.

Impacts:

[B] 3. The ultimate location of treatment and disposal facilities needed to serve West Lathrop development may have important site-specific adverse physical impacts on the environment, including potential for up-set (odor), adverse visual character, and potential adverse effects on the quality of the San Joaquin River, its immediate tributaries and its fisheries. [**significant**]

Mitigation Measures:

[B] 3.a. The alternatives being examined by the City of Lathrop for the location of wastewater treatment and disposal facilities shall be examined as to their site-specific environmental impacts; mitigation measures shall be applied to the selected location which are capable of eliminating all potential significant effects or of reducing such effects to acceptable levels.

[B] 3.b. Any alternative providing for a plant site within the Lathrop planning area will require a site for the temporary detention of influent in the event of a plant upset involving influent bypass of the treatment system. While such wastewater spills occur but rarely, the potential does exist and requires system design to the highest standards which will minimize this possibility.

[B] 3.c. The potential for off-site odors from the treatment plant shall be addressed by utilizing odor avoidance design of treatment facilities, primarily at the headworks, and trunk line conveyance facilities.

Impacts:

[B] 4. If an effluent storage reservoir is used for either short-term or long-term disposal of effluent to the land, the reservoir may require substantial acreage (long-term) and a prominent visual location (short-term). **[potentially significant]**

[B] 5. A potential exists for health hazards from reclaimed effluent sprayed on onto golf courses and other landscaped open space. **[potentially significant]**

[B] 6. The treatment process for any facilities located within the Lathrop planning area will generate biological solids requiring disposal. **[potentially significant]**

[B] 7. Land disposal of effluent from interim plant facilities will require sufficient acreage reasonably close to the treatment plant, regardless of its location. **[potentially significant]**

[B] 8. If a seasonal discharge permit is issued by the Regional Board for disposing treated effluent to the San Joaquin River during periods when land irrigation is not feasible, the quality of the effluent would have to meet discharge requirements set by the Regional Board, including protection of fisheries. **[less than significant]**

[B] 9. If one or more separate treatment plants are provided to meet the needs of the City and its West Lathrop expansion, treatment plant construction will require about four acres of land and plant operation will utilize power and chemicals. **[less than significant]**

[B] 10. Construction-related impacts will include truck traffic, noise from trucks and machinery, and the possible generation of off-site dust. These impacts will involve remote sites being considered either within the Lathrop planning area or at the Stockton or Manteca wastewater treatment plant sites. **[less than significant]**

Mitigation Measures:

[B] 4. If land disposal of effluent is required to meet the long-term needs of Stewart Tract, land toward the westerly end of the Tract would be most appropriate for the purpose given the phasing proposals for development under the Specific Plan.

[B] 5. The potential for health hazards from spraying reclaimed effluent to landscaped areas will be avoided by meeting State standards for such disposal under Title 22 of the California Administrative Code.

[B] 6. Sludge will require disposal to an approved site. Options include landfill, spreading or discing on agricultural lands, or composting.

[B] 7. Either permanent or temporary sites for land disposal of effluent will require adherence to State standards. Effluent disposal needs for an interim plant may be achieved by utilizing lands available on Stewart Tract, between the railroad and freeway. Another possibility may be agricultural pastures along the McKinley Avenue corridor north of Yosemite Avenue.

Effect of Mitigation Measures:

The above impacts associated with wastewater management are either less than significant or will be mitigated to a level of less than significant by implementation of the above mitigation measures, together with relevant mitigation measures described in Part IV. These measures will ensure that adequate wastewater management facilities will be available to serve the phased development of the Project when such development is ready for occupancy and operation. They will further provide for reuse of treated effluent to the greatest extent feasible and the siting of any new wastewater treatment facilities in a manner that will reduce or avoid adverse impacts.

Drainage and Flood Control

Impacts and mitigation measures related to drainage and flood control are covered in part on pp IV-11 and -12 of Part IV. Further discussion is provided below.

Existing Conditions:

The potential for flooding under conditions of a 100 year intensity event remains for the Stewart Tract, and also exists for Mossdale Village under greater than 100 year events. Historic levee breaks on Stewart Tract occurred in 1938 and 1950. The 1950 failure was located just north of Paradise Dam, at the juncture of Paradise Cut with the San Joaquin River. This failure caused the eastern part of Stewart Tract to become flooded to the Union Pacific Railroad embankment. In time, the railroad levee also failed, thus flooding the rest of Stewart Tract. The lost part of the railroad embankment was subsequently replaced with a trestle structure.

During low river conditions, the levees around Stewart Tract are generally "dry", with rivers flowing in natural channels incised below the base of the levees. Under these conditions, groundwater levels on Stewart Tract lay below the land levels. During high river flow conditions, the rivers rise out of their channels, flowing against the levees. Groundwater then becomes elevated to near the ground surface elevation, and even rises above it (i.e., flooding) in the lowest areas. Most existing older dwellings are on high ground, and newer homes are built on pads 2' to 3' higher than surrounding land. Both of these conditions result in elevating structures above groundwater levels.

Detailed discussion of existing and historic conditions relating to flooding is provided in a technical appendix to this EIR.[7]

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[7] Siegfried Engineering, Inc., **Stewart Tract Flood Protection**, December 14, 1994

Proposed Storm Water Drainage System:

For the Stewart Tract, the lakes and water features within the project function as storm water detention basins and provide BMP (Best Management Practice) treatment. Outflow from the basins is controlled by a weir structure and pump station. Both a "static" and "dynamic" analyses have been used for the preliminary design and sizing of each lake/weir/pump station combination. The static analysis predicts storm runoff volume based on an assumed runoff coefficient for each type of land use proposed by the Specific Plan. Pump station sizing was then computed by removing the runoff volume from the basin(s) within a specific period of time. A theoretical rise in lake water surface elevation was determined by converting the estimated runoff volume to an equivalent water surface height. The dynamic analysis predicts water surface rise by application of computer program HEC-1, using a balanced 100 year-48 hour storm event. Simulations were performed for a specified weir geometry and pump station size.

For Mossdale Village, storm water runoff would be drained initially to drainage swales along major roadways. Ultimate disposal would be by gravity flow pipelines and/or open channels to pump stations which will discharge into surrounding rivers and sloughs. This approach will also be used for parts of Stewart Tract not served by the lake systems. Detailed calculations, maps and tables used in developing the storm drainage system are provided in a technical appendix to this EIR.

Proposed Flood Control System:

Flood control for Mossdale Village already is adequate because of previous levee work necessary to protect the Weston Ranch residential project in southwest Stockton from a 100-year storm event. For Stewart Tract, a similar level of protection is to be provided by reinforcing and raising the existing perimeter levee system surrounding Stewart Tract to standards of the Federal Emergency Management Agency (FEMA).

The current standard for levee height determination is specified by the Federal Emergency Management Agency (FEMA). Generally, the levee crown is to have three feet (3') of freeboard above the 100-year water surface elevation, except in the vicinity of a structure such as a bridge where the levee crown must have four feet (4") of freeboard for a distance of 100' upstream and downstream from the structure. Because of the potential for ground subsidence and consolidation, the amount of freeboard may have to exceed the FEMA standard. This will assure that the 3' and 4' freeboard criteria cited above will be maintained. This issue is to be addressed in preparation of the Project soils report,

Significance Criteria:

Under CEQA Guidelines [Appendix G, (q)], a project would have a significant effect on the environment if it caused substantial flooding, erosion or siltation. In this case, the potential for significant effect would be flooding caused by a break in the existing protective system of levees, an overtopping of the levee system caused by a 100 year storm event, inundation from elevated groundwater or by inadequate surface water drainage of the site during a heavy rainfall or runoff activity. Siltation could also occur as the result of inadequate runoff collection facilities during periods of construction activity.

Additional Mitigation:

The following measures are recommended in addition to those listed on pages IV-9 and -10 as more specific guidance to the development approval process.

[S] 1. Portions of the levees around Stewart Tract will need rehabilitation to increase their height and broaden the landside slopes, as part of the development approval process. The final design of levee sections will require hydraulic and hydrographic analysis and the surveying of additional levee sections (including below the normal water line), slope stability analysis, and, if available, seepage data collected from piezometers during elevated river stages. It is likely that relatively broad levees with substantial freeboard above design flood levels will be considered appropriate, having regard to the very high level of investment which they will protect.

[S] 2. A levee rehabilitation process is recommended which leaves existing levees unchanged on the water side but which excavates the landside of the levees. The landside of the levee is replaced with engineered fill to at least the minimum height required by FEMA with a 1 on 4 landside backslope.

[S] 3. If further analysis indicates a need to continue transverse seepage through levees, an impermeable geofabric membrane could be incorporated into the new levee by laying material on the excavated levee slope prior to placing the engineered fill. In addition, or as an alternate measure, a "toe" drain may be installed at the base of the land side of the levees to intercept and pump seepage and the water discharged back to the river.

[S] 4. Levee widening should take into consideration the underground pipe systems located at the landside toe of the present levee. Parts of these systems will have to be removed or relocated to avoid burial under the toe of the upgraded levee. The final levee shape should also reflect project needs for areas adjacent to the levees (e.g., residential uses, open space corridor, golf courses, seepage swales, water courses). Preliminary studies indicate that the levees can be raised and broadened with the materials that are available from the Stewart Tract interior.

The following measures are recommended to mitigate problems associated with elevated groundwater surface at times of high river flows:

[S] 5. Several options are available. One involves filling to elevate developed parts of the site; another would utilize a low perimeter drainage swale that would be dry most of the time and intercept and drain elevated groundwater during prolonged wet periods. Collected water could be pumped into surface streams, or the interceptor swales could be made part of open space corridors and recreation areas. [Note: one or more of these techniques will be implemented on Stewart Tract.

Effect of Additional Mitigation:

Project impacts associated with drainage and flood control are either less than significant or will be mitigated to a level of less than significant by implementation of the above mitigation measures, together with relevant mitigation measures described in Part IV. These measures will ensure that flood protection will be provided for at least a 100 year intensity event and that the levees surrounding Stewart Tract will be improved to meet standards of FEMA and the Corps of Engineers .

Lake Management

The Project proposes an interconnected system of lakes on Stewart Tract to be used for on-site transportation, aesthetics, wildlife habitat, water sports, surface water management, flood control and storage for emergency fire flow. Potential problems associated with these beneficial uses are listed below, along with mitigation measures required to avoid or adequately manage such problems if they occur.

Existing Conditions:

The elevations of Stewart Tract throughout the area where lakes are planned are such that an interconnected system of lakes can be developed which will allow use and management as several units rather than as multiple lake units. The gradient necessary to allow an interconnected system is to be established by balancing cuts and fills from east to west so that the filled edges of the lake will be sufficiently low to permit a natural transition of outer slopes to the surrounding landscape as compared to a "dam" effect.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (f & g)], a project would have a significant effect on the environment if it could substantially degrade water quality or contaminate a public water supply. In this case, the potential for significant effect is posed by inadequate oxygenation of the lake water with resultant build-up of alga and bacteria inimical to public health. Mismanagement of the lake system could also have a substantial demonstrable negative aesthetic effect [CEQA Guidelines, Appendix (b)].

Impacts:

[S] 1. Inadequate design and management of the lake system can create problems of water quality, safety and hazards to public health. Potential problems include algal bloom (eutrophication), stagnant water and vector control (insect abatement), bacteria concentration as a threat to public health, unsightly visual characteristics, and adverse effects downstream on fisheries and the quality of water used for agricultural and open space irrigation. **[potentially significant]**

S] 2. In connection with Impact #1, above, nutrients, sediments and various contaminants and pollutants may enter in flowing water, giving rise to several of the problems listed. **[potentially significant]**

[S] 3. A potential exists for an incompatibility of lake functions. Important examples include the following: **[potentially significant]**

a. Flood control in conjunction with storage of stormwater, sediment control, and wildlife nesting.

b. Sediment control in conjunction with flood control if capacity for sediment is inadequate and if growth of bottom vegetation is smothered.

c. Recreation use in conjunction with sediment control can become a safety hazard; recreational use in conjunction with wildlife habitat can be adverse if species do not tolerate disturbance.

Mitigation Measures:

[S] 1-3. The lake system is to be designed and managed to avoid the kinds of problems listed under Impact #s 1-3, above. Some of the more important measures that may be required include, but are not limited to: automatic aeration and/or frequent flushing; the use of automatic equipment to maintain appropriate lake elevations; lake sealing; the use of electrically powered boats at reduced speeds; and aquatic vegetation management to meet State and EPA standards.

The inclusion of the above mitigation, together with relevant mitigation measures described in Part IV, will reduce all impacts associated with lake management to less than significant levels by ensuring that the lake system within the Project will be designed and managed to avoid the potentially adverse impacts identified above, including those related to water quality, public health and safety and aesthetics.

BIOLOGICAL RESOURCES

Impacts and mitigation measures related to biological resources are covered in part on pp. IV-12 through IV-15 of Part IV. Further discussion is provided below.

Vegetation

Existing Conditions:

Riparian vegetation occurs around most of Stewart Tract along the San Joaquin River, Old River, and Paradise Cut. Paradise Cut supports a substantial, though fragmented, community of Great Valley Oak Riparian Forest. This is considered a sensitive community. Although Valley oaks are a widespread species, they are threatened due to the loss of riparian habitat in the Central Valley (CNPS, 1988). An estimated 0.46 acre of riparian habitat occurs around a pond in the middle of Stewart Tract near Paradise Cut (see Figure III-6).

A narrow band of riparian vegetation occurs along the San Joaquin River at the southern and western boundary of Mossdale Village. In addition, 31 acres of land owned by Reclamation District No. 17 adjacent to the San Joaquin River is designated as a Valley elderberry longhorn beetle mitigation site. This area, consisting of mixed riparian woodland vegetation, is owned by the Reclamation District and is not part of the project impact area. Nevertheless, it is an important wildlife oasis because of the large number of mature Fremont cottonwood and Valley oak trees.

Surveys were conducted throughout the entire planning area for seven special-status species including two state-listed species. The state-listed species, described below, included Delta button-celery *(Eryngium racemosum)*, and Mason's lilaeopsis *(Lilaeopsis masonii)*. None of these plant species were found. Thus, no impact would occur and no mitigation is required for these species.

Delta button celery (*Eryngium racemosum*) is a State Endangered and Federal Category I species. It inhabits seasonally flooded clay depressions in riparian scrub in the northern San Joaquin Valley and adjacent foothills (CNDDB, 1993). Only marginal habitat exists around Stewart Tract or Mossdale Village and no plants were seen during surveys. There is one CNDDB/RareFind record (dated 1984) of this species in the Lathrop quad from the vicinity of the historical monument on State Route 120, approximately three miles south of Lathrop. This area is not in the immediate vicinity of the project site.

Mason's lilaeopsis (*Lilaeopsis masonii*) is a State Rare and Federal Category 2 species. It inhabits intertidal marshes and streambanks in the Sacramento Valley and San Francisco Bay Region (Constance, 1993). Only marginal habitat exists around the fringe edges of Stewart Tract and Mossdale Village, and no plants were seen during surveys. There are no CNDDB/RareFind records of this species in the Union Island and Lathrop quads.

Surveys were also conducted for five special-status or CNPS list 4 species. The Biological Report prepared for this project (see Technical Appendices), presents a discussion of each of these species: Caperfruited tropidocarpum *(Tropidocarpum capparideum)*, California hibiscus *(Hibiscus californicus)*,

Delta tule-pea *(Lathyrus jepsonii ssp. jepsonii)*, Slough thistle *(Cirsium crassicaule)* and Trichocoronis *(Trichocoronis wrightii* var. *wrightii)*. However, none of these special-status plant species were found. Thus, no impact would occur and no mitigation is required for these species.

Surveys were conducted for Mexican elderberry *(Sambucus mexicana;* also see discussion under Wildlife). Although not a special-status species, Mexican elderberry is the host plant for the Valley elderberry longhorn beetle (VELB), a Federally-listed invertebrate species. Approximately 35 individual Mexican elderberry shrubs or clumps of shrubs occur on Stewart Tract and Paradise Cut (see discussion in Biological Report in the Technical Appendices). Most of these occur along the levees. Two clumps occur on the east side of the pond on Stewart Tract (see Figure 111-6). Approximately three individual shrubs or clumps of shrubs occur on Mossdale Village.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (c & d)], a project would have a significant effect on the environment if it could substantially affect a rare or endangered species of plant or the habitat of the species. As noted under the description of existing conditions (above), several plant species could be placed at risk with development under the proposed Specific Plan.

Impacts:

[S] 1. *Loss of Riparian Vegetation.* The proposed project will result in a loss of 0.46 acre of riparian vegetation surrounding the pond on Stewart Tract. No riparian habitatwould be affected in Mossdale Village that is not otherwise accounted for as jurisdictional wetland habitat. Under current project design, riparian vegetation will not be affected within Paradise Cut, nor along the waterside levee of San Joaquin River or Old River. **[potentially significant]**

[B] 2. *Loss of Elderberry Shrubs.* The loss of elderberry shrubs is a significant impact because of the loss of the host plant of a Federal Threatened species. **[potentiallyn significant]**

Mitigation Measures:

[S] 1. *Loss of Riparian Vegetation.* A minimum 3:1 mitigation acreage ratio will be used as the replacement ratio for all riparian vegetation lost as a result of project construction. Based on the current site design, 1.38 acres of riparian vegetation will be established in a suitable location and maintained in perpetuity. The specific location and technical details for establishment and monitoring will be described in the Comprehensive Mitigation Plan for this project (see below). In addition, the entire area of Paradise Cut has been left in open space, and will be managed for riparian and wildlife habitat, and/or for Swainson's hawk foraging habitat.

[B] 2. *Elderberry Shrubs.* Mexican elderberry shrubs will be avoided to the maximum extent possible. Any that cannot be avoided will be mitigated in accordance with U.S. Fish and Wildlife Service guidelines (General Compensation Guidelines for the Valley Elderberry Longhorn Beetle, U.S. FWS, February 26, 1993). The regulatory authority for 'take' of Mexican elderberry is based on an incidental take permit pursuant to section 7(a) or section 10 of the Federal Endangered Species Act (FESA), following a period of formal consultation. A section 10 consultation applies if a Federal agency is not involved with the project. A section 7 consultation is required if a Federal agency is involved and a take would occur.

Under FESA, the Secretary of Interior may issue an Incidental Take Permit upon completion of an acceptable mitigation plan for elderberry shrubs. The current Service guidelines specify mitigation ratios and monitoring requirements. In the event that any individual or clumps of elderberry shrubs would be affected by the proposed project, consultation will commence with the U.S. Fish and Wildlife Service, and an elderberry mitigation plan will be submitted to the Service for approval.

Effect of Mitigation Measures:

The inclusion of the above mitigation measures, together with relevant mitigation measures described in Part IV, will reduce all impacts described above to less than significant levels.. This will occur by ensuring that the loss of riparian vegetation will be compensated through application of a 3:1 replacement ratioo, that loss of Mexican elderberry shrubs will be avoided to the maximum extent possible, and that any unavoidable loss of Mexican elderberry shrubs will be mitigated in accordance with standards of the U.S. Fish & Wildlife Service.

Wildlife

Existing Conditions:

Wildlife in the study area consists of small mammal, bird, and reptile species. Surveys were conducted for 24 invertebrate and wildlife special-status or species of special concern. Discussions are presented below for the seven state-listed or federally-listed species evaluated for the DEIR: Valley elderberry longhorn *beetle (Desmocerus californicus dimorphus),* Giant garter snake *(Thamnophis gigas),* Aleutian Canada goose *(Branta canadensis leucopareia),* Swainson's hawk *(Buteo swainsoni),* Western yellow-billed cuckoo *(Coccyzus americanus occidentalis),* California black rail *(Laterallus jamaicensis coturniculus),* and San Joaquin kit fox *(Vulpes macrotis mutica).* Focused surveys were conducted for San Joaquin kit fox, under the direction of, and following the specific protocol prescribed by the U.S. Fish and Wildlife Service in effect at that time.

The **Valley elderberry longhorn beetle** *(Desmocerus californicus dimorphus)* (VELB) is a Federal Threatened species. This species requires an elderberry shrub *(Sambucus mexicana)* as a host plant. Mexican elderberry, the host plant of the VELB, occurs in moist, valley oak woodlands along the margins of rivers and streams in the lower Sacramento and upper San Joaquin Valleys. The beetle's habitat consists of riparian forests with dominant species of valley oak, cottonwood, willow, and sycamore with an understory of elderberry shrubs (CNDDB/RareFind, 1993). There were no CNDDB/RareFind records of VELB in the Union Island or Lathrop quads. Elderberry shrubs were found in several locations on Stewart Tract and Mossdale Village.

Although no VELB were observed on these shrubs, individual shrubs are nevertheless treated by the U.S. Fish and Wildlife Service as potential habitat. Approximately 35 individual shrubs or clumps of shrubs occur on Stewart Tract and Paradise Cut, with most occurring along the levees. Two clumps occur on the east side of the pond on Stewart Tract. The exact number on Stewart Tract to be affected by the Project will depend on final site design. About three shrubs or clumps of shrubs occur on Mossdale Village, and one or more could be affected by marina-related construction.

The **Giant garter snake** *(Thamnophis gigas)* is a State Threatened and Federal Endangered species, occurring in or near streams and sloughs (with mud bottoms) of the Central Valley (Stebbins, 1985). Potential habitat exists on the Project site in the vicinity of Paradise Cut, the San Joaquin River, and in the agricultural drainage canals on Stewart Tract and Mossdale Village. Therefore, focused surveys

were conducted for a period of 10 days in June and July 1993, but no evidence of this species was found. There are no CNDDB/RareFind records of this species in the Union Island or Lathrop quads.

The **Aleutian Canada goose** *(Branta canadensis leucopareia)* is a Federal Threatened species. This species occurs in meadows and marshes where it forages for a variety of marsh vegetation, algae, seeds of grasses and sedges, grain (in winter) and berries, as well as a variety of terrestrial and aquatic invertebrates (Ehrlich, Dobkin & Wheye, 1992). Only marginal habitat exists in the project area due to the predominance of agricultural land uses and limited extent of marsh vegetation. No evidence of this species was found and there are no CNDDB/RareFind records of this species in the Union Island or Lathrop quads.

The **Swainson's hawk** *(Buteo swainsoni)*, a State Threatened species, migrates from South America in the spring and returns in the fall. This species occurs in open areas such as savannas, prairies, deserts, and open pine-oak woodlands (Ehrlich, Dobkin & Wheye, 1992). In the California Central Valley this species prefers riparian areas adjacent to alfalfa, hay, or wheat fields supporting microtine rodent populations (CNDDB, 1993). Habitat exists on the Stewart Tract and Mossdale Village project sites. This species nests in riparian trees around Stewart Tract and Mossdale Village, and forages in the agricultural fields of Stewart Tract, Mossdale Village, and surrounding areas. Active Swainson's hawk nests were observed in these areas. Swainson's hawks will build new nests, or will occupy existing nests that they or other raptors have constructed (Schlorff, 1994, Personal Communication.). They will also utilize old magpie nests (CDFG, 1990). There are eight CNDDB/RareFind records (dated 1971, 1982, 1983, 1990, 1992) of this species in the Union Island and Lathrop quads. The records are from various locations in the vicinity of Stewart Tract.

The **Western yellow-billed cuckoo** *(Coccyzus americanus occidentalis)* is a State Endangered species. This species occurs in extensive cottonwood/willow riparian woodlands, particularly where undergrowth is most dense (Ehrlich, Dobkin & Wheye, 1992). The species has been known to nest in riparian jungles of willow mixed with cottonwoods and an understory of blackberry, nettle, or wild grape (CNDDB, 1993). Only marginal habitat exists in the project site due to the discontiguous stands of riparian vegetation on Stewart Tract. Focused surveys were conducted over a four day period from July 12 to August 11, 1993, using pre-recorded tape calls. However, no individuals were heard or seen. There are no CNDDB/RareFind records of this species in the Union Island or Lathrop quads.

The **California black rail** *(Laterallus jamaicensis coturniculus)* is a State Threatened and Federal Category I species. This small, secretive species primarily inhabits salt marshes bordering larger bays and tidal salt marshes well vegetated with pickleweed and is occasionally found in brackish and freshwater marshes (CDFG, 1990). Only marginal habitat exists in Paradise Cut for absence of salt marsh and limited freshwater marsh vegetation. Focused surveys were conducted over a four day period (July 12 - August 11, 1993), using prerecorded tape calls. However, no individuals were heard or seen. There are no CNDDB/RareFind records of this species in the Union Island or Lathrop quads.

The **San Joaquin kit fox** *(Vulpes macrotis mutica)* is a State Threatened and Federal Endangered species found in grasslands, saltbush scrub, open woodlands, foothills and alkaline sink valley floor habitats (CNDDB, 1993). There are no CNDDB/RareFind records of this species in the Union Island and Lathrop quads. Detailed surveys for this species were conducted in 1993 in accordance with U.S. Fish and Wildlife Service protocol. The protocol consisted of walking transects and conducting night spotlighting on Stewart Tract and within a 2-mile radius around Stewart Tract and Mossdale Village (Little and Erdoe, 1994). No evidence of this species was found, nor were any individuals seen. Because the San Joaquin kit fox is a Federal Endangered species, a formal Biological Assessment was

Assessment was submitted to the U.S. Fish and Wildlife Service for review on April 11, 1994. The Service responded on June 9, 1994, concurring "...that the proposed project would not result in incidental taking (defined, in part, as killing. harming or harassment) of the federally-listed endangered San Joaquin kit fox, *Vulpes macrotis muitica*, or in destruction or adverse modification of critical habitat of a federally listed species."[8]

Surveys were also conducted for 19 wildlife special-status or species of special concern. The Biological Report prepared for this project (see Technical Appendix), discusses each of these species. Western pond turtle was observed in Paradise Cut and in the San Joaquin River adjacent to Mossdale Village. Northern harrier and White-tailed kite were observed on Stewart Tract and Mossdale Village. Surveys for riparian brush rabbit and riparian woodrat were conducted over the entire Project site. Trapping surveys were conducted in the Paradise Cut portion of Stewart Tract for riparian brush rabbit and riparian woodrat, under the direction of, and in accordance with a Memorandum of Understanding from the California Department of Fish and Game. These five species are described below:

The **Northwestern pond turtle** *(Clemmys marmorata marmorata)* is a Federal Category 2 and DFG "Species of Special Concern"; the **southwestern pond turtle,** *(Clemmys marmorata pallida)* is a DFG "Species of Special Concern" recommended for Federal Category I status. Pond turtles occur in ponds, streams, marshes, canals, and irrigation ditches (Stebbins, 1985). Potential habitat exists in the waterways surrounding the Project site. Three pond turtles were observed on snags in Paradise Cut on 13 July 1993, and one was observed basking on a snag in the San Joaquin River north of the Mossdale Marina in June 1993. Stewart Tract is in a range of overlap between both of these types of pond turtle (Stebbins, 1966), and it was not possible to determine which subspecies were observed. There are no CNDDB/Rarefind records of this species in the Union Island and Lathrop quads.

The **White-tailed kite** |black shouldered kite|*(Elanus caeruleus)* is a DFG "Special Animal" for nesting habitat found in riparian woodlands and near freshwater marsh (Ehrlich, Dobkin & Wheye, 1992). Foraging habitat exists on Stewart Tract and Mossdale Village, and the kite was observed in these areas. A white-tailed kite nest occurs on the west side of the S. P. Railroad, north of Paradise Cut. Another occurs on the west side of the San Joaquin River, on the opposite side of the river from Mossdale Village. A suspected nest site occurs in the elderberry mitigation area on Mossdale Village.

The **Northern harrier** *(Circus cyaneus)* is a DFG "Species of Special Concern' for nesting habitat. This species occurs in open areas near marsh land where it forages (Ehrlich, Dobkin & Wheye, 1988). Although foraging habitat exists on the project site and this species was seen, no nests were found.

Riparian brush rabbit *(Sylvilagus bachmani riparia)* is a State Candidate Endangered and Federal Category I species. This species occurs in lowland riparian areas, where it favors dense brush (Jameson and Peeters, 1988). Only marginal habitat exists on the western tip of Stewart Tract. There are no CNDDB/RareFind records of this species in the Union Island and Lathrop quads. No individuals were captured or sighted during the trapping surveys performed under Department of Fish and Game guidelines in accordance with a Memorandum of Understanding with the Department. Although habitat within the survey area is suitable for riparian brush rabbit, the small size of the habitat area and its isolation from other suitable habitat is a significant limiting factor (BBA and

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[8] Letter from Joel A. Medlin, Field Supervisor, Ecological Services Branch, Fish and Wildlife Service, Sacramento, dated June 9, 1994, to R.John Little, PdD, of Sycamore Environmental Consultants, consulting biologists for the West Lathrop Specific Plan and EIR.

Sycamore Environmental Consultants, 1994). A report documenting the survey protocol and results was submitted to Department of Fish and Game in April 1994.

The **San Joaquin Valley woodrat** *(Neotoma fuscipes riparia)* is a DFG "Species of Special Concern" (CSC) and a Federal Category I species. This species occurs in hardwood riparian woodlands and brushlands of the Central Valley (Jameson & Peeters, 1988). Only marginal habitat exists on the western tip of Stewart Tract. There are no CNDDB/Rare Find records of this species in the Union Island or Lathrop quads. No individuals were captured or sighted during the trapping surveys performed under Department of Fish and Game guidelines in accordance with a Memorandum of Understanding with the Department. The surveys conducted showed no evidence that riparian woodrat occurs at Stewart Tract (HBA and Sycamore Environmental Consultants, 1994). A report documenting the survey protocol and results was submitted to the Department of Fish and Game in April 1994.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (c & d)], a project would have a significant effect on the environment if it could substantially affect a rare or endangered species of animal or the habitat of the species. As noted above, several species could be placed at risk with Project development.

Impacts:

[S] 1a.. Swainson's Hawk Foraging Habitat. Approximately 4,590 acres on Stewart Tract could ultimately be affected at full project build-out. . **[potentially significant]**

[M] 1b. Swainson's Hawk Foraging Habitat. Approximately 950 acres on Mossdale Village could ultimately be affected at full project build-out. **[potentially significant]**

[S] 2a. Swainson's Hawk and Other Raptor Nest Trees. Because Swainson's hawks will a) build new nests, b) occupy existing nests that they previously constructed. or c) occupy or take over nests that other raptors and magpies have constructed, most existing large nest platforms are therefore potentially suitable nest sites for this species. There are approximately 33 raptor nests on or surrounding Stewart Tract and Mossdale Village (see Figure 111-6; and, Personal. Comm. and unpublished data from Waldo Holt, 22 April, 1994). Approximately seven trees on Stewart Tract (see Figure III-8), containing known or suspected Swainson's hawk nests or other raptor nests, could be directly or indirectly affected under current project design. The direct or indirect impacts on nest trees could result in a loss of reproductive success of Swainson's hawk or other raptor species. The loss of a tree containing a raptor nest could be subject to the permit provisions of the Migratory Bird Treaty Act. **[potentially significant]**

[M] 2.b. Swainson's Hawk and Other Raptor Nest Trees. There are approximately 33 on surrounding Stewart Tract and Mossdale Village (see Figure 111-6;0 and, Personal. Comm. and unpublished data from Waldo Holt, 22 April 1994). One large valley oak tree containing a suspected Swainson's hawk nest (see Figure III-6;), would probably need to be removed from Mossdale Village to accommodate current project design. The direct or indirect impacts on nest trees could result in a loss of reproductive success of Swainson's hawk or other raptor species. The loss of a tree containing a raptor nest could be subject to the permit provisions of the Migratory Bird Treaty Act. **[potentially significant]**

Mitigation Measures: [Note: Numbers assigned to mitigation measures correspond to the basic numbers assigned to the list of impacts. Several measures may be listed for a single impact.

[B] 1. Swainson's Hawk Foraging Habitat: The City of Lathrop has prepared a Habitat Management Plan (HMP) that addresses project impacts and mitigation measures for this species. It is anticipated that a California Endangered Species Act Memorandum of Understanding, incorporating a California Endangered Species Act Management Authorization, would be instituted under Fish and Game Code Section 2081. This Authorization, between Lathrop and the Department of Fish and Game, would be established for the 'taking' of foraging habitat.

Among its component parts, the HMP will provide mitigation for the loss of foraging habitat at a ratio of 0.5 acres of dedicated habitat (either on-site or off-site) to 1 acre of foraging habitat to be replaced by urbanization. Dedication will be in the form of recorded conservation easements, and cash payments (or equivalents) to assure adequate funds for annual operation and maintenance. For Stewart Tract, the HMP will include part or all of Paradise Cut to satisfy Phase 1 development requirements. For Mossdale Village, conservation easements will be required off-site.

[B] 2. Swainson's Hawk and Other Raptor Nest Trees: The nearly 900-acre Paradise Cut will remain as open space and will be managed for wildlife habitat values, including nesting raptors. Valley oaks and Fremont cottonwoods will be planted in the Great Valley Oak Riparian forest in Paradise Cut at a 10:1 ratio for any nest trees lost on Stewart Tract or Mossdale Village. Thus, a minimum of 10 trees, five of each species, will be planted for each one lost. These will serve as replacement trees for any trees lost that contain Swainson's hawk nests or other raptor nests. Specific technical details on how, when, and where such trees will be planted and monitored will be described in a Habitat Management Plan (HMP).

Impacts:

[B] 3. San Joaquin Kit Fox. Detailed surveys for this species were conducted in 1993 in accordance with U.S. Fish and Wildlife Service protocol. No evidence of this species was found, nor were any individuals seen. **[less than significant]**

[B] 4. Giant Garter Snake. Focused surveys were conducted for this species between June 29 and July 14, 1993, for a total of 10 days. However, no evidence of this species was found. [less than significant]

[B] 5. Aleutian Canada Goose. Only marginal habitat exists on predominance of agricultural land uses and the limited extent of marsh vegetation. No evidence of this species was found. [less than significant]

[S] 6. Western Yellow-Billed Cuckoo. Only marginal habitat exists on the project corridor due to the discontiguous stands of riparian vegetation on Stewart Tract. Focused surveys were conducted over a four day period from July 12 to August 11, 1993, using prerecorded tape calls. However, no individuals were heard or seen. [less than significant]

[S] 7. California Black Rail. Marginal habitat exists on the project corridor due to the discontiguous stands of riparian vegetation on Stewart Tract. Focused surveys were conducted over a four day period from July 12 to August I 1, 1993, using prerecorded tape calls. However, no individuals were heard or seen. [less than significant]

[B] 8. Western Pond Turtle. Western pond turtle was observed in Paradise Cut and in several locations in the San Joaquin River. However, under current project design, it is not likely to be adversely affected. **[less than significant]**

Mitigation Measures:

[B] 3. San Joaquin Kit Fox: No mitigation required. The West Lathrop Specific Plan area is outside the known range of this species [based on extensive field surveys].

[B] 4. Giant Garter Snake: No mitigation required. Paradise Cut will remain as open space and will be managed for wildlife habitat values, which will benefit this species in the event that it migrates into the area.

[B] 5. Aleutian Canada Goose: No mitigation required.

[S] 6. Western Yellow-Billed Cuckoo: No mitigation required. Paradise Cut will remain as open space and will be managed for wildlife habitat values, which will benefit this species in the event that it migrates into the area.

[S] 7. California Black Rail: No mitigation required.

[B] 8. Western Pond Turtle: No mitigation required. Paradise Cut will remain as open space and will be managed for wildlife habitat values, which will benefit this species which is known to inhabit the area.

Impacts:

[S] 9a. White-tailed kite (= black shouldered kite): A white-tailed kite nest occurs on the west side of the Southern Pacific Railroad, north of Paradise Cut. The proposed project on Stewart Tract could adversely affect the use of this nest tree through direct loss or indirectly through abandonment of the nest site. **[potentially significant]** Due to the large regional base of foraging habitat, the loss of such habitat for white-tailed kite is not significant. The loss of foraging habitat results in an incremental, cumulative loss of potential foraging habitat. **[less than significant]**

[M] 9b. White-tailed kite. A nest occurs on the west side of the San Joaquin River, opposite Mossdale Village, and a suspected nest tree occurs in the elderberry mitigation area on Mossdale Village. **[less than significant]** Due to the large regional base of foraging habitat, the loss of such habitat for white-tailed kite is not significant. The loss of foraging habitat results in an incremental, cumulative loss of potential foraging habitat. **[less than significant]**

[B] 10. Northern harrier. The proposed projects on Stewart Tract and Mossdale Village will result in a loss of foraging habitat. Due to the large regional base of foraging habitat, the loss of such habitat for northern harrier is not significant, but nevertheless, results in an incremental, cumulative loss of potential foraging habitat. **[less than significant]**

[S] 11. Riparian Brush Rabbit. Trapping for this species in 1994 at the western tip of Paradise Cut, in accordance with DFG guidelines, did not result in any captures. **[less than significant]**

[S] 12. San Joaquin Valley Riparian Woodrat. Trapping conducted for this species in 1994 at the western tip of Paradise Cut, in accordance with DFG guidelines, did not result in any captures. **[less than significant]**

Mitigation Measures:

[B] 9. White-tailed kite (= black shouldered kite): Foraging habitat preserved for Swainson's hawk as a result of implementation of an HMP, will also directly benefit this species.

[B] 10. Northern harrier: No mitigation required. Foraging habitat preserved for Swainson's hawk as a result of implementation of an HMP, will also directly benefit this species.

[B] 11. Riparian Brush Rabbit: Although the western tip of Stewart Tract within Paradise Cut contains habitat for this species, it is believed that the available area is not large enough to support a viable population of Riparian brush rabbit. However, as the Great Valley Oak Riparian forest is enhanced, restored, and enlarged in Paradise Cut, it may become possible to introduce Riparian brush rabbit into this area. The City of Lathrop will work with the Department of Fish and Game to determine if such an action is warranted.

[B] 12. San Joaquin Valley Riparian Woodrat: No mitigation required. Paradise Cut will remain as open space and will be managed for wildlife habitat values, which will benefit this species in the event that it migrates into the area.

[S] 13. Paradise Cut Wildlife Habitat Corridor: The nearly 900-acre Paradise Cut is a valuable wildlife corridor linking the San Joaquin River and other portions of the Delta, such as Tom Paine Slough and Salmon Slough. Paradise Cut will be managed for wildlife and open space. Based on the results of the HMP, portions of Paradise Cut may be managed as foraging habitat for Swainson's hawk. Such management decisions will be addressed in the HMP. However, any areas not used in this manner will be restored as Great Valley Oak Riparian and other appropriate habitat. A buffer will be established between Paradise Cut and the remainder of Stewart Tract. To avoid disturbance of wildlife, Paradise Cut will be kept off-limits to visitors, except for educational or scientific purposes.

Effect of Mitigation Measures:

Project impacts on wildlife are either less than significant or will be mitigated to a level of less than significant by the implementation of the above mitigation measures, together with relevant mitigation measures described in Part IV. These mitigation measures require the implementation of the HMP already prepared by the City to address impacts and mitigation measures for the Swainson's hawk. Such implementation will benefit other species as well. The mitigation measures also ensure that every raptor nest tree lost on Stewart Tract and Mossdale Village will be replaced with Valley oaks and Fremont cottonwoods at a 10:1 ratio in the Great Valley Oak Riparian forest in Paradise Cut.

Wetlands

Existing Conditions:

Jurisdictional wetland features in the Stewart Tract and Mossdale Village study areas include drainage channels, ponds, rivers, and wetlands. Jurisdictional wetland features in the Stewart Tract study area

include the San Joaquin River, Paradise Cut and Old River, a permanent pond, and an intermittent drainage canal adjacent to Stewart Road. Stewart Tract is surrounded by river and slough wetland systems. A total of 260.99 acres of jurisdictional wetlands occur on Stewart Tract, and 86.51 acres on Mossdale Village (Little, 1993). However, most of these acreages are attributable to the San Joaquin River, Paradise Cut, and Old River. Table V-2 presents the location and acreage of wetlands that would be affected under proposed project design.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (c)], a project would have a significant effect on the environment if it could substantially affect a wetland habitat of plants and animals.

Impacts:

[b] 1. Jurisdictional Wetlands. Under current project design, 10.97 acres of jurisdictional wetlands would be affected on Stewart Tract and 2.57 acres on Mossdale Village. A total of 8.46 acres of fill would occur in an existing Canal adjacent to Stewart Road. The placement of fill in jurisdictional wetlands is considered a significant impact, and is subject to both Federal and State permit procedures. **[potentially significant]**

TABLE V-2

WETLAND ACREAGE POTENTIALLY AFFECTED WITHIN THE PLANNING AREA

LOCATION	Stewart Tract [Acres]	Mossdale Village [Acres]
Stewart Tract		
a. Canal adjacent to Stewart Road and 'marsh' at headwaters of the canal.	8.46	
b. Freshwater pond	2.05	
Mossdale Village		
a. Scrub wetland vegetation at marina site.		0.01
b. Scrub wetland vegetation on NW side.		2.56
Totals	**10.97**	**2.57**

Mitigation Measures:

[B] 1a. Jurisdictional Wetlands: Placement of fill between 1 and 10 acres in jurisdictional wetlands or waters of the U.S. requires a Nationwide permit from the U.S. Army Corps of Engineers. An individual permit is required if more than 10 acres of wetlands are filled. Depending on the actual number of wetlands filled, either a Nationwide or individual Section 404 permit will be requested. Mitigation requirements for placement of fill in jurisdictional wetlands will be described in a mitigation plan that will accompany the Nationwide or individual permit application. It is anticipated that mitigation for wetland impacts would be conducted on-site in Paradise Cut, Stewart Tract, and Mossdale Village.

[S] 1b. The canal adjacent to Stewart Road is believed to be a channelized, intermittent creek. Thus, the California Department of Fish and Game may require a 1601/1603 Streambed Alteration Agreement before the flow or direction of the channel can be altered. Therefore, it is anticipated that the project applicant will consult with the Department of Fish and Game to determine if a Streambed Alteration Agreement is required, and will obtain one if required.

[N] 1c. A Water Quality Certificate will be obtained from the Regional Water Quality Control Board.

Effect of Mitigation Measures:

The inclusion of the above project mitigation measures, together with relevant mitigation measures described in Part IV, will reduce all impacts on wetlands and watercourses to less than significant levels. Such measures will ensure that any fill of wetlands or watercourses will be mitigated in compliance with regulations of the Corps of Engineers and California Department of Fish & Game.

Fisheries

Existing Conditions:

The description of the existing environmental setting in Part II is adequate for this section. The description of impacts and mitigation provided below provides additional guidance to that provided in Part IV.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (d)], a project would have a significant effect on the environment if it could substantially interfere with the movement of any resident or migratory fish species. In this case, there is a potential for damage to the fisheries through domestic use of water from the San Joaquin River, contamination from surface water runoff, flooding, contamination from construction activities, levee maintenance, and marina construction.

Additional Impacts:

[B] 1. Contamination of watercourses from surface water drainage (from streets and other paved surfaces) would result in negative impacts on fishery resources. **[potentially significant]**

[b] 2. Contamination of watercourses from construction activities would have a negative impact on fishery resources. **[potentially significant]**

[B] 3. Depending on its source, the community water supply can have a negative impact to the fishery resources. **[potentially significant]**

Mitigation Measures:

[B] 1. Positive off-site drainage, detention reservoirs, and removal of surface water contaminants in compliance with NPDES standards are proposals of the project (see Part IV).

[B] 2a. Detention reservoirs are to be installed prior to construction activity to remove sediment and debris.

[B] 2b. To protect the Chinook Salmon run, construction activities on the water side of the levees of the San Joaquin River and Old River should be limited to non-migratory summer months (i.e., mid-June through September).

[B] 2c. Although sufficient data are not available for the Delta Smelt, Longfin Smelt and Sacramento Splittail in the vicinity of the West Lathrop planning area, these species would nevertheless be protected during construction by measures 1, 2a, and 2b, above.

[B] 3a. If state or federal water projects are to be the source of potable water, water use must comply with state and federal water quality requirements for fish species of special concern for the San Joaquin Delta.

[B] 3b. Fish salvaging should be undertaken for fish which end up in sloughs and channels of the project area as a result of state and federal pumping operations.

[B] 3c. Water conveyors which divert from the San Joaquin River or other watercourses must be screened in accordance with standards established by the State Department of Fish and Game.

Additional Impacts:

[B] 4. Any flooding of Stewart Tract resulting from periods of heavy rainfall or breaks in protective levees could result in negative impacts on the fishery resources. **[potentially significant]**

[B] 5. Marina construction and operation could have a negative impact on the fishery resources of the San Joaquin River, and particularly on **species of special concern.** **[potentially significant]**

[B] 6. Levee maintenance bank-protection activities, such as riprapping, removal of vegetation and placement of dredged materials on levee banks, could have a negative impact on fishery resources. **[potentially significant]**

[B] 7. The conversion of agricultural land to urban use as proposed would have a positive impact on the fishery resources, by eliminating pesticides and other chemical constituents of agricultural return flows which are now pumped to adjacent watercourses. **[significant positive]**

Mitigation Measures:

[S] 4. Project levees are to be strengthened to standards of the Corps of Engineers. Lakes and other open space areas of the site are to be depressed to act as detention basins during periods of high runoff and/or flooding under emergency conditions.

[B] 5. Marina construction along watercourses shall be accomplished in accordance with National Marine Fisheries Resources Guidelines, and in consultation with appropriate federal and state authorities. The several measures specified under measure 2, above, shall be followed if determined by state and federal authorities to be applicable.

[B] 6. Levee maintenance bank protection activities shall be limited, as prescribed under measure 2, above.

[B] 7. No mitigation for fishery protection is required for converting agricultural land to urban use, except as may be applicable under measures 1-6, above.

Effect of Mitigation Measures:

Project impact on fisheries are either less than significant or will be mitigated to a level of less than significant by implementation of the above mitigation measures, together with relevant mitigation measures described in Parft IV. These measures require compliance with NPDES standards to reduce or eliminate contamination of off-site watercourses and limit construction activities that could adversely affect the Chinook Salmon run. They also ensure that any water diversions from the San Joaquin River must be screened in compliance with State Department of Fish & Game standards, and thast construction of levees and the marina must be in compliance with applicable federal and state requirements and regulations.

NOISE

Impacts and mitigation measures relkated to noise are covered in part on pp IV-15 and -16 of Part IV. Further discussion is provided below.

Existing Conditions

The existing noise environment is described fully in Part III of this report. The existing noise environment at the project site is defined primarily by traffic on Interstate 5, Interstate 205, and State Route 120, as well as by operations on the Southern Pacific and Union Pacific railroad tracks. The effects of these noise sources are limited to the eastern portions of the project site. The project area is not significantly affected by aircraft operations from Stockton Metropolitan Airport, or helicopter training activities associated with the Sharpe Army Depot. In addition, no significant noise-producing commercial or industrial uses were identified within the immediate vicinity, although the use of farm equipment results in localized short-term increases in ambient noise levels in the agricultural parts of the project site.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (p)], a project would have a significant effect on the environment if it could increase substantially the ambient noise levels for adjoining areas. The Noise Section of the Hazard Management Element of the Lathrop General Plan contains standards for acceptable noise exposure for several land use designations affected by various noise sources. The Noise Section standards which are applicable to this project are described below.

For noise due to traffic on public roadways, railroads or aircraft in flight, new development of residential land uses will not be permitted in areas exposed to existing or projected exterior noise levels exceeding 60 dB L_{dn} unless the project design includes effective mitigation measures to reduce exterior noise levels to 60 dB L_{dn} at proposed outdoor activity areas and 45 dB L_{dn} in indoor areas. Where it is not possible to reduce exterior noise levels to 60 dB L_{dn} or less by incorporating a practical application of the best available noise-reduction technology, an exterior noise level of up to 65 dB L_{dn} may be allowed. Under no circumstances will interior noise levels be permitted to exceed 45 dB L_{dn} with the windows and doors closed.

For new schools and parks, the Noise Section of the General Plan establishes normally acceptable exterior noise level criteria of 65 dB and 70 dB L_{dn}, respectively. Interior noise level standards for these uses are not specified in the Noise Section.

In addition to these criteria, noise impacts are also evaluated by comparison of project generated noise levels to existing ambient noise levels. Table V-3 is based upon recommendations recently (August 1992) made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. Their recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been assumed that they are applicable to all sources of noise that are described in terms of cumulative noise exposure metrics such as the L_{dn} or CNEL.

TABLE V-3

SIGNIFICANCE OF CHANGES IN CUMULATIVE NOISE EXPOSURE

Ambient Noise Level Without Project (L_{dn} or CNEL)	Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON), as applied by Brown-Buntin Associates, Inc.

Future Noise Impacts:

The future noise environment of the West Lathrop Planning Area will be defined primarily by roadway traffic and railroad noise sources. Increased roadway traffic will cause future noise levels to be higher than existing levels. Noise levels generated by on-site activities at the proposed theme parks, sports centers and commercial centers could also contribute to the future noise environment to a small extent, but roadway traffic noise will be the major noise impact. Noise impacts due to and upon the project were evaluated by comparison of traffic and railroad noise levels to the applicable standards of the Hazard Management Element of the Lathrop General Plan and the increase in noise

Traffic Noise Impacts:

Future traffic noise levels were analyzed for the horizon years of 2005 and 2017. The alternative scenarios analyzed within each of the horizon years are as follows:

Year 2005	Year 2017
· No Project	· No Project
· With Project Access Alternative A[9]	· With Project Access Alternative A
· With Project Access Alternative B	· With Project Access Alternative B
	· With Project Access Alternative C

The FHWA Model was used to calculate future noise levels. Traffic volumes used in the Model were obtained from the Crane Transportation Group. The Day/Night traffic distribution, truck mix assumptions and vehicle speeds used in the Model were obtained from BBA file information and Caltrans. Tables V-4 and -5 show traffic noise levels for years 2005 and 2017 at 100 feet from the center of roadways for the traffic scenarios described above. Also shown are the changes in noise levels attributable to the project. The distance from the center of the roadway to the 60 dB L_{dn} contour for each scenario is shown in the Technical Appendix on file for public review in the Lathrop Community Development Department at City Hall. Figures V-1 and -2 show Year 2005, Alternative A and Year 2017, Alternative A traffic noise contours along I-5, I-205 and SR 120.

Tables V-4 and -5 (Years 2005 and 2017 Traffic Noise Levels) show that the following major roadways that are within or adjacent to the project will produce significant noise impacts for the No Project, Alternative A, Alternative B or Alternative C scenarios: [Note: a significant impact is assumed if noise levels exceed 60 dB L_{dn} at 100 feet. Mitigation measures would be required for noise-sensitive development occurring with the 60 dB L_{dn} contours]. **[significant]**

Year 2005	Year 2017
· I-5	· I-5
· I-205	· I-205
· SR 120	· SR 120
· Circle Drive	· Circle Drive
· Golden Valley Pkwy.	· Golden Valley Pkwy.
· Gold Rush Blvd.	· Gold Rush Blvd.
	· Paradise Road

The projected 60 dB L_{dn} noise contours for the 2005 and 2017 horizon years are shown on Figures V-1 and -2, respectively.

Outside the Specific Plan area, a significant noise impact is assumed if the change in traffic noise levels exceeds the criteria shown in Table V-3. From Table V-4 (Year 2005), it is apparent that a significant noise impact will occur along portions of Louise Avenue and Manthey Road (Golden Valley Parkway). From Table V-5 (Year 2017), a significant noise impact will occur along portions of Louise Avenue, Manthey Road (Golden Valley Parkway) and Paradise Road. **[potentially significant]**

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[9] Full description of the access alternatives can be found in the discussion of transportation, traffic and circulation impacts near the end of Part V of this report.

TABLE V-4

YEAR 2005 TRAFFIC NOISE LEVELS (L_{dn}, dB) AT 100 FEET FROM ROADWAY CENTERS

Roadway	No Project	Alt. A	Change, dB	Alt. B	Change, dB
Interstate 5					
Roth-Lathrop	82.0	82.5	+0.5	82.4	+0.4
Lathrop-Louise	82.3	82.7	+0.4	82.6	+0.3
Louise-SR 120	82.5	82.7	+0.2	83.3	+0.7
SR 120-I-205	83.9	84.0	+0.1	84.3	+0.4
South of I-205	77.9	78.3	+0.4	78.3	+0.4
SR 120					
Yosemite-I-5	79.3	79.9	+0.6	79.7	+0.4
I-205					
I-5-MacArthur	81.8	82.1	+0.3	82.2	+0.4
Circle Drive					
North of Mossdale	--	62.9	--	64.6	--
South of Mossdale	--	62.2	--	62.2	--
Gold Rush Blvd.					
Circle-Manthey	--	--	--	64.9	--
Lathrop Road					
Manthey-I-5	63.0	64.1	+1.1	64.6	+1.6
East of I-5	66.8	67.5	+0.7	67.4	+0.6
Louise Avenue					
Manthey-I-5	57.8	63.6	+5.8	67.3	+9.5
East of I-5	64.8	65.3	+0.5	66.1	+1.3
Manthey Rd. (Golden Valley Pkwy.)	57.8	63.0	+5.2	63.0	+5.2
Roth-Lathrop	61.0	64.1	+3.1	64.9	+3.9
Lathrop-Louise	53.7	66.8	+13.1	66.9	+13.2
Louise-Mossdale	--	65.0	--	64.7	--
South of Mossdale					
Mossdale Boulevard					
I-5-Golden Valley	--	67.8	--	54.3	--
Golden Valley-Circle	--	68.0	--	60.8	--
Paradise Road					
North of I-205	54.1	53.5	-0.6	53.5	-0.6
South of I-205	53.5	53.5	-0-	53.5	-0-
Roth Road					
Manthey-I-5	58.5	58.5	-0-	58.3	-0.2
East of I-5	62.8	63.4	+0.6	62.7	-0.1

TABLE V-5

YEAR 2017 TRAFFIC NOISE LEVELS (L_{dn}, dB)) AT 100 FEET FROM ROADWAY CENTER

Roadway	No Project	Alt. A	Change, dB	Alt. B	Change dB	Alt. C	Change, dB
Interstate 5							
Roth-Lathrop	82.9	83.6	+0.7	83.6	+0.7	83.6	+0.7
Lathrop-Louise	83.4	83.9	+0.5	83.9	+0.5	83.9	+0.5
Louise-SR 120	83.8	83.9	+0.1	84.3	+0.5	84.1	+0.3
SR 120-I-205	85.3	85.5	+0.2	85.5	+0.2	85.5	+0.2
South of I-205	79.8	80.3	+0.5	80.3	+0.5	80.3	+0.5
SR 120							
Yosemite-I-5	81.3	82.0	+0.7	81.9	+0.6	81.6	+0.3
I-205							
I-5-MacArthur	83.1	83.3	+0.2	83.1	-0-	83.1	-0-
Circle Drive							
North of Mossdale	--	65.8	--	65.1	--	64.7	--
South of Mossdale	--	65.7	--	65.3	--	65.5	--
Gold Rush Blvd.							
Circle-Manthey	--	66.0	--	66.3	--	65.2	--
Lathrop Road							
Manthey-I-5	66.3	66.6	+0.3	66.8	+0.5	66.8	+0.5
East of I-5	68.7	69.0	+0.3	69.0	+0.3	69.0	+0.3
Louise Avenue							
Manthey-I-5	62.2	67.8	+5.6	69.3	+7.1	68.7	+6.5
East of I-5	66.8	68.0	+1.2	68.3	+1.5	68.0	+1.2
Manthey Rd. (Golden Valley Pkwy.)	67.6	67.7	+0.1	67.8	+0.2	67.8	+0.2
Roth-Lathrop	64.0	68.0	+4.0	66.8	+2.8	68.3	+4.3
Lathrop-Louise	53.7	66.7	+13.0	67.5	+13.8	68.3	+14.6
Louise-Mossdale	--	66.9	--	67.0	--	67.2	--
South of Mossdale							
Mossdale Boulevard							
I-5-Golden Valley	--	68.9	--	54.6	--	65.3	--
Golden Valley-Circle	--	67.9	--	64.3	--	66.0	--
Paradise Road							
North of I-205	60.7	63.5	+2.8	67.1	+6.4	66.7	+6.0
South of I-205	62.7	63.4	+0.5	63.5	+0.6	63.5	+0.6
Roth Road							
Manthey-I-5	62.5	63.9	+1.4	64.0	+1.5	64.0	+1.5
East of I-5	65.7	66.4	+0.7	66.4	+0.7	66.4	+0.7

FIGURE V-1

TRAFFIC NOISE CONTOURS, YEAR 2005 HORIZON

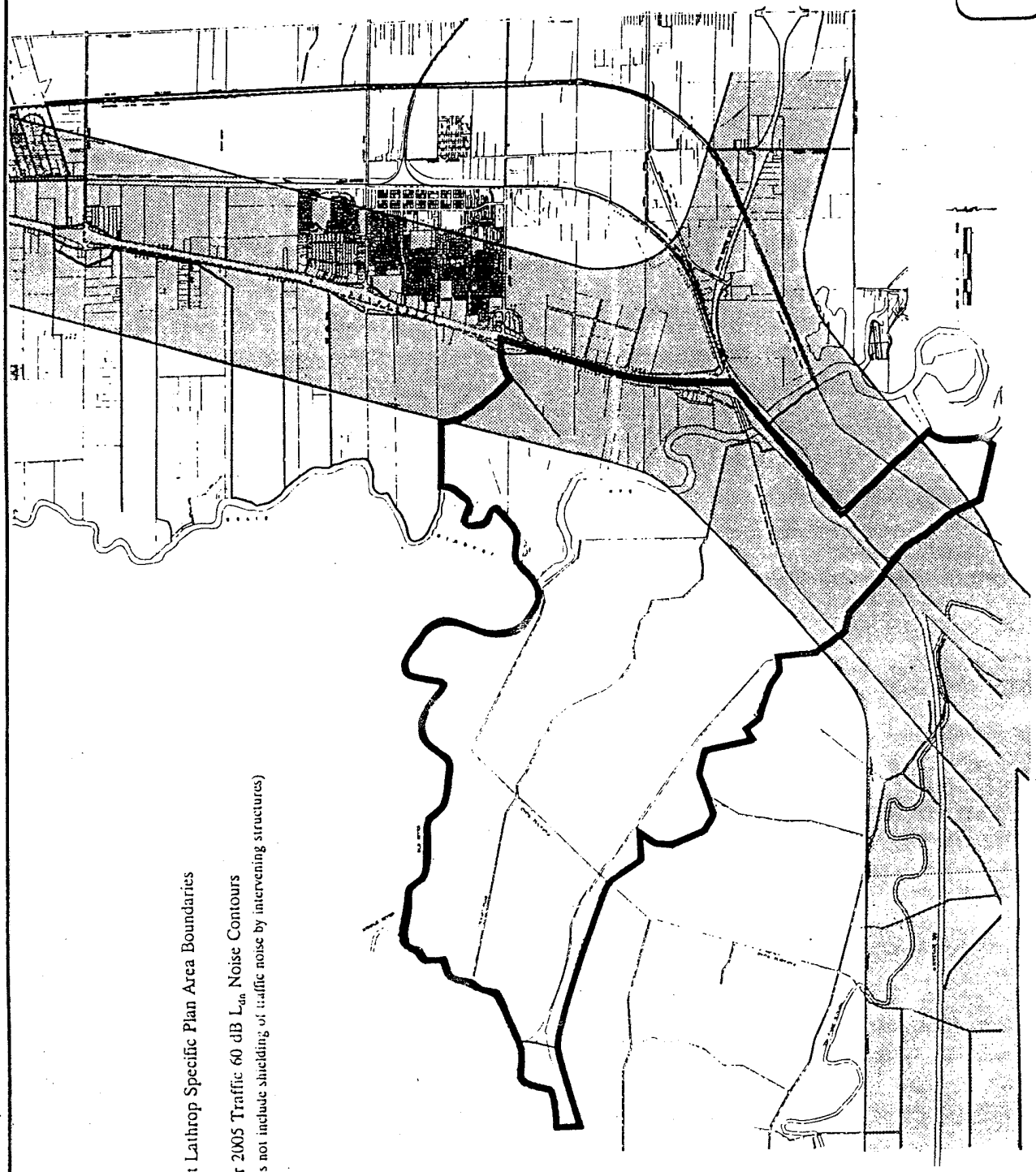
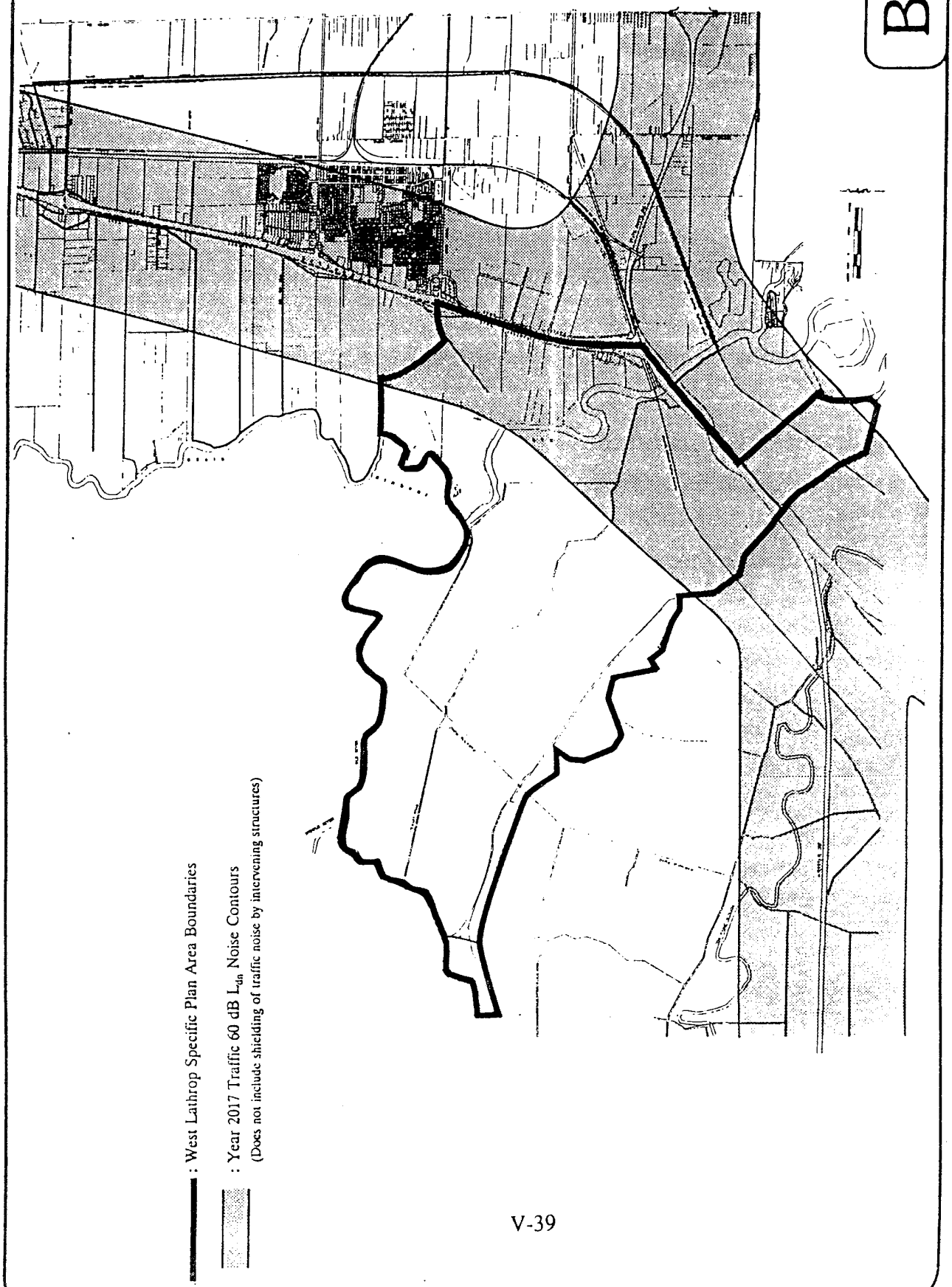


FIGURE V-2

TRAFFIC NOISE CONTOURS, YEAR 2017 HORIZON



BBA

Mitigation Measures:

Any noise problem may be considered as being composed of three basic elements: the noise source, a transmission path, and a receiver. The emphasis of noise control in land use planning is placed upon acoustical treatment of the transmission path and the receiving structures. The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. The problem should be defined in terms of appropriate criteria (L_{dn}, L_{eq}, or L_{max}), the location of the sensitive receiver (inside or outside), and when the problem occurs (daytime or nighttime). Noise control techniques should then be selected to provide an acceptable noise environment for the receiving property while remaining consistent with local aesthetic standards and practical structural and economic limits. One or more of the following noise control techniques will be applied to this project:

[B] 1. Noise exposure may be reduced by increasing the distance between the noise source and receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, storage yards, etc. The available noise attenuation from this technique is limited by the characteristics of the noise source, but is generally 4 to 6 dBA per doubling of distance from the source. Setbacks could be utilized in this project to mitigate significant traffic and railroad noise impacts by limiting residential development to beyond the 60 dB L_{dn} contours.

[B] 2. Shielding by barriers can be obtained by placing walls, berms or other structures such as buildings between the noise source and the receiver. In order to predict barrier effectiveness, the use of noise barriers should be determined when final grading plans and project design elements are known. A more detailed analysis of noise attenuation will be required for residential projects located close to or in areas which exceed the 60 dB L_{dn} noise contours shown on Figures V-1 and V-2.

Barrier effectiveness depends upon the relative heights of the source, barrier and receiver. In general, barriers are most effective when placed close to either the receiver or the source. An intermediate barrier location yields a smaller improvement in insertion loss for a given change in barrier height than does a location closer to either source or receiver. The use of a barrier along I-5 could provide substantial traffic noise reduction for ground floor receivers. Because the relative elevations of the noise source and receiver must be known in order to predict barrier effectiveness, the noise reduction provided by the use of noise barriers within the project cannot be determined until final grading plans and lot design have been developed. However, a barrier constructed to intercept line of sight from source to receiver typically results in a 5 dB noise level reduction, with an additional 1 dB noise level reduction for each additional foot of barrier height. A detailed analysis of barrier heights required to achieve 60 dB L_{dn} at residential lots in the development should be conducted when specific lot layout and grading plans have been developed.

[M] 3. Buildings can be placed to shield other structures or areas, to remove them from noise impacted areas, and to prevent an increase in noise level caused by reflections. The use of one building to shield another can significantly reduce overall project noise control costs, particularly if the shielding structure is insensitive to noise. The placement of commercial buildings to serve as sound barriers to freeway noise in residential areas will be especially useful in Mossdale Village.

[B] 4. Within residential areas, carports or garages can be used to form or complement a barrier shielding adjacent dwellings or an outdoor activity area. Similarly, one residential unit can be placed to shield another so that noise reduction measures are needed for only the unit nearest

the noise source. Placement of outdoor activity areas within the shielded portion of a building complex, such as a central courtyard, can be an effective method of providing a quiet retreat in an otherwise noisy environment. Patios or balconies may be placed on the side of a building opposite the noise source, and "wing walls" can be added to buildings or patios to help shield sensitive uses.

When structures have been located to provide maximum noise reduction by barriers or site design, noise reduction measures may still be required to achieve an acceptable interior noise environment. The cost of such measures may be reduced by placement of interior dwelling unit features.

[B] 5. Bedrooms, living rooms, family rooms and other noise-sensitive portions of a dwelling can be located on the side of the unit farthest from the noise source. Bathrooms, closets, stairwells and food preparation areas are relatively insensitive to exterior noise sources, and can be placed on the noisy side of a unit. When such techniques are employed, noise reduction requirements for the building facade can be significantly reduced, although the architect must take care to isolate noise-sensitive areas by the use of partitions or doors.

When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through acoustical design of building facades.

[B] 6. Standard residential construction practices provide approximately 15 dB noise reduction for building facades with open windows, and approximately 20-25 dB noise reduction when windows are closed. Where greater noise reduction is required, acoustical treatment of the building facade is necessary. Where window exposures are critical, reduction of relative window area is the most effective control technique, followed by providing acoustical glazing (thicker glass or increased air space between panes) in low air infiltration rate frames, use of fixed (non-movable) acoustical glazing or the elimination of windows. Noise transmitted through walls can be reduced by increasing wall mass (using stucco or brick in lieu of wood siding), isolating wall members by the use of double- or staggered-stud walls, or mounting interior walls on resilient channels. Noise control for exterior doorways can be provided by reducing door area, using solid-core doors, and by acoustically sealing door perimeters with suitable gaskets. Roof treatments may include the use of plywood sheathing under roofing materials.[10]

Effect of Mitigation Measures:

The inclusion of the above project mitigation measures. together with relevant mitigation measures described in Part IV, will reduce all impacts described above to less than significant levels. These measures will ensure that noise exposure to residential areas will be minimized by providing setback areas and sound barriers between the noise sources and the receiving use. The design and construction of residences and other structures, and the arrangement of various land uses as barriers to noise transmission will also reduce noise impacts of the Project.

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[10] Note that standard energy-conservation double-pane glazing with an 1/8" or 1/4" air-space is not considered acoustical glazing, as its sound reduction for some noise sources is actually less than that of single-pane glazing.

LIGHT AND GLARE

The discussion on pp. IV-16 and -17 of Part IV sets forth the Project impacts associated with light and glare and the mitigation measures related to those impacts contained in Specific Plan proposals. Further discussion is not required in this Part V because there are no other feasible mitigation measures that could further reduce the impacts of light and glare generated by the Project..

PUBLIC, MUNICIPAL UTILITY AND ENERGY SERVICES

Impacts and mitigation measures related to public, municipal utility and energy services are covered on pp IV-17 and -18 of Part IV. Further discussion is provided below with respect to solid waste management, electrical and natural gas energy requirements and school service.

Solid Waste Management

Existing Conditions:[11]

The City of Lathrop currently provides solid waste management for its residential areas under a seven year contract with a solid waste hauler which provides curbside pick-up of containers. This solid waste is trucked to the San Joaquin County Lovelace Transfer Station and then to the County's Class III Foothill Landfill. Commercial wastes are collected not less than once per week under the same franchise agreement with the private hauler. Industrial waste is collected by four different private waste collection companies which operate under a permit issued by the City on an annual basis.

All solid waste that is not recycled or reused is taken to the County's Foothill Landfill. Some residents within the City haul their solid waste to the Lovelace transfer station, paying a tipping fee set by the County. This is allowed as a hold over from the time when Lathrop was an unincorporated community. Resident hauling is becoming less popular each year perhaps because City fees for pick-up are mandatory.

The costs of solid waste management within the City are funded by fees for the collection, hauling and deposal required. General Fund monies of the City are not used for the purpose. The City has implemented and is expanding a diversion policy where recyclable and reusable materials are separated from the disposable waste. Large industrial operators within the City manage their own recycling programs. In 1989, 10,716 tons of solid waste were generated within the City, with 6,625 tons disposed of to permitted landfills, and 4,091 tons being diverted.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (v)], a project would have a significant effect on the environment if it would involve the use, production or disposal of materials which pose a hazard to people in the area affected. For the purposes of this EIR, a significant impact would also occur if it did not provide for the safe and reliable collection and disposal of the considerable quantities of solid wastes expected over time.

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[11] The discussion of existing conditions and some projections is based on information contained in the City of Lathrop's "Integrated Solid Waste Management Plan AB 939, adopted March 2, 1993.

Projected Solid Waste Generation:

At buildout, the project can be expected to generate in the range of 50,000 - 60,000 tons of solid waste per year, of which approximately 50% will be recycled.

Impacts:

[B] 1. The Stewart Tract and Mossdale Village developments are expected to generate large amounts of solid waste at full development. Initially, construction wastes can be expected to be significant, with large quantities of solid wastes generated during all phases of development by residents and visitors to the area. Based on waste generating characteristics of the proposed Anaheim Resort Specific Plan, it is reasonable to assume that the volume will be four to five times times greater than the nearly 11,000 tons generated within the City from all sources in 1989.[12] **[significant]**

Mitigation Measures:

[B] 1a. The City will monitor development to ensure compliance with the City's Integrated Solid Waste Management Plan (as prepared under the provisions of AB 939).

[B] 1b. Since development will be phased, substantial acreage will remain in agricultural use. Resulting solid wastes from agricultural operations will require traditional approaches to management, using livestock and crop wastes for soil fertilization.

[B] 1c. Mandatory pickup will be required for residential areas, along with containerized sorting of wastes capable of recycling and reuse.

[B] 1d. The significant amounts of wood wastes generated during construction activities are to be segregated and processed as wood chips and mulch for use in landscaping, animal husbandry and farming.

[B] 1.e. Grass clippings will generate large amounts of organic waste and are to be mixed with other organic wastes and recycled as compost. Lawn mowing should be accomplished with mulch-forming blades to reduce the amount of clippings requiring composting.

[B] **Impacts:**

[S] 2. The unique resort and commercial recreation character of Stewart Tract development will generate large amounts of solid waste daily. Theme park operations will in themselves generate large volumes requiring daily pickup and washdown of hard surfaces where solid waste is allowed to accumulate. These volumes and accumulations can become unsightly and unhealthful. **[potentially significant]**

Mitigation Measures:

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[12] Michael Brandman & Associates and the City of Anaheim, **Anaheim Resort Specific Plan Draft EIR**, SCH No. 91091062, June 1994.

[S] 2a. A solid waste transfer station will be required for Stewart Tract waste management where residential and non-residential waste can be sorted into recyclable and disposable wastes for appropriate final disposition.

[S] 2b. Vendors are to be encouraged, and in some cases required, to purchase products in low volume and weight containers that are biodegradable, and to purchase products from suppliers that offer empty container buy-back services.

[S] 2c. Consideration should be given to establishing exhibits at the Visitors Center which provide information on the latest technology in waste management and how recycling and reuse of waste is accomplished.

[S] 2d. Medical wastes generated by the on-site Medical Care Center are to be managed under rules and regulations established by State and County health authorities.

[S] 2e. Large animal wastes are to be treated at the sewage treatment plant. Animal wastes that may be mixed with organic bedding material (e.g., sawdust, wood mulch, hay, straw) are to be applied to appropriate agricultural lands at times when fields can be plowed or disced after application.

[B] 2f. Sludge originating from the sanitary wastewater treatment process is to be composted and applied to agricultural and open space lands at appropriate times of the year.

[B] 2g. Hazardous wastes are to be managed and disposed in accordance with applicable State and local government regulations.

Effect of Mitigation Measures:

The inclusion of the above mitigation measures, together with relevant mitigation measures described in Part IV, will reduce all impacts related to solid waste management to less than significant levels. Among other things, these mitigation measures will ensure that development will comply with the City's Integrated Solid Waste Management Plan and that a waste transfer station will be provided for Stewart Tract where residential and non-residential solidn waste can be sorted into recyclable and disposable wastes for appropriate final disposition.

Electrical and Natural Gas Energy Requirements

Existing Conditions:

Existing conditions for this topic are described in Part III of this EIR.

Significance Criteria:

Under CEQA Guidelines [Appendix G, (n)], a project would have a significant effect on the environment if it would encourage activities which result in the use of large amounts of fuel or energy.

Projected Natural Gas and Electrical Demand:

Projected demands for natural gas and electricity were developed by Siegfried Engineering and submitted to the Pacific Gas & Electric Company for comment in December 1994. These projections

are summarized in Table V-6 for Stewart Tract and Mossdale Village. Commercial electrical energy demands are expected to comprise 26.9% of total demand for Mossdale Village, whereas commercial demand will comprise 72.8% of total demand for Stewart Tract. By contrast, natural gas demands for residential use are expected to be substantially greater in both of these planning areas as compared to commercial demand.

Mitigation Measures:

The Pacific Gas & Electric Company has responded with a letter stating that it has the ability and capacity to meet the electrical and natural gas demands of the project, and that it will work with project developers in developing the most cost effective approach to the provision of facilities on a phased basis for the life of the project.

TABLE V-6

PROJECTED ELECTRICAL DEMAND FOR STEWART TRACT & MOSSDALE VILLAGE[13]

SPECIFIC PLAN AREA	Phase 1 [KW]	Phase 2 [KW]	Phase 3 [KW]	Phase 4 [KW]	Totals
Stewart Tract	56,900	14,340	22,230	9,540	103,100
Mossdale Village	2,630	5,020	3,190	3,300	14,140
TOTALS	**59,530**	**19,360**	**25,420**	**12,840**	**117,240***

TABLE V-7

PROJECTED NATURAL GAS DEMAND FOR STEWART TRACT & MOSSDALE VILLAGE[14]

SPECIFIC PLAN AREA	Phase 1 [FT]	Phase 2 [FT]	Phase 3 [FT]	Phase 4 [FT]	Totals
Stewart Tract	200,450	111,500	93,930	9,380	417,240
Mossdale Village	28,130	36,840	31,050	30,960	126,980
TOTALS	**228,580**	**148,340**	**124,980**	**47,340**	**544,220***

* Totals are rounded to nearest 10; final totals include an "Other Areas" category which is too minor to list.

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13 Summary from detailed projections of kilowatt [KW] hours of demand prepared by Siegfried Engineering, December 6, 1994.

14 Ibid, pertaining to cubic feet [Ft] of gas demand

Effect of Mitigation Measures:

The inclusion of the above mitigation measures will reduce all impacts related to electrical and natural gas energy requirements to less than significant levels. These measures will ensure that Project development will be adequately serviced by P.G. & E, which has the ability and capacity to meet electrical and natural gas demands of the Project. P.G. & E will work with Project developers in producing the most cost effective approach to the provision of needed facilities on a phased basis for the live of the Project.

Elementary and High School Services

Existing Conditions:

The West Lathrop planning area is served by the Manteca Unified Schools District, the Banta School District and the Tracy High School District. Mossdale Village would be served by the Manteca Unified District for both elementary and secondary education; the Banta School District would provide elementary education to Stewart Tract, while the Tracy High School District would provide secondary education to Stewart Tract. Each of these school districts suffers from overcrowding of classrooms and inadequate core facilities to serve the burgeoning school child populations within their districts.

School child generation factors per household differ only slightly among the three school districts. The factors shown in Table V-8 reflect existing conditions, and are used by the school districts in planning for new school sites, facilities and operations:

TABLE V-8A

SCHOOL CHILD GENERATION FACTORS FOR AFFECTED SCHOOL DISTRICTS

	Grades	
School District	K-8	9-12
Manteca Unified:	0.74	0.18
Banta Elementary	0.631[15]	
Tracy Unified		0.179

Each of the school districts imposes school impact fees upon new development to the maximum permitted by law, and derives additional school facility funding through Mello-Roos Districts. There currently is a provision of State Law which exempts bona fide senior citizen housing projects from participation in school financing through school impact fees. The types of senior citizen housing projects which may qualify for an exemption include individual housing units for citizens over the age of 55 [Civil Code Section 51.3], residential care facilities for the elderly at least 60 years of age [Health and Safety Code Section 1569.2, (k), a multi-level for the elderly at least 62 years of age [Government Code Section 15432, (d), (9), and a mobile hole park limited to older persons who quality under the Federal Fair Housing Amendments of 1988. Residences which cannot meet these standards typically are charged the regular per square foot fees for school impact allowed by law.

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15 This is a combined factor for grades K-6 and 7-8. The K-6 factor is 0.453 students per household while the 7-8 factor is 0.178.

Significance Criteria:

Continued classroom overcrowding, inadequate core facilities and limited ability to finance new school facilities will have a continuing significant effect on each affected school district. For Mossdale Village, the Specific Plan calls for two elementary schools and a possible site for a high school to serve the greater Lathrop area [Manteca Unified]. For Stewart Tract, 3-4 elementary schools will be required [Banta Elementary], with busing to Tracy High School. The number of elementary schools required for Stewart Tract will, in part, be a function of the number of total permanent housing units which are occupied by senior citizens without resident children.

Impacts:

[B] 1. Residential development for permanent residency of households with school age children within Mossdale Village and Stewart Tract will further exacerbate existing conditions of inadequate school capacity and operational financing. **[potentially significant]**

Mitigation Measures:

[B] 1.a. As residential development projects for permanent occupancy are proposed for Mossdale Village and Stewart Tract, school impact fees should be augmented by the creation of, or annexation to, a Mello-Roos District for the purpose of providing full mitigation for school impacts. As an alternative, a developer and school district may negotiate a mitigation fee based on the district's mitigation fee justification documents and the pro rata contribution to the need for capital facilities occasioned by the residential development project.

[B] 1.b. Where a residential project is large enough to encompass a school facility proposed by the West Lathrop Specific Plan, the developer shall work with the appropriate school district regarding the dedication of land and provision of infrastructure improvements required for the school facility in satisfaction of part or all of the pro rata share of school facility costs occasioned by the residential development project.

[B] 1.c. Where a residential project is large enough to generate the need for an entire school facility, school construction should be phased to match the phasing of residential construction, with the objective of assuring adequate facilities being available as close to the time of housing occupancy as possible.

[B] 1.d. Residential projects designed exclusively or dominantly for senior citizens and which meet the criteria for exemption under applicable State Law shall only pay the fee prescribed by State Law. Any future attempt or proposal to revise the status of a senior citizen housing project so that it is no longer restricted to senior citizens will trigger the need for participating in school financing in the same manner provided for other residential projects.

Effect of Mitigation Measures:

The inclusion of the above project mitigation measures will reduce all impacts related to schools described above to less than significant levels. These measures will ensure that residential development intended for permanent occupancy will be required to pay school impact fees as required by State Law and local school districts. To the extent that school impact fees do not offset a residential development project's pro rata contribution to the need for capital facilities, these measures ensure developer participation in other financing mechanisms to offset that contribution.

SAFETY AND HEALTH

This section deals with potential hazards to the health and safety of thousands of visitors expected daily on Stewart Tract, and how evacuation of sites can be accomplished and emergency services provided in the event of emergency conditions due to earthquake, fire, explosion or flood. Protection from hazards to lives and property to be provided through flood control, levee reconstruction, foundation engineering, protection of groundwater quality, solid and hazardous waste removal and other features of project design and regulation have been discussed adequately in previous sections of Part V and in Part IV of this report. It is to be noted that studies of Project acreage indicate that there are no known sites of hazardous wastes requiring remedial actions for waste removal.

Significance Criteria:

Thousands of people are expected almost daily on the Stewart Tract as visitors to theme parks and other large-scale commercial recreation attractions, and as residents. The principal criterion of significance is one of exposing such concentrations of people to hazards in case of a serious natural or man-caused disaster requiring immediate capability to provide safe ground, emergency medical care and evacuation.

Impacts:

[S] 1.a. Any natural or man-caused hazardous event poses a potential for jeopardizing lives during the first stages of the occurrence. A worst-case condition would be flooding caused by an earthquake-induced break in the levee(s) intended for flood protection of Stewart Tract. **[potentially significant]**

[S] 1.b. Fire, explosion and temporary scaffolding during phased project construction poses a threat to workers. The development of Stewart Tract in phases also will place visitors, theme park employees, residents, vendors and workmen at the site during construction. **[potentially significant]**

[S] 2. Automotive and boating emergencies can be expected requiring emergency response. **[potentially significant]**

3. The failure of equipment at theme parks and other recreation attractions poses a threat to visitors and employees. **[potentially significant]**

Mitigation Measures:

[S] 1. Stewart Tract development is to be graded so that the very large area within the loop arterial street system will be elevated above surrounding development sufficient to provide safe ground to accommodate all people needing temporary safety in the event of a flood.

[S] 1-3. An emergency response and evacuation plan is required prior to construction to protect and provide emergency aid to workmen during construction, and prior to opening commercial recreation attractions, lodging and housing facilities to public use. This response and evacuation plan shall be consistent with policies of the Hazard Management Element of the Lathrop General Plan pertaining to public safety.

Effect of Mitigation Measures:

The inclusion of the above project mitigation measures will reduce all impacts related to safety and public health described above to less than significant levels. These measures will ensure that a sufficient area of "safe ground" will be available on Stewart Tract to accommodate all people needing temporary safety from flooding, and by requiring an emergency response and evacuation plan to be available and operational prior to construction on Stewart Tract.

URBAN DESIGN/VISUAL QUALITY

As set forth on pp. IV-18 and -19 of Part IV, Project impacts associated with urban design and visual quality are fully mitigated by measures set forth in Specific Plan proposals. Further discussion is not required.

ARCHAEOLOGICAL AND CULTURAL RESOURCES

As set forth on pp. IV-19 and -20 of Part IV, Project impacts associated with archaeological and cultural resources are fully mitigated by measures set forth in Specific Plan proposals. Further discussion is not required.

RECREATION

This section deals solely with the proposals for a marina along the San Joaquin River on Stewart Tract in conjunction with a resort-hotel complex on 30 acres immediately west of the S.P. Railroad bridge. This marina would be created as an inlet from the river in an area where the river would effectively be widened by a set-back levee so as not to reduce the functional use of the existing river channel. The marina would have from 200 to 300 berths for year-round use by motor boats, sailboats, and small yachts.

Existing Conditions

There presently are two small private marinas within the planning area and one public boat ramp. These three facilities are located on either side of the I-5 crossing of the San Joaquin River. A second boat ramp is located several miles down-river at a County park. No other boating facilities can be found for several miles north (downstream) in the City of Stockton.

Significance Criteria

The proposed marina would have a significant effect on the environment if it resulted in any of the following:

1. Boating traffic in excess of the carrying-capacity of the existing San Joaquin River channel.
2. Adverse effects on water quality and the fishery of the River and its tributaries.
3. Adverse effects on riparian vegetation and other river-related wildlife habitat, including nesting sites of the endangered Swainson's Hawk and Elderberry Beetle.
4. Long-term adverse cumulative effects on the river environment.

Impacts and Mitigation Measures

The economic and environmental feasibility of the proposed marina development is too uncertain at this point to permit full environmental evaluation. Consequently, environmental analysis must be postponed until such time that a specific proposal is submitted for review to the City of Lathrop and to the various agencies of County, State and Federal government having a permitting responsibility for marina projects.

IMPACTS ON NEIGHBORING CITIES AND SAN JOAQUIN COUNTY

Existing Conditions

As shown on Figure III-1, the West Lathrop planning area is nestled among the cities of Stockton, Manteca and Tracy. Lathrop's east City Limit line is the western boundary of part of Manteca's sphere-of-influence; Lathrop's northern planning area boundary is the southern boundary of Stockton's sphere-of-influence; and the westerly boundary of the Stewart Tract is the easterly boundary of Tracy's planning area. Development occurring under the West Lathrop Specific Plan will have varying degrees of impact on the spheres of these cities and on the intervening unincorporated lands which are under the jurisdiction of San Joaquin County.

In responding to the Notice of Preparation issued by the City of Lathrop for this EIR, only the City of Tracy and the County responded with concerns for the effects which the West Lathrop Specific Plan might have on their jurisdictions and their plans for extending infrastructure to serve future urban development patterns, traffic added to the freeway system, and other impacts. In summary, the issues addressed by Tracy concerned: cumulative impacts on the I-205 corridor; the need for an expressway parallel to I-205; intended water supply and wastewater treatment; the impact on air quality; and, a financial plan and master infrastructure plan. All of these concerns are addressed in other sections of Parts IV and V of this EIR, and in the Specific Plan document.

In summary, the issues addressed by the County concerned: the need for a clear project description; assurance of a mechanism to distinguish between resort-related housing and permanent housing having an impact on schools; areas devoted to wildlife management and resource conservation; protection of unique, rare or endangered species of animals; the need for "worst case" analysis; exemptions to further environmental analysis; the need for separate as well as common approaches to mitigation in Mossdale Village and Stewart Tract; development phasing; assumptions to be used in traffic modeling; and road and transit improvements for interim and buildout scenarios. As with the Tracy requests, the County's concerns are addressed in other sections of Parts IV and V of this EIR and in the Specific Plan document published separately.

The discussion which follows relates to sphere boundaries and infrastructure planning.

Sphere-of-Influence Boundaries and Infrastructure Planning

The Stockton Interface:

Stockton's sphere of influence generally falls along Lathrop's northern Planning area boundary which lays just north of Bowman Road. Stockton has informed Lathrop of its intent to provide municipal water and sewerage service to this area over time, and has requested that Lathrop provide an agricultural belt between the future urban patterns of the two cities. Lathrop has honored this request in the proposed land use pattern of its General Plan. If additional urban expansion occurs in the future

(not now envisioned by the General Plan), it is anticipated that an agricultural open space corridor will be retained between the two cities.

An important proposal of the Lathrop General Plan and West Lathrop Specific Plan affecting Stockton's future is the need to extend the proposed Golden Valley Parkway as a parallel facility to Interstate 5 north to interchanges in the South Stockton area in order to preserve future I-5 traffic capacity for regional traffic demand. While the need may not exist for a decade or more, Lathrop, Stockton and San Joaquin County need to preserve the required right-of-way so that acquisition will be feasible as urban development occurs along the length of this proposed expressway that ultimately will have to extend south and westerly through Lathrop's planning area into the Tracy area.

The Manteca Interface:

The planning program that produced Manteca's current General Plan encompassed all of Lathrop and lands extending west to the San Joaquin River before Lathrop incorporated. This is evident from the background studies developed and published as part of Manteca's General Plan program. However, the final westerly boundaries of Manteca's General Plan diagram are generally along the north-south line of the Union Pacific Railroad extended south of the railroad's curve to the southwest, taking in Manteca's regional wastewater treatment plant.

At the on-set of Lathrop's General Plan Program, agreement was reached with the LAFCO Executive Officer that for "planning purposes", Lathrop's eastern planning area boundary would follow a north-south line following the Union Pacific tracks, and extending south from the point of the railroad curve toward Tracy and excluding Manteca's wastewater treatment plant property. More recently, the City of Manteca has amended its General Plan to include lands south of S.R. 120 and west of McKinley Avenue to the San Joaquin River, and has informed Lathrop of its intention to begin studies to have its sphere-of-influence boundary amended to reflect the General Plan amendment. Lathrop has since excluded lands for urbanization south of S.R. 120 and east of the Union Pacific Railroad and the San Joaquin River because of the adverse traffic impacts that would occur on S.R. 120 and I-5. Similar adverse traffic impacts may be revealed by Manteca's studies. In the last analysis, the San Joaquin County LAFCO will decide on the merits of this proposed addition to Manteca's sphere-of-influence.

The Tracy Interface:

The City of Tracy has already expanded its planning boundary to border Paradise Cut which forms the southwesterly boundary of Stewart Tract. Proposals of the Specific Plan which will most influence Tracy are added traffic on I-205, Gold Rush City commercial development and proposals for regional transit.

It is likely that the economic benefits of Gold Rush City on Tracy will be positive to the extent that several thousand permanent jobs will be created with an as yet undetermined number of those employees residing in Tracy. For those who would live in Tracy and work at Gold Rush City, they would improve upon the current imbalance in Tracy's jobs/housing condition. These employees would also bring to Tracy their incomes and expenditures for retail trade and services which would increase Tracy's overall tax revenues.

The traffic impacts of the proposed West Lathrop Specific Plan on the freeway system are described in considerable detail following this section. They include the beneficial aspects of mitigating freeway impacts through the construction of at least one expressway parallel to I-5 and I-205, the introduction of regional transit and the payment of mitigation fees for fair share contributions toward widening I-5,

I-205 and SR 120. As in the case of Stockton, there will be a need to extend the proposed Golden Valley Parkway westerly of Gold Rush City through Tracy's Planning area if any substantial new development is to occur north of I-205 within the Tracy Planning Area. This need will exist in the long run whether or not Gold Rush City develops.

TRANSPORTATION, CIRCULATION AND TRAFFIC

Existing Conditions: Existing conditions are described fully in Part III of this EIR.

Determination of Future Volume Projections

Project traffic conditions were analyzed for the three horizon years of 2005, 2017 and 2025, as requested by the City of Lathrop. These horizon years are marked by the following anticipated events:

2005 End of Phase I of Stewart Tract -- Mossdale Village +/- half-built.
2017 End of Stewart Tract Phase III -- Mossdale Village fully built.
2025 Project buildout -- Stewart Tract and Mossdale Village fully built.

Horizon year land use assumptions for the non-project sections of the City of Lathrop were developed by City Community Development staff in concert with the EIR economist. Project land use assumptions were developed by the Project applicant in concert with the City's Community Development Department. Expected attendance and staffing levels at Stewart Tract theme parks were provided by Economic Research Associates on behalf of the Project applicant.

Proposed horizon year Project freeway access and internal circulation plans were developed by the Project applicant, with input from both City and Caltrans staff. Horizon year traffic projections were developed for both with and without Project conditions with the assistance of a computerized traffic model (designated MINUTP). Traffic volumes were projected by the model for the following three time periods:

1. Weekday AM peak hour commute conditions (7:00 - 8:00 AM)
2. Weekday (Friday) PM peak hour commute conditions (4:00 - 5:00 PM)
3. Saturday AM peak hour traffic conditions (11:00 AM - Noon)

Commute time periods were selected for analysis as they currently experience the highest traffic levels on the Lathrop area freeways on weekdays. The Saturday 11:00 AM to Noon time period was selected for analysis as local area freeway volumes now typically peak during this hour. In addition, this is expected to be the peak hour for theme park visitor traffic on the local roadway system on a weekend. All four theme parks (i.e., Gold Rush City, Califia, Water Park and Wildlife Park) are expected to open at about 10:00 AM. The Water Park and Wildlife Park will close at about 7:00 PM, while the other two theme parks will close at about midnight.

The Lathrop peak hour traffic modeling effort was provided assistance through the use of future traffic modeling projections from the San Joaquin County Council of Governments (COG) regional traffic model. The COG MINUTP daily traffic model encompasses the Central San Joaquin Valley as well as the San Francisco Bay Area. Its projections for a given area reflect both local jurisdiction trip generation as well as regional through traffic.

COG daily model projections were developed for Base Case (i.e., without Project) and Base Case + Project conditions for the years 2005, 2010, and 2025. Year 2017 projections were obtained (with

COG staff concurrence) assuming straight line traffic growth from 2010 to 2025. Current peak hour to daily volume relationships and directional splits on the freeway passing through Lathrop (on I-5, State Route 120 and I-205) found in Caltrans historical traffic count data were then utilized to set volume levels to be matched by the Lathrop peak hour traffic model at key locations providing access to the study area.

Minimal (less than 3%) use of transit was assumed by regional drivers for each horizon year. Trip generation reductions of 10% to more than 40% were projected for some land uses on Stewart Tract due to the availability of shuttle buses, water taxis and chairlifts, as well as the close proximity of theme parks to all on-island recreational lodging units. All units are within less than a mile of a theme park. A technical appendix on file with the City of Lathrop provides extended detail regarding the traffic modeling process for the West Lathrop Specific Plan.

Significance Criteria

The following criteria were utilized to determine Base Case and Base Case + Project traffic operation and the significance of Project traffic impacts:

1. **Signalized Intersections:** An impact is significant if:

   a. An intersection operating at LOS (Level of Service) A through D changes to E or F; or
   b A Base Case LOS E or F has its associated volume to capacity (V/C) ratio changed by 1% or more.

2. **All-Way Stop Intersections:** An impact is significant if:

   a. An intersection operating at LOS A through D changes to E or F;
   b. A Base Case LOS E or F has its associated V/C ratio changed by 1% or more as determined using TRB Circular 373 methodology (an increase in intersection average delay of half a second or more).
   c. Volumes are increased above peak hour signal warrant criteria levels.

3. **Side Street Stop Sign Controlled Intersections:** An impact is significant if:

   a. An intersection movement operating at LOS A through E changes to F, and more than 20 vehicles make this turn movement during the analyzed peak hour.
   b. A Base Case LOS F has its associated V/C ratio changes by 1% or more as determined using 1985 HCM methodology (a change of 10 or more vehicles in reserve capacity); or
   c. Volumes are increased above peak hour signal warrant criteria levels.

4. **Freeways:** An impact is significant if:

   a. A freeway segment operating at LOS A through D changes to E or F; or
   b. A Base Case LOS E or F has its associated V/C ratio changes by 1% or more using a freeway lane capacity of 1,850 passenger cars per hour per lane (PCPHPL) for LOS D operation and 2,000 PCPHPL for LOS E operation.

5. Surface Streets: An impact is significant if:

   a. A roadway segment operating at LOS A through D changes to E or F; or
   b. A Base Case LOS E or F has its associated V/C ratio changed by 1% or more.

6. Safety Issues: An impact is significant if, in the opinion of the registered traffic engineer conducting the EIR traffic analysis, a significant safety concern would be created.

Surface street roadway capacities used for impact evaluation are as shown below in Table V-8:

TABLE V-8B

SURFACE STREET ROADWAY CAPACITIES USED FOR IMPACT EVALUATION*

Traffic Facility	Vehicles Per Lane Per Hour	
	LOS D	LOS E
Expressway	1,080	1,200
Arterial - no parking or driveways	810	900
Arterial - with parking or drivew's	675	750

* Source: Comprehensive General Plan, City of Lathrop, December, 1991

Year 2005 Impacts and Mitigation Measures

Base Case (without Project) Conditions:

Figure V-3 presents year 2005 Base Case (without Project) volumes for weekday PM peak hour conditions. AM and Saturday peak volumes are presented in the Technical Appendix (T-1 and T-2). The Base Case roadway/freeway system assumed in operation for this horizon year is presented in the Technical Appendix (T-3). No improvements were assumed to the Lathrop freeway system with the exception of the completion of S.R. 120 widening to four lanes east of I-5, and the full widening of I-205 to six lanes from I-5 west to I-580. Although Caltrans' current funding program shows only the western half of I-205 being widened to six lanes before 2005, COG modeling staff indicated that there will be such a demand for east-west travel in the region by that date that realistic modeling projections could not be developed unless a full six lane I-205 freeway was assumed to be in place. Improvements to the existing Lathrop non-freeway circulation system, as shown in Technical Appendix T-3, have been assumed in place (financed by local development) as they provide acceptable circulation system operation for Base Case volumes and a base against which to evaluate impacts due to Project traffic. [It should be noted that revisions to the Mossdale interchange as proposed by the Project applicant have been assumed in place for base case conditions in order for the EIR analysis to present a clear picture of the "without" v. "with" Project volume change implications due to the Project in this area.

Figure V-4 presents locations with unacceptable freeway operation with year 2005 Base Case volumes for weekday PM peak hour conditions. AM and Saturday peak hour Base Case freeway operating conditions are presented in the Technical Appendix (T-4 and T-5).

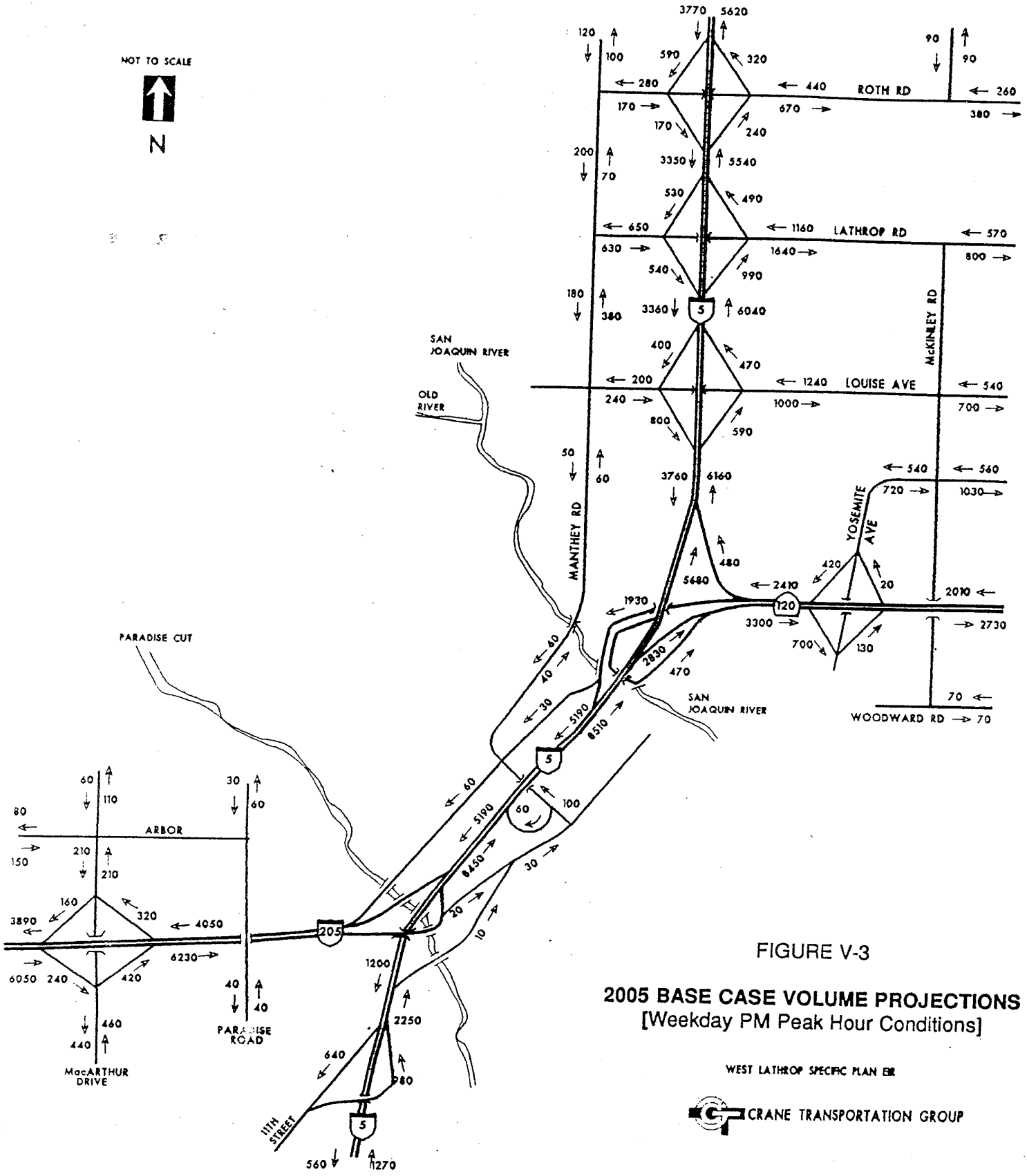


FIGURE V-3

2005 BASE CASE VOLUME PROJECTIONS
[Weekday PM Peak Hour Conditions]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

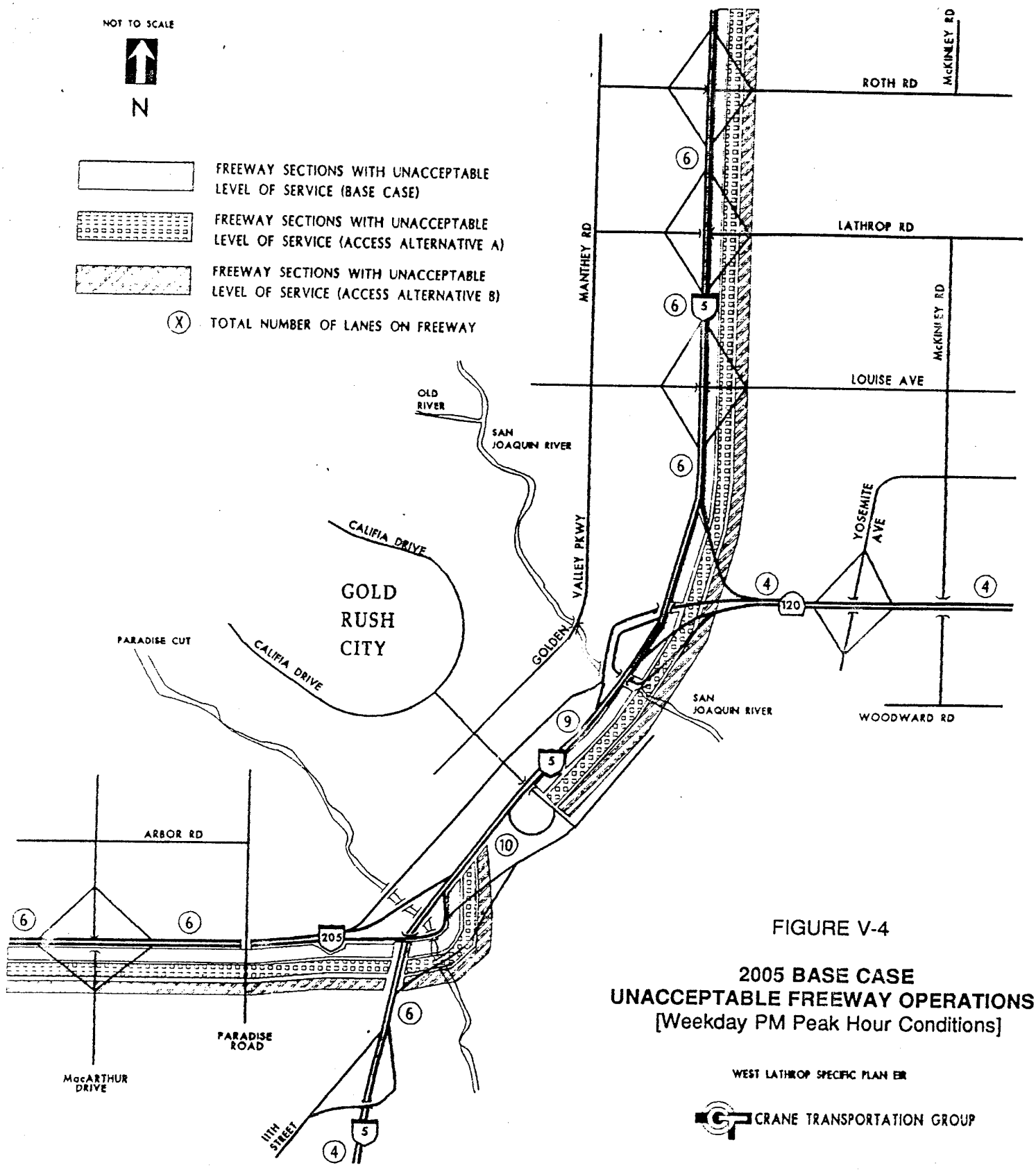


FIGURE V-4

2005 BASE CASE
UNACCEPTABLE FREEWAY OPERATIONS
[Weekday PM Peak Hour Conditions]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

From Figure IV-4, Base Case volumes are only expected to produce unacceptable operation during the weekday PM peak hour on eastbound I-205, and on northbound I-5 from just north of the I-205 merge to north of Roth Road.

Table V-9 shows that ramp intersections at the Louise Avenue interchange and at the Louise/Manthey Road-Golden Valley Parkway intersection would all be operating at acceptable levels of service with Base Case weekday and Saturday peak hour volumes. As previously indicated, the number of midblock surface street lanes (see Technical Appendix T-3) would provide acceptable levels of service for all peak time periods.

Base Case + Project Conditions:

Analysis results are presented for Project Access Alternative A. Alternative A access to Stewart Tract would be provided by a partial interchange with the I-205/I-5/SR 120 freeways at their common merge area, as well as by the provision of a new expressway (Golden Valley Parkway) south from Louise Avenue into the eastern section of the development via a new bridge across the San Joaquin River. The new partial interchange (referenced as the Mossdale interchange) would replace the existing hook ramps now in place along I-5 between SR 120 and I-205.

The new Mossdale interchange would have the following ramp connections:

Eastbound:	I-205 off-ramp to Mossdale Boulevard (just south of the I-205 merge to I-5).
Westbound:	S.R. 120 off-ramp to Mossdale Blvd. (just north of the S.R. 120 merge to I-5)
Westbound:	On-ramp to I-205 (just west of I-5).
Northbound:	On-ramp to I-5 (just south of the San Joaquin River bridge allowing access to eastbound S.R. 120 and northbound I-5).
Northbound:	1-5 off-ramp to Mossdale Boulevard (just south of I-205).

The following ramp connections would not be provided as part of the new interchange:

I-5 southbound on-ramp.
I-5 southbound off-ramp.

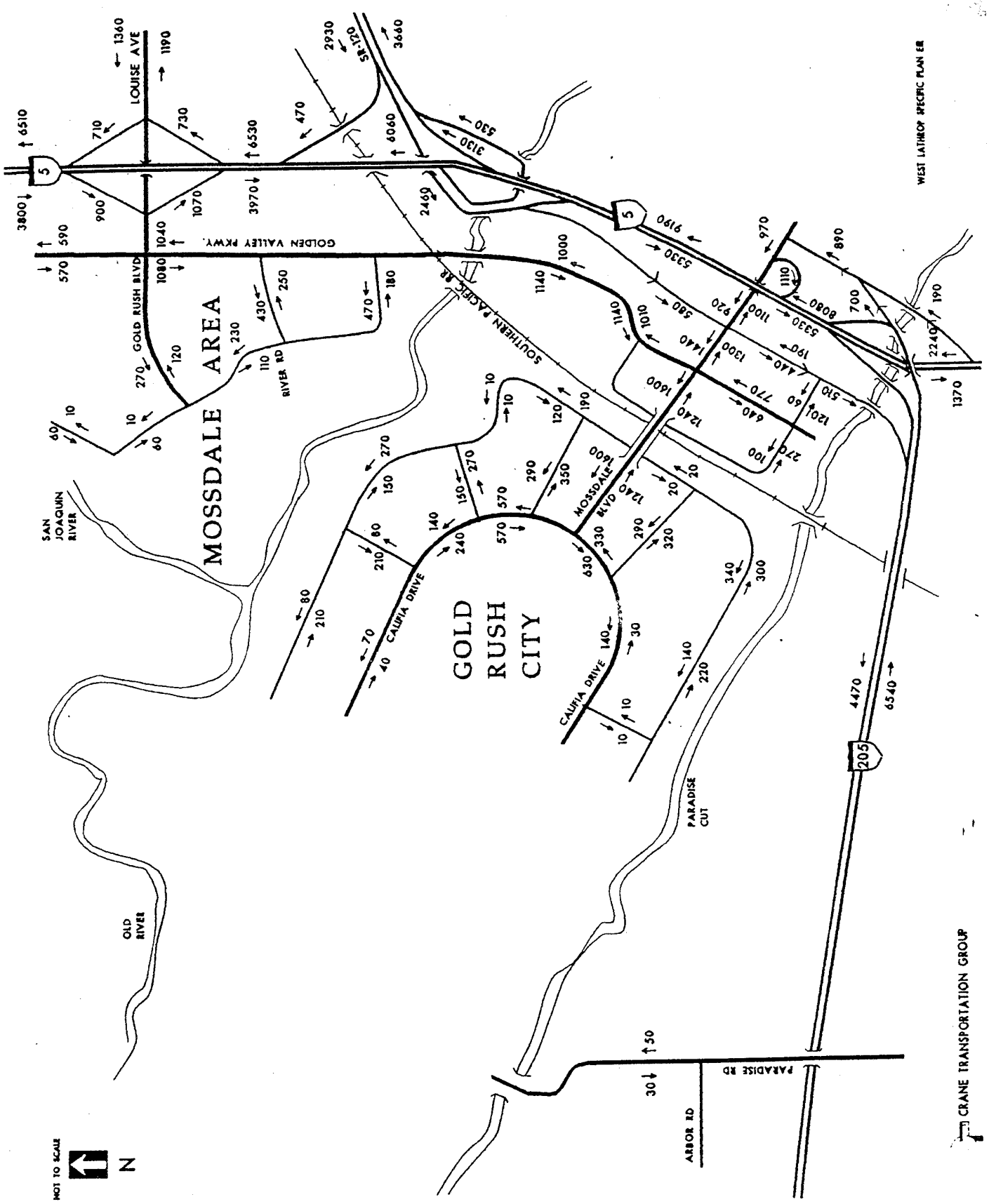
Access to and from Stewart Tract for vehicles to use the two missing ramp connections would be accomplished via the Louise Avenue/I-5 interchange and Golden Valley Parkway.

Access to the Mossdale section of the Specific Plan area would be provided from the new Golden Valley Parkway as well as the southwesterly extension of Louise Avenue (to be renamed Gold Rush Boulevard) from I-5 towards the San Joaquin River. By 2005, two of the four Stewart Tract theme parks (Gold Rush City and the Water Park) are expected to be in operation. The Water Park is projected to attract less than 10% of the visitors to Gold Rush City.

Figure V-5 presents 2005 Base Case + Project Alternative A PM peak hour volumes in the Project area. Other related figures provided in the Technical Appendix include Year 2005 Base Case + Project Alternative A weekday AM peak hour Project area and citywide volumes, 2005 Base Case + Project weekday PM peak hour citywide volumes, and 2005 Base Case + Project Saturday AM peak hour Project area and citywide volumes [see Technical Appendixes T-6 through T-10].

FIGURE V-5

2005 BASE CASE + PROJECT ALTERNATIVE A
[Weekday PM Peak Hour Conditions]



As part of Project development, a 1,500 space park-and-ride lot and a 1,000 space BART Express Bus/transit station lot would be provided between the I-5/I-205 merge and the Southern Pacific Railroad in close proximity to the new Mossdale interchange. These lots are expected to be used primarily by westbound commuters to the Bay Area during the weekday AM peak hour traffic, and by eastbound commuters returning home during the PM peak hour the same day. Net reductions in both westbound and eastbound peak hour traffic would be expected due to these lots as additional spaces are provided in phases. Weekday use of these lots by commuters would be replaced on weekends by overflow parking for the theme parks.

Impact 1: The proposed Mossdale interchange design does not meet Caltrans or Federal Highway Administration (FHWA) design criteria.[16] The criteria include minimum interchange spacing between freeway-to-freeway interchanges and new surface street interchanges are required to be two miles in rural areas and one mile in urban areas; new interchanges not providing connections to all freeway travel directions are avoided, as are surface street ramp connections to freeway-to-freeway connections. [**significant**]

Mitigation 1: Provide all Project access in the year 2005 via the Louise Avenue interchange (Access B Alternative). This would require Stage II Project Study Report (PSR) improvements for the interchange (plus an additional southbound off-ramp) in order to adequately serve all 2005 Project traffic. Access Alternative B PM peak hour Project area volumes are presented in Figure A-1 of the Technical Appendix. Other Alternative B volumes are provided in sections T-11 through T-15 of the Technical Appendix.

Impact 2: Project area traffic would result in unacceptable freeway operation along the following freeway segments (above and beyond Base Case conditions), as follows: [**significant**]

a. For the weekday PM peak hour, Project traffic would increase V/C ratios by more than 1% on all freeway segments experiencing unacceptable operations with Base Case traffic.
b. For the Saturday AM peak hour, eastbound I-205 operations would be unacceptable from west of the MacArthur Drive interchange to the new off-ramp serving Stewart Tract; and northbound I-5 operations would be unacceptable from the proposed Mossdale loop on-ramp to the I-5/SR 120 diverge at the San Joaquin River.

Mitigation 2: The following freeway widening would be required to provide acceptable freeway operation for Base Case (without Project) traffic conditions:

a. Widen I-205 to eight lanes.
b. Widen I-5 northbound (I-205 to SR 120) to 5 lanes across the San Joaquin River.
c. Widen I-5 north of SR 120 to 8 lanes.

The above improvements currently are not programmed by Caltrans, nor does Caltrans have available funding for these improvements. It is therefore imperative that realistic regional fees or other appropriate levies be imposed to provide these improvements, or to provide alternate means of travel. Other approaches would include financial incentives to take transit, if available, or to carpool, or financial disincentives such as a high gasoline tax or tolls to cross Altamont Pass would decrease dependence on the automobile.

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[16] Design criteria are published in the **Caltrans Highway Design Manual, February 13, 1995 Guidelines.**

TABLE V-9

YEAR 2005 INTERSECTION LEVEL OF SERVICE

(Signalized Operation Unless Otherwise Noted)

BASE CASE (WITHOUT PROJECT)

Intersection	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday AM Peak Hour
Louise Avenue/I-5 Northbound Ramps[1]	A - .64[2]	D - .82	C - .74
Louise Avenue/I-5 Southbound Ramps	A - .53[2]	C/D - .80	B - .61
Louise/Manthey (unsignalized), Louise stop sign controlled	A[3]	B	A

WITH PROJECT -- ACCESS ALTERNATIVE A (WITH MOSSDALE INTERCHANGE)

Intersection	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday AM Peak Hour
Louise Avenue/I-5 Northbound Ramps	(B/C - .70)[4] A - .48[5]	(F - 1.09)[4] D - .83[5]	(E - .95)[4] B - .67[5]
Louise Avenue/I-5 Southbound Ramps	(B - .69)[4] A - .59[5]	(E/F - 1.00)[4] C - .79[5]	(C - .76)[4] B - .65[5]
GOLD RUSH CITY INTERSECTIONS			
I-205 Eastbound/I-5 Northbound Off-Ramp/ Mossdale Boulevard[6]	A - .15	A - .37	A - .43
S.R. 120 Westbound (Southbound) Off-Ramp/ Mossdale Boulevard[6]	A - .46	C - .72	B/C - .70
Golden Valley Parkway/Mossdale Boulevard[6]	A - .46	D - .87	D - .81
Mossdale Boulevard/East Califia Drive[6]	B - .61	C - .79	D - .85
MOSSDALE AREA INTERSECTIONS			
Gold Rush Boulevard/Golden Valley Parkway[6]	A - .58	C - .77	C - .71

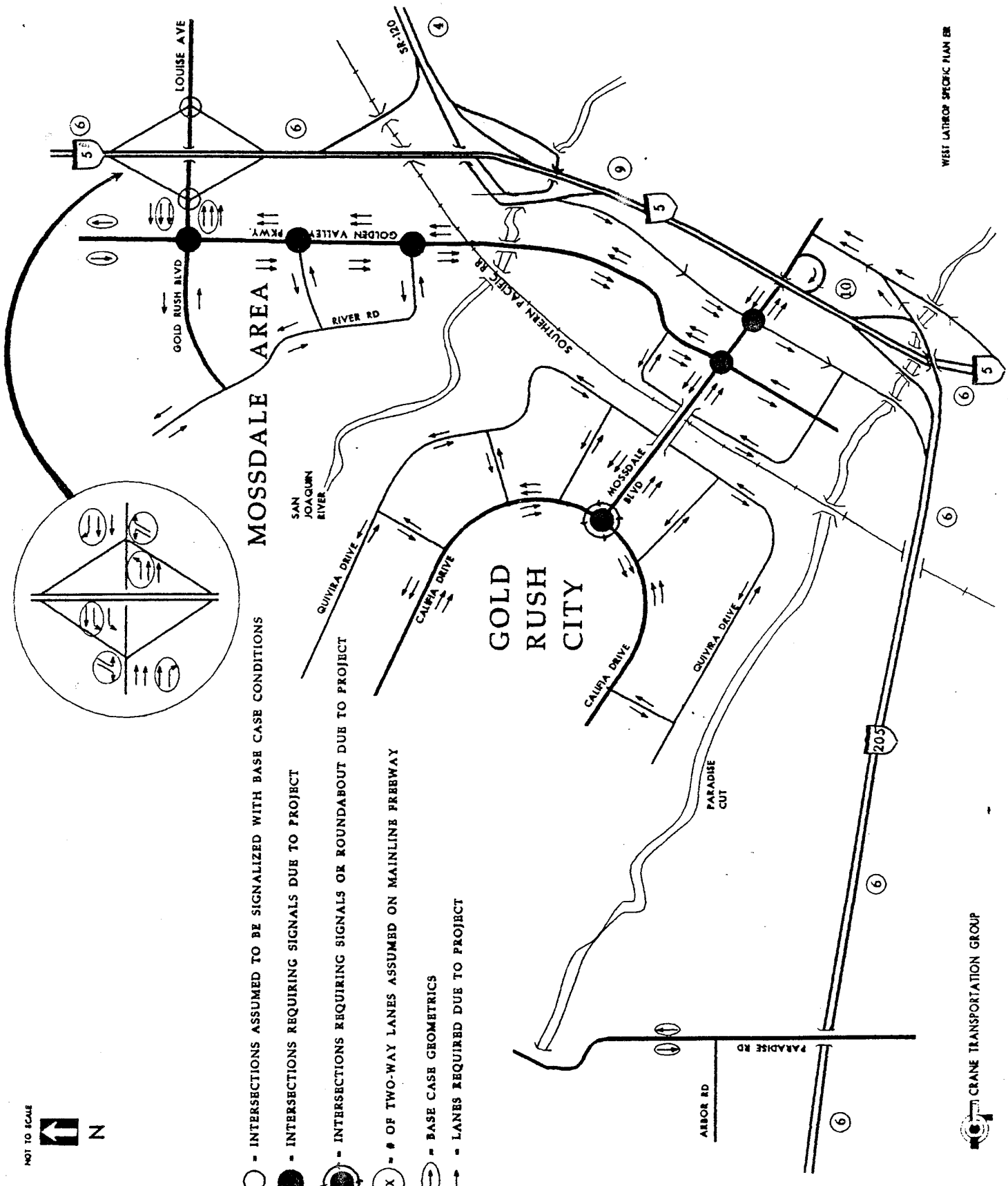
[1] Level of Service - Volume/Capacity Ratio (TRB Circular 212)
[2] With improved geometrics to provide acceptable levels of service (see Figure V-6)
[3] Level of service for stop sign controlled left turn from Louise Avenue
[4] Level of service with Base Case geometrics (see Figure V-6)
[5] Mitigated (see Figure V-6)
[6] New intersection

Source: Crane Transportation Group

6/6/95 CTG
West Lathrop Specific Plan EIR

FIGURE V-6

2005 PROJECT ALTERNATIVE A, SIGNAL REQUIREMENTS, INTERCHANGE IMPROVEMENTS AND LANE REQUIREMENTS



Impact 3: The Louise Avenue intersections with I-5 north- and southbound ramps would both be operating at unacceptable levels with the addition of Project traffic and geometrics sufficient to accommodate Base Case traffic (See Table V-9). **[significant]**

Mitigation 3: The Louise Avenue intersections with I-5 north- and southbound ramps should be improved as presented on Figure V-6.

All project on-site roadways would be operating at acceptable levels of service if designed with the number of lanes shown on Figure V-6. In addition, all on-site intersections would be operating at acceptable levels of service (see Table V-9).

Intersections requiring signalization within the Project area are presented in Figure V-6. The Project applicant has proposed that traffic circles (roundabouts) rather than signalized intersections be provided at all intersections along East and West Califia Drive which is the major 4-6 lane arterial ring road serving Stewart Tract. By 2005, circles would be provided (at a minimum) at the East Califia Drive intersections with Mossdale Boulevard and Gold Rush Boulevard. Although there is currently minimal use of traffic circles within the United States, their popularity is slowly growing. Comments and reports by representatives from jurisdictions using traffic circles indicates that circles, if designed properly, typically provide about 10% to 20% greater capacity than a signalized intersection, resulting in less overall delay for drivers. Roundabout level of service analyses results contained in the Technical Appendix indicate acceptable operation of a major traffic circle at the Califia Drive/Mossdale Boulevard junction.

Historical data indicates accident rates do not seem to increase with use of circles. It should be noted, however, that most circles typically would be used by the same drivers on a regular basis, whereas the large tourist component of drivers on Stewart Tract will be changing constantly. Thus, there almost always will be some percentage of drivers going through the "learning curve" of how to properly and safely drive through the circles along Califia Drive.

In addition to the newness of circles, the EIR traffic consultant has observed both in the United States and overseas that the safety of pedestrians trying to cross a roadway leg providing access to a traffic circle gives rise to concern, particularly when there always will be some percentage of drivers who are not very familiar with the rules for driving through the circles. Bicycle rider safety within traffic circles will almost always be a safety issue.

Impact 4: Proposed traffic circles along Califia Drive will present a significant concern for at-grade pedestrian crossings in close proximity to each circle, and for bicycle movements through each circle. In addition, the constant supply of new drivers having to use the circles each day (some driving RV's) may produce less than safe driving maneuvers. It is also unknown how the circles will function during extreme foggy conditions in the winter as compared to using traffic signals where there are more defined controls of traffic movements. **[potentially significant]**

Mitigation 4: Pedestrian and bicycle trails should be grade separated in close proximity to all traffic circles. It is recommended that only one traffic circle initially be constructed, and its operations closely monitored by the City to test its safety (in the event the City decides to allow any circle construction).

If traffic circles are provided only along Califia Drive, there would not be any safe at-grade intersections for pedestrian and bicycle crossings of this roadway. This would discourage crossings

along the ring road, or at a minimum create a danger. Pedestrian access to the shuttle bus system along the ring road would also be discouraged if there are no safe pedestrian crossings.

Impact 5: No safe pedestrian or bicycle trail crossings of East and West Califia Drive are detailed in the Specific Plan document, assuming that traffic circles are to be provided along this ring roadway. [**significant**]

- *Mitigation 5:* Provide a significant number of grade separated pedestrian, bicycle and golf cart crossings of both East and West Califia Drive, either individually or in combination with signalized intersections.

Year 2017 Impacts and Mitigation Measures

Base Case (without Project) Conditions:

Figure V-7 presents a 2017 Base Case (without Project) volumes for weekday PM peak hour conditions. Weekday AM and Saturday AM peak hour volumes are presented in the Technical Appendix (Sections T-16 and -17). The Base Case roadway/freeway system assumed in operation for this horizon year is presented in Technical Appendix section T-18. Improvements assumed for the Lathrop area freeway system for 2017 are the completion of SR 120 widening to four lanes to the east of I-5, and the full widening of I-205 to six lanes from I-5 to I-580 west of Tracy.

Improvements to Lathrop's surface roadway system as presented in Technical Appendix section T-18 have been assumed to be in place. Financed by local development, these roadways would, with one exception, provide acceptable circulation system operation for the Base Case volumes and a base against which to evaluate impacts due to Project traffic. The one exception is PM peak hour operation along Lathrop Road, from Harlan Road east to Fifth Street. If maintained as a 4-lane Arterial, this road segment would be operating unacceptably at LOS E or F conditions. During weekday AM peak hour and Saturday AM peak hour conditions, Lathrop Road just east of Harlan Road would also be on the border of unacceptable operation if maintained as a 4-lane facility.

Figure V-8 presents locations with unacceptable freeway operation with year 2017 Base Case volumes for weekday PM peak hour conditions. Weekday AM and Saturday AM peak hour locations with unacceptable freeway operation are presented in the Technical Appendix (T-19 and -20). From the Figure, Base Case volumes are expected to produce unacceptable operation on numerous segments of I-205, I-5 and SR 120 during all three peak time periods. Predominantly west- and southbound traffic flows would be at unacceptable levels during the weekday AM peak hour, with eastbound and northbound flows at acceptable levels during the weekday PM peak and Saturday AM peak traffic hours.

Table V-10 shows that ramp intersections at the Louise Avenue interchange as well as the Louise/Manthey Road-Golden Valley Parkway intersection would all be operating at acceptable levels of service with Base Case weekday and Saturday peak hour volumes.

Base Case + Project Conditions:

Analysis results are presented for Project access alternatives A and B. Alternative A (Project as proposed) access to Stewart Tract would be provided by the "partial" Mossdale interchange with I-5/I-205 and SR 120, a 4-lane Paradise Road extending northerly from a new interchange with I-205 into the western end of Stewart Tract, Golden Valley Parkway extended south from Louise Avenue (Gold

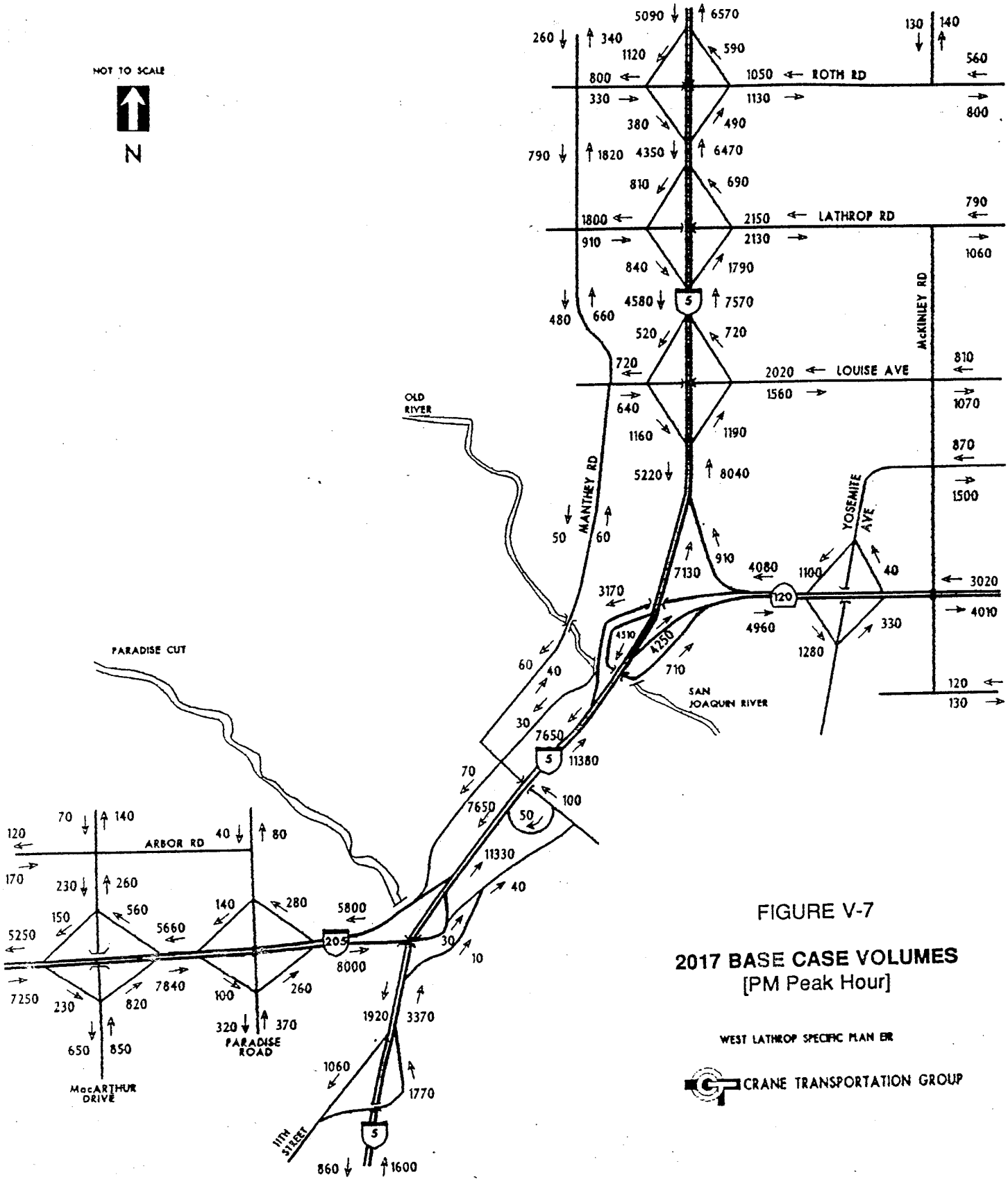


FIGURE V-7

2017 BASE CASE VOLUMES
[PM Peak Hour]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

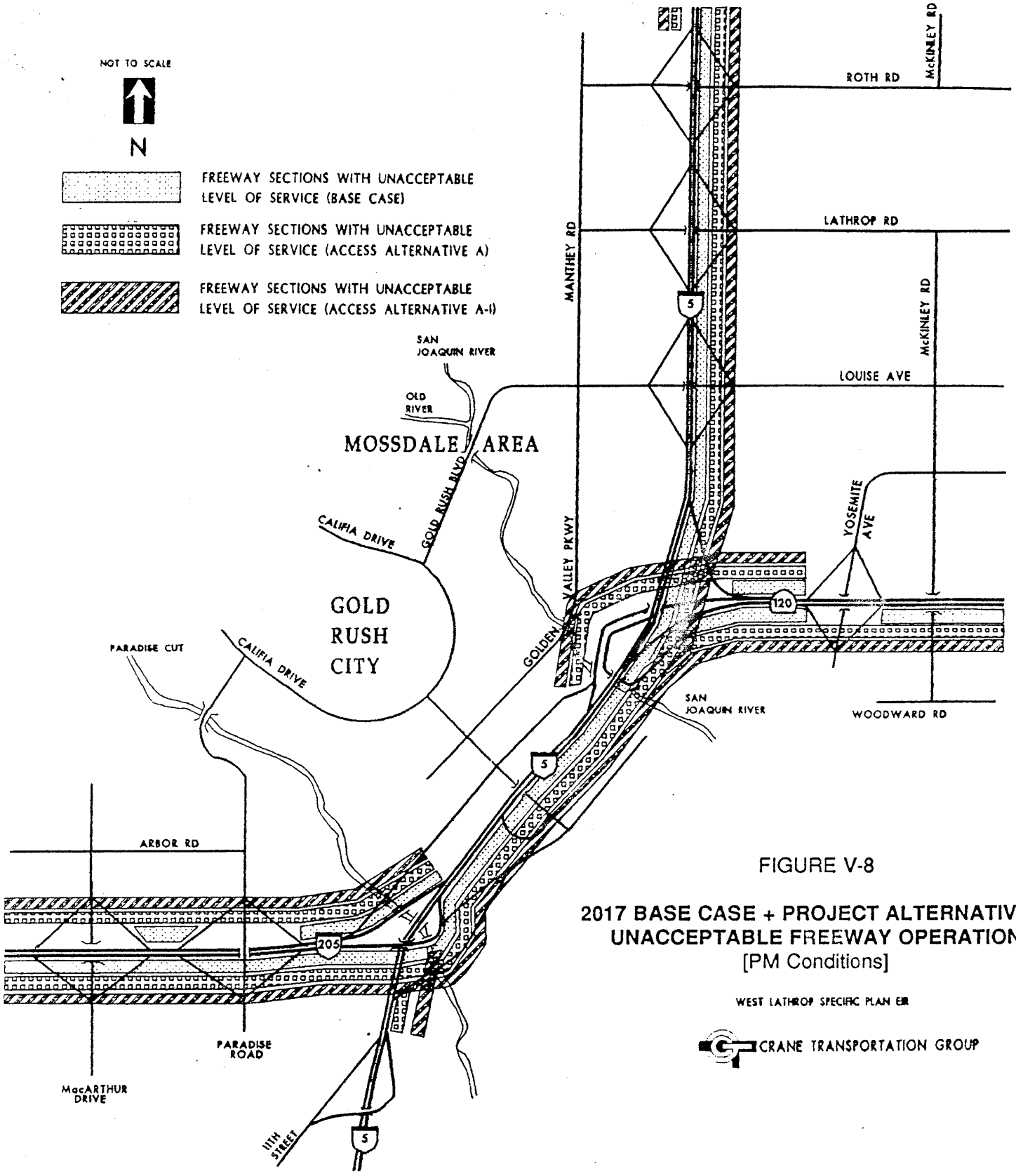


FIGURE V-8

2017 BASE CASE + PROJECT ALTERNATIVE A
UNACCEPTABLE FREEWAY OPERATION
[PM Conditions]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

TABLE V-10

YEAR 2017 INTERSECTION LEVEL OF SERVICE

BASE CASE (WITHOUT PROJECT)

INTERSECTION	WEEKDAY AM PEAK HOUR	WEEKDAY PM PEAK HOUR	SATURDAY AM PEAK HOUR
S.R. 120 Westbound Ramps/Yosemite	D - .84	C - .72[1]	A - .48
S.R. 120 Eastbound Ramps/Yosemite	A - .22	C - .74	A - .27
I-5 Southbound Ramps/Louise Avenue	A - .53	A/B - .60	A - .56
I-5 Northbound Ramps/Louise Avenue	C - .74	C - .78	C - .79
Gold Rush Blvd/Golden Valley Parkway	B - .65	B - .65	C - .75

WITH PROJECT -- ACCESS ALTERNATIVES A AND B

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR		SATURDAY PEAK HOUR	
	Alt. A	Alt. B	Alt. A	Alt. B	Alt. A	Alt. B
RAMP INTERSECTIONS						
I-205 Westbound Ramps/Paradise Rd[2]	A - .36	A - .40	A - .52	A - .53	A - .40	A - .49
I-205 Eastbound Ramps/Paradise Rd[2]	A - .17	A - .20	A - .51	A - .47	A - .40	A - .47
SR 120 Westbound Ramps/Yosemite	(D - .87)[4] A/B - .61[5]	(D - .83)[4] A - .58[5]	(C - .78)[4] A/B - .60[5]	(C - .72)[4] A - .57[5]	(A - .58)[4] A - .38[5]	(A - .43)[4] A - .32[5]
SR 120 Eastbound Ramps/Yosemite	A - .23	A - .21	C - .73	C - .72	A - .29	A - .28
I-5 Southbound Ramps/Louise Ave	(C - .72)[4] C - .72[5]	(C - .74)[4] B - .66[5,6]	(F - 1.20)[4] D - .88[5]	(F - 1.72)[4] E - .96[5,6]	(E - .98)[4] C - .74[5]	(F - 1.40)[4] C - .77[5,6]
I-5 Northbound Ramps/Louise Ave	(E - .90)[4] A - .54[5]	(D - .86)[4] C - .72[5,6]	(F - 1.06)[4] D - .83[5]	(F - 1.46)[4] E - .98[5,6]	(E - .91)[4] B - .66[5]	(F - 1.24, E - .96[5,6]
GOLD RUSH CITY INTERSECTIONS						
North Albion/East-West Califia[2]	A - .35	A - .51	B - .64	D - .87	A - .59	D - .82
Mossdale/Golden Valley Parkway[2]	B - .64	A - .34	C/D - .80	C - .71	C - .74	A - .46
Mossdale/S.R. 120 Off-Ramp[2]	A - .51	N/A	C - .75	N/A	B - .61	N/A
East Califia/Gold Rush Boulevard[2]	A - .53	A - .55	D - .84	D - .85	C - .76	C/D - .80
East Califia/Mossdale Boulevard[2]	A - .57	A - .29	C - .77	B - .63	B - .64	A - .43
East-West Califia/South Albion[2]	A - .26	A - .35	A - .59	B - .61	A - .45	B/C - .70
West Califia/Paradise Road[2]	A - .23	A - .54	A - .25	C - .79	A - .34	D - .81
MOSSDALE AREA INTERSECTIONS						
Golden Valley Parkway/River Road[2]	A - .37	A - .45	C - .73	C - .77	A - .53	B - .62
Gold Rush Blv/Avenida San Joaquin[2]	B/C - .70	B - .65	C - .76	D - .82	D - .82	D - .81
Gold Rush Blvd/Golden Valley Pkwy	(F - 1.91)[4] C - .78[5]	(F - 2.31)[4] Grade Separated[5]	(F - 2.41)[4] D - .88[5]	(F - 3.39)[4] Grade Separated[5]	(F - 1.97)[4] C - .79[5]	(F - 3.01)[4] Grade Separated[5]

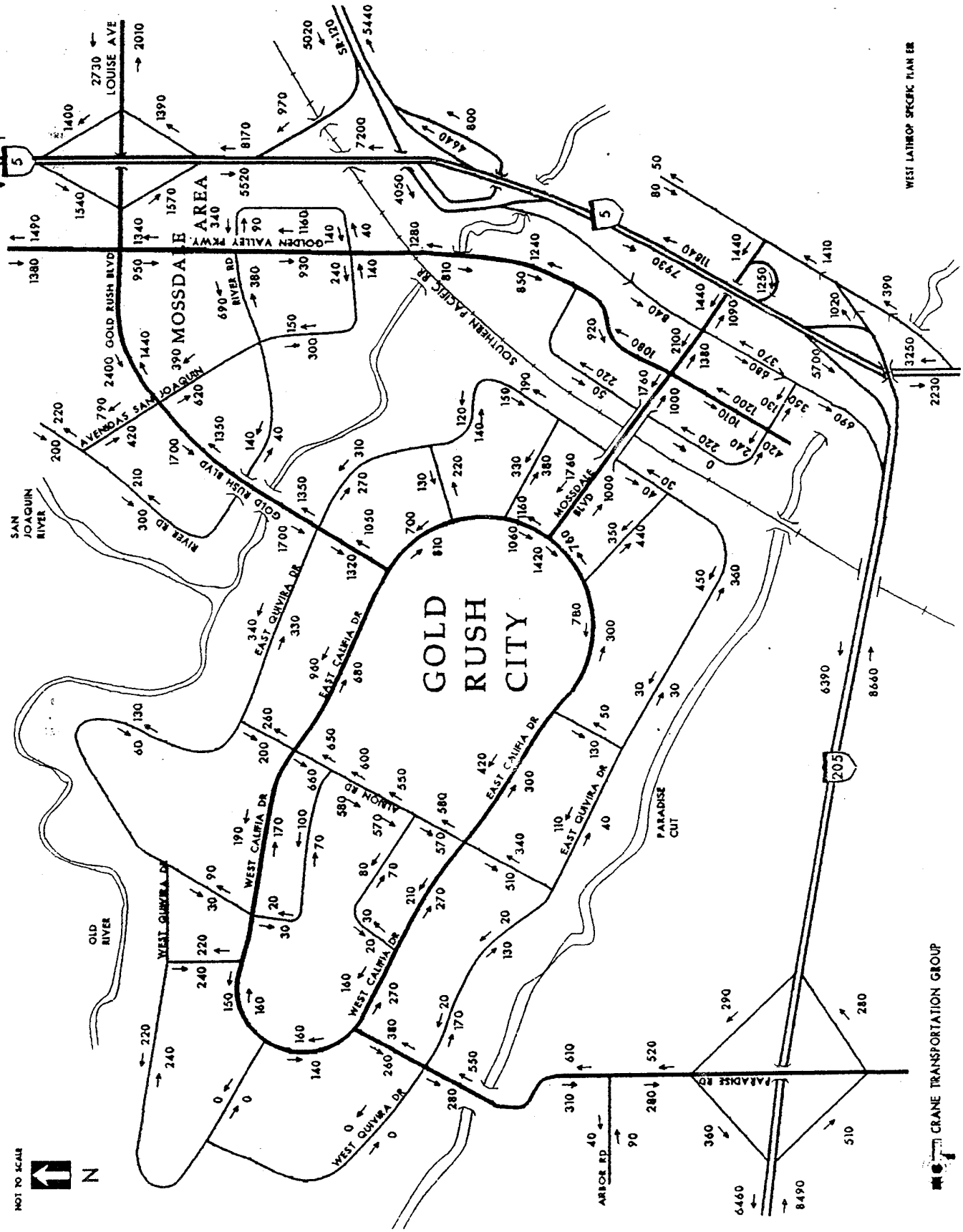
[1] Signalized Level of Service - Volume/Capacity Ratio (TRB Circular 212)
[2] New intersection
[3] With improved geometrics to provide acceptable levels of service
[4] Level of service with Base Case geometrics
[5] Mitigated by project
[6] Mitigation includes loop on-ramps

Source: Crane Transportation C

FIGURE V-9

2017 BASE CASE + PROJECT ALTERNATIVE A VOLUMES

[PM Peak Hour Conditions]



Rush Boulevard) into the eastern part of Stewart Tract, and Gold Rush Boulevard extended southwesterly from the Louise Avenue interchange across the San Joaquin River onto the central part of Stewart Tract. Access to the Mossdale Village portion of the Specific Plan area would be provided from local area roadways connecting to Gold Rush Boulevard or Golden Valley Parkway at widely spaced intervals.

Access Alternative B wold be similar to Alternative A with the exception that there would be no Mossdale interchange with I-5/I-205.

Figure V-9 presents Base Case + Project Alternative A weekday PM peak hour volumes in the Project Area. Weekday AM and Saturday AM peak hour local and citywide, as well as PM peak hour citywide Alternative A volumes are presented in the Technical Appendix (T-21 through -25). Greater use of the 1,500 space park-and-ride Bart bus/transit station would be expected. The majority of traffic reductions made possible by these specialized parking facilities would be expected to extent west over Altamont Pass along I-580 and significantly offset the peak hour, peak direction volume increases due to Project development at this location (per COG modeling projections).

Impact 6: The proposed Mossdale interchange design does not meet Caltrans or FHWA design criteria as described under Impact 1, above. [**significant**]

Mitigation 6: Provide Project access in the year 2017 via the Louise Avenue and Paradise Road interchanges, as well as via Golden Valley Parkway (Access Alternative B); or via the above plus a roadway connection across the San Joaquin River to the SR 120/Yosemite Avenue interchange (Access Alternative C); or via the first three means of access (above) and a reduced level of development (Access Alternative E). The Paradise and Louise Avenue interchanges could provide acceptable operation after maximum improvements with either the C or E alternatives.

Figure V-8 presents unacceptable 2017 freeway operations as described below.

Impact 7: Alternative A Project traffic would result in unacceptable operation along the following freeway segments (above and beyond Base Case conditions), as follows: [**significant**]

a. For the PM peak hour, Project traffic would increase V/C ratios by more than 1% on all freeway segments experiencing unacceptable Base Case traffic operations.
b. For the PM peak hour, along Southbound I-5 north of the Roth Road interchange, westbound S.R, 120 through the I-5 freeway-to-freeway interchange, and westbound I-205 westerly from the Paradise Road interchange.
c. For the AM peak hour, northbound I-5 (SR 120 to Louise Avenue, and Lathrop Road to Roth Road), westbound SR 120 in the vicinity of the Yosemite Avenue interchange.
d. For the AM peak hour, more than 1% increases in V/C ratios on all freeway segments experiencing unacceptable Base Case traffic operations.
e. For the Saturday peak hour, westbound SR 120 from east of Yosemite Avenue to I-5, northbound I-5 through the Louise Avenue interchange and north of the Lathrop Road interchange, southbound I-5 from North of Roth Road to the Louise Avenue interchange, and westbound I-205 through the MacArthur Avenue interchange.
f. For the Saturday peak hour, more than 1% increases in V/C ratios on all freeway segments experiencing unacceptable Base Case traffic operation.

Mitigation 7: The following freeway widening would be required to provide acceptable freeway operation for 2017 Base Case (without Project) traffic conditions:

a. Widen I-205 (extending west of MacArthur Drive) to 8 lanes.
b. Widen I-205 (from MacArthur Drive to I-5) to 10 lanes.
c. Widen I-5 (from SR 120 to Lathrop Road) to 10 lanes.
d. Widen I-5 (from Lathrop Road to north of Roth Road) to 8 lanes.
e. Widen I-5 (from SR 120 to I-205) to 14 lanes.
f. Widen SR 120 (east of I-5) to 6 lanes.

None of the above widenings are programmed by Caltrans, nor is funding currently available or projected to be available for these improvements. Therefore, it is imperative that realistic regional impact fees or levies be imposed to provide these improvements or to provide alternative means of travel. As in the case for 2005 improvements, financial incentives and disincentives imposed during commute periods would decrease dependence on the automobile.

Improvements for Base Case conditions would also provide acceptable peak hour operation for Base Case + Project traffic at all locations, with the following exceptions:

g. I-205 west of MacArthur Drive would require additional widening to 10 lanes.
h. I-5 north of Roth Road would require widening to 10 lanes.

The project should contribute its appropriate fair-share of regional traffic improvement mitigation fees toward regional freeway improvements.

A TDM program should be established to promote and require all project businesses to provide flex-time work schedules and to promote transportation modes other than the automobile.

Volume levels at the Louise Avenue interchange would increase greatly with the addition of Project traffic.

Impact 8: The Louise Avenue intersections with the I-5 north- and southbound ramps would both be operating at unacceptable levels with the addition of Project traffic (see Table V-10). [**significant**]

Mitigation 8: The Louise Avenue intersections with the I-5 north- and southbound ramps should be improved as presented in Figure V-10.

All project on-site roadways would be operating at acceptable levels of service if designed with the number of lanes shown on Figure V-10. In addition, all on-site intersections or roundabouts would be operating at acceptable levels of service (see Table V-10).

Intersections requiring signalization within the Project area are presented in Figure V-10. Traffic circles, rather than signals, are proposed at all intersections along Califia Drive. By 2017, circles would be provided (at a minimum) at the Paradise Road, Albion Road (north), Albion Road (south), Mossdale Boulevard and Gold Rush Boulevard intersections. [see previous discussion for the 2005 horizon year on the pros and cons of using traffic circles]

The proposed project would provide significantly increased traffic volumes off-site at other surface street locations within the City of Lathrop.

Impact 9: The following off-site roadway locations would experience significant impacts due to Project traffic: [**significant**]

a. Louise Avenue (Harlan Road to 5th Street) would experience LOS F operation as a 4-lane arterial.
b. Lathrop Road (5th Street to McKinley Road) would experience LOS F operation as a 4-lane arterial.
c. Golden Valley Parkway/Manthey Road (from Gold Rush Boulevard to Lathrop Road) would experience LOS F operation as a 2-lane arterial.

Mitigation 9: The City of Lathrop should plan for the ultimate widening of both Lathrop Road and Louise Avenue within the City to 6-lane facilities east of I-5. The Project applicant should provide a fair-share contribution toward both improvements.

The Project applicant should provide a fair-share contribution toward the widening of Golden Valley Parkway from two to four lanes between Gold Rush Boulevard and Lathrop Road.

Access Alternative B would create the same conditions as Access Alternative A (see above), with the exceptions described below.

Figure V-11 presents 2017 Base Case + Project Alternative B weekday PM peak hour Project area volumes. Weekday AM and Saturday AM peak hour Project area and citywide volumes, as well as PM peak hour citywide volumes, are presented in the Technical Appendix (sections T-26 through T-30). Little regional traffic use of the park-and-ride facility would be expected with Alternative B (other than by Stewart Tract or Mossdale Village commuters) due to the lack of adjacent freeway access. However, BART Express bus/transit station parking and resultant lower freeway volumes would be expected at about the same level as with Alternative A.

Figure V-12 presents locations with unacceptable freeway operation with 2017 Base Case + Alternative B volumes for weekday PM peak hour conditions. Weekday AM and Saturday AM peak hour Base Case + Alternative B unacceptable freeway operating conditions are presented in the Technical Appendix (T-31 and -32).

Impact 10: 2017 Alternative B Project traffic would result in unacceptable operation along freeway segments similar to, but not exactly the same as, those of Alternative A (above and beyond Base Case conditions).

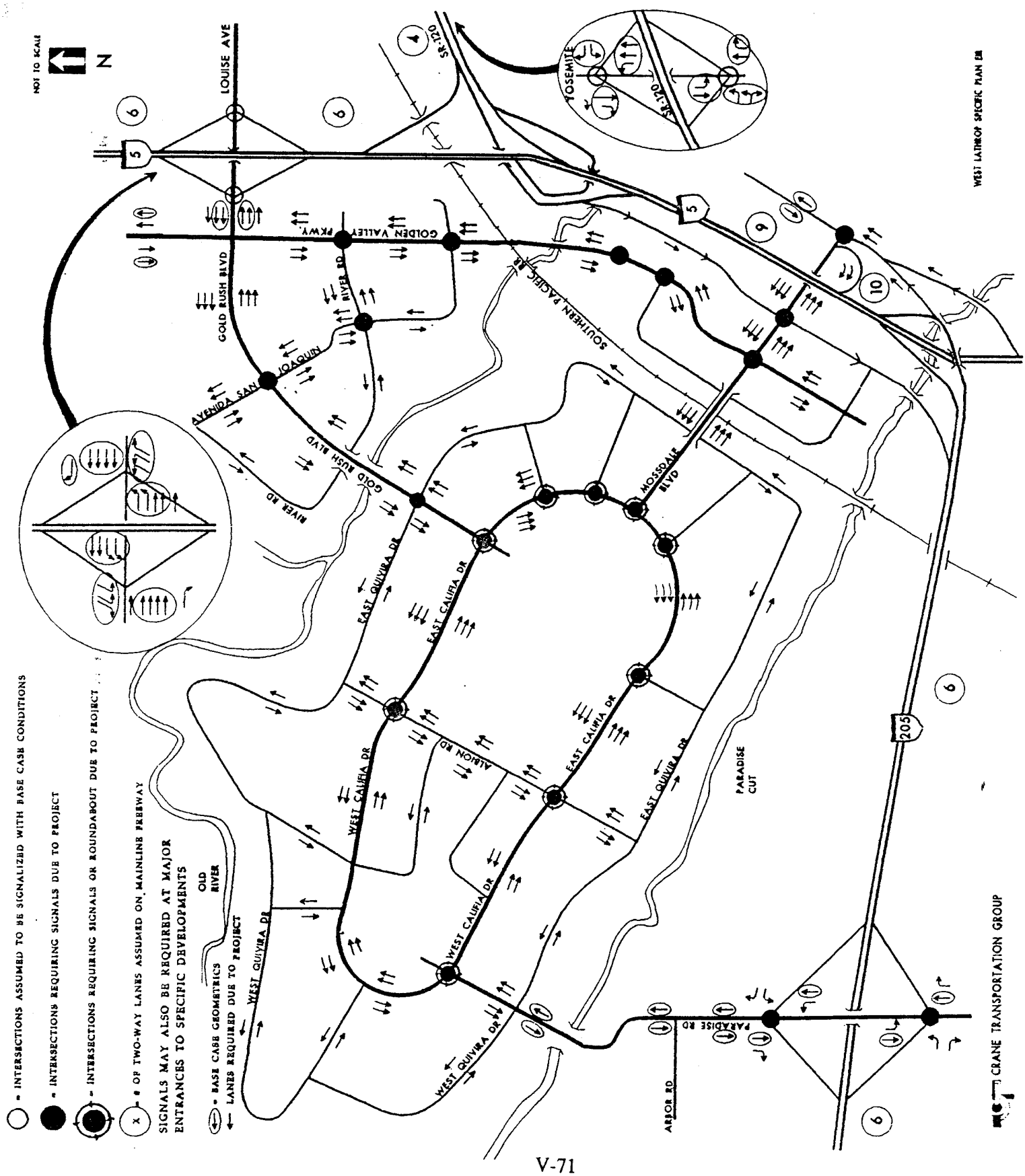
Mitigation 10: The same freeway widening mitigation would be applicable as that for Alternative A (see Mitigation 7).

Impact 11: The Louise Avenue intersections with I-5 north- and southbound ramps would both be operating at unacceptable levels with the addition of Project area traffic (see Table V-10). [**significant**]

Mitigation 11: The Louise Avenue/I-5 Southbound Ramp intersection would operate at acceptable levels if improved as presented in Figure V-10. However, the Louise Avenue intersection with the I-5 northbound ramp, even if improved as per Figure V-10, with a loop ramp in the southeast quadrant of the interchange, would not operate at acceptable levels of service. [**significant unmitigatable**]

FIGURE V-10

2017 PROJECT ALTERNATIVE A SIGNAL REQUIREMENTS, INTERCHANGE IMPROVEMENTS AND LANE REQUIREMENTS



All Project on-site roadways would be operating at acceptable levels of service if designed with the number of lanes shown in Figure V-13. All on-site intersections and roundabouts would also be operating at acceptable levels of service (see Table V-10) with the exception of Golden Valley Parkway at Gold Rush Boulevard.

Impact 12: The Golden Valley Parkway/Gold Rush Boulevard intersection could not be improved to work acceptably as an at-grade intersection. **[significant]**

Mitigation 12: Provide grade separation and interchange treatment for the Golden Valley Parkway/Gold Rush Boulevard intersection.

Intersections requiring signalization within the Project area are presented in Figure V-13. The proposed Project would provide significantly increased traffic volumes off-site at other surface street locations within the City of Lathrop.

Impact 13: The following roadway locations would experience significant impacts due to Project traffic: **[significant]**

a. Louise Avenue (from Harlan Road to 5th Street) would experience LOS F operation as a 4-lane arterial.
b. Lathrop Road (5th Street to McKinley Avenue) would experience LOS F operation as a 4-lane arterial.
c. Golden Valley Parkway/Manthey Road (from Gold Rush Boulevard to Lathrop Road) would experience LOS F operation as a 2-lane arterial.
d. Lathrop Road (from Harlan Road to 5th Street) would have its already unacceptable V/C ratio increased by more than 1%.

Mitigation 13: The City of Lathrop should plan for the ultimate widening of both Lathrop Road and Louise Avenue within the City to 6-lane facilities east of I-5.

The Project applicant should provide a fair-share contribution toward the widening of Golden Valley Parkway from two to four lanes between Gold Rush Boulevard and Lathrop Road.

Year 2025 Impacts and Mitigation Measures

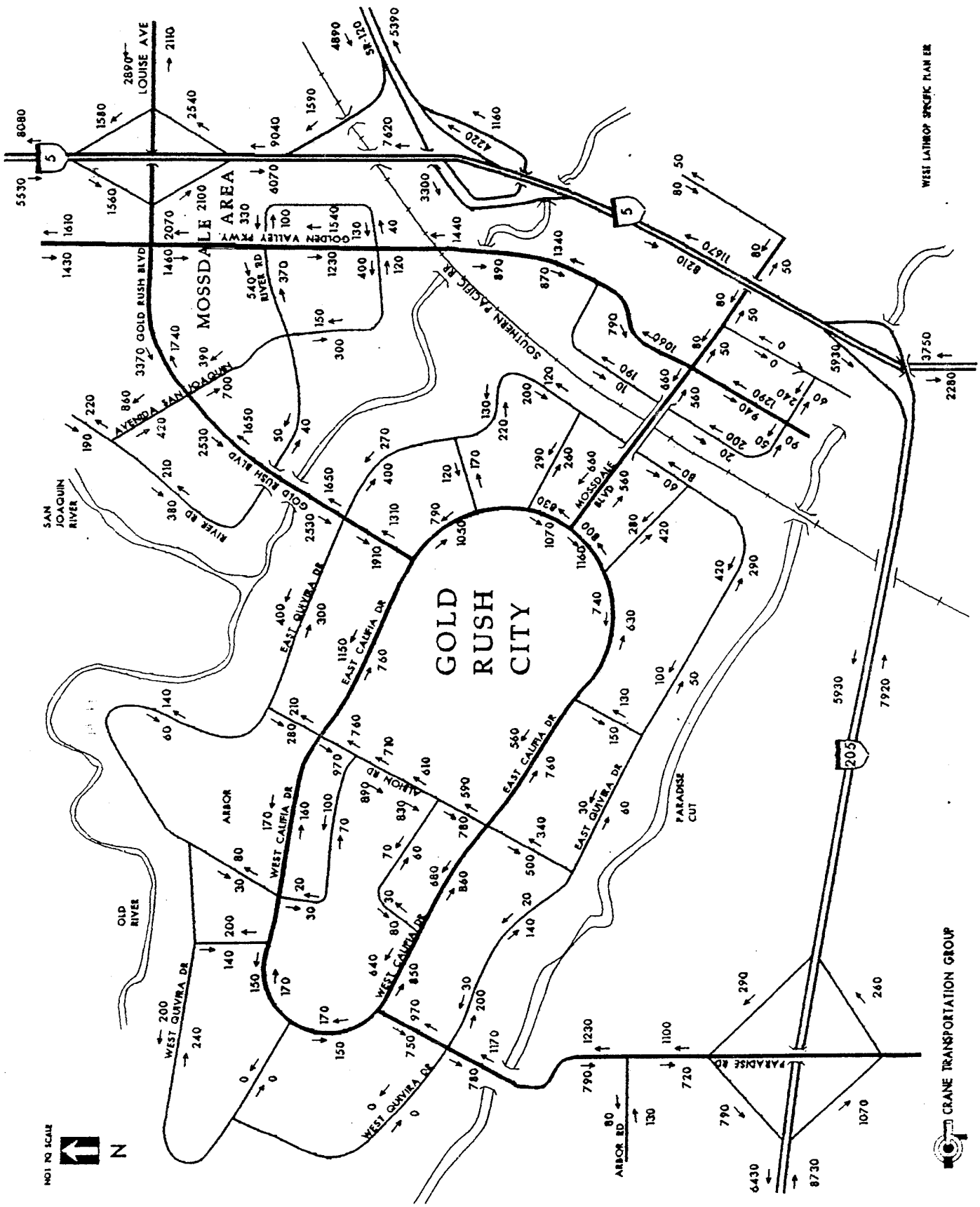
Base Case (without Project) Conditions:

Figure V-14 presents 2025 Base Case (without Project) volumes for weekday PM peak hour conditions. Only weekday PM conditions were analyzed for the 2025 horizon. The Base Case roadway, freeway and expressway system assumed in operation for this horizon year analysis is presented in the Technical Appendix (T-44). A 6-lane Golden Valley Parkway is assumed to be constructed and in operation for both with and without Project conditions. Additional freeway widening is also assumed by 2025 (with the concurrence of San Joaquin County COG staff), as follows:

I-205	8 lanes
I-5 (north of SR 120)	8 lanes
I-5 (SR 120 to I-205)	12 lanes
SR 120	6 lanes

FIGURE V-11

2017 PROJECT ALTERNATIVE B VOLUMES
[PM Peak Hour]



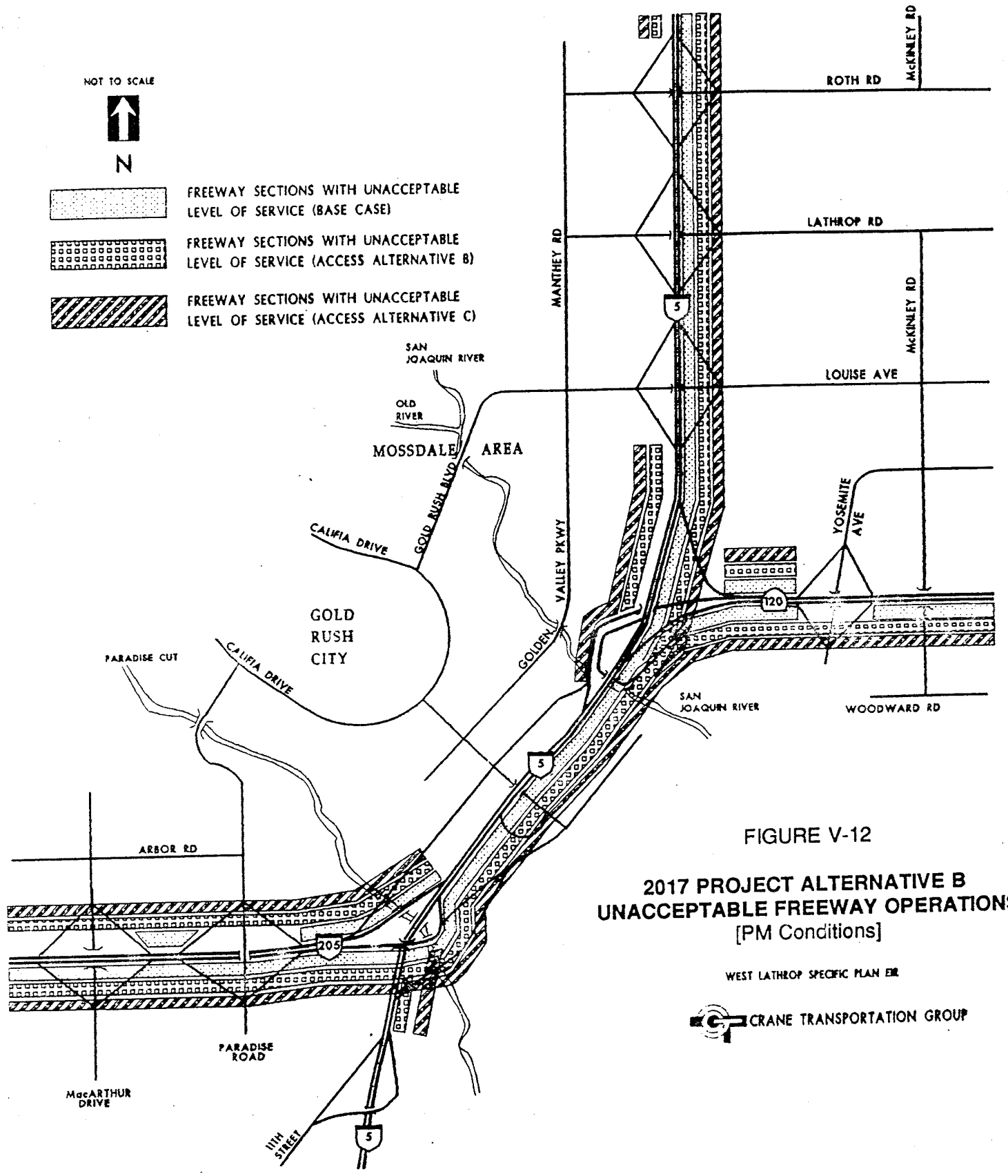


FIGURE V-12

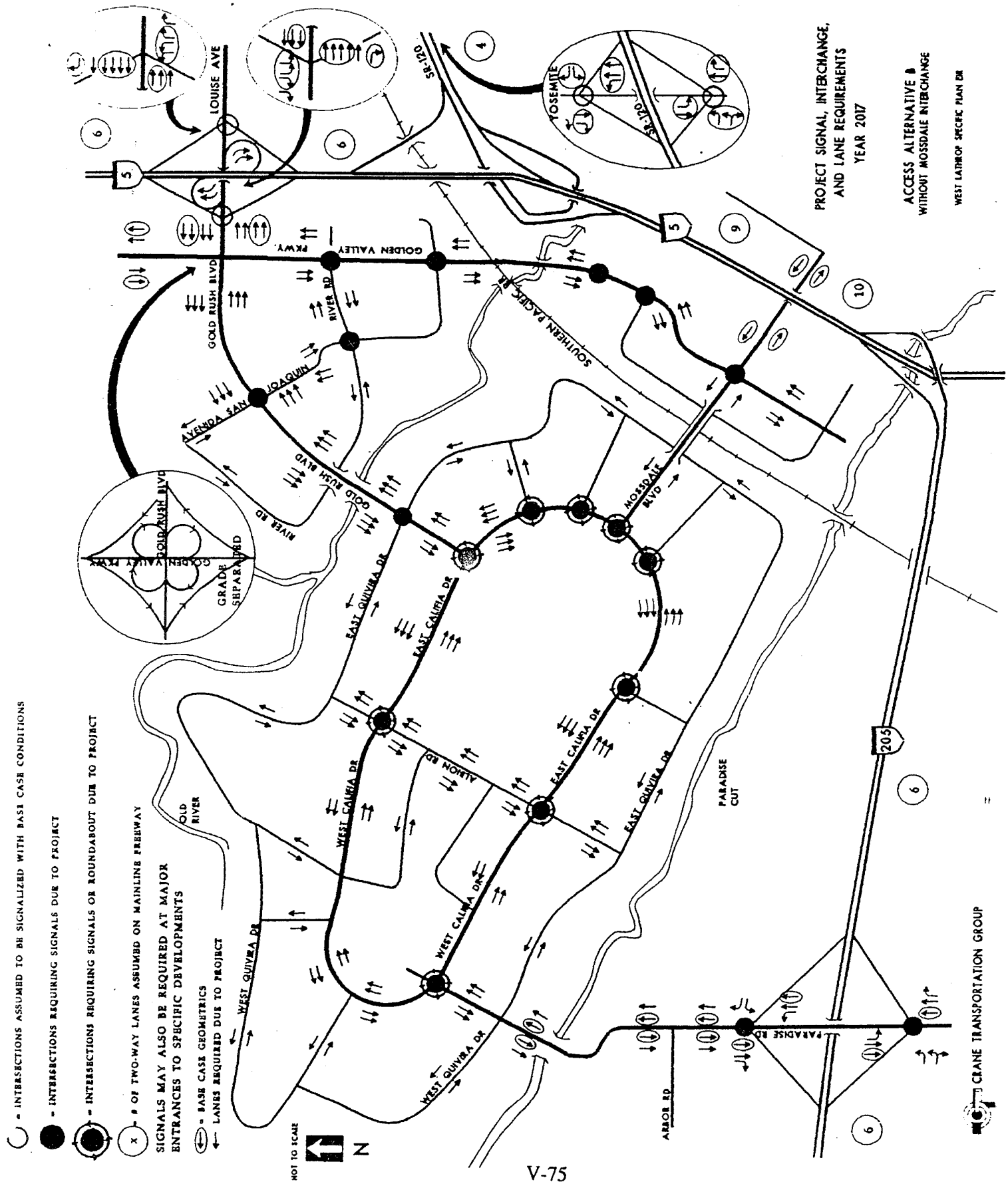
2017 PROJECT ALTERNATIVE B
UNACCEPTABLE FREEWAY OPERATIONS
[PM Conditions]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

FIGURE V-13

2017 PROJECT ALTERNATIVE B SIGNAL REQUIREMENTS, INTERCHANGE IMPROVEMENTS AND LANE REQUIREMENTS



Note that none of these improvements are currently programmed by Caltrans, nor is funding available for their implementation.

Figure V-15 presents locations with unacceptable freeway operations with the year 2025 Base Case volumes for weekday PM peak hour conditions. From the Table, Base Case volumes are expected to produce unacceptable operation as follows:

a. I-205 westbound (from MacArthur Drive to Paradise Road) would experience LOS E.
b. I-5 northbound (from SR 120 to Louise Avenue) would experience LOS D/E.

Table V-11 shows that ramp intersections at the Louise Avenue interchange and the Louise Avenue/Golden Valley Parkway intersection would all be operating at acceptable levels of service with Base Case PM peak hour volumes. Louise Avenue (from Harlan Road to 5th Street) and Lathrop Road (from Harlan Road to McKinley Avenue) would be operating at unacceptable levels (LOS E and F, respectively) with Base Case PM peak hour volumes if they remain as 4-lane arterials. Golden Valley Parkway (as a 6-lane expressway) would be operating at an unacceptable level (LOS F) between Lathrop Road and Roth Road.

Base Case + Project Conditions:

Analysis results are presented only for Project access Alternative A. Access would be the same as for Alternative A in 2017, with the addition of Golden Valley Parkway extended southerly off Stewart Tract across Paradise Cut and then westerly to Paradise Road/MacArthur Drive and beyond as a 6-lane expressway.

Figure V-16 presents year 2025 Base Case + Project weekday PM peak hour volumes in the Project Area. Citywide volumes are presented in the Technical Appendix (T-45). Full use of the 500 space park-and-ride and 1,000 space BART Express bus/transit station parking lot would be expected, removing about 410 westbound vehicles from I-205 during the AM peak traffic hour, and with a similar eastbound reduction during the PM peak hour.

Impact 14: The proposed Mossdale interchange design does not meet Caltrans or FHWA design criteria. Minimum interchange spacing between freeway-to-freeway interchanges and new surface street interchanges is now required to be two mile in rural area and one mile in urban areas. In addition, new interchanges not providing connections to all freeway travel directions are avoided, as are surface street ramp connections to freeway-to-freeway connections. The proposed interchange design does not meet these criteria. [**significant**]

> ***Mitigation 14:*** Mitigation of this impact requires an alternative land use configuration within the approximately 450 acres that lays between the I-5/I-205 merge and the S.P. Railroad that will not generate traffic at the existing Mossdale interchange in excess of that prescribed recently by Caltrans (approximately 700 off-ramp vehicles per weekday PM peak hour). In addition, some of the land use mix west of the S.P. Railroad requires modification. This mitigation is of such magnitude and impact upon the Specific Plan that it has been made the subject of an alternative proposal (Alternative E) in an Addendum to the Specific Plan. Discussion of the environmental impacts of Alternate E is provided at the end of Part V of this EIR.

Figure V-15 presents locations with unacceptable freeway operations with year 2025 Base Case + Project Alternative A volumes for weekday PM peak hour conditions.

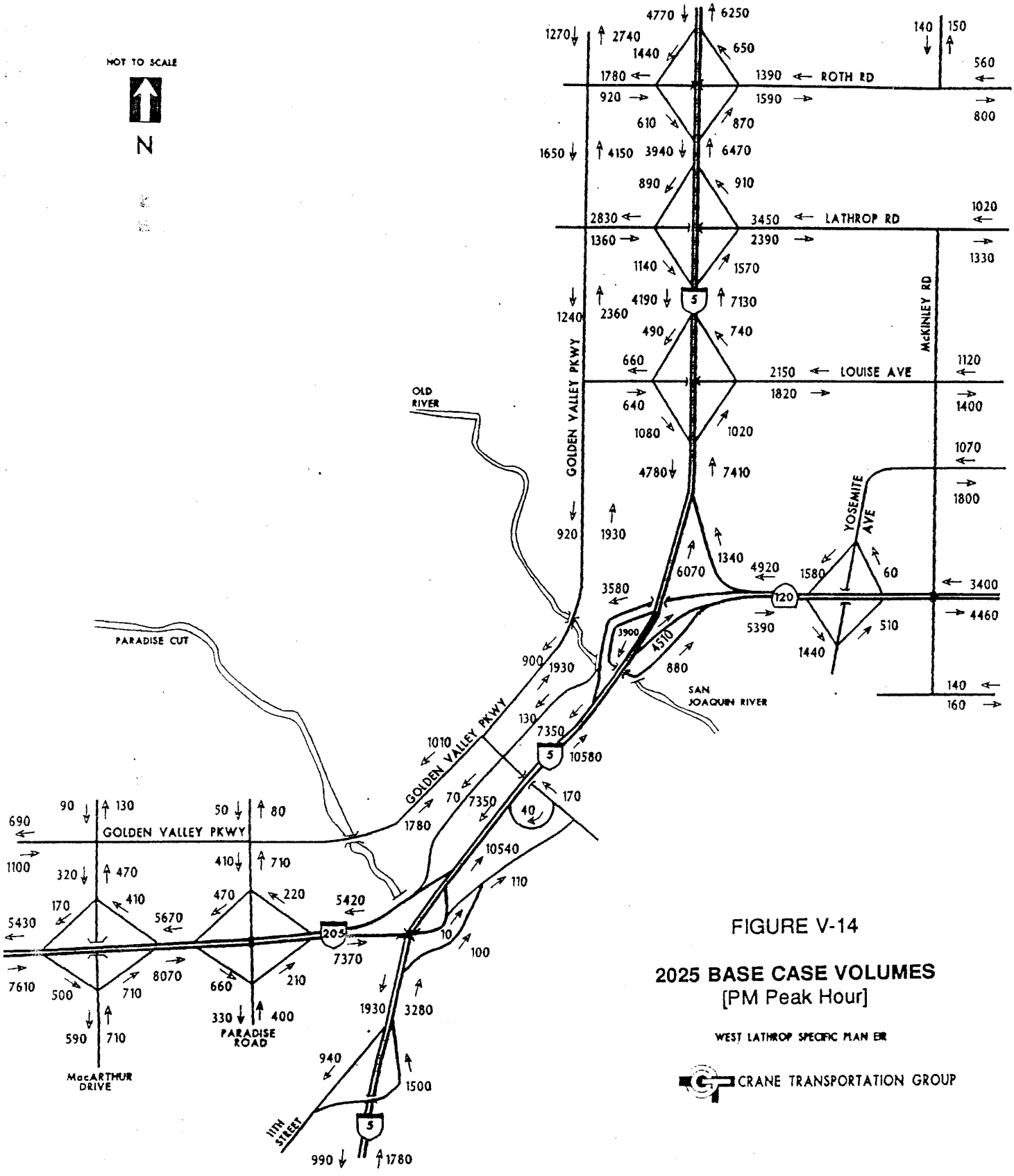


FIGURE V-14

2025 BASE CASE VOLUMES
[PM Peak Hour]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

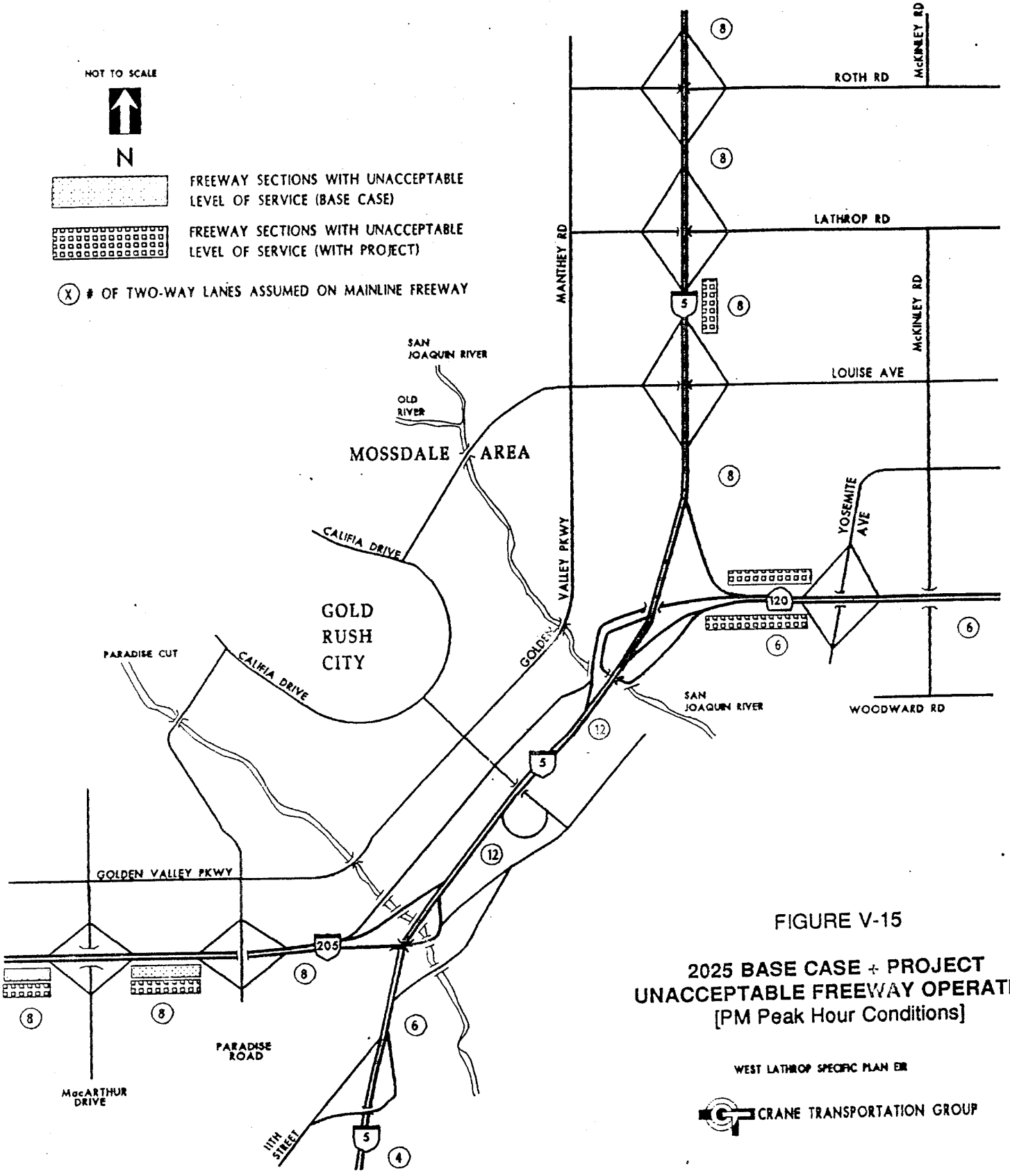


FIGURE V-15

2025 BASE CASE + PROJECT
UNACCEPTABLE FREEWAY OPERATION
[PM Peak Hour Conditions]

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP

TABLE V-11

YEAR 2025 INTERSECTION LEVEL OF SERVICE

BASE CASE (WITHOUT PROJECT)

Intersection	Weekday PM Peak Hour
S.R. 120 Westbound Ramps/Yosemite	C - .77[1]
S.R. 120 Eastbound Ramps/Yosemite	C - .76
I-5 Southbound Ramps/Louise Avenue	A/B - .60
I-5 Northbound Ramps/Louise Avenue	D - .85
Gold Rush Blvd/Golden Valley Parkway	C/D - .80

WITH PROJECT -- ACCESS ALTERNATIVE A (WITH MOSSDALE INTERCHANGE)

Intersection	Weekday PM Peak Hour
RAMP INTERSECTIONS	
I-205 Westbound Ramps/Paradise Road[2]	C - .79
I-205 Eastbound Ramps/Paradise Road[2]	B - .64
S.R. 120 Westbound Ramps/Yosemite	(D - .85)[3] D - .85[4]
S.R. 120 Eastbound Ramps/Yosemite	(C - .78)[3] C - .75[4]
I-5 Southbound Ramps/Louise Avenue	(F - 1.22)[3] D - .86[4]
I-5 Northbound Ramps/Louise Avenue	(F - 1.21)[3] D - .83[4]
Mossdale/I-5/I-205 Off-Ramp[2]	A - .46
GOLD RUSH CITY INTERSECTIONS	
North Albion/East-West Califia[2]	D - .86
Mossdale/Golden Valley Parkway[2]	Grade Separation Required
Mossdale/S.R. 120 Off-Ramp[2]	B - .66
East Califia/Gold Rush Boulevard[2]	D - .82
East Califia/Mossdale Boulevard[2]	D/E - .90
East-West Califia/South Albion[2]	A - .59
West Califia/Paradise Road[2]	B - .61
MOSSDALE INTERSECTIONS	
Golden Valley Parkway/River Road[2]	C - .78
Gold Rush Blvd/Avenida San Joaquin[2]	C - .71
Gold Rush Blvd/Golden Valley Parkway	(F - 2.16)[3] Grade Separation Required[4]

[1] Signalized Level of Service - Volume/Capacity Ratio
[2] New intersection
[3] Level of service with Base Case geometrics
[4] Mitigated by project (see Figure V-17)
Source: Crane Transportation Group

Impact 15: Alternative A Project traffic would result in unacceptable PM peak hour operation of LOS E along the following freeway segments: [**significant**]

a. SR 120 eastbound from I-5 to the Yosemite Avenue interchange.
b. I-5 northbound from Louise Avenue to Lathrop Road.
c. Eastbound I-205, from west of MacArthur Drive to the Paradise Road interchange, would have its V/C ratio increased by more than 1%.

Mitigation 15: TDM measures will be required for Project employment uses, and fair-share contributions toward freeway improvements should be imposed. However, the impact will be so severe as to require an alternative land use configuration as described under Mitigation 14, above.

Volume levels at the Louise Avenue interchange would increase greatly with the addition of Project traffic.

Impact 16: The Louise Avenue intersections with the I-5 north- and southbound ramps would both be operating at unacceptable levels with the addition of Project traffic (see Table V-11). [**significant**]

Mitigation 16: The Louise Avenue intersections with the I-5 north- and southbound ramps should be improved as presented in Figure V-17.

All Project on-site roadways would be operating at acceptable levels of service if designed with the number of lanes shown on Figure V-17. However, this would require widening Golden Valley Parkway through the Project site.

Impact 17: Golden Valley Parkway would operate at an unacceptable level of service through the Project site (Stewart Tract and Mossdale Village) as a 6-lane expressway with the addition of Project traffic. [**significant**]

Mitigation 17: Widen Golden Valley Parkway from six to eight lanes through the Project site.

All on-site intersections would be operating at acceptable levels (see Table V-11), with the exception of Golden Valley Parkway/Gold Rush Boulevard and Golden Valley Parkway/Mossdale Boulevard.

Impact 18: The Golden Valley Parkway at-grade intersections with Gold Rush and Mossdale Boulevards would be operating at unacceptable levels, even with maximum lane improvements. [**significant**]

Mitigation 18: Provide grade separation and interchange treatment at the Golden Valley Parkway intersections with Gold Rush and Mossdale Boulevards. Adequate rights-of-way should be retained for both improvements.

Intersections requiring signalization within the Project area are presented in Figure V-17. The Project would provide significantly increased traffic volumes off-site at other locations within the City of Lathrop.

Impact 19: The following roadway locations would experience significant impacts due to Project traffic: [**significant**]

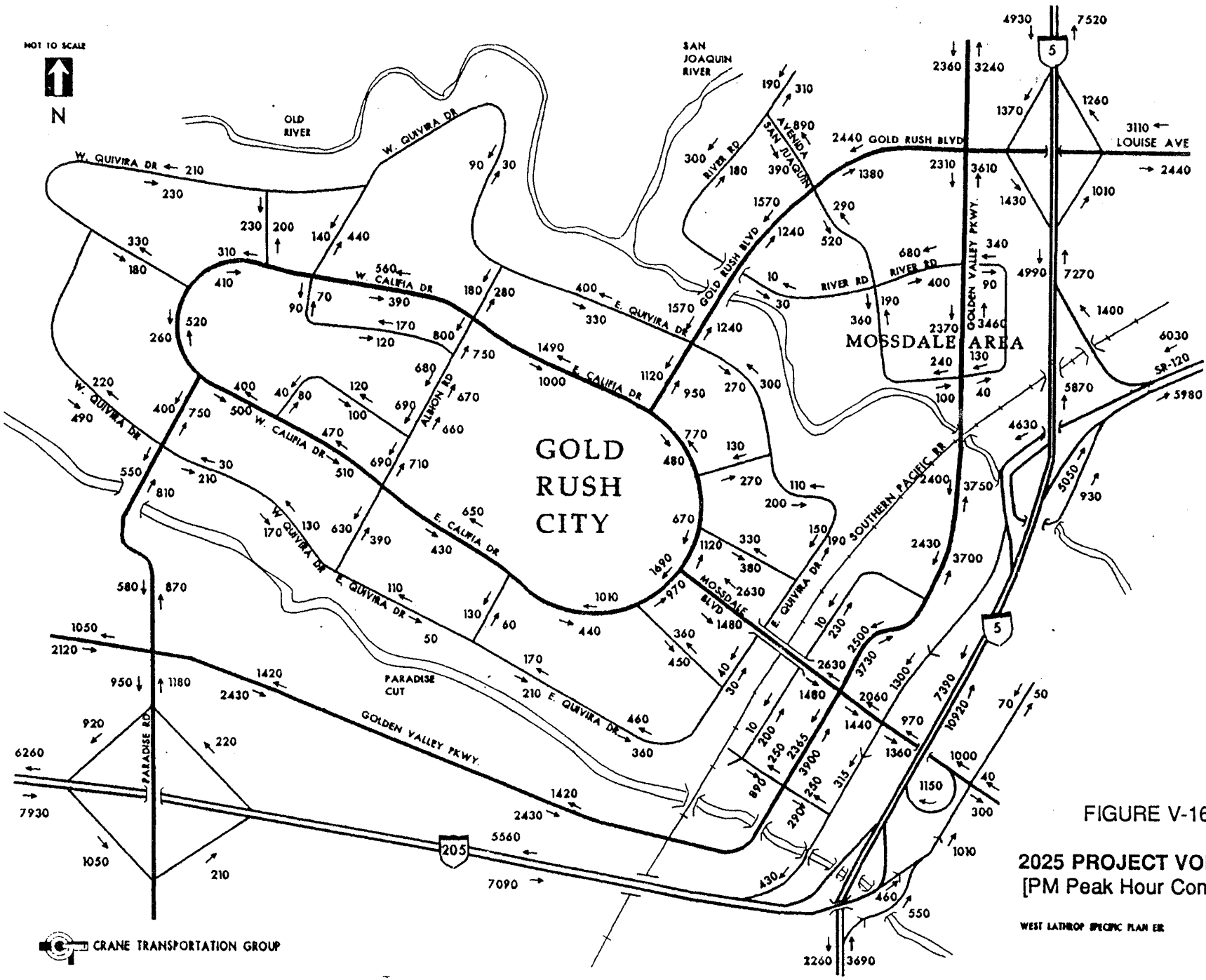


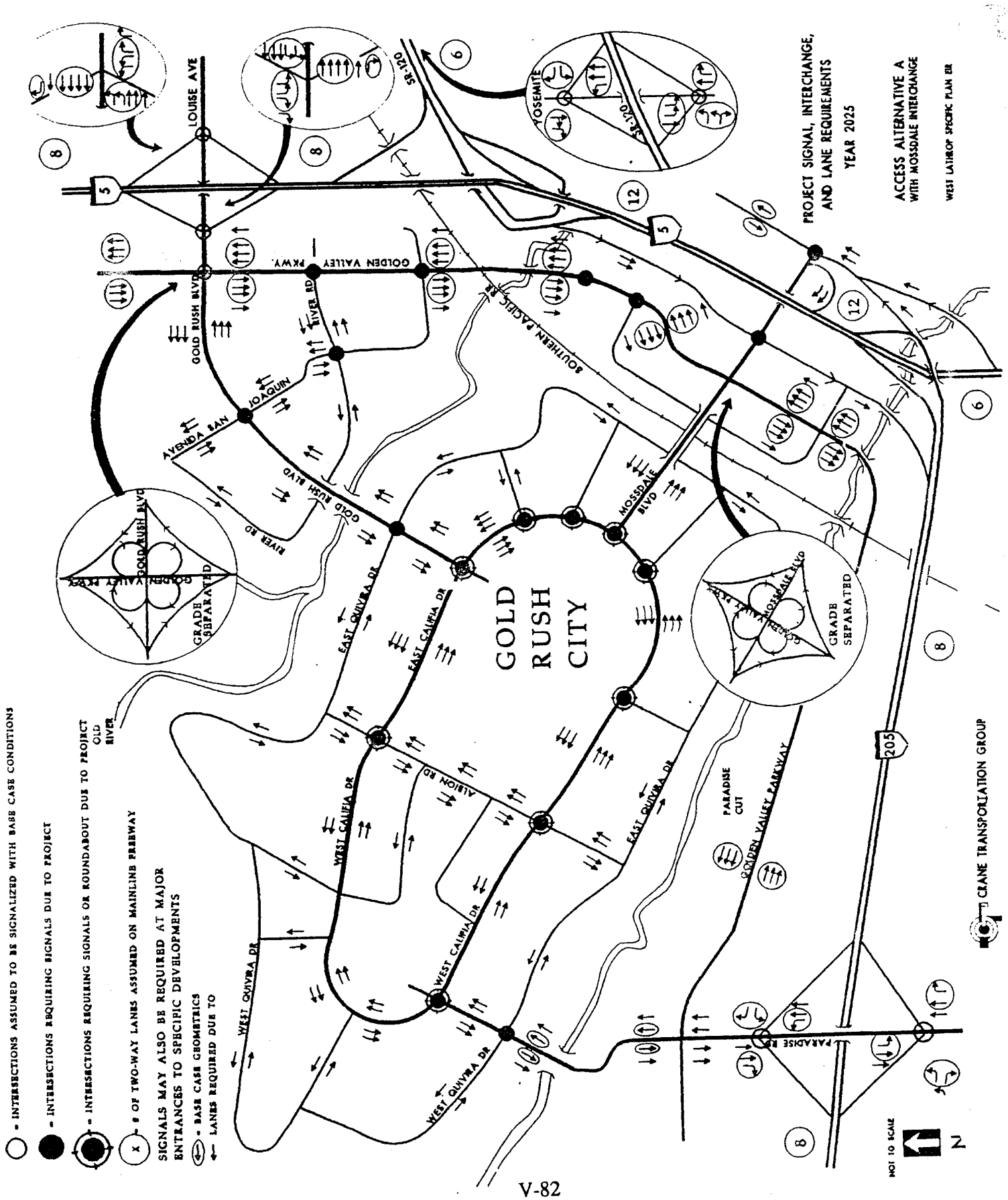
FIGURE V-16

2025 PROJECT VOLUMES
[PM Peak Hour Conditions]

WEST LATHROP SPECIFIC PLAN EIR

FIGURE V-17

2025 PROJECT ALTERNATIVE A SIGNAL REQUIREMENTS, INTERCHANGE IMPROVEMENTS AND LANE REQUIREMENTS



a. Lathrop Road, from Harlan Road to McKinley Avenue, would have its V/C ratio increased by more than 1% at locations already experiencing unacceptable operation as a 4-lane arterial roadway.

b. Louise Avenue, from Harlan Road to 5th Street, would have its V/C ratio increased by more than 1% at locations already experiencing unacceptable operation as a 4-lane arterial roadway.

c. Golden Valley Parkway, from Lathrop Road to Roth Road, would have its V/C ratio increased by more than 1% at a location already experiencing unacceptable operation as a 6-lane expressway.

Mitigation 19: The Project should provide for a fair-share contribution of traffic impact fees toward widening these three roadways.

AIR QUALITY

Existing Conditions

The description which follows is supplemental to that provided in Part III.

Meteorological Influences on Air Quality:

An area's meteorology is often an important mediator of air pollutant impact severity. Atmospheric stability, wind speed, wind direction, and the influence of local terrain on these parameters control the speed with which pollutants disperse as one moves away from a pollutant release point to a receptor. Episodes of high atmospheric stability (also known as temperature inversions) severely limit the ability of the atmosphere to disperse pollutants vertically, while low wind speeds and confining terrain have a similar effect on horizontal dispersion.

Throughout the year, the strength (or weakness) of the Pacific High, a semi-permanent high pressure cell centered over the eastern Pacific, is a dominant influence on the climate of northern California. During the late spring, summer, and early fall, descending warm air from the Pacific High forms a stable temperature inversion over a cool coastal layer of air, inhibiting vertical mixing of the latter air mass. Even so, there is usually vigorous horizontal mixing in the surface layer because of the air flow produced by the Pacific High; strong northwest winds and relatively good air quality predominate at this time.

In the early fall and late spring, however, the surface winds weaken. As a consequence, the capacity for the horizontal dispersion of pollutants is limited. Since this slow-moving surface air mass is held in place vertically by the Pacific High, air pollutants which build up then are not readily dispersed. Lack of cloud cover and relatively high surface temperatures (both frequent occurrences in portions of the State east of the coastal mountain ranges) can promote photochemical pollutant formation if precursors, such as reactive organic compounds (ROG) and oxides of nitrogen (NO_x) are present.

Even though the overall inversion associated with the Pacific High weakens considerably in the winter, local inversions (caused by cooling of air close to the ground) can form in some areas (particularly sheltered valleys) during the evening and early morning hours. The combined effects of these inversions and the light winds typically experienced then creates a high potential for air pollutant buildup.

Regulatory Context:

National ambient air quality standards (NAAQS) were established by EPA for several major pollutants. These pollutants are termed "criteria" pollutants because the EPA's choice of NAAQS is supported by specific published evidence. The NAAQS are two-tiered: primary, to protect public health, and secondary, to prevent degradation to the environment (e.g., impairment of visibility, damage to vegetation and property, etc.). The NAAQS are shown in Table V-12. The five criteria pollutants which have attracted the greatest regulatory concern nationwide are: ozone, carbon monoxide (CO), suspended particulate matter (TSP), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2).

TABLE V-12

FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards[16]	Federal Standards[17]	
			Primary[18]	Secondary[19]
Ozone	1-hour	0.09 ppm	0.12 ppm	).12 ppm
Carbon Monoxide	1-hour 8-Hour	20.00 ppm 9.00 ppm	35.00 ppm 9.00 ppm	35.00 ppm 9.00 ppm
Nitrogen Dioxide	1-Hour Annual Average	0.25 ppm --	-- 0.053 ppm	-- 0.053 ppm
Sulfur Dioxide	1-Hour Annual Average	0.25 ppm --	-- 0.03 ppm	-- --
Suspended Particulate Matter (PM_{10})	24-Hour Ann'l. Geom. Mean Ann'l. Arith. Mean	50 ug/m^3 30 ug/m^3 --	150 ug/m^3 -- 50 ug/m^3	150 ug/m^3 -- 50 ug/m^3
Sulfates	24-Hour	25 ug/m^3	--	--
Lead	30 Day Average Calendar Quarter	1.5 ug/m^3 --	-- 1.5 ug/m^3	-- 1.5 ug/m^3
Hydrogen Sulfide	1-Hour	0.03 ppm	--	--
Vinyl Chloride	24-Hour	0.010 ppm	--	--
Visibility Reducing Particles[20]	1 Observation	< 10 miles	--	--

16 California standards for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide and particulate matter are values that are not to be exceeded. Standards for remaining pollutants are not to be equaled or exceeded.

17 Federal standards, other than ozone and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentration above the standard is equal to or less than one.

18 Federal primary standards reflect the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by EPA.

19 Federal secondary standards reflect the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of pollution.

20 Prevailing visibility is defined as the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.

Air Quality Problems in the San Joaquin Valley:

The causes of the violations of California and Federal standards for ozone in the San Joaquin Valley are complex. Unlike many air pollutants, ozone is not emitted directly into the atmosphere, but is produced in the atmosphere by a complex series of photochemical reactions involving reactive organic compounds (ROG) and nitrogen oxides (No_x). No single source accounts for most of the ROG and No_x emissions and the many sources are spread throughout the air basin. The San Joaquin Valley's intense heat and sunlight during the summer months (unfortunately) are ideal for the formation of ozone. Ozone levels can vary widely at the monitoring stations, depending on location and time of year, but the highest levels are generally recorded at the more southerly of the monitoring stations. In addition to the adverse effects on human health (see Table III-3), ozone is the pollutant primarily responsible for damage to crops and natural vegetation in California. Ozone injury to plants can occur as either acute injury (i.e., tissue death or death of the whole plant) at moderate to high concentrations (0.15 ppm and above for two to eight hours), or as chronic injury (i.e., reduced crop yield or impaired ecosystem stability) resulting from repeated exposure to ozone at low to moderate concentrations (0.04 to 0.2 ppm for a few days to several months).

In contrast to ozone, CO is a sub-regional problem in the Valley, because CO is a non-reactive pollutant with one major source -- motor vehicles. Ambient CO distributions closely follow the spatial and temporal distributions of vehicular traffic, and are strongly influenced by meteorological factors such as wind speed and atmospheric stability. The one-hour and eight-hour CO standards are occasionally exceeded in the Valley's largest cities, which are subject to a combination of high traffic density and susceptibility to the occurrence of surface-based radiation inversions during the winter months.

The major sources of particulates in the Valley are agricultural operations and burning, although demolition/construction activity and the entrainment of dust by motor vehicles can be important sources in urban areas. Ambient concentrations of particulates can reach levels which reduce visibility through much of the year.

The major sources of NO_x, compounds which have an important role in the formation of ozone, are vehicular, residential, and commercial fuel combustion. NO_2 is the most abundant form of ambient NO_x. The NO_2 standard has not been exceeded anywhere in the Valley over the last ten years.

The burning of high sulfur fuels for activities such as electricity generation petroleum refining, and industrial processes are the major sources of ambient SO_2. The highest levels of sulphur dioxide are recorded by monitoring stations located around Bakersfield. The SO_2 standard is currently being met throughout the Valley.

Air Quality Planning and Control in the San Joaquin Valley:

To make all deliberate progress toward the attainment of NAAQS/CAAQS, the SJVUAPCD finalized an *Air Quality Attainment Plan* (AQAP) in January 1992 (1991 Air Quality Attainment Plan, San Joaquin Valley Air Basin, SJUVAPCD, 1/31/92). The AQAP includes all feasible emission control measures which are under the jurisdiction of the SJVUAPCD to implement. However, the AQAP did not achieve the 5% per year reductions mentioned in the California Clean Air Act, nor did it project specific an attainment date for the ozone NAAQS/CAAQS. A regional air quality modeling system was developed subsequently and it was used to develop the *Ozone Attainment Demonstration Plan* (OADP), which was adopted in November 1994 (Ozone Attainment Demonstration Plan, SJUVAPCD, 11/14/94). The OADP predicted attainment of the ozone NAAQS by 1999, assuming the adoption of

the AQAP control measures, the implementation of an enhanced motor vehicle inspection and maintenance program in the Stockton and Modesto metropolitan areas, and revised growth estimates for diesel emissions, oil production, and military bases.

The AQAP has implemented 46 "retrofit" control measures to reduce emissions from existing stationary sources and has revised the New Source Review procedures to achieve no net increase in emissions from new or modified stationary sources. All new stationary sources will require Best Available Control Technology (BACT) and offsets for any emissions of non-attainment pollutants; an Emission Reduction Credit Banking system has been established to facilitate offset transfers.

The AQAP has also implemented new controls on mobile sources. Indirect source (i.e., a facility that generates or attracts motor vehicles) controls include:

- Enhanced SJVUAPCD review of and comment on new projects during the CEQA process.
- Promotion of the inclusion of Air Quality Elements in city and county General Plans.
- Development of a New and Modified Indirect Source Review Rule - This Rule would require project applicants to mitigate or offset emissions of ozone precursors from indirect sources by one or more of the following strategies:

  1) Site design or location that encourages alternative transit modes and/or reduces vehicle miles traveled.

  2) On-site/off-site mitigation of emissions.

  3) Payment of a mitigation fee to fund emission reduction programs.

  4) Air quality permit prior to construction or operation for "larger" projects.

Transportation control measures (TCMs) include:

- *Traffic Flow Improvements* - Increase traffic flow speed through signal system and capacity improvements.
- *Public Transit* - Increase the proportion of people to whom transit service is available by expanding routes, schedules, and equipment.
- *Passenger Rail and Support Facilities* - Increase inter-city rail ridership and provide for multi-modal stations linking public and private transit systems.
- *Rideshare Program* - Increase the use of carpools/vanpools.
- *Park and Ride Lots* - Provide parking lots at strategic locations to facilitate rideshare and transit connections.
- *Bicycling Program* - Accommodate the use of bicycling as an alternative to motorized transport by establishing bikeways.

- *Trip Reduction Programs* - Require employers to reduce employee trips by flexible work hours, ridesharing, etc.

- *Parking Management* - Remove existing space, reduce space requirements for new developments, and/or set aside space for carpools/vanpools.

- *Telecommunications* - Reduce travel by using electronic communication systems.

- *Fleet Operator Alternative Fuels Program* - Begin replacing gasoline or diesel trucks with low-emitting alternative fuel models. This would apply initially to fleet operators with more than fifty vehicles and eventually to fleet operators with more than twenty vehicles.

The SJVUAPCD estimates that, even with the expected significant population and employment growth foreseen in the San Joaquin Valley over the next five years, ozone precursor and CO emissions are expected to decline by the amounts shown in Table D, if all the control measures proposed by the AQAP were fully implemented.

While the AQAP does not specifically address PM_{10} control, it is expected that control measures which reduce ROG and NO_x emissions will have a beneficial impact on PM_{10} levels. Future air quality plans will deal more directly with the PM_{10} problem.

Sensitive Receptors:

Air quality standards are set to protect people who are most sensitive to their health effects. The term "sensitive receptor" refers to specific population groups and to land uses where they reside for long periods. The most commonly identified sensitive population groups and land uses are:

Sensitive Population Group	Sensitive Land Use Category
Children	Residences, Schools, Playgrounds, & Child Care Centers
Elderly	Residences, Retirement Homes, & Convalescent Homes
Acutely Ill	Hospitals/Clinics
Chronically Ill	Convalescent Homes

Significance Criteria:

The SJVUAPCD has established the following criteria for judging the significance of air quality impacts:

- Air pollution emissions from stationary sources regulated under SJVUAPCD permit powers are significant if they exceed "Best Available Control Technology" (BACT) thresholds and must be reduced to the maximum extent that current control technology allows. Furthermore, if, those emissions surpass an "Offset" threshold, emissions from existing sources in the air basin must be reduced so that no net increase in air pollutant emissions occurs.

TABLE V-13

EXISTING AND PROJECTED SAN JOAQUIN VALLEY AIR BASIN EMISSIONS

	Base Year (1990)			Base Year (1999)		
Source Category	**VOC**	**NOx**	**CO**	**VOC**	**NOx**	**CO**
Stationary - Area						
Fuel Combustion	0.92	27.80	6.88	0.92	27.60	7.77
Waste Burning	16.69	0.40	201.26	17.95	0.55	18.65
Solvent Use	75.16	0.00	0.00	77.51	0.00	0.00
Petroleum P/S/T	116.60	0.00	0.00	55.24	0.00	0.00
Industrial Processes	7.95	0.00	0.00	8.82	0.00	0.00
Misc. Processes	70.07	0.04	1.78	76.75	0.04	1.82
Subtotal Stationary - Area	287.39	28.24	209.92	237.19	28.19	228.24
::						
Stationary - Point						
Fuel Combustion	10.84	344.02	91.06	9.33	161.77	78.63
Waste Burning	0.00	0.01	0.00	0.00	0.01	0.00
Solvent Use	6.13	0.00	0.00	6.47	0.00	0.00
Petroleum P/S/T	14.69	0.96	0.36	10.64	0.95	0.37
Industrial Processes	5.89	9.28	1.04	4.89	12.88	1.09
Misc. Processes	0.70	0.00	0.00	0.91	0.00	0.00
Subtotal Stationary - Point	38.25	354.27	92.46	32.24	175.61	80.09
Total Stationary	**325.64**	**382.51**	**302.38**	**269.43**	**203.8**	**308.33**
Total Mobile	**218.30**	**327.81**	**1626.33**	**140.14**	**275.26**	**1177.16**
Total San Joaquin Valley	**543.94**	**710.32**	**1928.71**	**409.57**	**479.06**	**1485.49**

Emission estimates for 1990 and 1999 taken from the Ozone Attainment Demonstration Plan, San Joaquin Valley Unified Air Pollution Control District, November 14, 1994.

The following BACT and Offset thresholds have been established by the SJVUAPCD:

Pollutant	BACT Threshold	Offset Threshold
CO	550 lbs/day	550 lbs/day
TOG	0 lbs/day	0 lbs/day
NO_x	0 lbs/day	0 lbs/day
SO_x	0 lbs/day	0 lbs/day
PM_{10}	0 lbs/day	80 lbs/day

(Note that the BACT thresholds for all pollutants, with the exception of CO, have been set at zero. Thus, no matter what their size, all new or modified stationary sources of these pollutants will require BACT).

- Emissions which cause or measurably contribute to violations of an NAAQS or CAAQS are significant and must be mitigated.

- Development which is not consistent with the AQAP is significant.

Project air quality impacts comprise two categories: temporary impacts due to project construction and long-term impacts due to project operation.

Construction Phase Impacts:

Construction-phase emissions would be generated by the transport of workers and construction materials to the site, construction equipment operation at the site, and soil disturbance on the site.

[B] 1. Excavation and grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed earth surfaces would generate PM_{10}. Such emissions, and the resultant ambient concentrations near construction sites, would be very sensitive to local meteorology and topography, to variations in soil silt and moisture content, and to the level of equipment use. Exhaust emissions from the transportation of workers and materials to the construction site are dependent on travel modes and the distances traveled. Exhaust emissions from construction equipment used at the construction site are related to the equipment type, the use of that equipment, and the condition of the equipment. [**significant**]

[B] 2. EPA measurements of PM_{10} emissions during construction activities in the southwestern United States provide a rough indication of worst-case impacts. About 1.2 tons of dust per month are emitted per acre of construction, about 45 percent of which are large-diameter particulates, of concern as a soiling nuisance rather than for their adverse health impacts. The remaining PM_{10} fraction could aggravate respiratory problems of workers and nearby residents. Construction activity could produce up to 0.66 tons of PM_{10} per acre per month. Although the EPA has compiled air pollutant emission rates for construction equipment, construction NO_x, ROG and CO emissions can only be qualitatively discussed because project plans are not yet specific enough to provide project-specific equipment type and schedule data needed for an accurate emission calculation (USEPA, Compilation of Air Pollutant Emission Factors, AP-42, Third Edition, 10/80) . [**significant**]

Although project plans are not specific enough to accurately approximate on-site PM_{10}, NO_x, ROG and CO emissions and their consequent off-site ambient concentrations, such emissions could lead to violations of federal and state ambient air quality standards in the vicinity of the construction site unless mitigation measures were imposed.

Mitigation Measures:

[B] 1. Dust and other air pollutant emissions related to construction shall be addressed in accordance with SJVUAPCD Regulation VII pertaining to fugitive dust/PM_{10}, including:

a. Adjusting the engines of diesel-powered equipment to reduce NO_x emissions. Maintaining existing gasoline-powered equipment in tune per manufacturers instructions.

b. Developing a comprehensive construction activity management plan to minimize the amount of large construction equipment operating during any given time period.

c. Reducing CO, ROG and NO_x emissions from equipment by avoiding unnecessary idling.

d. Using materials with a low ROG content to limit emissions from adhesives, clean-up solvents, paint, and asphalt paving materials used for project construction.

e. Sufficiently watering all excavated or graded material.

f. Ceasing all clearing, grading, earth-moving, or excavation activities when wind speed exceeds 20 mph.

g. Sufficiently watering or securely covering all material transported off-site.

h. Minimizing the area disturbed by clearing, grading, earth-moving, or excavation operations.

j. Seeding and watering all inactive portions of the construction site until cover is grown.

k. Planting or paving (using APCD approved materials) portions of the site upon which work is complete.

l. Treating all internal roadways and the equipment storage areas with chemical dust suppressant.

m. Covering trucks hauling excavated materials with tarpaulins or other effective covers.

n. Prohibiting burning on the project site.

o. Limiting vehicle speed to 15 mph in unpaved areas.

p. Sweeping adjacent streets as needed to remove accumulated silt.

[B] 2. During construction, mitigation measures (except burning) should be monitored by the Public Works Department. Burning should be monitored by the SJVUAPCD. The SJVUAPCD would be responsible for permitting processes and monitoring compliance with air quality permits.

Operational Impacts:

[B] 1. During and after the development of the project, emissions from vehicles associated with the proposed commercial and residential uses and from new stationary sources of air pollutants would add to County and San Joaquin Valley totals. As shown in Table V-14, project ROG and No_x emission increments at ultimate buildout are 2,737 and 6,065 lbs/day, respectively. This would be 0.3 percent and 0.6 percent, respectively, of all ROG and NO_x emissions from in the San Joaquin Valley. Emissions of this magnitude may interfere with the projected maintenance of the ozone NAAQS and must be considered [**significant**].

[B] 2. Project traffic has the potential for affecting the local CO levels in areas adjacent to roadways which would carry project traffic. CO concentrations were estimated for existing, future-no-project, and two future-with-project scenarios for three buildout horizons (i.e., the years 2005, 2017, and 2025) by using the CALINE4 model and CO background estimates suggested by Caltrans. The assumptions used are designed to produce very conservative, i.e. high, estimates of CO concentrations. Appendix C contains the details of the modeling assumptions. Table V-15 shows the worst-case curbside CO concentrations at eight intersections where project traffic is expected to have the greatest impact. [**potentially significant**]

Modeling shows no existing or future-no-project violations of the one-hour or eight-hour CO standards under any of the buildout horizons. With the assumption of a relatively high CO background for future conditions (a doubling in background CO between 1995 and 2005 was assumed, despite improvements in vehicular emission rates), modeling shows a slight exceedence of the 8 hour average CO standard at Manthey/Louise and I-5NB/Louise under Alternative B in 2005. In 2017, the 8 hour average CO standard would be exceeded at I-5/Louise (both NB and SB ramp locations) under alternatives B and E. Note that the amount of the largest exceedence is 0.6 ppm. To put this in perspective, it can be compared to the applicable standard of 9 ppm, and the background value of 4.2 ppm. Although the exceedences are relatively small in size, they must nonetheless be deemed a significant impact.

No other violations are predicted under any of the scenarios considered for any of the years considered. CO concentrations at other locations would be expected to be lower than those reported here, and no violations of standards would be expected elsewhere.

Mitigation Measures

[B] 1. The most effective means of reducing ozone precursor emissions from motor vehicles would be to reduce the number of vehicle trips generated by the project. A list of such Transportation Demand Management (TDM) strategies could include:

a. Development of a transportation plan that would promote the use of and offer incentives for ridesharing and transit. This plan should be developed prior to occupancy of any Phase 1 uses.

b. Appointment of an on-site Transportation Coordinator to coordinate and implement employee and resident transportation programs.

c. Provision of links to existing regional mass transit systems and subsidize employee and resident purchase of transit passes.

d. Establishment of an on-site transit system.

e. Promotion of the use of low-emission (e.g., natural gas fueled) or no-emission (e.g., electric powered) vehicles on-site.

f. Promotion of bicycle use for on-site travel and establish bicycle routes and storage facilities.

g. Provision of preferential parking for employees who rideshare while commuting to the project site.

h. Provision of on-site eating, banking, and postal service facilities at major employment centers on the project site.

I. Facilitation of the reduction of vehicular travel by planning a utility infrastructure adequate to support high-capacity electronic communication system links.

j. Emphasis on a pedestrian friendly environment, including adequate width sidewalks, protective curbing and night lighting

k. Prohibition of drive-though windows

l. Encouraging adoption of design criteria to reduce urban heat island effects; increasing the number of trees and light colored surface area have been suggested as means to conserve energy and reduce pollution

[B] 2. Ozone precursor emissions from stationary sources on the site can be reduced by implementing the following measures:

a. Installation of low-emitting, EPA-certified fireplace inserts and/or wood stoves or natural gas fireplaces.

b. Limiting residences to one wood burning appliance which meets EPA Phase II emission standards, or more current standard, if applicable

c. Provision of natural gas lines or electric outlets to backyards to encourage use of natural gas or electric barbecues.

d. Provision of low NO_x emitting and/or high efficiency water heaters.

e. Provision of outdoor electric outlets for leaf blowers and lawnmowers

f. Electric outlets for recharging electric vehicles in garages

g. Installation of energy-efficient, low-NO_x heating/cooling systems.

h. Installation of energy-efficient lighting.

I. Any on-site commercial or industrial use, including internal combustion engines of greater than 50 bph, which may emit significant quantities of criteria or toxic pollutants shall operate under SJVUAPCD permit.

Effect of Mitigation Measures:

Considering the magnitude of the project's air pollutant emissions, the implementation of mobile and stationary source reduction measures as listed above will not be sufficient to reduce Project emissions to levels of insignificance. The Project will still contribute to a deterioration of regional air quality. For purposes of 'worst case' analysis, no presumptions have been made that improvements in either mobile or stationary source air quality emission control technology will emerge over the life of the Project to significantly reduce are quality impacts to acceptable levels.

TABLE V-14

COMPARISON OF PROJECT EMISSIONS WITH SJVUAPCD BACT AND OFFSET SIGNIFICANCE THRESHOLDS, AND WITH PLANNING EMISSION INVENTORIES

[San Joaquin Valley Air Basin]

POLLUTANT	Analysis Year	Source	Daily Emissions (lbs)	Over BACT Threshold?	Over Offset Threshold?	Comparison with 1999
ROG		BACT Threshold	0			
		Offset Threshold	0			
	1999	SJV Total	819,140			
	2005	Project Total	2,102	Yes	Yes	0.3%
	2017	Project Total	1,979	Yes	Yes	0.2%
	2025	Project Total	2,737	Yes	Yes	0.3%
NO_x		BACT Threshold	0			
		Offset Threshold	0			
	1999	SJV Total	958,120			
	2005	Project Total	3,060	Yes	Yes	0.3%
	2027	Project Total	4,300	Yes	Yes	0.4%
	2025	Project Total	6,065	Yes	Yes	0.6%
CO		BACT Threshold	550			
		Offset Threshold	550			
	1999	SJV Total	2,970,980			
	2005	Project Total	15,496	Yes	Yes	0.5%
	2017	Project Total	15,633	Yes	Yes	0.5%
	2025	Project Total	21,326	Yes	Yes	0.7%
PM_{10}		BACT Threshold	0			
		Offset Threshold	80			
	1999	SJV Total	N/A			
	2005	Project Vehicular	2,303	Yes	Yes	N/A
	2017	Project Vehicular	3,802	Yes	Yes	N/A
	2,025	Project Vehicular	5,362	Yes	Yes	N/A

Vehicular emissions were calculated using emission rates provided by CT-EMFAC, developed by the California Department of Transportation, initialized with average fleet mix, trip lengths, speeds, trip types, and cold start/hot start percentages taken from URBEMIS3 default parameters. San Joaquin Valley on-road vehicular emissions were obtained from the Ozone Attainment Demonstration Plan, SJVUAPCD, November 1994.

Stationary source emissions were estimated based on the ratio in 1999 between on-road emissions in the air basin and stationary sources of the type included in the project according to figures contained in the emissions inventory prepared by the SJVUAPCD. Specifically, project vehicular emissions were estimated based on trip generation rates, average trip lengths and speeds and CARB emission factors. These totals were then adjusted by adding 75% for ROG, 21% for NOx and 10% for CO to provide a rough estimate of the additional emissions which would result from stationary sources.

Note that stationary sources estimates are not available for PM_{10}.

TABLE V-15

CARBON MONOXIDE CONCENTRATIONS AT INTERSECTION CURBSIDE RECEPTORS

Total: Sum of CALINE4 Value + Background

Intersection	Average	Exist	Year 2005 No project	Year 2005 Alt. A	Year 2005 Alt. B	Year 2017 No project	Year 2017 Alt. A	Year 2017 Alt. B	Year 2017 Alt. E	Year 2025 Noproject	Year 2025 Alt. A	A
I5NB/Louise	1-hour	9.9	10.0	10.6	13.5	10.6	11.1	13.7	13.1	10.1	11.2	N
	8-hour	6.9	7.0	7.4	9.5	7.4	7.7	9.6	9.1	7.1	7.9	N
I5SB/Louise	1-hour	6.6	9.7	10.0	12.4	8.8	11.5	13.2	12.7	9.9	11.3	N.
	8-hour	4.0	6.8	7.0	8.7	6.1	8.0	9.2	8.9	7.0	7.9	N.
Manthey/Louise	1-hour	3.4	6.5	9.0	13.0	7.0	10.2	9.5	9.2	7.5	11.4	N.
	8-hour	2.4	4.5	6.3	9.1	4.9	7.1	6.6	6.4	5.2	8.0	N.
I5 SB/I205 Ramp	1-hour	3.0	6.0	7.3	6.0	6.0	7.1	6.1	6.1	6.0	6.8	N
	8-hour	2.1	4.2	5.1	4.2	4.2	5.0	4.3	4.3	4.2	4.8	N
SR120 Off/Moss	1-hour	3.0	6.0	8.2	6.0	6.0	9.0	6.1	6.1	6.0	9.1	N
	8-hour	2.1	4.2	5.7	4.2	4.2	6.3	4.3	4.3	4.2	6.4	N.
Gold Vall/Moss	1-hour	3.0	6.0	8.7	7.2	6.0	9.1	7.7	6.6	6.0	11.2	N.
	8-hour	2.1	4.2	6.1	5.0	4.2	6.4	5.4	4.6	4.2	7.8	N.
Circle/Moss	1-hour	3.0	6.0	8.8	7.3	6.0	9.2	7.3	6.6	6.0	9.9	N.
	8-hour	2.1	4.2	6.2	5.1	4.2	6.4	5.1	4.6	4.2	6.9	N.
Gld Rush/Circle	1-hour	3.0	6.0	6.0	7.7	6.0	8.9	9.0	8.6	6.0	9.6	N.
	8-hour	2.1	4.2	4.2	5.4	4.2	6.2	6.3	5.0	4.2	6.7	N.
CO Background	(One-Hour from Air Quality Technical Analysis Notes, Caltrans, June 1988, Page 6100-2; Eight-Hour = 0.7 x One-Hour)											
	1-hour	3.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.(
	8-hour	2.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES UNDER ALTERNATIVE E

Alternative E presents the preferred land use arrangement for the eastern end of Stewart Tract, as described at the end of Part II of this EIR [see pp II-23 through II-32 in Part II.]

Limitations of the Mossdale Interchange with the I-5/I-205 Merge

As discussed earlier in Part V, proposals of the Specific Plan which depend on the continued availability of the existing Mossdale interchange within the I-5/I-205/S.R. 120 "merge" between two freeway-to-freeway interchanges will cause the "merge" and the Mossdale interchange to experience unacceptable levels of service in the short, medium and long-range. Under standards of the Federal Highway Administration and the California Department of Transportation, access to adjacent land is not permitted for a distance of two miles in either direction from the intersection of two freeways. However, in designing this section of the freeway system, the Mossdale interchange was created because of legal requirements that assure access to adjacent farmland and small marinas along the San Joaquin River. With its widely spaced "button-hook" on-ramps and off-ramps, the Mossdale interchange satisfied these access requirements without significant impact on the freeway system because of the minor traffic generated under existing land use conditions.

With Stewart Tract development as proposed by the Specific Plan (without Alternative E), the amount of traffic generated at the Mossdale interchange will be far too great to enable it to function safely and at acceptable levels of service. The situation is worsened by the conflicts with freeway traffic merging from I-5 and I-205, weaving and then diverging at the I-5/S.R. 120 split, and by conflicts of the reverse pattern of merging from I-5 and S.R. 120, weaving and then diverging at the I-5/I-205 split. Weaving conflicts with high traffic volumes introduce an increased potential for accidents during peak hours of freeway traffic, and during periods of heavy fog in winter.

The limitations and potential for utilizing the Mossdale interchange had been discussed with District 10 Caltrans staff for more than a year prior to publication of the Specific Plan. In addition to extensive traffic modeling, engineering designs were commissioned by the project sponsor that would mitigate long-range impacts of Stewart Tract development, including a complete redesign of the Mossdale interchange that eventually was disapproved by Caltrans. Proposals of the Specific Plan were developed that would depend on an "improved" Mossdale interchange as one of three principal means of freeway access to and from Stewart Tract. Among the features proposed was a large-scale 2,500 space park and ride facility close to the interchange that would have removed a significant amount of Bay Area commute traffic from the I-205 and I-580 freeways during commute hours.

It wasn't until May of 1995 that Caltrans made the determination that the existing Mossdale interchanges could accept a maximum weekday PM peak hour traffic load of no more than 700 inbound and 500 outbound trips. This effectively rules out long-range use of the existing Mossdale interchange as a principal means of access to Stewart Tract and southern reaches of Mossdale Village. Consequently, it requires an alternative approach to land use and circulation for the more than 450 acres of land between the freeway "merge" and the Southern Pacific Railroad track that parallels the freeway "merge" on the west.

Limited Land Use to be Served by the Mossdale Interchange

Alternative E (see Figure II-5, p. II-25) land use proposals between the freeway merge and the S. P. Railroad is based on the maximum peak hour capacity for the Mossdale interchange determined by Caltrans, as discussed above. This alternative would effectively remove all commercial land use and

park and ride facilities from the area between the freeway merge and the S.P. Railroad except for a 50 acre farmers' market. Remaining acreage is designated Urban Reserve to reflect land use policies of the General Plan. As a practical matter, remaining acreage would continue in agricultural use until such time that increased traffic access from the freeway merge might be permitted.

Other Revisions to the Land Use Pattern and Circulation System Serving the Eastern End of Stewart Tract

Other changes in land use and circulation that are proposed under Alternative E are also shown on Figure II-5 and are described in Part II. In addition to the Gold Rush Boulevard crossing of the San Joaquin River, Golden Valley Parkway is extended to Stewart Tract west of and parallel to the S.P. Railroad. It is noteworthy that there would not be any traffic connection between the Mossdale interchange and development west of the S.P. Railroad.

Impacts and Mitigation Measures

All of the significance criteria described under the various topics of environmental analysis provided in Parts IV and V of this EIR remain valid for Alternative E.

Impacts Generally:

Despite the land use changes presented by Alternative E, a worst case condition remains for traffic and air quality, and virtually all of the impacts and mitigation measures described for the Specific Plan remain valid for Alternative E. The revised land use and circulation proposals of Alternative E have been subjected to additional traffic and air quality analysis to better understand the effects on the West Lathrop Specific Plan Project area and the City as a whole.

Traffic Impacts:

The traffic impacts of Alternative E are shown on Figures V-18 and -19, for the 2017 horizon year, with only the limited availability of the Mossdale interchange described above. Figure V-18 shows projected traffic volumes on the entire roadway system covered by the Lathrop General Plan, while Figure V-19 shows more closely the projected volumes for Mossdale Village and Stewart Tract. In comparing these projections with those of the Specific Plan as proposed, overall impacts on PM peak hour freeway traffic remain essentially the same. The following impacts are worthy of mention:

[B] 1. By the year 2017, PM peak hour northbound ramp congestion can be expected at the Louise Avenue/I-5 interchange, with operations at unacceptable (LOS F) level of service.

[S] 2. Even limited use of the Mossdale interchange could cause traffic problems if a road connection between the interchange and the area of Stewart Tract west of the S.P. Railroad track is provided.

Traffic Mitigation:

[B] 1. The potential for ramp congestion at the Louise Avenue interchange would be mitigated by the construction of loop on-ramps in the southeast and northwest quadrants of the interchange. Adequate space should be reserved for this purpose as development on adjacent land occurs.

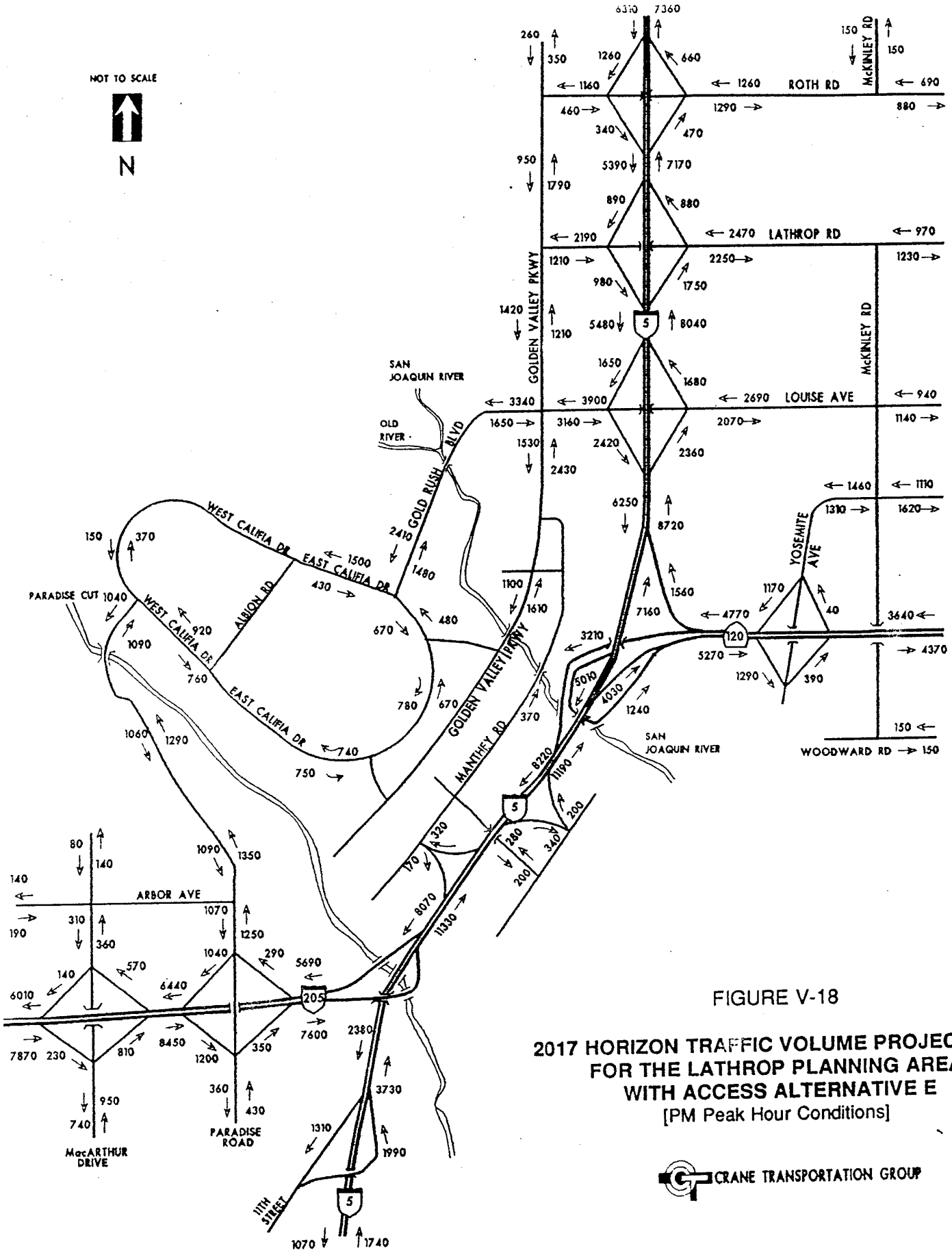


FIGURE V-18

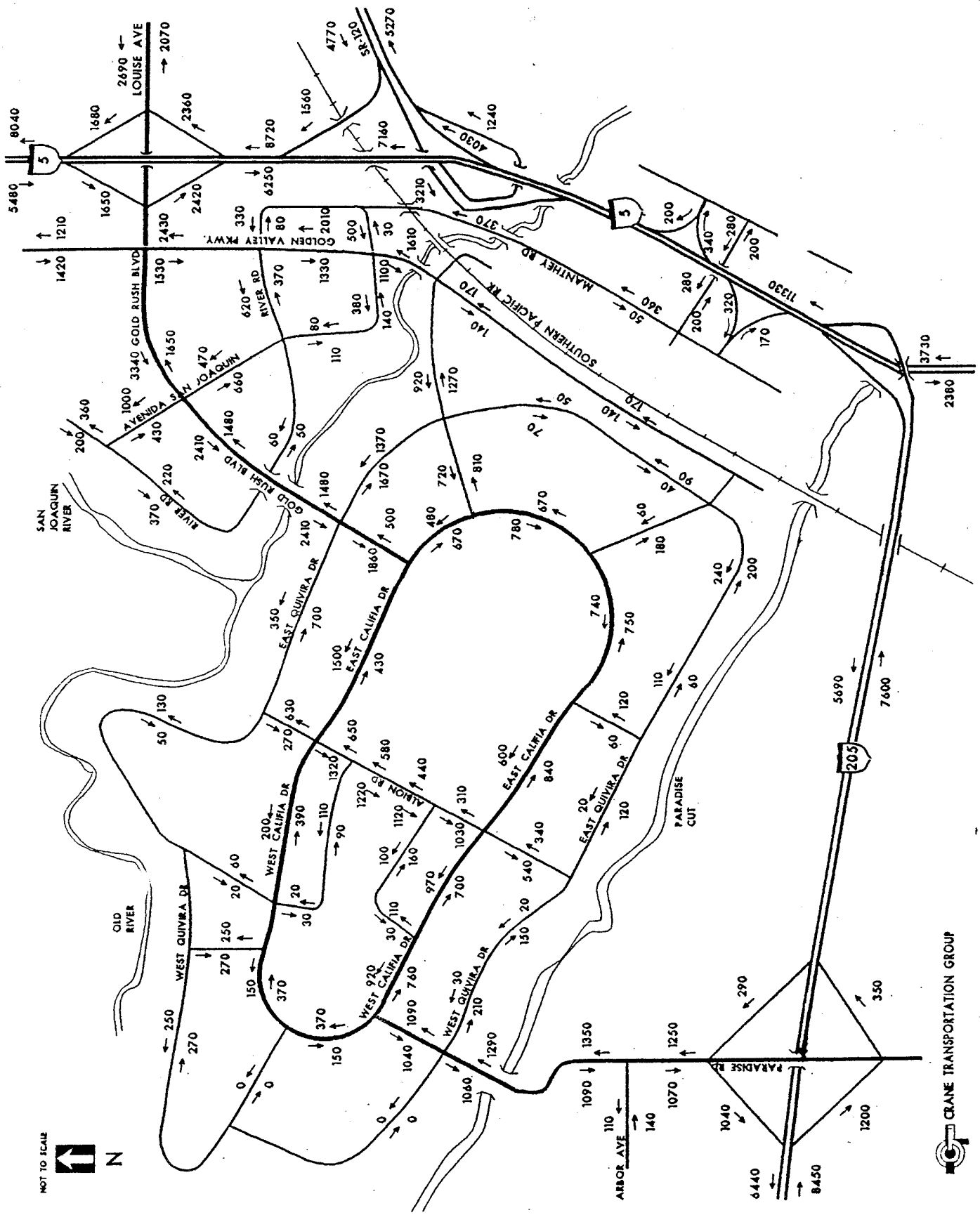
2017 HORIZON TRAFFIC VOLUME PROJECTIONS FOR THE LATHROP PLANNING AREA WITH ACCESS ALTERNATIVE E

[PM Peak Hour Conditions]

CRANE TRANSPORTATION GROUP

2017 HORIZON TRAFFIC VOLUME PROJECTIONS FOR MOSSDALE VILLAGE AND STEWART TRACT, WITH ACCESS ALTERNATIVE E

[PM Peak Hour Conditions]



Effect of Traffic Mitigation:

Project impacts associated with traffic under Alternative E are either less than significant or will be mitigated to a level of less than significant by implementation of the above mitigation measures, together with those measures previously described in this Part V. These measures will ensure that traffic flow along roadways and intersections and at interchanges will operate at acceptable levels of service.

Air Quality Impacts and Mitigation Measures:

As in the case traffic impacts, air quality impacts from vehicle emissions will remain essentially the same for the 2017 horizon year as projected under the Specific Plan proposed without Alternative E. Consequently, all air quality impacts and mitigation measures described previously in Part V remain valid for Alternative E analysis.

Effect of Air Pollution Mitigation:

Project emission associated with Air Quality under Alternative E will be mitigated to as low a level of significance as possible and feasible consistent with available technology and limitations which the Project can control. However, unavoidable significant adverse impacts on regional air quality can be expected under Alternative E as with the Specific Plan as proposed without Alternative E.

Needed -- A Defined Commitment to Transit as a Component of the Specific Plan to Further Reduce Impacts on Traffic and Air Quality:

A mitigation measure that is needed in support of Alternative E (which is not described elsewhere in Part V) is a defined commitment to transit as a component of the Specific Plan that will further reduce impacts on traffic and air quality in the short-, medium- and long-term.

A strength of the Specific Plan is its description of alternative modes of moving people to and from Stewart Tract, and within Stewart Tract, to reduce dependence on the automobile. A weakness of the Specific Plan is its lack of definition as to what can be expected over what period of time, and the commitment to lead with solutions for Stewart Tract rather than to follow others having an interest in providing a regional transit connection between the San Joaquin and Sacramento Valleys and the San Francisco Bay Area.

The Specific Plan describes the approach envisioned for alternative modes of transportation on-site, and for regional transit availability, in Part V of the Plan document, pp. 52-59. The highlights of the proposals include the following:

1. Five major modes of transportation will be used to reach the plan area: air, water, rail, bus and automobile.

2. Counter-commute passenger rail service from the Tri-Valley and S.F. Bay Areas will bring weekend visitors east-bound to the Gold Rush City theme parks, while carrying weekday commuters westbound to major employment centers.

3. It is assumed that Gold Rush City theme parks will be served by rail service over Altamont pass and/or by charter and fixed route regional bus service with the opening of the first theme park.

4. A multi-modal transit center will be developed on-site as part of Phase 1 development. This will be developed in conjunction with a 2,500 space park & ride transit station parking facility for commuters.

5 Several types of high-occupancy vehicle service are expected to access the plan area, including sub-regional bus systems from nearby cities and shuttle buses from the Stockton airport.

6. Movements within Stewart Tract will be facilitated by a system of waterways (using small boats), a trail system, a skyway system along a central spine, and various modes of transit including boats, shuttles, and overhead vehicles. Transit vehicles will convey visitors between theme parks and the multi-modal transportation center and parking facilities, and between hotels, motels and recreation lodging facilities.

7. Local transit is also to be provided within Mossdale Village, connecting the Village with other activity centers of the community. Initial transit service will be provided by buses. The Golden Valley Parkway corridor will include right-of-way for a future light rail system connecting with Tracy, Manteca and Stockton.

All of these approaches to regional and on-site transit service are plausible and necessary. The weakness is in not defining more specifically the timing and staging of multi-modal services within the plan area and the actions which the Project sponsor expects to take in advancing the availability of regional transit to serve Stewart Tract. In Part IV of this EIR, a commitment to transit is discussed that seeks significant reduction in use of the automobile by the year 2005 [see p IV-26]. The initial commitment is expected to produce a 68% attendance by auto, 10% by train, and 22% in combination by bus, air and water modes. By 2015, transit alone is expected to account for as much as 30% of attendance traffic.

Of special note is a proposal discussed during Specific Plan preparation but not yet endorsed by the Project sponsor for providing transit from remote parking lots along the S.P. Railroad west of Stewart Tract and north along the I-5 corridor. Under this proposal, special trains could move between these remote lots and Gold Rush City during peak periods of theme park activity, which would reduce freeway traffic through the entire Lathrop planning area. This proposal appears ripe for consideration as part of the Specific Plan with preparation of the Alternative E addendum to the Specific Plan. Under Alternative E, three remote parking lots are to be located away from Stewart Tract as a means of mitigating traffic impacts on the freeway system. These lots will, in combination, replace the large park and ride facility formerly proposed with access from the Mossdale interchange. They will be located north along I-5, east along S.R. 120 and west along I-205. These three remote parking lots could easily provide double duty, serving commuters on weekdays and theme park visitors on weekends.

Perhaps the key statement in Part IV is the following apparent commitment to transit which should be implemented from the beginning of the Project:

> "Transit is to be considered as much a part of the proposal as any other type of infrastructure needed, such as water supply and liquid waste treatment and disposal. As such, the various transit modes are to be available from the beginning, with service expansion as needed. This approach constitutes a major departure in planning to meet the transportation requirements of a large-scale and traffic intensive project."

The Specific Plan comes close to meeting this challenge. What is needed is to have the above citation made a part of the Specific Plan and the Development Agreement between the City and the Stewart Tract developer. This would be augmented by the inclusion of specific phased actions in support of both on-site and off-site non-auto modes of transportation in Part VII of the Specific Plan document pertaining to Plan implementation.

Other Impacts:

Other impacts of the Project (other than those related to traffic and air quality) as modified by the proposals of Alternative E can also be expected to produce positive benefits resulting from less intensive activities, with the following positive results:

[B] 1. Early access to Stewart Tract would be provided by Gold Rush Boulevard and Golden Valley Parkway from the I-5/Louise Avenue interchange on the north, and eventually from the proposed I-205/Paradise Road interchange on the west.

[S] 2. About 400 acres would be retained in agricultural use. This acreage would continue to be available as foraging habitat for the Swainson's Hawk, and would reduce the amount of storm water runoff and light and glare generated by the Project.

[S] 3. The agricultural lands retained would be available for purposes of marshaling equipment and supplies needed for large-scale evacuation from Stewart Tract in the event of a natural or man-caused disaster.

[S] 4 The visual impact of Stewart Tract development as viewed from the freeway would be lessened by the greater distance to large concentrations of commercial development west of the S.P. Railroad.

[S] 5. Sand deposits of regional significance as classified and designated by the State Mining and Geology Board would remain largely unaffected.

[S] 6. A substantial reduction in housing for permanent occupancy will occur, with concomitant reductions in demands for school services, electrical and natural gas utility services, solid waste management, and general governmental services.

Effect of Other Impacts and Mitigation under Alternative E:

None of the above changes in impact will result in other impacts that have not already been identified and analyzed in this EIR, and for which mitigation measures have not already been described.. These changes will be significant positive and do not require further discussion.

the Lathrop General Plan. The first of the lesser growth alternatives (Alt.1) calls for reductions in levels of development on both sides of the San Joaquin River. The second (Alt. 2) calls for a reduction east of the river and elimination of Gold Rush City west of the river.

A second set of alternatives present design alternatives to the West Lathrop Specific Plan within the framework of development policy established by the General Plan.

Given the first set of alternatives covered by the General Plan EIR, it is not necessary to reevaluate them in detail in describing alternatives to the Specific Plan. As described in Citizens of Goleta Valley et al v. Board of Supervisors ("Goleta II") (1990) 52 Cal.3d 553 [276 Cal.Rptr. 410], a project-specific EIR "...is not ordinarily an occasion for the reconsideration or overhaul of fundamental land use policy." Moreover, "...to require a reexamination of basic land use policy with every permit application would impose an unnecessary and wasteful burden on local governments." This principle also applies to a Specific Plan EIR, and is annunciated in AB 1888 signed into law in 1993. AB 1888 states that environmental analysis provided in a General Plan EIR can be used, under the tiering process, as a basis for later project reviews under CEQA. In light of the above, alternatives to the Specific Plan deal with different configurations of development rather than with the kind or type of development proposed.

ALTERNATIVES PRESENTED IN THE GENERAL PLAN EIR

The Alternative of "No Project"

Project Description:

This alternative would involve retaining the status quo with respect to the City's sphere-of-influence and City limits and effectively limit development to the City limits as depicted by the General Plan that was inherited from the County by the City upon incorporation. That early General Plan was adopted by the City and followed until the City adopted its current General Plan in 1991.

Impacts:

The General Plan previously adopted by the City (prior to December, 1991) is no longer adequate as a guide to future development of the community. As prepared by the County, that early version called for a level, extent and character of development consistent with a future as a relatively small unincorporated community, as compared to a city having significant employment potential serving the region. The City's strategic location and growth potential within the region was not at all reflected in the original General Plan prepared by the County. Consequently, it is not feasible to retain the original Plan.

The alternative of "no project" is also not feasible because the preparation, adoption and maintenance of a General Plan is mandated by provisions of the California Government Code. Failure by any city or county to meet these requirements is considered grounds for serious sanction by the State, including a halt to all development review and approval activities by the City until the plan is prepared and/or updated in accordance with State Law.

Mitigation Measures: No mitigation measures are required.

PART VI

ALTERNATIVES TO THE PROPOSED PROJECT

INTRODUCTION

CEQA requires that alternatives should be discussed in the context of what is reasonable and feasible, that the alternative of "no project" be described, that additional significant effects (if any) be described, and that discussion focus on alternatives capable of eliminating or reducing any significant adverse physical environmental effects to a level of insignificance. More specifically, Section 15126 (d) sets forth the following requirements in describing alternatives to the proposed action:

"(d) Alternatives to the Proposed Action. Describe a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project, and evaluate the comparative merits of the alternatives.

(1) If there is a specific proposed project or a preferred alternative, explain why the other alternatives were rejected in favor of the proposal if they were considered in developing the proposal.

(2) The specific alternative of "no project" shall also be evaluated along with the impact. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the alternatives.

(3) The discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

(4) If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed but in less detail than the significant effects of the project as proposed.

(5) The range of alternatives required in an EIR is governed by the "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives foster informed decision-making and informed public participation. An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

Types of Alternatives Analyzed

The presentation of alternatives begins with a description of the four alternatives examined by the General Plan EIR. They include the "No Project" alternative, two alternatives that call for a lesser degree of urbanization as a means to further mitigate environmental impacts, and a fourth alternative seeking greater levels of population and urban expansion to the northern boundary of the planning area used in preparing

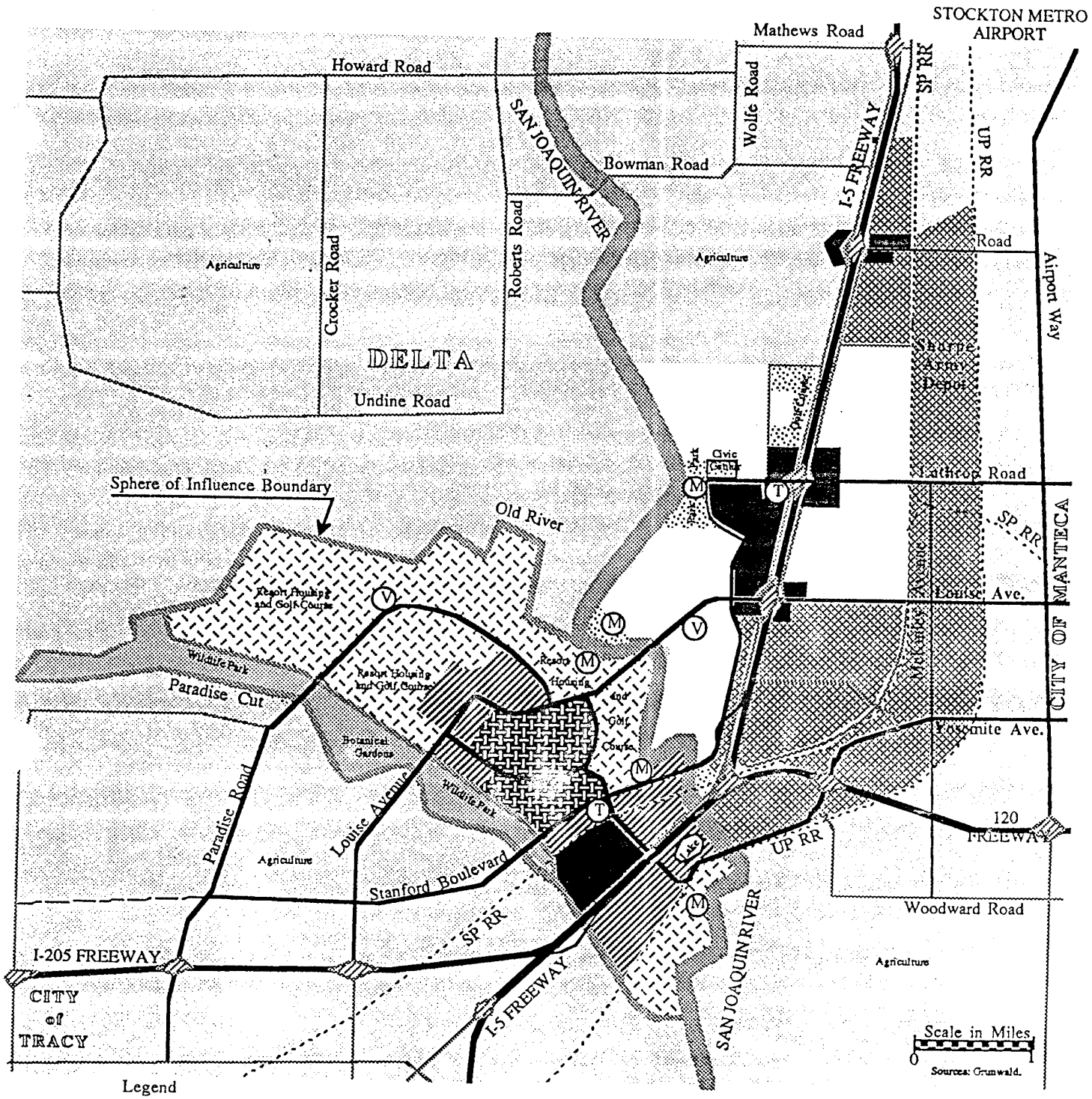


FIGURE VI-1

20 YEAR GENERAL PLAN
(As Adopted, December, 1991)

Alt. 1 - Reducing the Area of Urban Expansion

If population and employment growth occurs at a much lower rate than anticipated by the General Plan as proposed [see Figure VI-1], then the amount of urban development expected will automatically decline. The environmental analysis provided by this Specific Plan EIR assumes a buildout scenario based on high levels of market absorption in support of land use proposals, and worst-case impacts over time. In contrast, Alt's. #1 and #2 deliberately seek to reduce levels of population growth and urban expansion as a means to mitigate traffic and air quality impacts, and the irreversible loss of agricultural land.

Project Description:

Alt. 1 [Figure VI-2] would result in a 26% reduction in population growth by eliminating 1,000 of the retirement housing units proposed for Gold Rush City, and another 1,500 units within Sub-Planning Area (SPA) #2 involving the area between I-5 and the San Joaquin River. This would lower the total population in 20 years from about 30,000 to 24,000, with a net increase of 17,000 during the planning period as compared to about 23,000 under the General Plan as proposed. The reduction in housing units within SPA #2 would be made generally throughout the SPA for both single-family and multi-family, rather than to cut specific acreage from the General Plan Diagram.

Alt. 1 would also reduce the scale of the Gold Rush City recreation commercial project activities by about 50%. It would eliminate more than 2,200 acres designated for recreation residential, and more than half of the area designated for wildlife park, while retaining a core project of about 1,500 acres centered on the proposed theme park. Regional Commercial between the I-5/SR 120 merge and the U.P. Railroad, and Waterfront Commercial and Recreation Residential between the U.P. Railroad and San Joaquin River would also be eliminated. Industrial acreage would also be reduced by eliminating industrial designations for lands located generally south of the east-west line of Vierra Road-Yosemite Avenue and the Southern Pacific Railroad to the sphere-of-influence line that would follow the alignment of the Union Pacific Railroad.

Impacts:

While the primary impacts of Alt. 1 would be positive with respect to mitigating environmental impacts, the resulting impacts would still be significant, as follows: (note: #'s sequence as in General Plan EIR)

1. Under the proposed General Plan, the three SPA's combined will account for approximately an Average Daily Traffic (ADT) of about 246,000 trips per day. A reduction of 6,000 people together with associated commercial, industrial and other non-residential trips will reduce total trips per day by about 53,000, or 22 %, for a reduced total of 193,000. **[significant]** [Note: This includes the same traffic assumptions due to transit as used for the General Plan as proposed.]

2. Vehicle emissions would be reduced by about the following amounts per day: **[significant]**

   - Carbon Monoxide: reduction from 7.8 to 6.0 tons/day.
   - Nitrogen Dioxide: reduction from 1.6 to 1.2 tons/day.
   - Total organics: reduction from 0.8 to 0.6 tons/day.

5. About 3,600 acres would remain in agricultural production. This does not include the 1,100 acres of housing and commercial development once proposed (in the Draft General Plan/EIR document) on either side of McKinley Avenue south of SR 120. **[significant]**

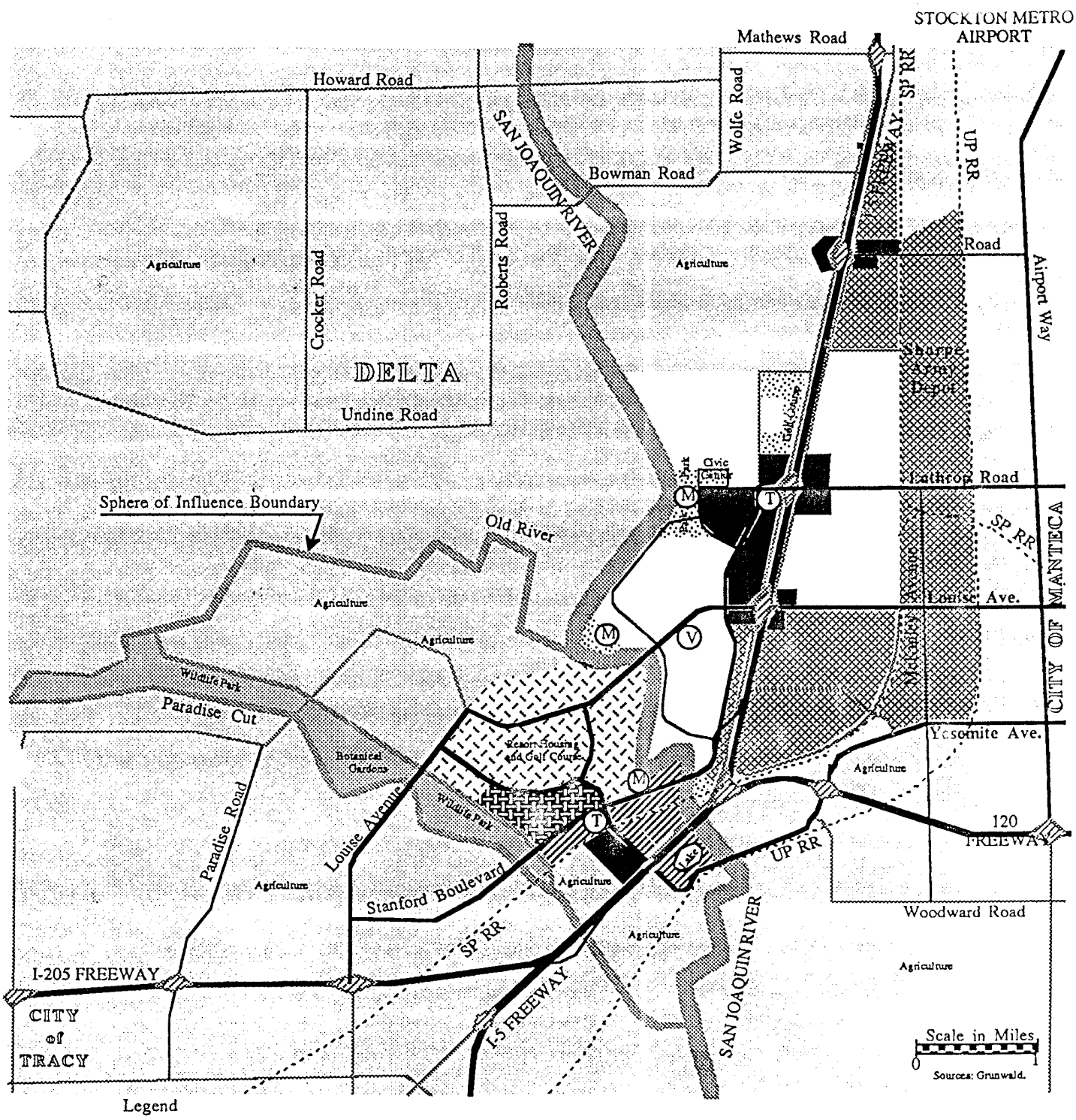


FIGURE VI-2

20 YEAR GENERAL PLAN: ALT. 1

The Lathrop General Plan Diagram
December 1991

6. Residential water consumption would be reduced by about 1,130 acre feet per year. [**significant**]

Mitigation Measures

No new mitigation measures would be required. However, most of those mitigation measures relating to the levels of urbanization under the proposed General Plan would continue to be necessary.

Alt. 2 - Further Reducing the Area of Urban Expansion

Project Description:

Alt. 2 [Figure VI-3] would result in further reductions in urbanization proposed east of the San Joaquin River under Alt. 1, plus the entire elimination of Gold Rush City.

Alt. 2 would also result in a 52% reduction in population growth by eliminating all of the residential proposed by Alt. 1, plus all of the residential north of the Civic Center and west of the line of Stanford Blvd. in SPA #2. Total population increase would drop from 23,000 to about 11,000, with total population in 20 years reaching 18,000. The elimination of Gold Rush City would result in further significant changes listed below under impacts.

Impacts:

1. All of the impacts associated with urban reduction in SPA #1 would remain, plus the elimination of Service Commercial and Industrial north of Roth Road and east of I-5.

2. Overall ADT would be reduced by about 121,000, or 49%, for a reduced total of 125,000 ADT. [**significant**]

3. The Stanford Blvd. (Golden Valley Parkway) and Louise Avenue expressway (Gold Rush Boulevard) access to the Stewart Tract would not be necessary. Improvements to interchanges and the addition of auxiliary traffic lanes between interchanges would not be necessary.

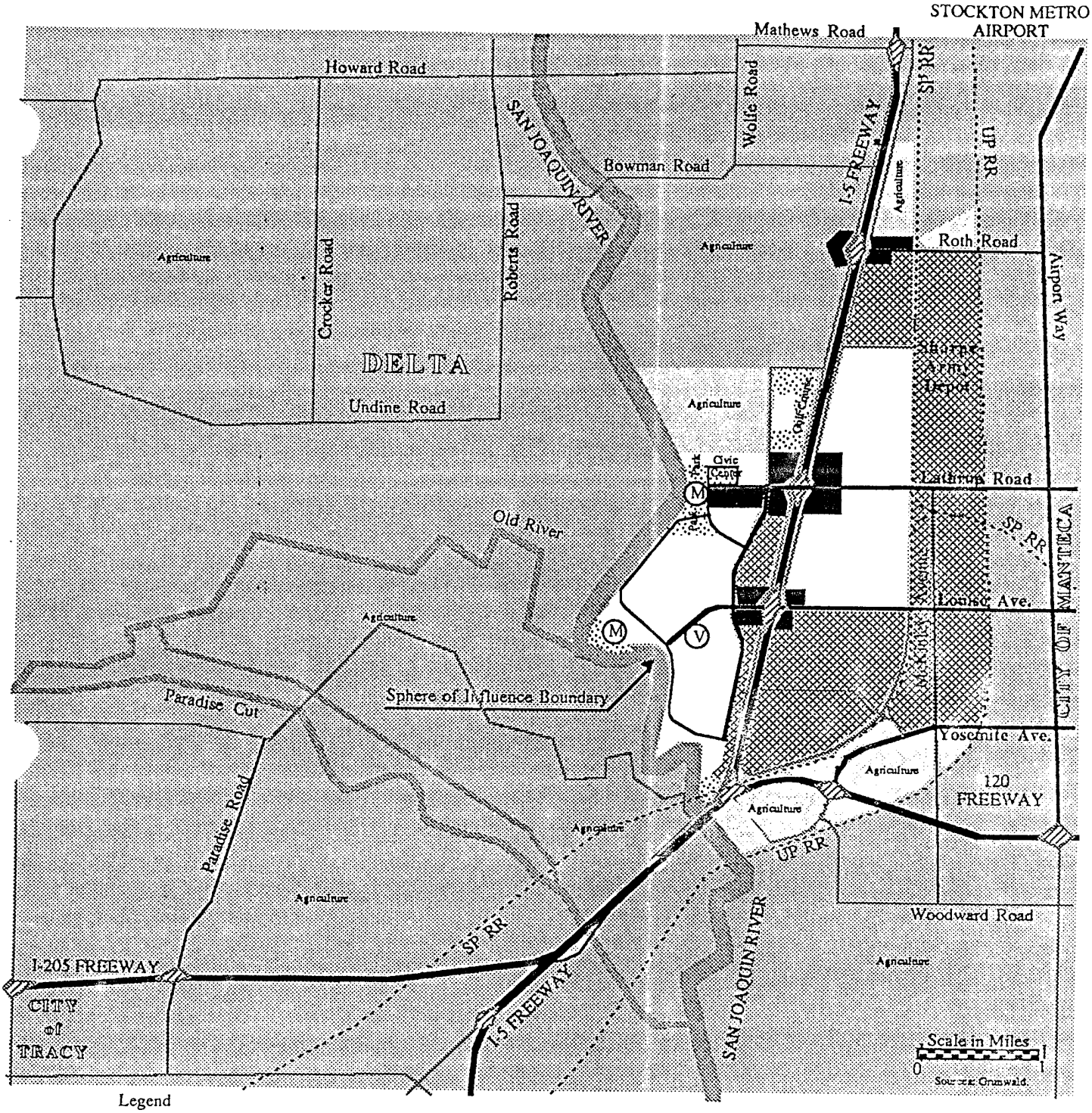
4. Vehicle emissions would be reduced to about the following amounts per day: [**significant**]

   - Carbon Monoxide: reduction from 7.8 to 3.8 tons/day
   - Nitrogen Dioxide: reduction from 1.6 to 0.6 tons/day
   - Total organics: reduction from 0.8 to 0.3 tons/day

5. About 5,200 acres would remain in agricultural production. This does not include the 1,100 acres in agricultural use south of State Route 120 on either side of McKinley Avenue. [**significant**]

6. About 5,200 acres of suitable foraging habitat for the Swainson's hawk would be retained; other wildlife habitat associated with agriculture would remain. However, two previously mapped nesting sites along the San Joaquin River would continue to be threatened by residential development proposed east of the river. [**significant**]

7. There would be less intensive use of the San Joaquin River environment for water-related recreation, including boating. Only two marinas would remain in the Plan, along the east side of the San Joaquin River. [**significant**]



Legend

- Commercial: Stores and Offices
- Industrial and Service Commercial
- Residential Villages
- Community and Open Space
- Theme Park
- Recreation Commercial
- Recreation Residential
- (M) Marinas
- (V) Village Center
- Transit Stations

FIGURE VI-3

20 YEAR GENERAL PLAN: ALT. 2

The Lathrop General Plan Diagram
December 1991

8. Domestic water demand would be reduced on an annual basis by about 6,680 acre feet per year. [**significant**]

Mitigation Measures:

No new mitigation measures would be required. However, many relating to the levels of urbanization under the proposed General Plan would continue to be necessary to reduce impacts to acceptable levels.

Alt. 3 - Enlarging the Area of Urban Expansion

Project Description:

Alt. 3 [see Figure VI-4] would significantly enlarge the area of urban expansion by including all of the agricultural area within SPA #2 extending north from the line of Squires Road to the northern planning area boundary (north of Bowman Road). This would add about 2,400 acres and an added population of 31,000, resulting in a total projected 20 year population (at holding capacity) of approximately 66,000. Any significant increase in population above the 30,000 projected by the proposed General Plan was determined to be unjustified at the time, in consideration of reasonable prospects for growth in employment and population within the region.

Impacts: [above and beyond those generated under the General Plan as proposed, and including traffic impacts pertaining to local and regional through traffic.]

1. Average Daily Traffic (ADT) could be expected to increase by 349,000, or 142%, to about 595,000 trips per day! The impact would be most severe on the section of Interstate 5 extending north from State Route 120, including inhibiting the flow of peak hour traffic on the freeway, and congesting the intersection ramps at Louise Avenue and at Lathrop Road and Roth Road. [**significant**]

2. I-205 between I-5 and Tracy would be operating at capacity in the eastbound direction during the PM peak hour, even if I-205 was expanded to four lanes in each direction. [**significant**]

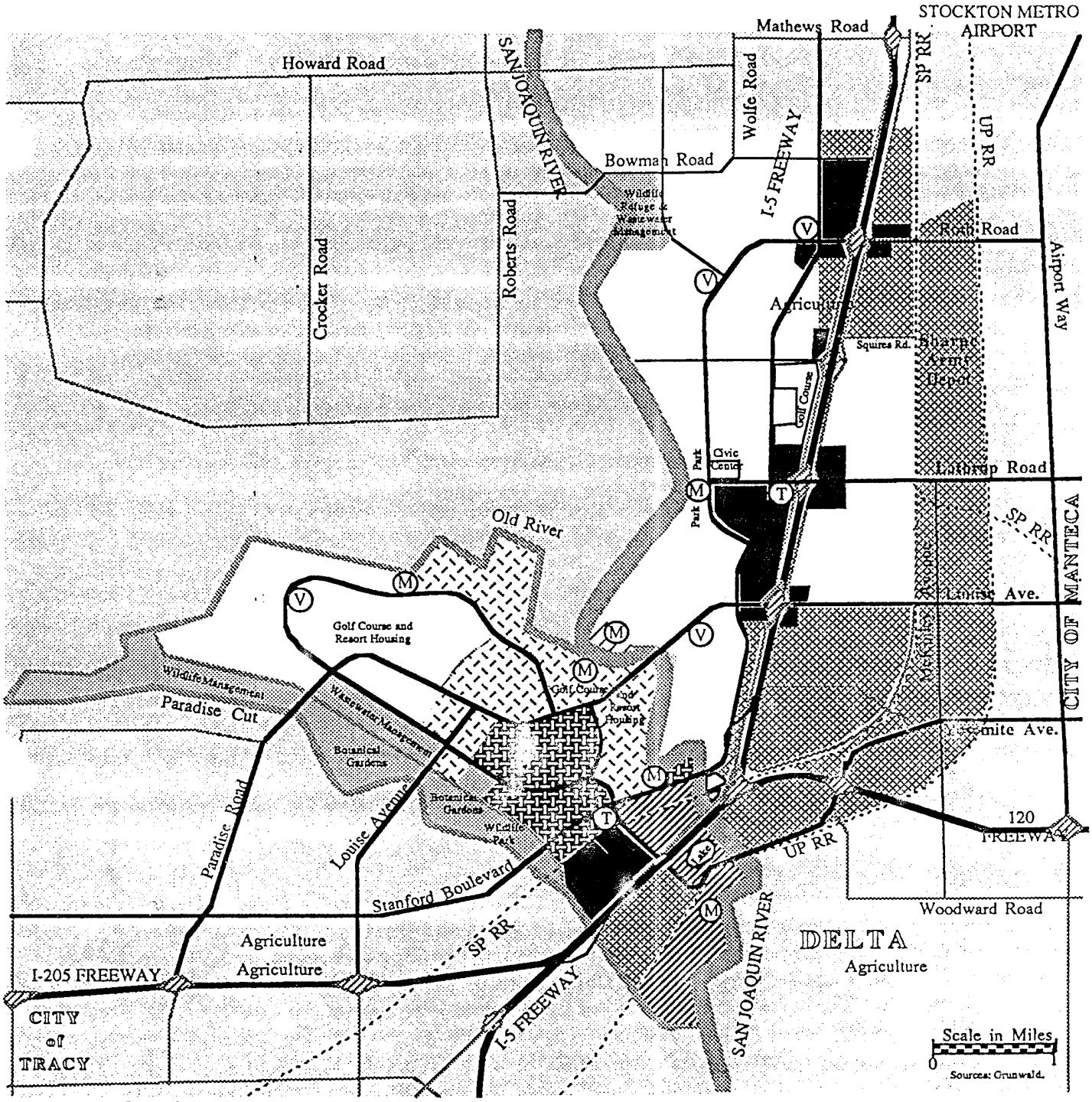
3. The freeway merge between the I-5/I-205 and I-5/SR 120 connections, after expansion, would be operating at or over capacity. [**significant**]

4. The Roth Road, Lathrop Road and Louise Avenue interchanges would be operating at unacceptable levels of service at the ramp intersections. [**significant**]

5. Lathrop Road and Louise Avenue (east of I-5) would be operating over capacity during the PM peak hour. [**significant**]

6. An additional 2,400 acres of productive agricultural land would be converted to urban use, along with associated wildlife habitat. This would substantially increase the economic impacts resulting from the loss of agricultural productivity. [**significant**]

7. Air quality impacts would be much greater as the result of an additional 349,000 vehicle trips per day, by a factor of about 2.5. Carbon Monoxide levels would probably reach or exceed State standards at the Louise Avenue and Lathrop Road interchange ramps during peak hour traffic. [**significant**]



Legend

- Commercial: Stores and Offices
- Industrial and Service Commercial
- Residential Villages
- Community and Open Space
- Theme Park
- Recreation Commercial
- Recreation Residential
- (M) Marinas
- (V) Village Center
- (T) Transit Stations

FIGURE VI-4

20 YEAR GENERAL PLAN: ALT. 3

The Lathrop General Plan Diagram
December 1991

8. All levels of public service demand would increase substantially. A very significant increase in demand would be for domestic water, in the order of 6,770 additional acre feet. This amount of additional firm supply of surface water might prove to be very difficult (if even possible) to acquire. **[potentially significant]**

Mitigation Measures:

1. Mitigation of traffic and air quality impacts would be extremely difficult if not practically impossible because of the costs associated with freeway widening and interchange reconstruction. Only major commitments to and success with local and regional transit alternatives accounting for 35% or more of total traffic could avoid the major traffic impacts associated with Alt. 3.

2. There is no practical way to off-set the loss of agricultural land. The loss would be irreversible.

3. Virtually all of the mitigation measures associated with the 20 year General Plan as proposed would still be required.

The Environmentally Superior Alternative

The environmentally superior alternative is the "No Project" alternative. However, this alternative is not practical since State Law and common sense dictates that the community continue to plan comprehensively for population and economic growth and the needs generated by such growth. [see entire paragraph under the sub-heading of "Impacts" for the "No Project" alternative on page VI-2] Excluding the "No Project:" alternative, the most environmentally superior alternative from among the other alternatives would be Alt. 2 (or variation thereon), followed by Alt. 1 and the General Plan as proposed. Alt. 2 is second best (after "No Project") because of the much lesser overall levels of environmental impact involved, and especially the impacts on agricultural land and associated wildlife habitat.

The Alternative of Selecting a Different Location

The "different location" alternative focuses primarily on off-site alternatives for the destination-resort oriented land uses proposed for Stewart Tract because the City has no alternative but to expand its housing area outward in a rational fashion from its current City limits in a mostly westerly direction, as proposed for Mossdale Village. Prior to selecting Stewart Tract as the preferred project site for Gold Rush City in 1990, the Project applicant devoted more than three years to identifying and studying possible locations in Northern California for an integrated resort and destination area centered on the Gold Rush City theme park. In evaluating potential project sites, the most fundamental consideration was the need to acquire a contiguous and developable tract of land from willing land owners that was large enough to accommodate all desirable and complementary land uses. The following additional criteria were also considered for locating the Project site:

1. The need to locate the project in a supportive ands progressive host city and/or county, and in a region that would benefit from the employment opportunities presented by the Project.

2. The need to locate the Project as close to major population centers as possible.

3. Ease of access by major road networks, with high preference for available, or potentially available, mass transit.

4. The availability or potential availability of all necessary services (water, sewer, power, gas) in a time frame suitable for the planned phasing of the Project.

Out of over 26 sites considered, it was determined that the Stewart Tract best satisfied the above-listed criteria. Some of the other strong contenders in a number of different counties met with the following results:

1. Contra Costa County:

   A site consisting of approximately 900 acres north of the City of Richmond along San Pablo Bay, having potential from the proposed Richmond by-pass directly connected to Interstate 80, was supported by the City of Richmond and the County. This alternative was ultimately rejected due to the presence of the endangered Saltmarsh Harvest Mouse and large areas of tidal wetlands on the site which could not be adequately mitigated.

2. Solano County:

   A strongly supportive City of Vacaville and County promoted siting of the Project on an 1,800 acre site adjacent to Interstate 80 in the City which was unsuccessful due to the lack of landowner cooperation. The City also proposed a 750 acre alternative site which was rejected because of the adverse effect of high power transmission lines trisecting the site.

3. Alameda County:

   A 2,500 acre site off Interstate 580 at Los Positas was rejected when the timing of the availability of water and other essential services came into question. The configuration of available land parcels and site characteristics further undermined this site's potential.

4. San Mateo County:

   Several large tracts of land were evaluated offering the benefits of location on San Francisco Bay (reminiscent of San Francisco's early history) and the ability to transport large numbers of visitors by ferry. However, development in this area was ultimately determined to be environmentally unsuitable due to impacts on the already congested State Route 201, combined with the controversy of Bay land fill, wildlife refuges and issues raised by the Bay Conservation and Development Commission and the Coastal Commission.

5. San Joaquin County:

   Sites closer to Tracy and north of Stockton, including possible alliance with the proposed new town of Mountain House, were considered. The City of Stockton, with approximately 600 acres of urban land surrounding the deep water channel and Port of Stockton within the City's Redevelopment Project Area, was also considered. It was determined that Stewart Tract was more feasible for development of the theme park and related uses than other sites within San Joaquin County for a variety of physical, social and economic reasons.

As illustrated by the above discussion, there are many constraints that can effectively eliminate any given project site from serious consideration for development. This is particularly true with the siting of a major

destination-resort such as Gold Rush City. The environmental impacts of locating such a project at a location other than Stewart Tract would depend largely on the specific context and location of the alternative site. Such a discussion is too speculative for useful quantitative analysis.

If Gold Rush City was located at a site other than Stewart Tract, Stewart Tract could remain in primarily agricultural use, which is essentially the "No Project" alternative discussed above. Alternatively, Stewart Tract could be developed either with residential uses, non-residential uses, or some combination thereof which could require an amendment to the City's General Plan. The environmental impacts of developing Stewart Tract with alternative land uses would depend entirely upon the uses proposed.

ALTERNATIVES TO DESIGN PROPOSALS OF THE WEST LATHROP SPECIFIC PLAN

The alternatives for Mossdale Village and Stewart Tract are limited to those which would be more conservation-oriented by creating a more compact development pattern, or which would be more job-intensive by creating larger areas of commercial activity. These alternatives were selected because they present the only practical and meaningful options to the alternatives discussed above which remain for discussion.

Alternatives for Mossdale Village

The Conservation-Oriented Alternative:

Project Description:

This alternative (see Figure VI-5 and Table VI-1), provides for a significantly greater amount of land in parks and open space along the San Joaquin River, while increasing the acreage devoted to Medium Density residential and decreasing the acreage devoted to Low Density residential. All other land use proposals remain the same as the Specific Plan proposal for Mossdale Village.

Impacts:

These land use changes are of such magnitude that they would first require an amendment to the General Plan before they could be considered for the Specific Plan.

1. Of special note is the change in the ratio of single-family (S-F) to multi-family (M-F) housing type that would result. Under the Specific Plan proposal, approximately 525 net acres would be devoted to residential use, with a ratio of approximately 72% S-F to 28% M-F. Under the conservation-oriented alternative, the ratio would change to 49%:51%. With such a significant change, it would not be possible to alter the ratio enough for property north of Mossdale Village (when it develops) in order to off-set the change and still achieve the overall General Plan target on housing type for development west of I-5 at 70% S-F and 30% M -F. **[significant]**

2. The change in housing type cited above would have a cumulative impact on virtually all General Plan proposals for SPA #2 which covers the entire area west of I-5 and east of the San Joaquin River. These effects would have to be considered in the process of General Plan amendment, including effects on all forms of infrastructure that are population-sensitive. **[significant]**

3. Average Daily Traffic could be expected to decrease by approximately 18.7%, from about 29,060 to 23,640 trips per day, but air quality impact would still be significant in its overall impact on the region. . **[significant positive]**

FIGURE VI-5

CONSERVATION-ORIENTED ALTERNATIVE FOR MOSSDALE VILLAGE

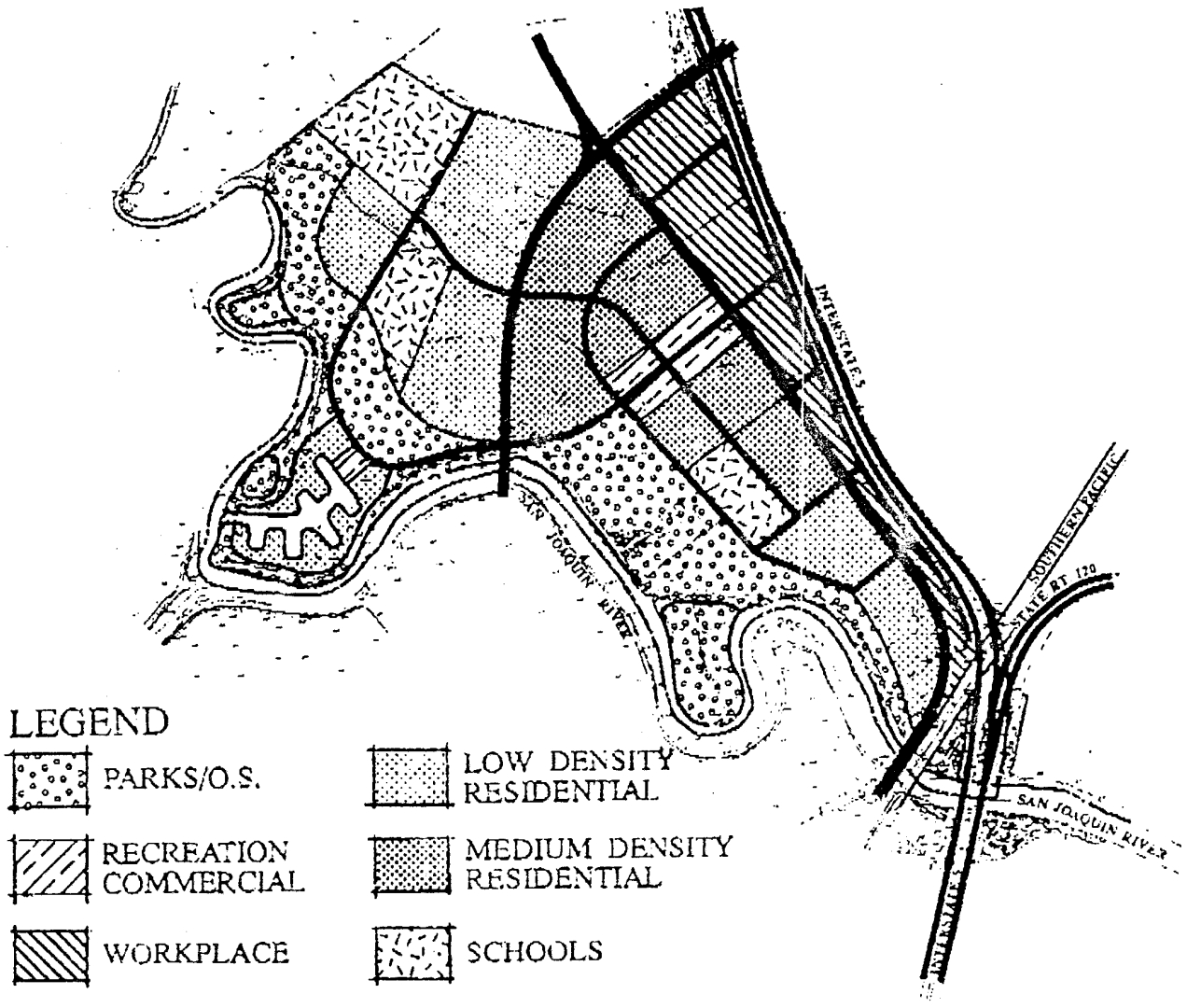


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TABLE VI-1

LAND USE DISTRIBUTION, CONSERVATION-ORIENTED ALTERNATIVE FOR MOSSDALE VILLAGE

TYPE OF LAND USE	ACREAGE	
	Conservation Orientation	Specific Plan Proposal
Residential Total	2,758 du 386.4	3,256 du 521.5
Low @ ave. 5.5 DU/Acre =	1,351 du 245.7	2,436 du 443.0
Med @ ave. 10 DU/Acre =	1,407 du 140.7	820 du 82.0
Village Center	22.1	23.5
Freeway Commercial	21.0	20.0
Service Commercial	68.7	68.0
Waterfront Commercial	3.7	4.0
K-8 School	36.0	36.0
High School	50.0	50.0
Marina (water only)	16.5	18.0
Parks	21.5	36.5
Mossdale Crossing County Park	9.0	9.0
Open Space	257.3	112.0
Waterway	66.9	67.0
Internal Streets	141.3	134.0
Interstate 5 Right-of-way (r-o-w)	45.5	45.5
Southern Pacific Railroad r-o-w	13.0	13.0
TOTAL	**1,161.0**	**1,161.0**

4. All levels of demand for public services would remain substantial, despite some changes in the characteristics of the resident population. [**significant**]

5. The irreversible loss of agricultural land associated with the Specific Plan as proposed would remain. [**significant**]

Mitigation Measures:

1. Virtually all of the measures associated with the Specific Plan would still be required.

The Job-Intensive Alternative:

Project Description:

This alternative (see Figure VI-6 and Table VI-2) provides for a significantly greater amount of land area designated for Service Commercial use, with a corresponding decrease in area devoted to residential use.

Impacts:

As in the case of the Conservation-Oriented alternative, the job-intensive alternative introduces land use changes of such magnitude that an amendment to the General Plan would be required before they could be considered for the Specific Plan.

1. The total number of housing units would drop from 3,256 to 2,859; The ratio of single-family to multi-family would change to 43%-57%. This would make it infeasible to return to an overall 70%-30% ratio as the result of residential development proposed north of Mossdale Village by the General Plan. [**significant**]

2. The change in the percentages of housing type would have a cumulative impact on all other General Plan proposals within SPA #2 which are sensitive to population and housing factors. [**significant**]

3. ADT would drop as with the conservation-oriented alternative. [**significant positive**]

4. Levels of demand for public services would remain substantial [**significant**]

5. The irreversible loss of agricultural land involved with the 20 year General Plan as adopted by the City would remain. [**significant**]

Mitigation Measures:

1. Virtually all of the measures associated with the Specific Plan would still be required.

Alternatives for Stewart Tract

Unlike policies affecting Mossdale Village, the General Plan allows greater flexibility in the amount of acreage devoted to various types of land use, and in the selection of the final mix of use. Consequently, there are fewer constraints to achieving consistency with the General Plan.

FIGURE VI-6

JOB-INTENSIVE ALTERNATIVE FOR MOSSDALE VILLAGE

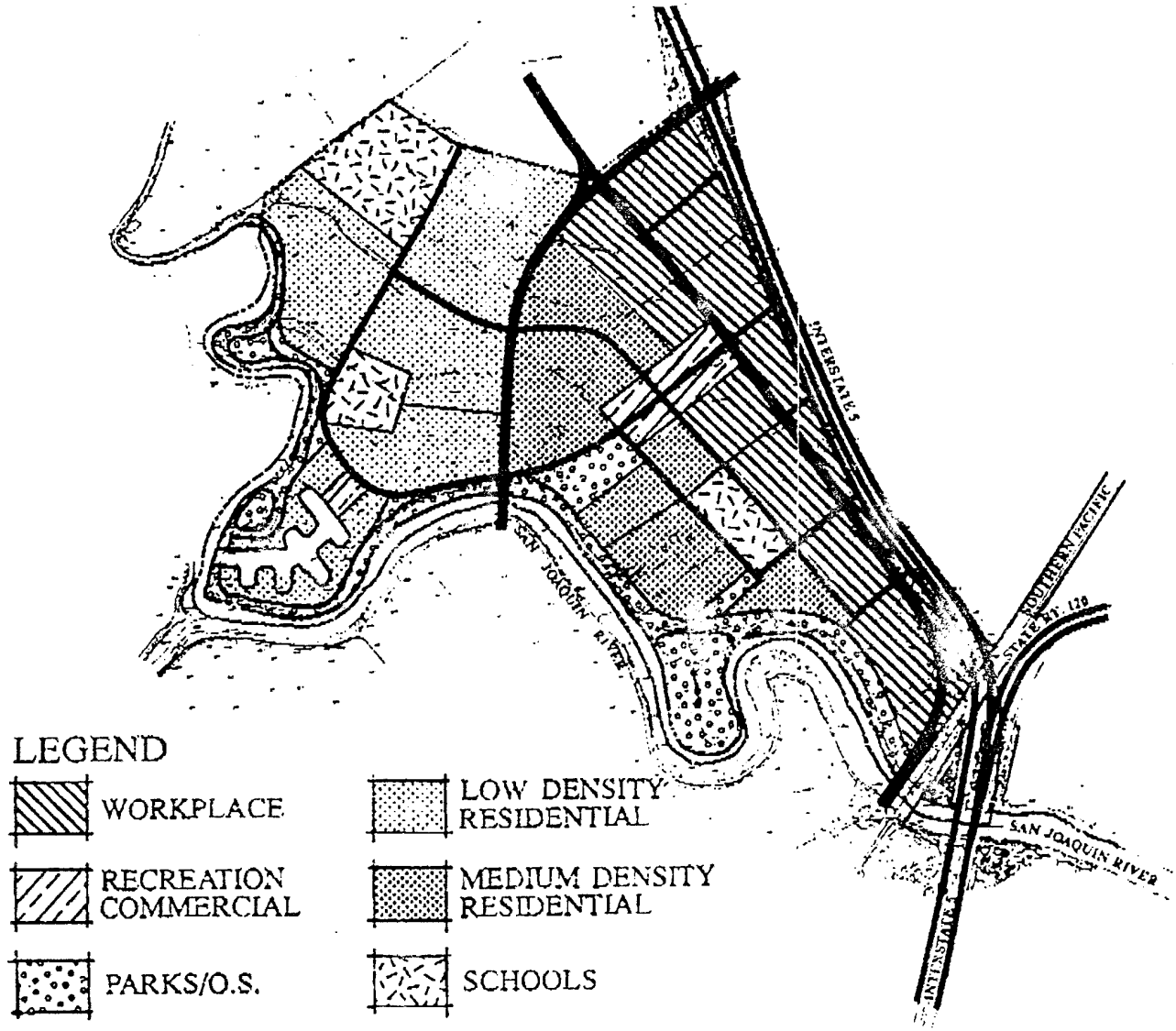

TABLE VI-2

LAND USE DISTRIBUTION, JOB-INTENSIVE ALTERNATIVE FOR MOSSDALE VILLAGE

TYPE OF LAND USE	ACREAGE	
	Job-Intensive Alternative	Specific Plan Proposal
Residential Total	2,859 du 390.7	3,256 du 524.5
Low @ ave. 5.5 DU/Acre =	1,268 du 230.6	2,436 du 443.0
Med @ ave. 10 DU/Acre =	1,601 du 160.1	820 du 82.0
Village Center	23.5	23.5
Freeway Commercial	21.0	20.0
Service Commercial	186.4	68.0
Waterfront Commercial	4.0	4.0
K-8 School	36.0	36.0
High School	50.0	50.0
Marina (water only)	16.5	18.0
Parks	5.5	36.5
Mossdale Crossing County Park	9.0	9.0
Open Space	133.2	112.0
Waterway	67.0	67.0
Internal Streets	159.7	134.0
Interstate 5 Right-of-way (r-o-w)	45.5	45.5
Southern Pacific Railroad r-o-w	13.0	13.0
TOTAL	**1,161.0**	**1,161.0**

The Conservation-Oriented Alternative:

Project Description:

This alternatives (see Figure VI-7 and Table VI-3), provides for a more compact development pattern than is proposed by the Specific Plan. The major changes are substantial increases in the amount of land designated as Open Space/Paradise Cut/Parks and the area devoted to Lakes, and a 102 acre reduction in the amount of space required for the internal road system.

[Note: Figures and tables follow on next four pages. The written description continues on page VI-23]

Impacts:

1. The area devoted to parks and open space would be concentrated along the western boundary formed by Old River, along the southern boundary (Paradise Cut), and to the east of the principal theme park along the San Joaquin River. While Paradise Cut is to be managed for wildlife habitat and related uses, the most westerly acreage would be utilized in combination for surface water detention, wildlife management and flood control. The irreversible loss of agricultural land would be continued under this alternative. **[significant]**

2. The amount of land designated for Commercial use would increase slightly, and the amount of land designated for workplace use (such as corporate offices and business park) would be increased by about 26%. These changes would have an effect on overall traffic, contributing to the traffic conditions requiring major forms of mitigation as described in Parts IV and V of this document. **[significant]**

3. The changes in housing acreage, housing types and density would be minor in their overall effect on traffic and circulation, but would continue to contribute to traffic conditions requiring the major forms of mitigation described in Parts IV and V of this document. **[significant]**

4. The area in lakes would be decreased considerably, thus reducing the acreage available within the area of most intense development for surface water drainage, flood control, water transportation and visual amenity. **[significant]**.

5. A 42% reduction in the acreage devoted to internal roads will concentrate traffic and create the potential for lower levels of service at key on-site intersections. **[significant]**

6. A significant reduction in the area devoted to golf courses would greatly diminish opportunity for this activity by visitors, and would adversely alter the visual amenity provided by the number and distribution of golf courses proposed by the Specific Plan. **[significant]**

Mitigation Measures:

1. Virtually all of the mitigation measures associated with the Specific Plan as described in Parts IV and V of this document would still be required.

2. Key intersections would require an enlarged capacity for accommodating traffic during peak hours.

FIGU. . VI-7

CONSERVATION-ORIENTED ALTERNATIVE FOR STEWART TRACT

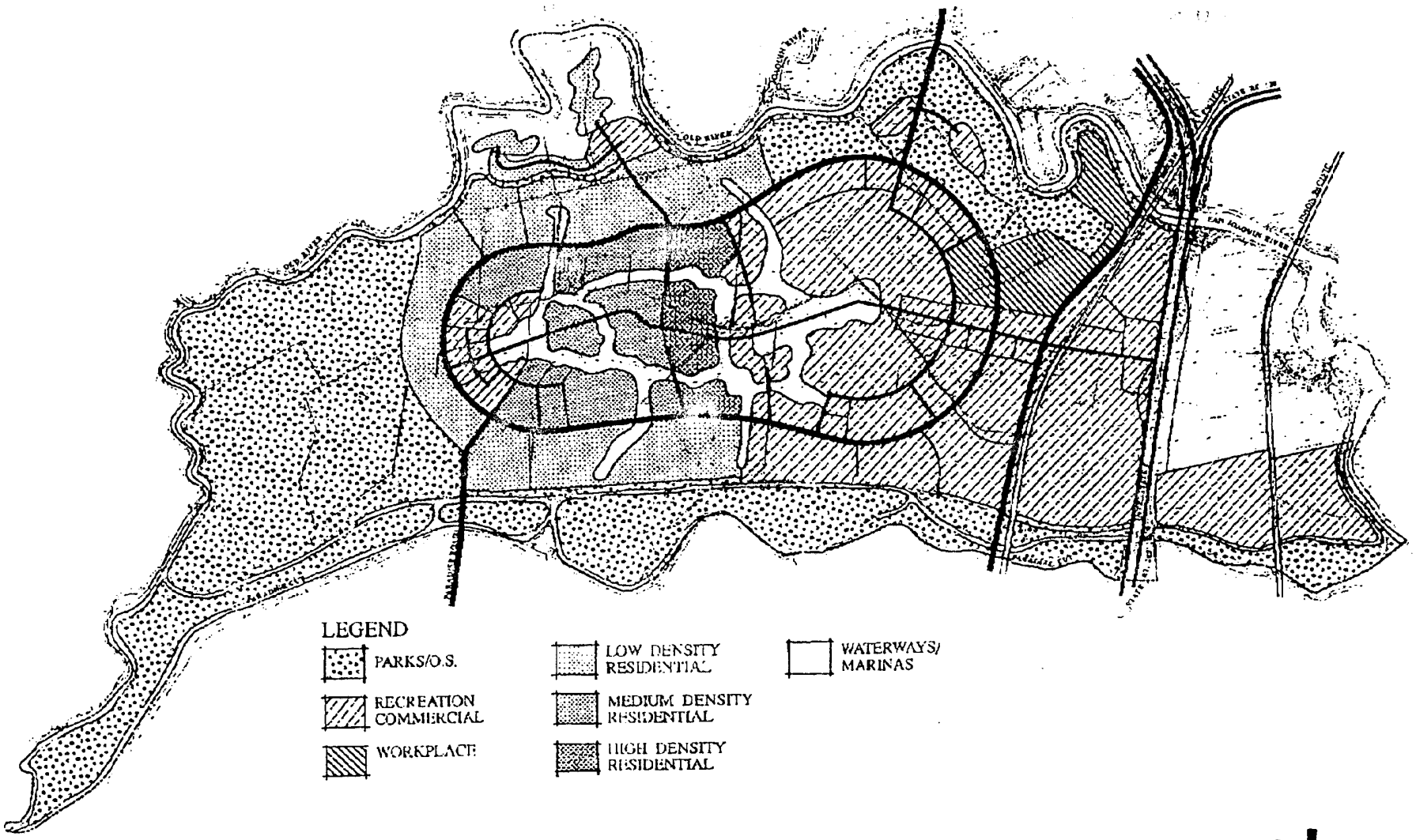

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TABLE VI-3

LAND USE DISTRIBUTION, CONSERVATION-ORIENTED ALTERNATIVE FOR STEWART TRACT

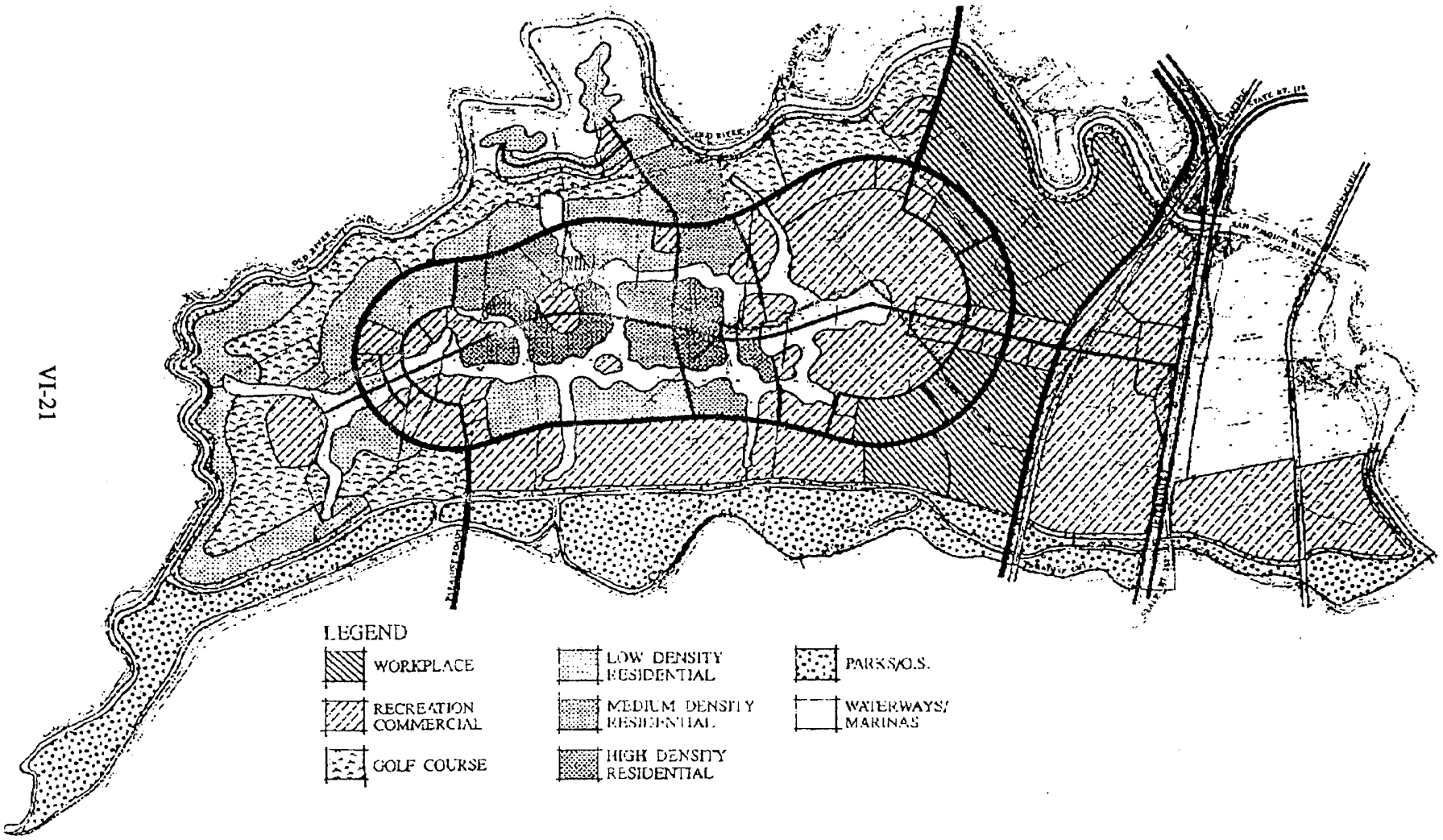
TYPE OF LAND USE	ACREAGE	
	Conservation Orientation	Specific Plan Proposal
Recreation/Resort/Highway/Village Commercial [including central spine]	1,572.1	1,506.5
Workplace	163.1	129.5
Residential Total	10,070 du 987.5	8,442 du 1,298.0
Low @ ave. 5.5 DU/Acre =	3,415 du 620.9	4,631 du 842.0
Med @ ave. 8 DU/Acre =	3,240 du 270.0	3,548 du 443.5
High @ ave. 21 du/Acre =	1,932 du 96.6	263 du 12.5
Lakes	351.9	508.5
Open Space, Paradise Cut & Parks	1,967.4[1]	1,198.7
Golf	276.0	571.0
Public [Park/school, fire stations, neighborhood centers,wastewater treatment]	134.5	134.5
Internal Roads [including round-a-bouts]	141.8	243.3
I-5 r-o-w	134.0	134.0
Southern Pacific r-o-w	55.5	55.5
Union Pacific r-o-w	10.0	10.0
TOTAL	**5,793.8 ***	**5,793.8 ***

* Includes 9.0 acres of existing residential

[1] Includes 396.5 acres of peripheral waterways

FIGURE VI-8

JOB-INTENSIVE ALTERNATIVE FOR STEWART TRACT



TAB LE VI-4

LAND USE DISTRIBUTION, JOB-INTENSIVE ALTERNATIVE FOR STEWART TRACT

TYPE OF LAND USE	ACREAGE	
	Job-Intensive Alternative	Specific Plan Proposal
Recreation/Resort/Highway/Village Commercial [including central spine]	1,586.0	1,506.5
Workplace	576.5	129.5
Residential Total	10,070 du 962.9	8,442 du 1,298.0
Low @ ave. 5.5 DU/Acre =	3,415 du 634.6	4,631 du 842.0
Med @ ave. 12 DU/Acre =	3,240 du 194.9	3,548 du 443.5
High @ ave. 20 du/Acre =	1,932 du 133.4	263 du 12.5
Lakes	508.5	508.5
Open Space, Paradise Cut & Parks	1,595.2[2]	1,198.7
Golf	468.8	571.0
Public [park/schools, fire stations, neighborhood centers, wastewater treatment]	134.5	134.5
Internal Roads	243.8	243.8
I-5 r-o-w	134.0	134.0
Southern Pacific r-o-w	55.5	55.5
Union Pacific r-o-w	10.0	10.0
TOTAL	**5,793.8 ***	**5,793.8 ***

* Includes 9.0 acres of existing residential

[2] Includes 396.5 acres of peripheral waterways.

3. The on-site transit offered along the central spine would require increased capacity to off-set the loss of capacity of the lake system in moving people through the site.

4. There is no practical way to increase capacity at remaining golf course facilities to off-set the loss of at least two 18-hole courses.

The Job-Intensive Alternative:

Project Description:

This alternative (see Figure VI-8 and Table VI-4) provides for a greater amount of land devoted to region-serving jobs, with the decrease occurring in land for recreation commercial and golf course use. The acreage in "workplace" use would increase by approximately 477 acres, or 345%. The area in golf course use would decrease by 102 acres (18%), and the area in other commercial would increase modestly by about 6%.

Impacts:

1. The most significant impact would be to add considerable traffic to the adjacent freeway system during weekday AM and PM peak commute hours of travel, as compared to recreation commercial which will be greatest in its traffic impacts in the evenings and during weekends. This amount of increase would adversely affect some or all of the interchanges providing access to the site. [**significant**]

2. In consideration of the location of workplace uses adjacent to the major ring arterial providing access to Stewart Tract via Gold Rush Blvd., weekday PM peak hour traffic along the Ring Road and major intersections therewith could create the potential for traffic congestion. [**significant**]

3. A reduction in golf course acreage would diminish opportunity for this activity by visitors, and would somewhat diminish the visual amenity involved with golf course use. [**significant**]

Mitigation Measures:

1 Virtually all of the mitigation measures associated with the Specific Plan as described in Parts IV and V of this document would still be required.

2. Additional mitigation would be required to improve the capacity of freeway ramps at the Louise Avenue interchange with I-5, and eventually at the future Gold Valley Parkway interchange with Paradise Road west of Stewart Tract.

3. The reduction in golf course acreage is incapable of mitigation to the level of activity proposed by the Specific Plan.

<u>Comparing the Feasibility and Appropriateness of Conservation-Oriented and Job-Intensive Alternatives v. The Specific Plan Proposal</u>

For Mossdale Village:

From previous discussion, neither the conservation-oriented nor job-intensive alternatives for Mossdale Village are feasible or possible under current General Plan policy. From the perspective of environmental

analysis, there would not be any compelling reasons to seek amendments to the General Plan necessary to accommodate either alternative. While an increase in open space acreage would be beneficial, it would occur at the expense of modifying substantially the ratio of single-family (SF) to multi-family (MF) housing units for the General Plan area as a whole which is unsupported by housing market analysis.

The General Plan calls for substantial multi-family development in support of transit and a future central business district on properties to the north of Mossdale Village. By changing the ratio in Mossdale Village to a multi-family dominance, the policies for land north of Mossdale Village would be placed in jeopardy. The 70%-30% split in SF v. MF housing for the entire community was based on a much greater commitment to MF than has occurred elsewhere in the community. Consequently, the split in housing type for all lands west of Interstate 5 already seek a greater percentage of MF housing to off-set the existing low percentage of MF housing east of I-5. However, seeking a multi-family dominance west of I-5 in Mossdale Village would contradict housing market demands for the Lathrop area and the region, and therefore would be economically unfeasible to obtain.

The job-intensive alternative for Mossdale Village would only increase the area devoted to the working environment while reducing the area of living environment. This would increase the amount of regional traffic expected to commute to and from Lathrop during peak hours, with its attendant adverse impact on levels of traffic service along I-5, I-205 and State Route 120, and at the Louise Avenue interchange with I-5. [see also the discussion of the job-intensive alternative for Stewart Tract, below, that also relates to Mossdale Village.]

For Stewart Tract:

The conservation-oriented alternative has merit, in that it would preserve the western 25% (+ or -) of Stewart Tract in a single block of open space. However, there does not appear to be any compelling environmental reasoning in support of this alternative unless a meaningful amount of agricultural land could also be preserved under the alternative. While it may be argued that saving any agricultural acreage from urban development is better than not saving any agricultural acreage at all, it can also be argued that Stewart Tract agriculture is marginal in its productivity as compared to the much more highly productive soils of the Delta nearby, such as Roberts Island immediately to the north.

The Project proposes to protect and maintain agricultural operations as Stewart Tract develops over the next 30 years. In the long-term, however, the confined levee system that protects Stewart Tract also make it extremely difficult to support very long-term agricultural operations in such a confined relationship to the commercial recreation attractions and related housing that will dominate the development pattern on Stewart Tract. The feasibility of this alternative rests more with questions of marketing, cost and efficiency of operation than to concerns for the effects of the project on the existing natural and man-made environment. Moreover, the feasibility of this alternative is not in keeping with the objectives of the Project as defined by the West Lathrop Specific Plan and the Lathrop General Plan.

The job-intensive alternative offers little if any merit. From an environmental perspective, it only exacerbates traffic conditions, using significant amounts of freeway and on-site arterial street and interchange capacity during weekday peak commute hours. Lathrop already enjoys considerable balance in the ratio of jobs to housing of more than 2:1. This ratio which favors jobs over housing is expected to increase under the existing General Plan and proposed Specific Plan. Thus, creating an even greater job-intensive climate on Stewart Tract that basically would be unrelated to the primary recreation-destination purposes of development under the Specific Plan would not seem to create any particular environmental or economic advantage for the community.

PART VII

OTHER CEQA CONSIDERATIONS

INTRODUCTION

Part VI covers a series of three interrelated topics, as follows:

1. Cumulative impacts.
2. Growth-inducing impacts.
3. Significant irreversible environmental changes and unavoidable adverse impacts.

GENERAL CONSIDERATIONS

Policies of the Lathrop General Plan (especially those of the Land Use Element) and of the West Lathrop Specific Plan commit substantial acreage to residential, commercial, industrial, public and other use, including institutional use. Most of the land to be developed in urban use under the Specific Plan would result in the conversion of agricultural lands. Proposals of the General Plan and Specific Plan mandate that all future urban expansion occur within the boundaries of the City of Lathrop's proposed Sphere of Influence.

The policies and proposals of Lathrop's General Plan substantially modify and alleviate impacts anticipated under previous policy in effect before December, 1991. In the long-term, the City and the County of San Joaquin will benefit by their commitment to joint policies on urbanization of the Lathrop Planning Area while providing for substantial growth in population and economic activity.

CUMULATIVE IMPACTS

Section 15355 of CEQA Guidelines defines cumulative impacts as follows:

> "Cumulative impacts refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> (a) The individual effects may be changes resulting from a single project or a number of separate projects.
>
> (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

Significant Cumulative Impacts on the Region

The most significant cumulative effects associated with the West Lathrop Specific Plan are those affecting transportation, traffic and air quality on a regional basis. As a consequence, the Specific Plan was developed in consideration of the amount of population, employment and traffic projected for the region by the San Joaquin County Council of Governments (COG) to the year 2025.

By including the amount of regional traffic expected on the regional freeway system along with traffic that will be generated by West Lathrop development, traffic projections reflect all known plans, policies and project proposals to the year 2025 of San Joaquin and Stanislaus Counties, including the metropolitan areas of Modesto and Stockton, and the medium- and small-sized cities within the region, such as Manteca, Tracy, Lodi, Lathrop and Ripon, and planned new towns such as Mountain House west of Tracy.

From population, employment and traffic data provided for the project, 2025 development under the West Lathrop Specific Plan will constitute approximately 2.34% of San Joaquin County's population and 6.05% of its employment. The impacts of the West Lathrop traffic on the freeway system will be approximately 11% on I-205 just west of Lathrop(combined with traffic on Golden Valley Parkway), 13% on I-5 just north of Lathrop, 11% on I-5 just south of Lathrop, and 15% on State Route 120 just east of Lathrop.[1] The cumulative impacts and mitigation associated with these projects are discussed in Parts IV and V of this document.

Cumulative Impacts in Relation to Other Projects in San Joaquin County

CEQA Guidelines require evaluation of the potential cumulative impacts that could result from West Lathrop in conjunction with other projects in the vicinity which have been approved or proposed, or which are pending. Most of San Joaquin County has been selected for such evaluation, including projects being considered by the County as well as by the cities of Tracy, Manteca, and Stockton. Cumulative project locations are shown on Figure VII-1, with various characteristics for these projects in comparison with the West Lathrop Specific Plan shown in Table VII-1.

From Table VII-1, development under the West Lathrop Specific Plan will constitute less than 4% of the urbanized acreage and permanent new population expected from all of the projects listed. With the large-scale commercial recreation attractions of Stewart Tract development, West Lathrop commercial development would comprise about 20% of county-wide commercial development. Without the specialized commercial of Stewart Tract, the percentage drops to 9.95%. It is be noted, however, that the traffic impacts associated with the higher percentage of commercial acreage are reflected in West Lathrop's percentages of 2025 freeway traffic described above.

Jobs/Housing Balance

Potentially serious cumulative impacts could occur from the Project if a high percentage of housing demand in West Lathrop was to come from households employed in the San Francisco Bay Area rather than from within the North San Joaquin Valley region centering on Lathrop. This is the pattern which has been emerging in other nearby communities in recent years, such as Stockton, Tracy, Manteca, Modsesto, Patterson, and other cities, resulting in long and congested commuting travel on a daily basis during the work week. If this pattern were to be repeated in West Lathrop, adverse impacts could be considerable, especially in their potential impact on city government finance and services, and on the local school system, with both experiencing considerable growth in service demands.

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[1] Regional population and employment projections for San Joaquin and Stanislaus Counties in 2025 were prepared by the San Joaquin Council of Governments. Traffic projections for West Lathrop development were prepared by the Crane Transportation Group as part of the traffic modeling required for various horizon years and in testing impacts of various circulation and traffic solutions proposed. Population and employment projections were prepared by John Cone, consultant in economics and planning systems for the West Lathrop Specific Plan EIR consultant team.

FIGURE VII-1

CUMULATIVE PROJECT LOCATIONS IN RELATION TO WEST LATHROP

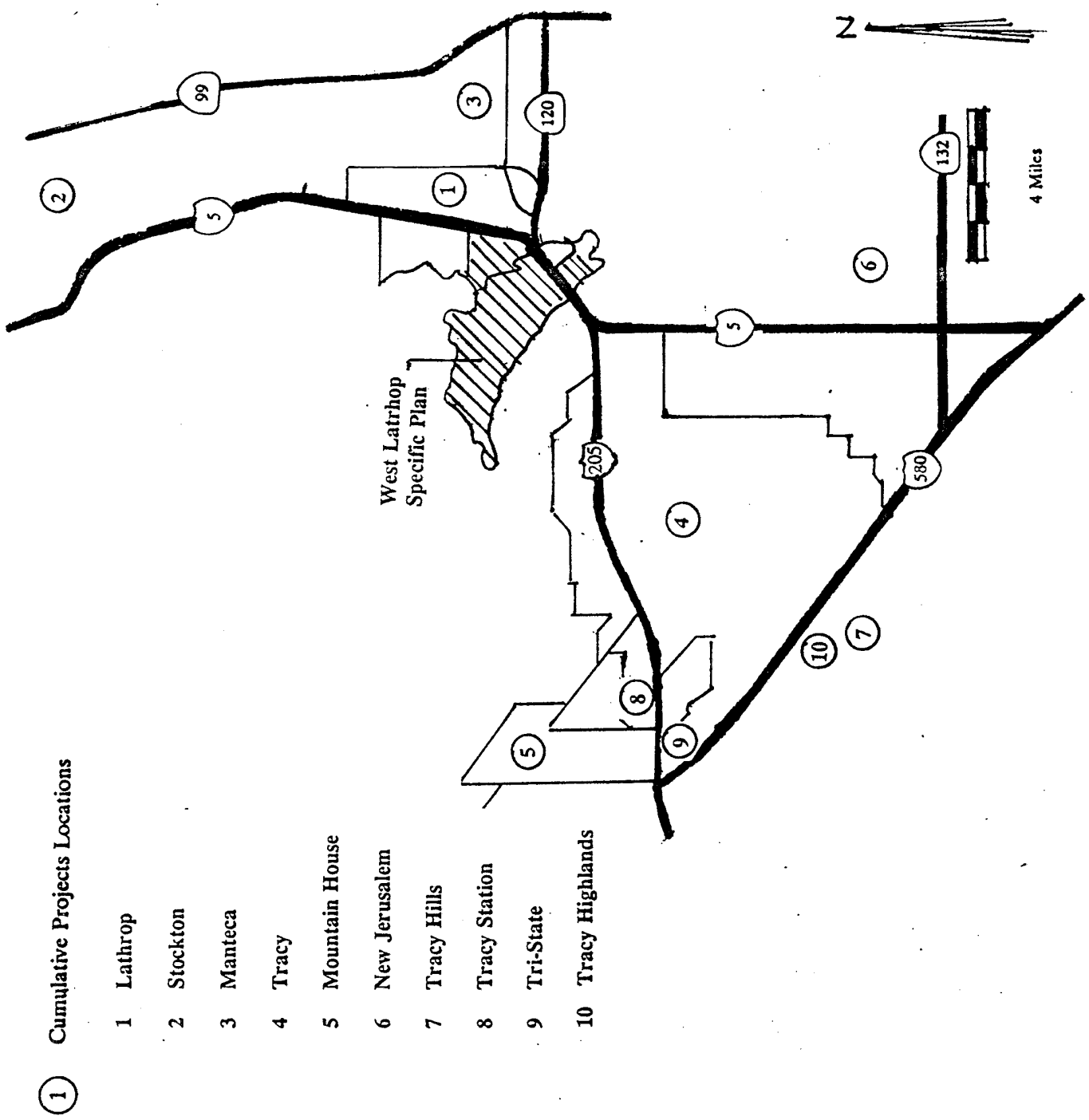

TABLE VII-1

CUMULATIVE PROJECT CHARACTERISTICS COMPARED TO THE WEST LATHROP SPECIFIC PLAN UNDER BUILDOUT CONDITIONS[2]

PROJECT NAME	Miles From West Lathrop	Approximate Acreage	New Populat'n	Commercial Acreage
Lathrop General Plan	-0-	15,430	25,700[3]	1,965[4]
Stockton General Plan	10	65,860	388,460	1,360[5]
Manteca General Plan	4	44,540	47,000[6]	720
Tracy General Plan	6	65,300	129,480	1,500
Mountain House	10	4,670	43,310	275
New Jerusalem	5	3,220	22,680	550
Tracy Hills	11	7,600	22,800	Not avail.
Tracy Station	9	270	-0-	146
Tri State-Cheng	10	330	-0-	20
Tracy Highlands/Le Boeuf	14	1,450	9,000	220
Totals	-	201,070	688,430	5,760
West Lathrop	_	6,950	21,800[7]	1,360
West Lathrop as % of Total	-	**3.46 %**	**3.17 %**	**20.12%***

* Includes the 1,965 acres of commercial recreation acreage on Stewart Tract.

---

2 Except as noted under the footnotes which follow, data has been abstracted from Table 6.1-1 of the **Final EIR for the Mountain House New Town General Plan Amendment**, prepared for San Joaquin County by Baseline Environmental Consulting, January 1993.

3 Includes the permanent new population expected for the existing Lathrop city limits and all land proposed for urbanization by the General Plan between I-5 and the San Joaquin River, less Mossdale Village, plus 50% of the combined permanent and transient population to be housed on Stewart Tract. [(23,000 minus 9,800) + 12,500]

4 Includes 1,360 acres of recreation-oriented development associated with the Gold Rush City theme parks, destination resort commercial and regional/highway commercial.

5 Projection based on an assumption of 70 commercial employees/1,000 population added (as in 1992), @ 20 employees per acre.

6 Based on a projected population (modified version) of 92,030 by 2010.

7 Includes a permanent population of 9,800 for Mossdale Village and 12,500 for Stewart Tract, but excludes transient housing for 12,500 as well as the daily attendance at theme park and other attractions.

Mitigation of impacts on local governmental services solely in the form of new and increased development fees by local government would not likely be sufficient. However, a more adequate response is called for by the Specific Plan in the form of achieving reasonable balance in the location of jobs and the housing it supports, and in the costs and revenues associated with both Mossdale Village and Stewart Tract development. Housing proposals for Stewart Tract, which include retirement housing and meeting some of the housing demand of Stewart Tract employees, serve as examples. The potential for adverse cumulative impact is also lessened by the prospect that most of the thousands of jobs generated by Stewart Tract development are likely to be filled by residents of the sub-region surrounding Lathrop rather than from outside the region. This can only improve the already favorable jobs-housing balance that exists in Lathrop.

Cumulative Impacts on Public Services

The cumulative impacts on public services, including schools, fire and police protection service, water-sewer-drainage, and recreation will occur incrementally and gradually as the urban area expands under the Specific Plan. A key policy of the General Plan which is to be implemented under the Specific Plan requires the phasing of development in a manner which will not place undue strain on the ability of local government to provide adequate levels of public service. This policy is to be applied at the time of considering environmental assessments of separate development proposals to assure that each project can be sustained under this EIR. The City's ability to manage growth will depend heavily on provisions of the Specific Plan which provide foresight on the timing when additional service capability and public improvements will be needed, and of the fair-share costs to be assessed during the development review process.

Other Cumulative Impacts

The cumulative impact of residential buildout under the Lathrop General Plan on the nearby cities of Manteca, Stockton and Tracy may be to slow somewhat the pace and extent of urban expansion that might otherwise occur in these cities. Conversely, a lesser extent of urbanization could also be expected if the regional economic effects of Stewart Tract development do not materialize since these nearby cities can be expected to satisfy some of the housing demand generated by Stewart Tract employment.

Other cumulative impacts concerning land and water resources, biological resources, air quality, transportation and circulation, public safety, noise, population, housing, human health, and cultural resources are covered in Parts IV and V of this document. Further discussion is also provided in the attached Appendix "A" - Initial Study.

GROWTH-INDUCING IMPACT

Notwithstanding the policies and proposals of the Lathrop General Plan and West Lathrop Specific Plan which seek to confine urban expansion, there is always a risk that nearby agricultural lands eventually could be targeted for urban expansion. Of special concern would be the agricultural lands of Roberts Island to the north (currently designated as an Agricultural Preserve by San Joaquin County). Roberts Island lays within the Primary Zone of jurisdiction of the Delta Protection Commission. The Commission has adopted its plan for Delta protection, and policies intended to retain the integrity of Roberts Island can be expected to be implemented by San Joaquin County. Lands within Tracy's planning area which lay west of Paradise Cut and north of I-205 would be a more likely target for urban expansion. However, policies of the Tracy and County General Plans call for retention of most of the acreage between Paradise Cut and the City of Tracy in agricultural use. Much of this acreage lays within a flood plain.

The remaining growth-inducing impact of the Specific Plan is to encourage, indirectly, a substantial increase in population and economic activity, and all of the public and private facilities and services needed to serve that population and activity. The extent of this secondary level of impact has been covered extensively in all of Parts IV and V of this document, and in the EIR for the Lathrop General Plan, to where further evaluation is not required.

SIGNIFICANT IRREVERSIBLE AND UNAVOIDABLE ENVIRONMENTAL CHANGES UNDER THE PROJECT

The significant irreversible as well as unavoidable environmental changes that will occur if the Specific Plan is implemented are described in Parts V, and include the following:

1. The gradual conversion and permanent loss of about 5,800 acres of agricultural land to urban use as the project is phased over a 20-30 year period.

2. The degradation of regional air quality primarily as the result of increased auto and truck traffic throughout the planning area and the region..

3. The loss of views of the night sky due to commercial and residential area lighting. During overcast evenings, the "bounce" effect of reflected light from concentrated theme park and other commercial recreation attractions will be noticeable for miles.

4. A reduction in the levels of regional traffic service that can be expected on Interstate 5, Interstate 205 and State Route 120 during peak hours of traffic by the year 2005 unless improvements in the traffic carrying capacity of the freeway system are provided, or non-auto transportation facilities are provided and utilized.

5. Adverse impacts resulting from a major seismic event could occur which cannot be mitigated by structural design standards. An example would be a breach in the levee system which caused large sections of Stewart Tract and Mossdale Village to flood.

6. The impacts of flooding could be substantial under conditions greater than a 100 year flood event.

Unavoidable adverse environmental effects which are capable of being mitigated are discussed extensively in Parts IV and V of this document.

EFFECTS FOUND NOT TO BE SIGNIFICANT

Effects found not to be significant are listed and described in the attached Initial Study [see Appendix "A"]

PART VIII

REPORT PREPARATION; ORGANIZATIONS AND PERSONS CONSULTED

REPORT PREPARATION

This report was prepared by Robert E. Grunwald of Grunwald & Associates, City and Environmental Planning Consultants, 350 Rivergate Way, Sacramento, CA 95831; Telephone: (916) 429-6734. Mr. Grunwald was assisted by the following firms and consulting personnel:

Crane Transportation Group (transportation, circulation and traffic):
- Mark D. Crane, Principal
- Carolyn R. Cole, Principal
- Davis Reed, Associate
- Ginger L. Muldoon, Associate

Moldenhauer Engineering Company (water, sewerage, flood control, drainage, geotechnics):
- L.A. Modenhauer, Principal

Urban Economics and Planning Systems (demographics, economics & fiscal impact)
- John W. Cone, Principal

Sycamore Environmental Consultants (biological resources)
- R. John Little, PhD, Principal
- A.A. Rich & Associates (fisheries)
- Harland Barholemew & Associates (surveys for special status species)

Far Western Anthropological Research Group (cultural resources)
- Eric Wohlgemuth and C. Trent Mears

Brown Buntin & Associates (noise assessment)
- Paul Bollard
- Jim Buntin
- Bill Thiessen

Richard Pollack, PhD (air quality)

ORGANIZATIONS AND PERSONS CONSULTED

City of Lathrop

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Sue Wilcox, City Clerk

Pam Carder, Community Development Director
Ramon Batista, IV, Senior Planner
Kathy Morris, Assistant Planner
June Decker, Planning Secretary
Glenn Gebhardt, City Engineer
Wilce Martin, Public Works Director
Susan E, Burns, City Attorney

City of Manteca

Public Works Department
Community Development Department

City of Tracy

Community Development Department

City of Stockton

Public Works Department
Community Development Department

County of San Joaquin

Council of Governments
Local Agency Formation Commission
Community Development Department
Public Works Department

Regional Agencies

San Joaquin Valley Unified Air
Pollution Control District
Delta Protection Commission

State of California

Caltrans, Headquarters, Sacramento
Caltrans, District 10, Stockton
Department of Boating & Waterways
Department of Conservation
Department of Fish & Game
Department of Health Services
Department of Water Resources
Cal EPA, Air Resources Board
Cal EPA, Regional Water Quality Control Board
Central Valley Region
Cal EPA, Toxic Substances Control
Cal EPA, Water Resources Control Board
Governor's Office of Planning & Research
Integrated Waste Management Board
Mining & Geology Board
Office of Historic Preservation and
Native American Heritage Commission
Public Utilities Commission
Reclamation Board
State Lands Commission
Water Rights Board

Federal Government

U.S. Army Corps of Engineers
U.S. Coast Guard
U.S. Environmental Protection Agency
U.S. Fish & Wildlife Service
Federal Highway Administration

Private Firms

Califia Development Group
Norman Jarrett
Darryl Foreman
Dan Coleman
Susan Collins
PBR
Teresa Rea
Allied Engineers
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Duwante & Stoll Engineers
Roger Foott & Associates, Engineers
and Geologists
GeoResearch
HDR Engineering
Morrison & Foerster, Attorneys at Law
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Lynn Sutton

Appendix A

INITIAL STUDY FOR ENVIRONMENTAL ASSESSMENT

WEST LATHROP SPECIFIC PLAN

CITY OF LATHROP, CALIFORNIA

Prepared for the City of Lathrop
by
Grunwald & Associates
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350 Rivergate Way, Sacramento, CA 95831
(916) 429-6734

September 30, 1993

PROJECT DESCRIPTION

The project requiring environmental assessment is the proposed West Lathrop Specific Plan located on either side of the San Joaquin River west of Interstate 5 as required by policies of the Comprehensive General Plan of the City of Lathrop, California. The completed Specific Plan and Draft Environmental Impact Report are expected to be available for public comment in the spring of 1994.

The environmental checklist and discussion of environmental evaluation which follows concludes with a finding for a Focused Environmental Impact Report. The area covered by the Specific Plan (the "planning area") is shown on Figure 1 and encompasses about 5,500 acres. Most of the land (5,000 acres) lays west of the San Joaquin River within General Plan Sub-Plan Area #3, involving the entire Stewart Tract. This area is referred to in the Specific Plan as "Gold Rush City". The area east of the River lays within Sub-Plan Area #2 and is referred to in the Specific Plan as "Mossdale Village".

Gold Rush City

Gold Rush City is a master planned community integrating an historical theme park, recreation-oriented residential villages, activity centers, vacation resorts, sports facilities, recreation-oriented commercial enterprises and regional commercial centers. The Gold Rush City theme park is proposed to be a full scale, single-priced theme park based on San Francisco circa 1850 and the Gold Rush era. Several individual sub-themes are to be developed, providing a wide range of entertainment opportunities for the entire family.

Supporting the theme parks will be secondary attractions such as a water park. Other recreational facilities proposed are hotels, lodgings, sports centers, ranches and camping facilities. Resorts will offer a range of accommodations, from first class, high quality hotel suites and time-share condominiums, to family hostelries and RV camp grounds. Sporting facilities will include horseback riding, cycling, swimming, golf and tennis. Development will take advantage of the proximity of the site to the San Joaquin Delta by offering boating, water skiing, canoeing, fishing, wildlife excursions and other water-related activities. A sports stadium, convention center and equestrian center is planned to provide a variety of entertainment and vacation activities. Because of the depth and variety of activity, it is anticipated that the average length of stay of visitors to Gold Rush City will be three days.

Commercial development is planned for all components of Gold Rush City. Resorts and commercial recreation and entertainment facilities will provide employment opportunities for residents of the Lathrop area. Village commercial uses will be developed where appropriate to minimize traffic and to encourage pedestrian access. A portion of the Stewart Tract will be developed as a business park, designed to accommodate different forms of transportation.

Given the anticipated activities and length of stay, a strong recreational residential element will complement the resorts and theme parks. A variety of recreation-oriented housing types are proposed, including retirement homes, time share single-family units and condominiums, and second homes, to be integrated into a total recreation environment to enlarge and create opportunities for a vacation experience. Following the Village concept of residential development established for Mossdale Village east of the San Joaquin River, the full range of recreation-residential use will be integrated by careful landscape architectural and architectural design. Since the goal of Gold Rush City is to provide a unique recreation experience for the family and the individual, parks, championship golf courses, landscaped open space corridors and natural preserves are included.

FIGURE 1

GENERALIZED BOUNDARIES OF THE SPECIFIC PLAN

Mossdale Village

In contrast to Gold Rush City, Mossdale Village is proposed as a residential "Village", with support facilities, as described by the General plan. Each village would be served by a Village Center with a convenience-oriented (neighborhood level) shopping center and community services, one or more elementary schools and recreation-parks centrally placed to the neighborhoods they serve, and bordered by components of the community open space system. Villages would be defined by elements of the Arterial street system and would be comprised of two or more neighborhoods accommodating a variety of housing types and with aggregate populations in the range of 7,000 to 10,000.

A Village commercial center of 15-30 acres would provide for a broader range of uses than would be expected in a conventional neighborhood commercial center. Uses to be considered include: an 8-10 acre retail shopping center for convenience goods, with a supermarket and drugstore as anchor tenants, and smaller shops and stores such as liquor, small variety, deli, bakery, video shop, coffee shop and restaurant; a personal service center, including barber,. beauty salon, shoe repair, tailoring, body building, diet center; and a small appliance repair center. and public and semi-public uses, such as a senior center, library, education center, clinic, day care, convalescent home, lodges and churches.

In addition to the Village Center, easily accessible space would be provided for the range of public and private "community" services needed close to places of residence. Examples include churches, nursery schools, child care centers, senior centers, clubs, convalescent homes, clinics and business and professional offices catering to residential clients. These uses would be grouped to create a village center within walking distance of a majority of residents served. Such community uses typically require 20% to 25% of the developed area of a community, but rarely is the need in relation to residential areas to be served given the planning attention it deserves. For lack of a proper planning context, such community services often have to settle for less than optimum locations within the entire community which may be in conflict with other more intense and incompatible types of land use. The Village Concept of development is intended to overcome these limitations.

Each village and village center could have its own distinctive architectural character, with major activity centers connected by pedestrian-oriented open space corridors either along or separate from the street system. This approach is important to achieving identity among residential areas. The scale and variety of shopping and community services of each village center will be influenced in part by the economic characteristics and housing densities of the residential areas to be served.

Because of its location along the east side of the San Joaquin River, Mossdale Village would include a Marina with attendant Waterfront Commercial providing access to the river and river recreation opportunities by residents of the City. Native American facilities of archaeological and cultural significance would be preserved within open space corridors along the River and at other locations where preservation is required.

Environmental Assessment

In reviewing this assessment, it is important to understand that the Plan will have both primary and secondary effects on the environment. Some Specific Plan policy and design proposals will directly generate new urban development, while others will induce future actions of urban development and change within the community. As a consequence, some of the questions contained in the attached environmental checklist deserve "no" answers, while others answered with a "yes" or "maybe" reflect anticipated impacts when development may ultimately occur. The full extent of change to be depicted by the General Plan and Specific Plan Diagrams and to be described in the Specific Plan text cannot be assumed as absolute.

Some development may not occur even though encouraged by the Plan. This could be the case particularly for latter phases of development within Gold Rush City which may not occur for 10 or more years.

The evaluation of potential environmental effects that follows draws heavily on the description of environmental impacts and mitigation measures contained in the General Plan EIR certified by the City in December, 1991. However, it is especially important to note that significant additional field work and analysis has been completed for biological resources for use in the Specific Plan design process so as to minimize the extent to which mitigation measures may be required as part of the Specific Plan EIR. This will also be true for archaeological and cultural resource identification, and for analysis of traffic impacts of alternative designs of the circulation system.

The Gold Rush City/Mossdale Village Interface

The line of separation between the two parts of the Specific Plan is the San Joaquin River. However, the two areas interface in a variety of ways because of their proximity to and dependence on the same roadway facilities and freeway interchanges for access east of the river. Manthey Road (the frontage road south of the Louise Avenue interchange with I-5) and Louise Avenue (extended) will provide important access to Gold Rush City and Mossdale Village; development immediately west of the river will require sensitivity in the selection of land uses that are compatible with open space and housing areas east of the river; and, careful attention to the height, scale, signage and lighting of structures and facilities west of the river will be required.

ENVIRONMENTAL CHECKLIST FOR INITIAL STUDY
City of Lathrop, California

A. BACKGROUND

1. Name, Address & Phone # of Proponent(s): City of Lathrop, 16775 Howland Road, Suite #1, Lathrop, CA. 95330; (209) 858-5657

2. Date checklist prepared/submitted: September 30, 1993

3. Agency requiring checklist: Lathrop City Planning Commission and City Council

4. Name of proposal: **West Lathrop Specific Plan**

B. ENVIRONMENTAL IMPACTS

Explanation of all "yes" and "maybe" answers are provided on attached sheets.

			Yes	Maybe	No
1.	Earth:	Will the proposal result in:			
	a.	Unstable earth conditions or changes in geologic substructures?	___	_____	_x_
	b.	Disruptions, displacements, compaction or overcovering of the soil?	_x_	_____	___
	c.	Change in topography or ground surface relief features?	___	__x__	___
	d.	The destruction, covering or modification of any unique geologic physical features?	___	_____	_x_
	e.	Any increase in wind or water erosion of soils, either on or off site?	___	__x__	___
	f.	Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean, bay, inlet or lake?	___	__x__	___
	g.	Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure or similar hazards?	___	__x__	___
2.	Air:	Will the proposal result in:			
	a.	Substantial air emissions or deterioration of ambient air quality?	___	__x__	___
	b.	The creation of objectionable odors?	___	_____	_x_
	c.	Alteration of air movement, moisture, or temperature, or any change in climate either locally or regionally?	___	_____	_x_
3.	Water:				
	a.	Changes in currents, or the course of direction of water movements in either marine or fresh waters?	___	__x__	___
	b.	Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff?	_x_	_____	___
	c.	Alterations to the course or flow of flood waters?	___	__x__	___
	d.	Change in the amount of surface water in any water body?	___	__x__	___
	e.	Discharge into surface waters, or any alteration of surface water quality, including (but not limited to) temperature, dissolved oxygen or turbidity?	___	_____	_x_
	f.	Alteration of the direction or rate of flow of groundwater?	___	_____	_x_
	g.	Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	___	__x__	___
	h.	Substantial reduction in the amount of water otherwise available for public water supplies?	___	_____	_x_
	i.	Exposure of people or property to water-related hazards such as flooding?	___	__x__	___

			Yes	Maybe	No
4.	Plant Life:	Will the proposal result in:			
	a.	Change in the diversity of species or number of any species of plants (including trees, shrubs, grass, crops and aquatic plants)?	___	_____	_x_
	b.	Reduction in the number of any unique, rare or endangered plant species?	___	_____	_x_
	c.	Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	___	_____	_x_
	d.	Reduction in acreage of any agricultural crops?	___	_____	_x_
5.	Animal Life:	Will the proposal result in:			
	a.	Changes in the diversity of species or numbers of any species of animals, (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	___	__x__	___
	b.	Reduction in the number of any unique, rare or endangered animal species?	___	_____	_x_
	c.	Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	___	__x__	___
	d.	Deterioration to existing fish or wildlife habitat?	___	__x__	___
6.	Noise:	Will the proposal result in:			
	a.	Increase in existing noise levels?	_x_	_____	___
	b.	Exposure of people to severe noise levels?	___	_____	_x_
7.	Light and Glare:	Will the proposal produce new light or glare?	_x_	_____	___
8.	Land Use:	Will the proposal result in a substantial alteration of the present or planned land use of an area?	_x_	_____	___
9.	Natural Resources:	Will the proposal result in an increase in the rate of use of any natural resources?	___	_____	_x_
10.	Risk of Upset:	Will the proposal involve:			
	a.	A risk of explosion or the release of hazardous substances including (but not limited to) oil, pesticides, chemicals or radiation, in the event of an accident or upset conditions?	___	_____	_x_
	b.	Possible interference with an emergency response plan or an emergency evacuation plan?	___	_____	_x_
11.	Population:	Will the proposal alter the location, distribution, density or growth rate of the human population of an area?	_x_	_____	___
12.	Housing:	Will the proposal affect existing housing, or create a demand for additional housing?	_x_	_____	___
13.	Transportation/Circulation/Traffic:	Will the proposal result in:			
	a.	Generation of substantial additional vehicular movement?	_x_	_____	___
	b.	Effects on existing parking facilities, or demand for new parking?	_x_	_____	___
	c.	Substantial impact upon existing transportation systems?	_x_	_____	___
	d.	Alterations to present patterns of circulation or movement of people and/or goods?	___	__x__	___
	e.	Alterations to waterborne, rail or air traffic?	___	__x__	___
	f.	Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	___	__x__	___

		Yes	Maybe	No
14.	Public Services: Will the proposal have an effect upon, or result in the need for altered governmental services for any of the following functions:			
	a. Fire protection?	_X_	____	____
	b. Police protection?	_X_	____	____
	c. Schools?	_X_	____	____
	d. Parks or other recreation facilities?	_X_	____	____
	e. Maintenance of public facilities, including roads or streets?	_X_	____	____
	f. Other governmental services?	_X_	____	____
15.	Energy: Will the proposal result in:			
	a. Use of substantial amounts of fuel or energy?	_X_	____	____
	b. Substantial increase in demand upon existing sources of fuel or energy, or require the development of new sources of energy?	____	____	_X_
16.	Utilities: Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			
	a. Electric power or natural gas?	____	____	_X_
	b. Communications systems?	____	____	_X_
	c. Central water system or private well(s)?	_X_	____	____
	d. Central sewer system or individual system?:	_X_	____	____
	e. Storm water drainage?	_X_	____	____
	f. Solid waste management and disposal?	_X_	____	____
17.	Human Health: Will the proposal result in:			
	a. Creation of any health hazard or potential health hazard (excluding mental health)?	____	____	_X_
	b. Exposure of people to potential health hazards?	____	____	_X_
18.	Aesthetics: Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	____	____	_X_
19.	Recreation: Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	_X_	____	____
20.	Cultural Resources: Will the proposal result in or have the potential for:			
	a. The alteration or destruction of a prehistoric or historic archaeological site?	____	__X__	____
	b. Adverse physical or aesthetic effects to a prehistoric or historic building, structure or object?	____	__X__	____
	c. A physical change which would affect unique ethnic cultural values?	____	__X__	____
	d. A restriction on existing religious or sacred uses within the impact area?	____	__X__	____
21.	**Mandatory Findings of Significance:**			
	a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	____	__X__	____

		Yes	Maybe	No
b.	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? [A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future.]	_x_	_____	___
c.	Does the project have impacts which are individually limited but cumulatively considerable? [A project may impact on two or more separate resources where the impact on each resources is relatively small, but where the effect of the total of those impacts on the environment is significant.]	_x_	_____	___
d.	Does the project have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly?	___	__x__	___

C. DISCUSSION OF ENVIRONMENTAL EVALUATION [See attached description of environmental impacts]

D. DETERMINATION On the basis of this evaluation:

1. I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. _____

2. I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on the attached sheet have been added to the project. A NEGATIVE DECLARATION WILL BE PREPARED. _____

3. I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. __x__

September 30, 1993
Date

_____
Pam Carder, Director of Community Development, City of Lathrop

DISCUSSION OF ENVIRONMENTAL EVALUATION

This evaluation follows the sequence of questions in the preceding Environmental Checklist Form.

1. Earth:

Impervious surfaces that result from new urban development will have the effect of compacting and overcovering of the soil mantle. **A significant effect may occur** because of difficulty that could occur in compacting soils affected by a relatively high water table during even normal years of rainfall. Mitigation of such conditions may require more than positive off-site drainage of surface waters to assure adequate compaction for urban construction.

2. Air:

The extent of air emissions anticipated for partial as well as full development under the Specific Plan will be substantial as the result of significant increases in population and vehicle traffic generated by urbanization. **A significant effect will occur** and should be addressed in the Specific Plan EIR, including long-term cumulative effects on the San Joaquin Valley Air Basin.

3. Water.

The use of groundwater as a long-term source of domestic water is placed in question by concerns for the long-term quality of groundwater as may be influenced by salt water intrusion extending easterly from the Sacramento-San Joaquin Delta. The need and options for supplying surface water on a permanent basis is being examined as part of Specific Plan studies. **A significant effect may occur** and should be addressed in the project EIR.

4. Plant Life &
5. Animal Life.

There will be an increase in the quantity and amount of trees, shrubs, lawn and other ornamental plants associated with the urban landscape. **No significant effect will occur**, because the effect will be to enhance the visual quality of the community.

Several thousand acres of productive agricultural acreage will require conversion to large-scale urbanization. **Significant and irreversible effects will occur** because virtually all of the land is under Williamson Act contracts and meets the criteria of "prime land" under the Farmland Mapping and Monitoring Program being conducted by the State Department of Conservation. While this topic was discussed in the General Plan EIR as an irreversible impact, measures available to at least partially mitigate the loss of farmland should be addressed in the Specific Plan EIR.

Significant habitat for fish and wildlife (including nesting and foraging habit of the Swainson's Hawk) is present along the San Joaquin River, its tributaries and man-made water channels throughout various parts of the planning area, and especially west of the River. There is potential for adverse effects on the habitat of rare and threatened species of plants and animals close to waterways and forage areas. Potential significant effects were addressed in the General Plan EIR, with the requirement for a Habitat Conservation Plan in relation to rare and endangered species of plants and animals. While detailed biological studies of the entire Specific Plan area have been underway since spring of 1993 to identify areas where urbanization should either be avoided or open space preserves provided, **significant effects may still occur** which should be addressed in the project EIR.

There will be an increase in the number of domestic pets, and a decrease in habitat for small mammals associated with agricultural lands. **No significant effect is likely to occur** because of the great amount of agricultural acreage remaining within the area and the region, and because the habitat of birds native to the area will increase through additional acreage in ornamental landscaping. For many common species of birds, the City will become a sanctuary.

6. Noise.

Depending on the proposed land use pattern in relation to freeways, major arterials and commercial generators of noise, **significant effects may occur** that should be addressed in the project EIR.

7. Light and Glare.

Light and glare will increase primarily from the installation of lighting necessary for large-scale commercial recreation uses. **Significant effects of such intensive lighting will occur,** including effects on the night sky and the visual character of nearby residential neighborhoods, and should be addressed in the project EIR.

Secondarily, light and glare will occur from the installation of new street lights, from additional vehicle traffic at night, and from new smaller business and residential use. **No significant effect will occur** because the levels of light from residential areas will be similar to that currently experienced, and because of City policies which require the hooding of non-residential lighting to prevent off-site glare.

8. Land Use.

Significant effects may result from various options in the siting of specific uses, especially within Gold Rush City. Care is required in the selection of those sites and arrangements which will best mitigate the potential for adverse impacts as discussed under other topics described in this Initial Study.

11. Population.

The proposal can be expected to alter the location, distribution, density and growth rate of the human population of the greater Lathrop area. **Significant effects may occur** in relation to other topics described in this report, and should be discussed in the project EIR if appropriate.

12. Housing.

The project may have significant effects, depending on the housing mix selected, including affordable housing for Gold Rush City employees. **The potential for significant effect should be addressed in the project EIR.**

13. Transportation.

Major significant effects are expected as the result of destination traffic generated by the proposed theme park and other large-scale commercial recreation facilities, as well as by traffic generated by the full range of residential, commercial, semi-public and public areas and facilities which will comprise the Mossdale Village expansion to the City of Lathrop. These effects may include substantial impacts on existing and proposed freeway interchanges and on the traffic capacity of freeway segments connecting with Route 99 to the east, with Stockton to the north and with the San Francisco Bay Area to the west. Mitigation must

be sought which will assure the achievement of long-term goals of managing highway traffic and improving air quality. The role of rail transportation will be most significant in this regard.

In order to avoid the need for mitigation after the fact as much as possible, the Specific Plan design process has been devised to permit testing of potential impacts so that proposals for land use and circulation design will in themselves become means to mitigate potential adverse impacts.

14. Public Services.

There is a potential for significant effects on all public services now provided by the City and local special districts, and on services yet to be provided. Fiscal impacts must be analyzed if the costs of providing government services are to be sustainable on an on-going basis.

15. Energy:

Because of the size and complexity of the urban pattern to be created, the project may eventually result in the use of substantial amounts of natural gas and electrical energy. While suppliers of gas and electric services to the area have indicated their ability to provide adequate supplies [see Lathrop General Plan EIR], they have requested early consultation in the design process so that the Specific Plan takes adequate account of specialized facilities and equipment that will be needed.

16. Utilities.

Significant effects could occur with respect to each of the major utility systems to be operated by the City of Lathrop to serve the expanded urban pattern, including waste water management, solid waste management, domestic water supply, surface water drainage and flood plain management.

17. Human Health.

There are no proposals for types of development which could generate significant effects on human health through hazardous operations or the generation of hazardous wastes. **No significant effect will occur.**

18. Aesthetics.

Significant effects could occur through the loss of both near view and far view scenic vistas now open to freeway travelers.

19. Recreation.

(see Item 14., above)

20. Cultural Resources.

A record search and field search is being conducted to determine if there is a potential for significant effects on cultural resources, including historic sites and structures. **The potential for significant effect exists** because of known archaeological and cultural resources within the planning area. The project sponsors intend to accommodate all new and existing cultural resources of significance in a manner that will preserve and (if appropriate) enhance their presence.

21. Mandatory Findings of Significance.

21. Mandatory Findings of Significance.

a. The project has the potential to reduce the habitat of wildlife species, threaten an animal community and restrict the range of an endangered avian species.

b. The project does have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.

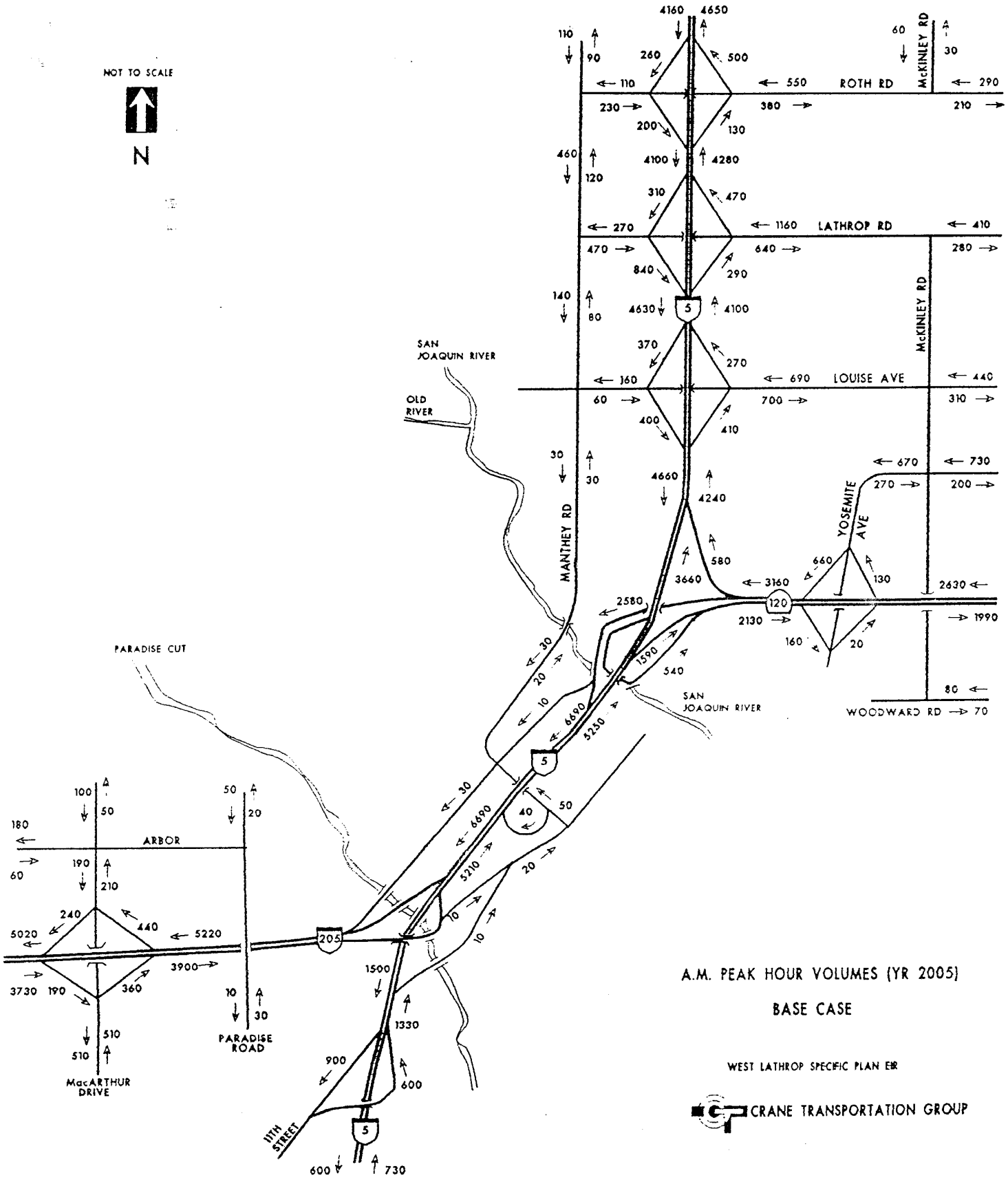
c. The project will have impacts which are individually limited but cumulatively considerable.

d. The project is not expected to have adverse effects on human beings.

Appendix B

TRAFFIC DATA & DIAGRAMS

Traffic Data and Diagrams, Continued

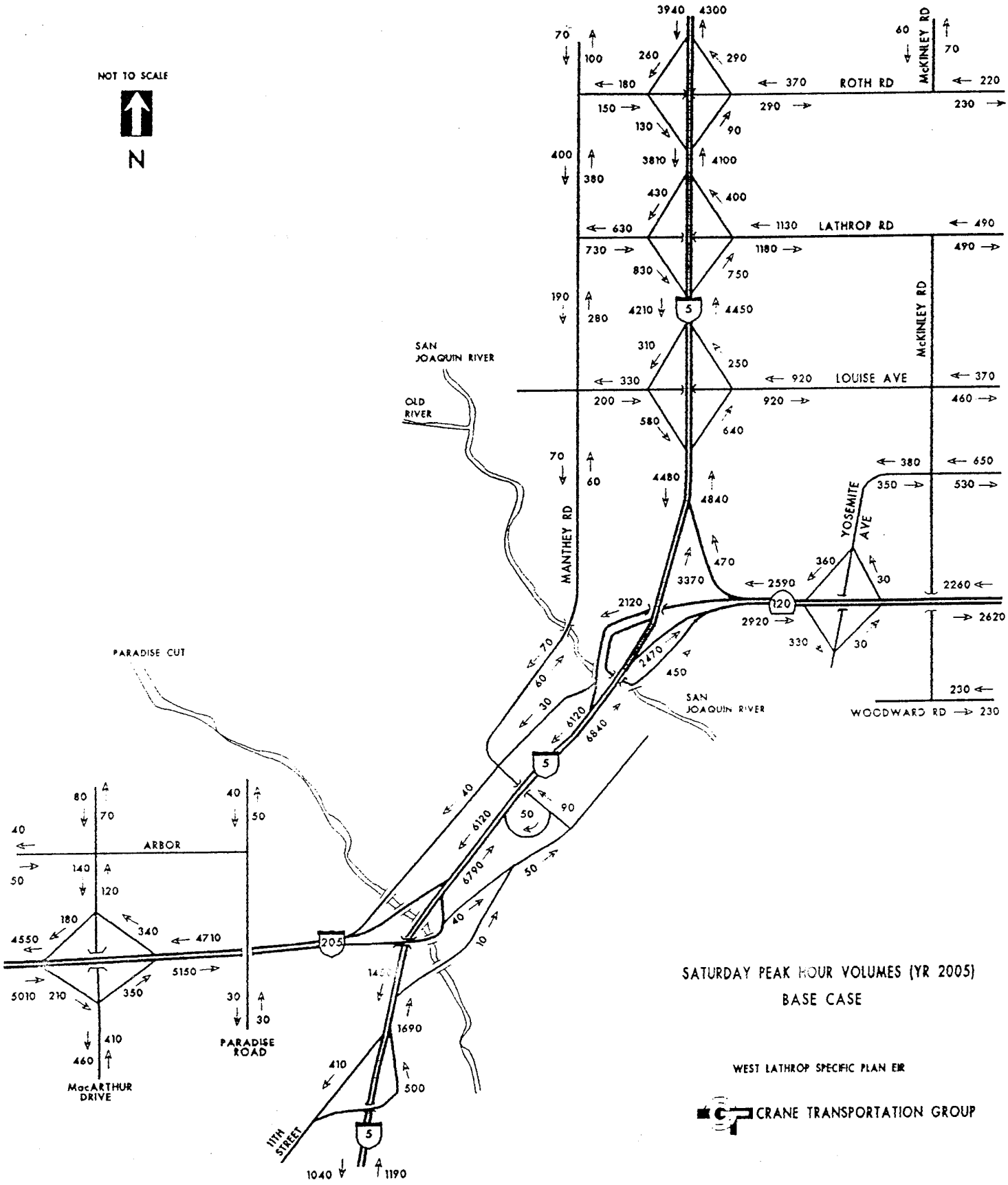


A.M. PEAK HOUR VOLUMES (YR 2005)

BASE CASE

WEST LATHROP SPECIFIC PLAN EIR

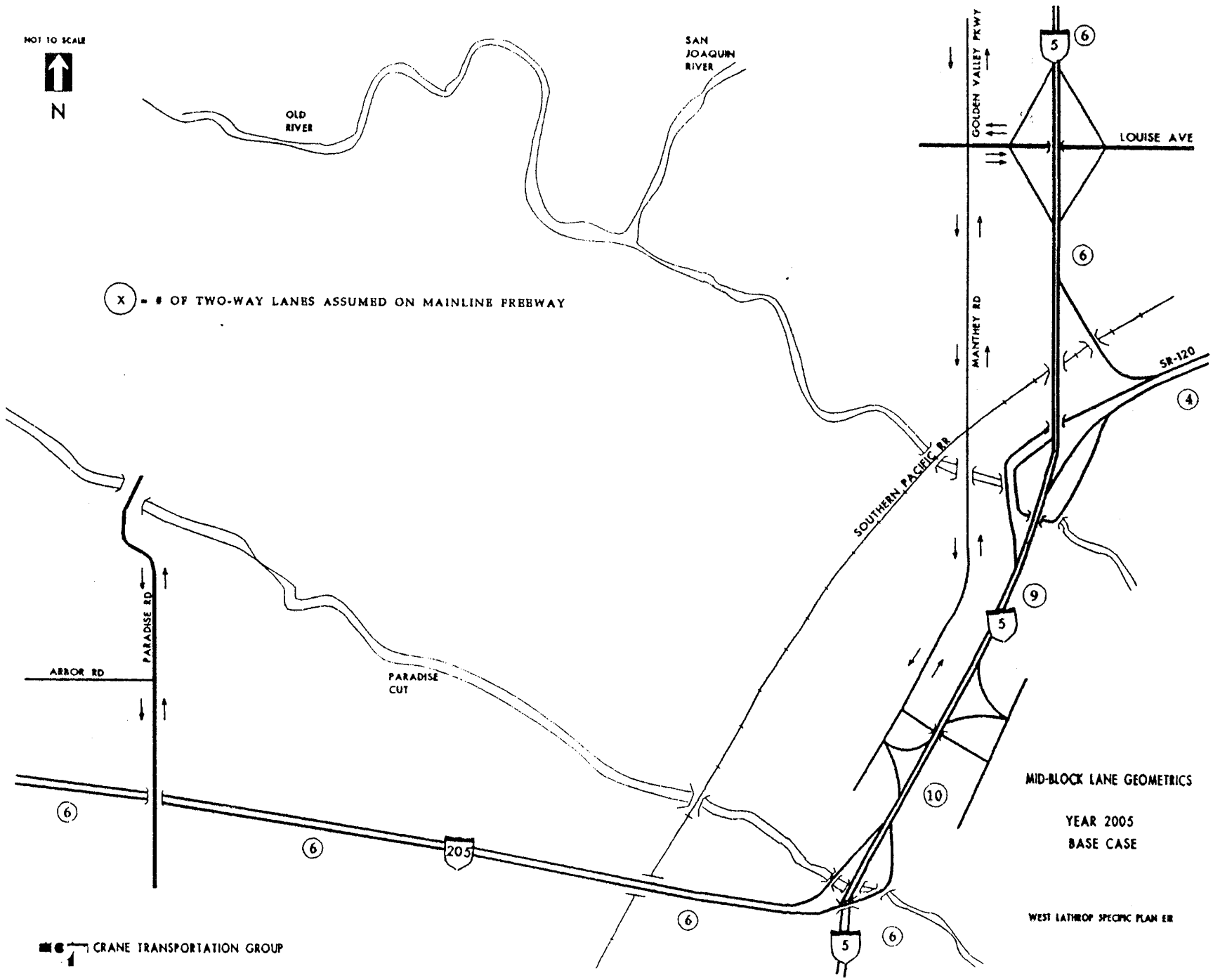
CRANE TRANSPORTATION GROUP

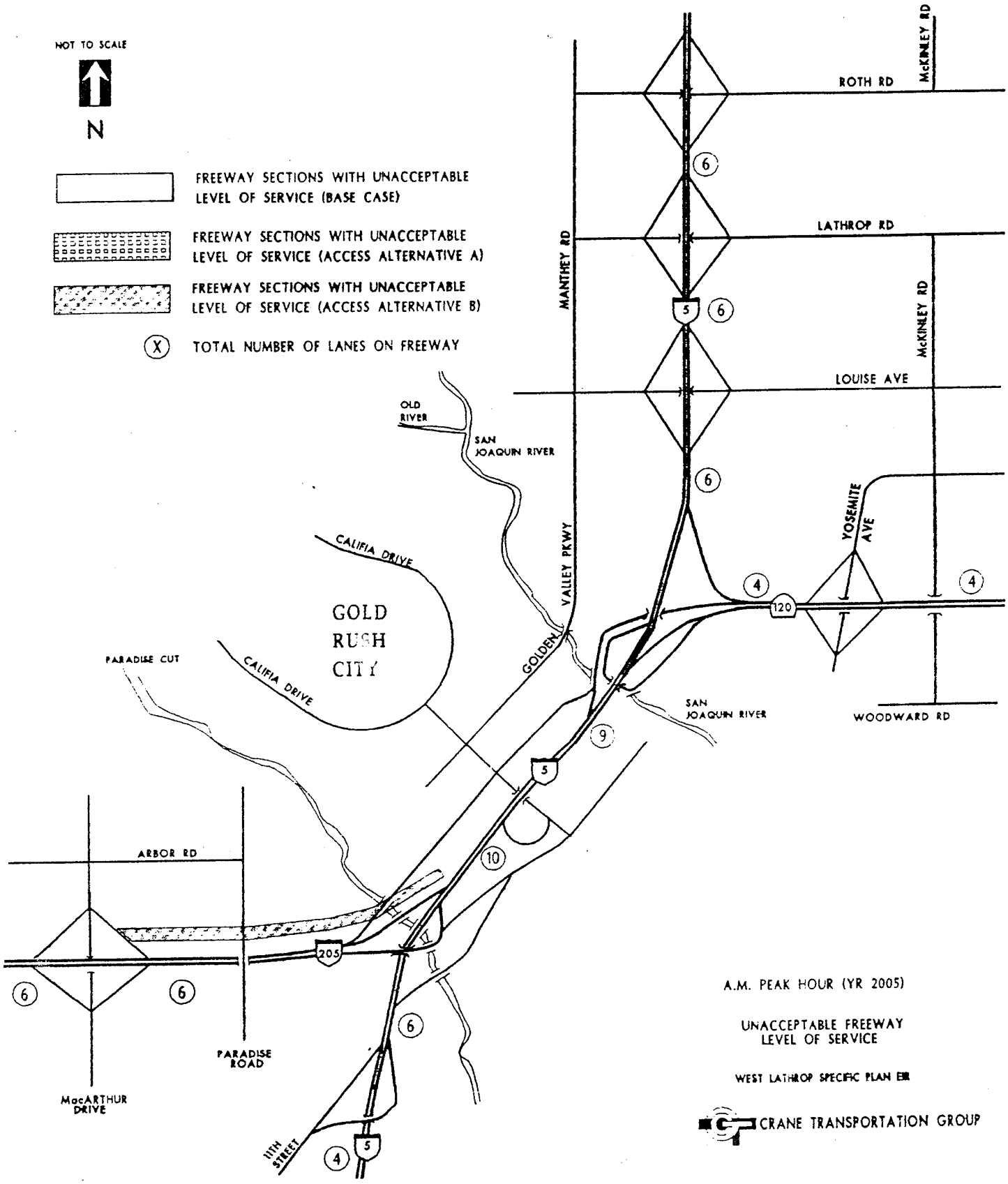


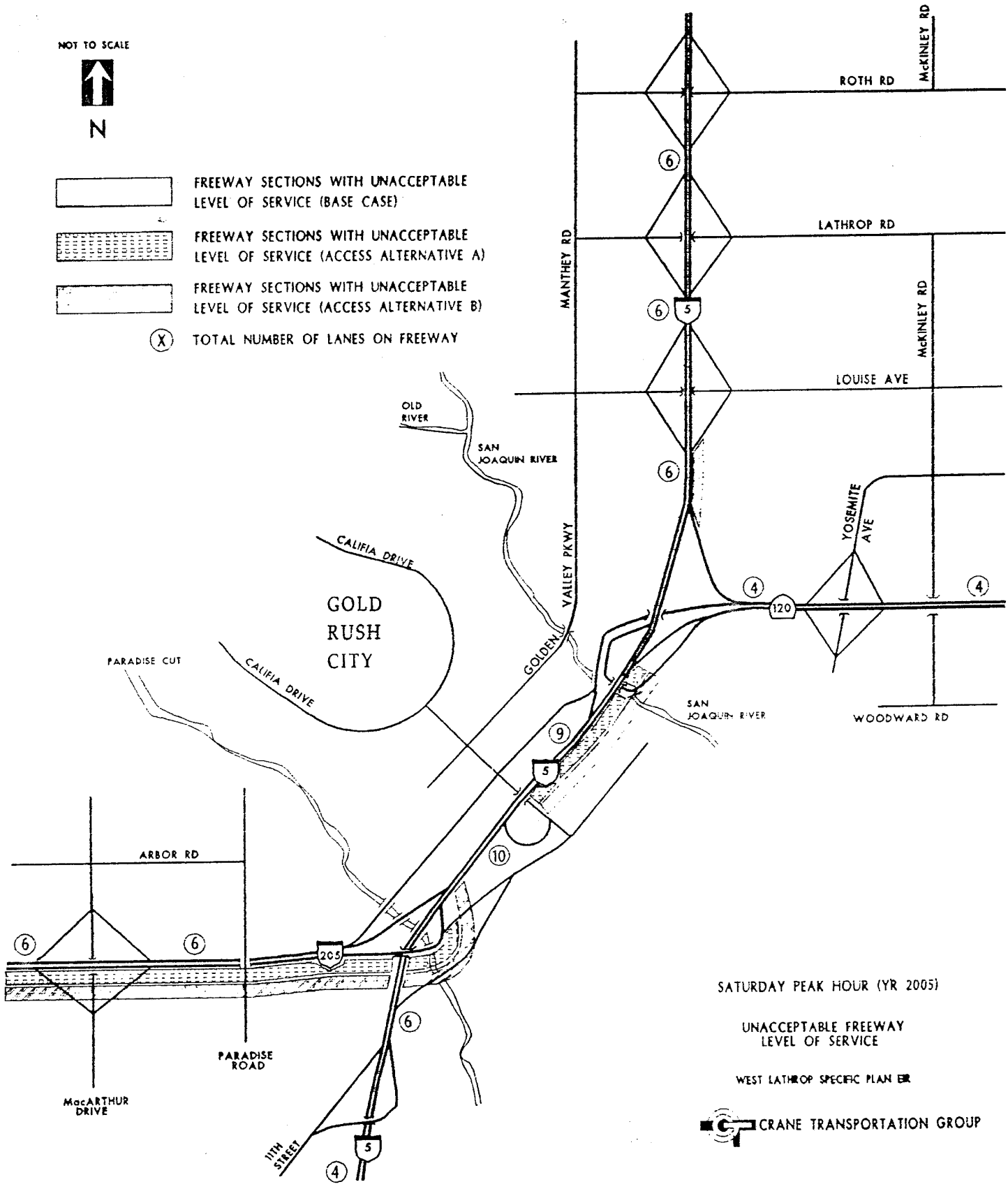
SATURDAY PEAK HOUR VOLUMES (YR 2005)
BASE CASE

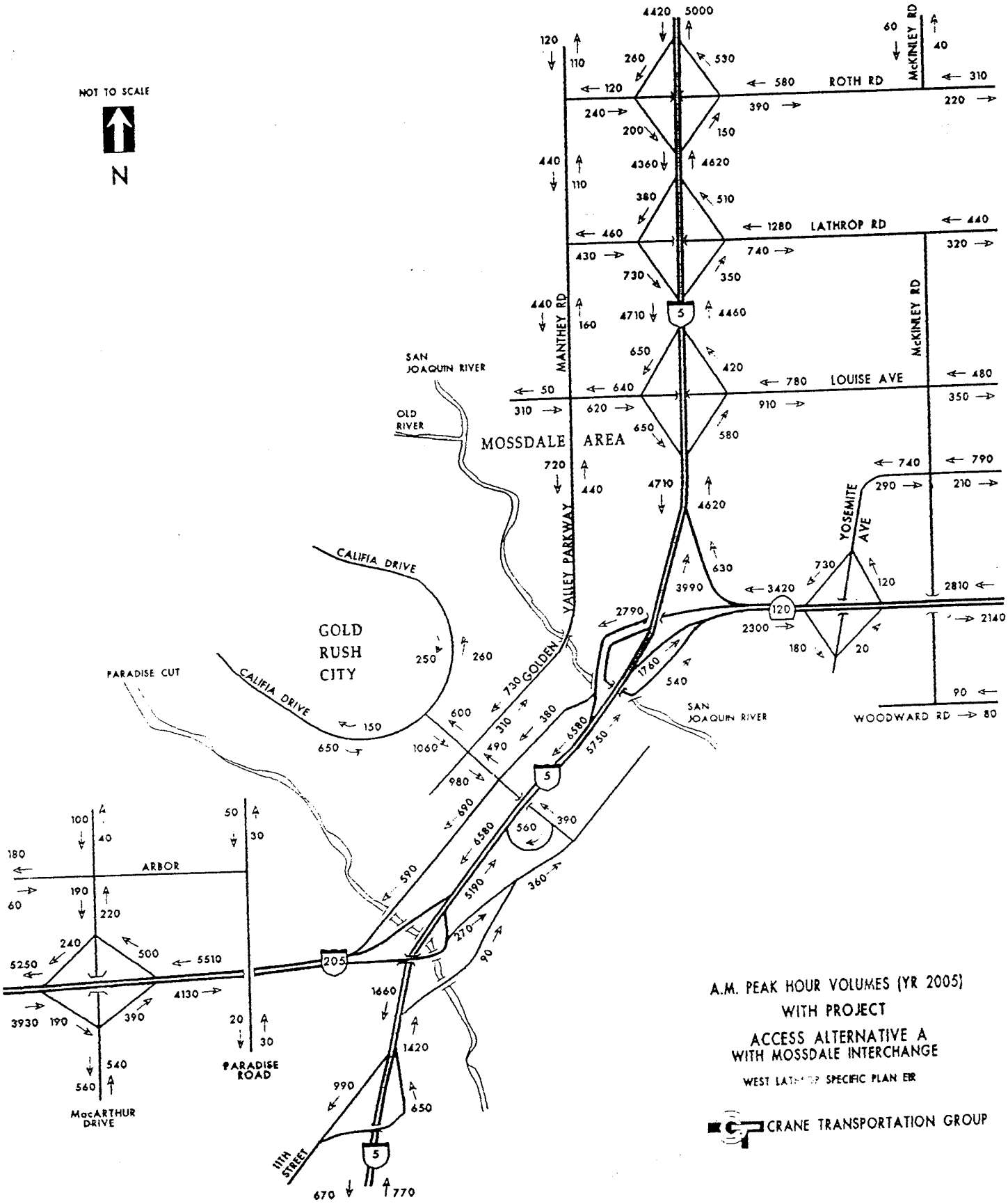
WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
OLD RIVER
SAN JOAQUIN RIVER
(X) = # OF TWO-WAY LANES ASSUMED ON MAINLINE FREEWAY
GOLDEN VALLEY PKWY
LOUISE AVE
MANTHEY RD
SR-120
SOUTHERN PACIFIC RR
PARADISE RD
ARBOR RD
PARADISE CUT
205
5
6
4
9
10
MID-BLOCK LANE GEOMETRICS
YEAR 2005
BASE CASE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (BASE CASE)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE A)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE B)
(X) TOTAL NUMBER OF LANES ON FREEWAY
ROTH RD
McKINLEY RD
LATHROP RD
MANTHEY RD
LOUISE AVE
OLD RIVER
SAN JOAQUIN RIVER
YOSEMITE AVE
CALIFIA DRIVE
GOLD RUSH CITY
VALLEY PKWY
GOLDEN
PARADISE CUT
SAN JOAQUIN RIVER
WOODWARD RD
ARBOR RD
PARADISE ROAD
MacARTHUR DRIVE
11TH STREET
A.M. PEAK HOUR (YR 2005)
UNACCEPTABLE FREEWAY LEVEL OF SERVICE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

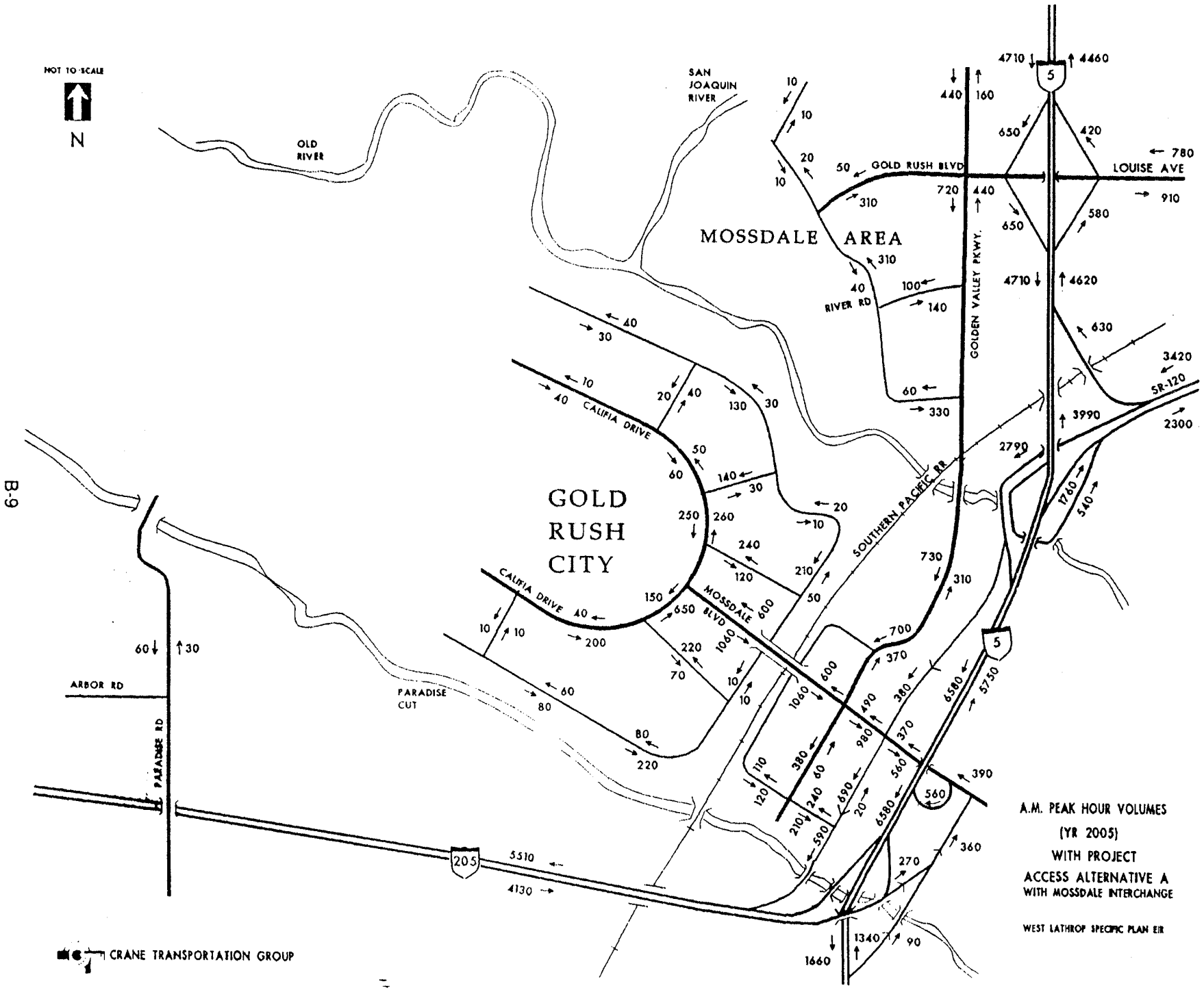

NOT TO SCALE
N
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (BASE CASE)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE A)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE B)
(X) TOTAL NUMBER OF LANES ON FREEWAY
ROTH RD
McKINLEY RD
LATHROP RD
MANTHEY RD
McKINLEY RD
LOUISE AVE
OLD RIVER
SAN JOAQUIN RIVER
YOSEMITE AVE
CALIFIA DRIVE
GOLD RUSH CITY
VALLEY PKWY
GOLDEN
PARADISE CUT
CALIFIA DRIVE
SAN JOAQUIN RIVER
WOODWARD RD
ARBOR RD
PARADISE ROAD
MacARTHUR DRIVE
11TH STREET
SATURDAY PEAK HOUR (YR 2005)
UNACCEPTABLE FREEWAY LEVEL OF SERVICE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

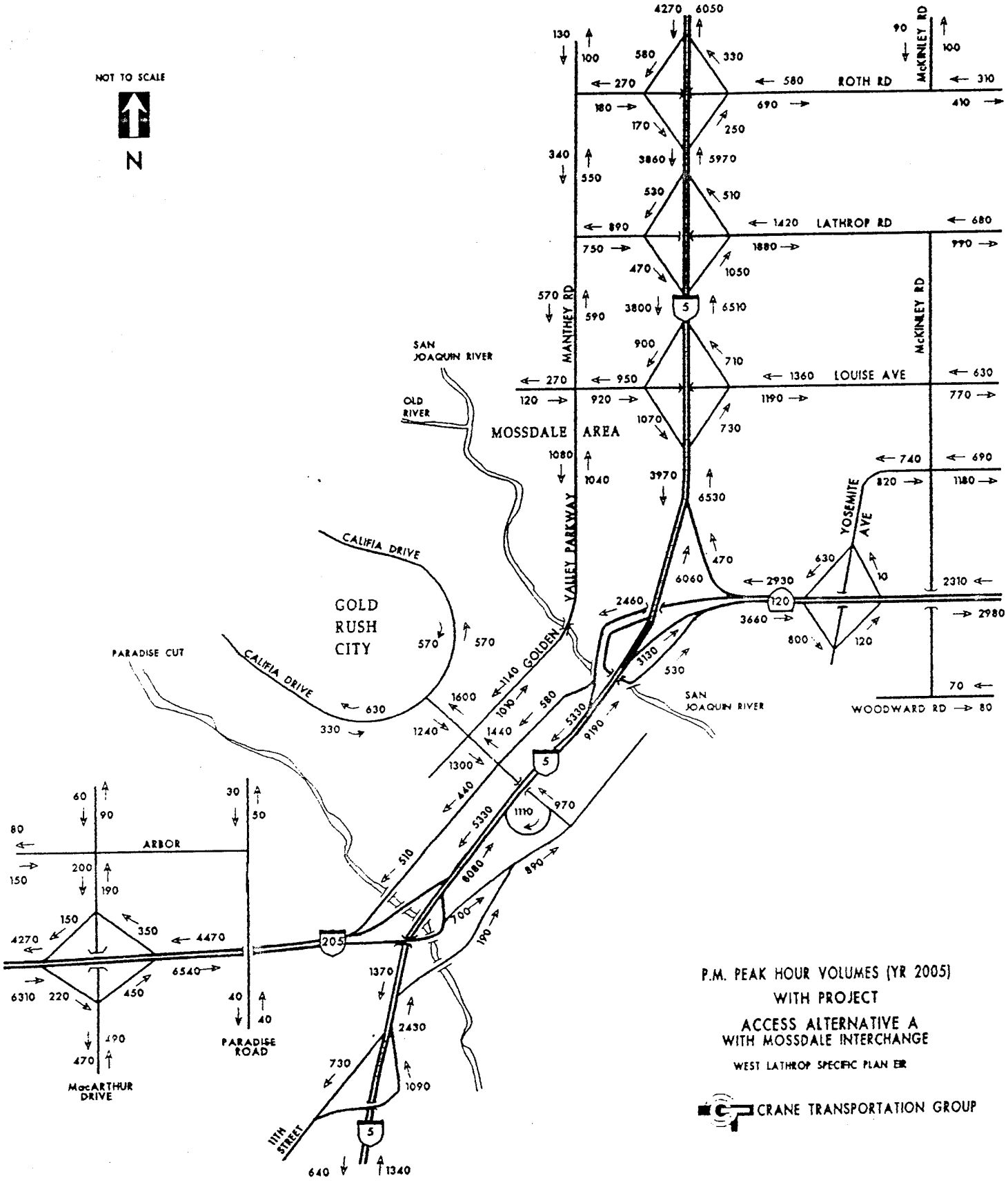


A.M. PEAK HOUR VOLUMES (YR 2005)
WITH PROJECT
ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE

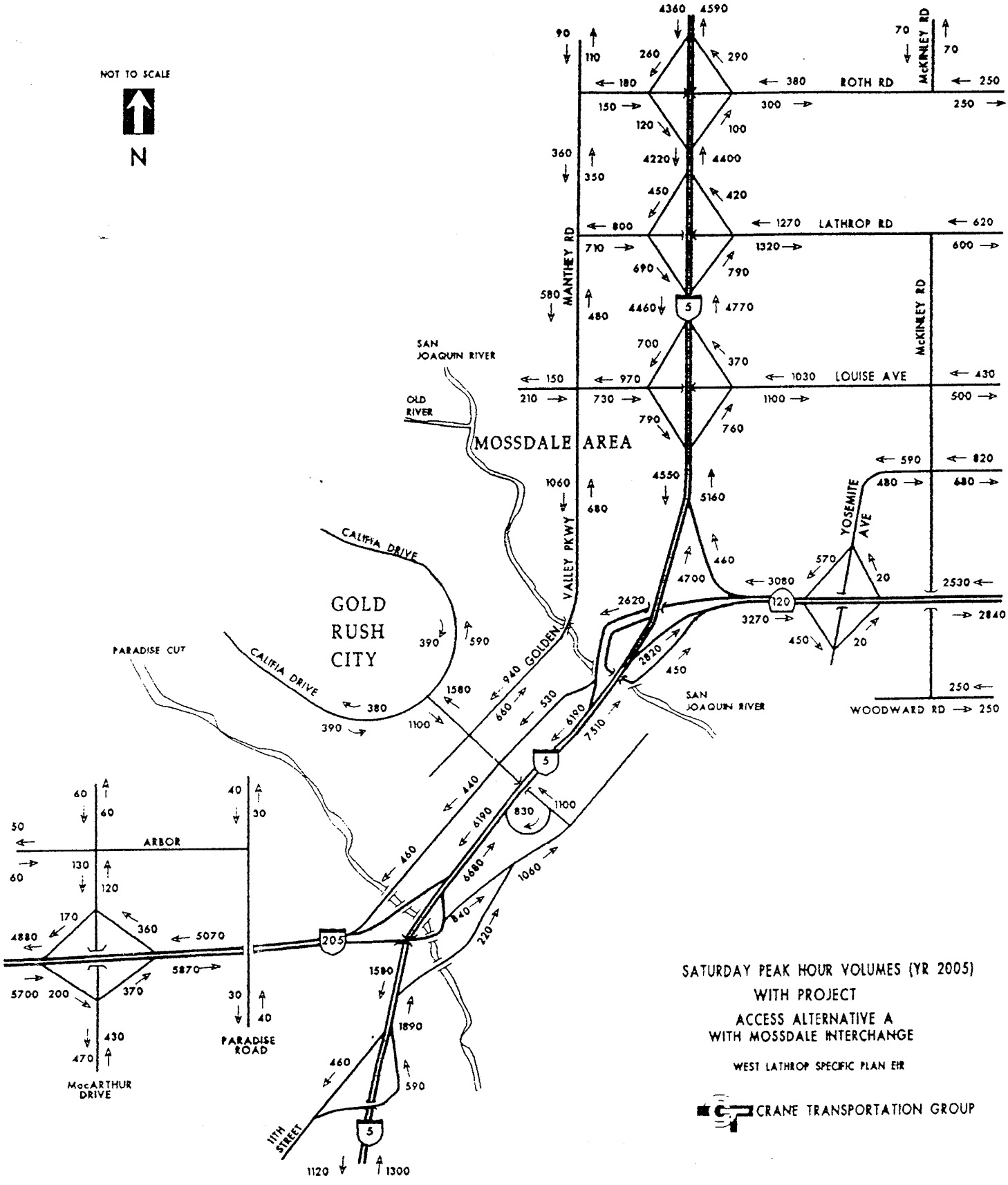
WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
SAN JOAQUIN RIVER
OLD RIVER
MOSSDALE AREA
GOLD RUSH CITY
GOLD RUSH BLVD
LOUISE AVE
RIVER RD
GOLDEN VALLEY PKWY.
CALIFIA DRIVE
MOSSDALE BLVD
SOUTHERN PACIFIC RR
SR-120
ARBOR RD
PARADISE RD
PARADISE CUT
5
205
4710
4460
4620
440
160
720
650
420
780
910
580
630
3420
2300
3990
2790
1760
540
730
310
700
370
600
1060
490
980
380
6580
5730
560
390
360
270
1340
90
1660
5510
4130
CRANE TRANSPORTATION GROUP
A.M. PEAK HOUR VOLUMES
(YR 2005)
WITH PROJECT
ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR



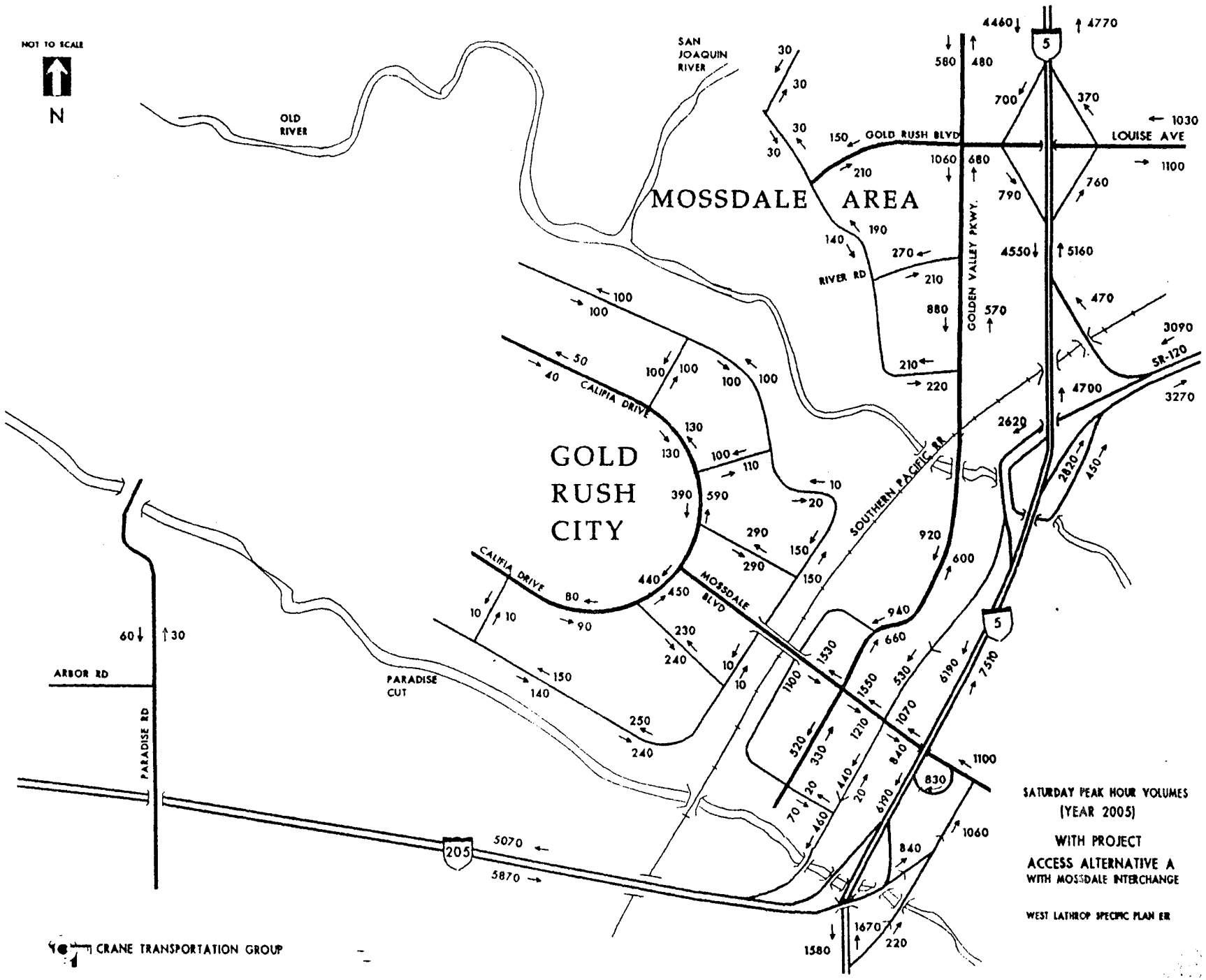
P.M. PEAK HOUR VOLUMES (YR 2005)

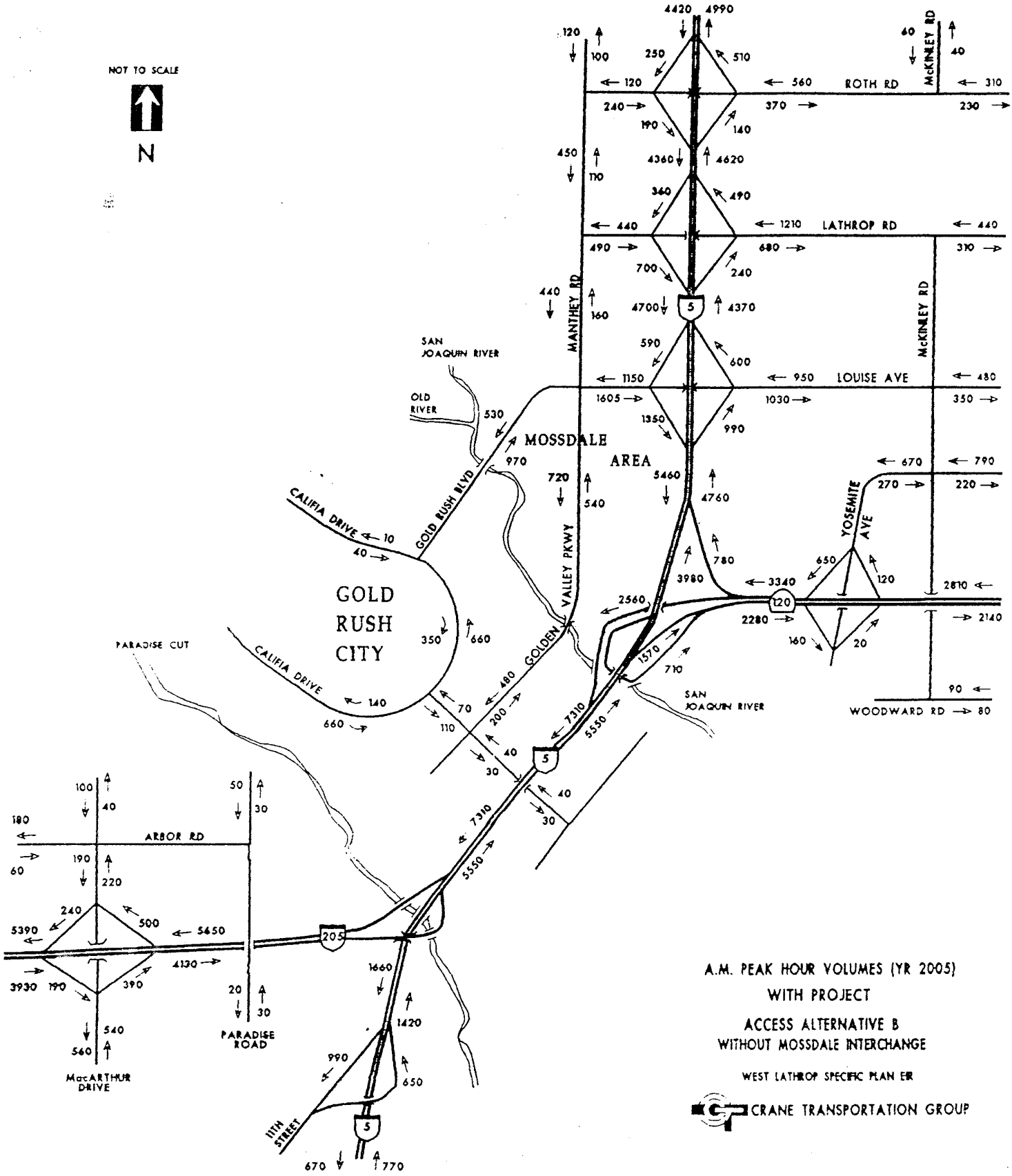


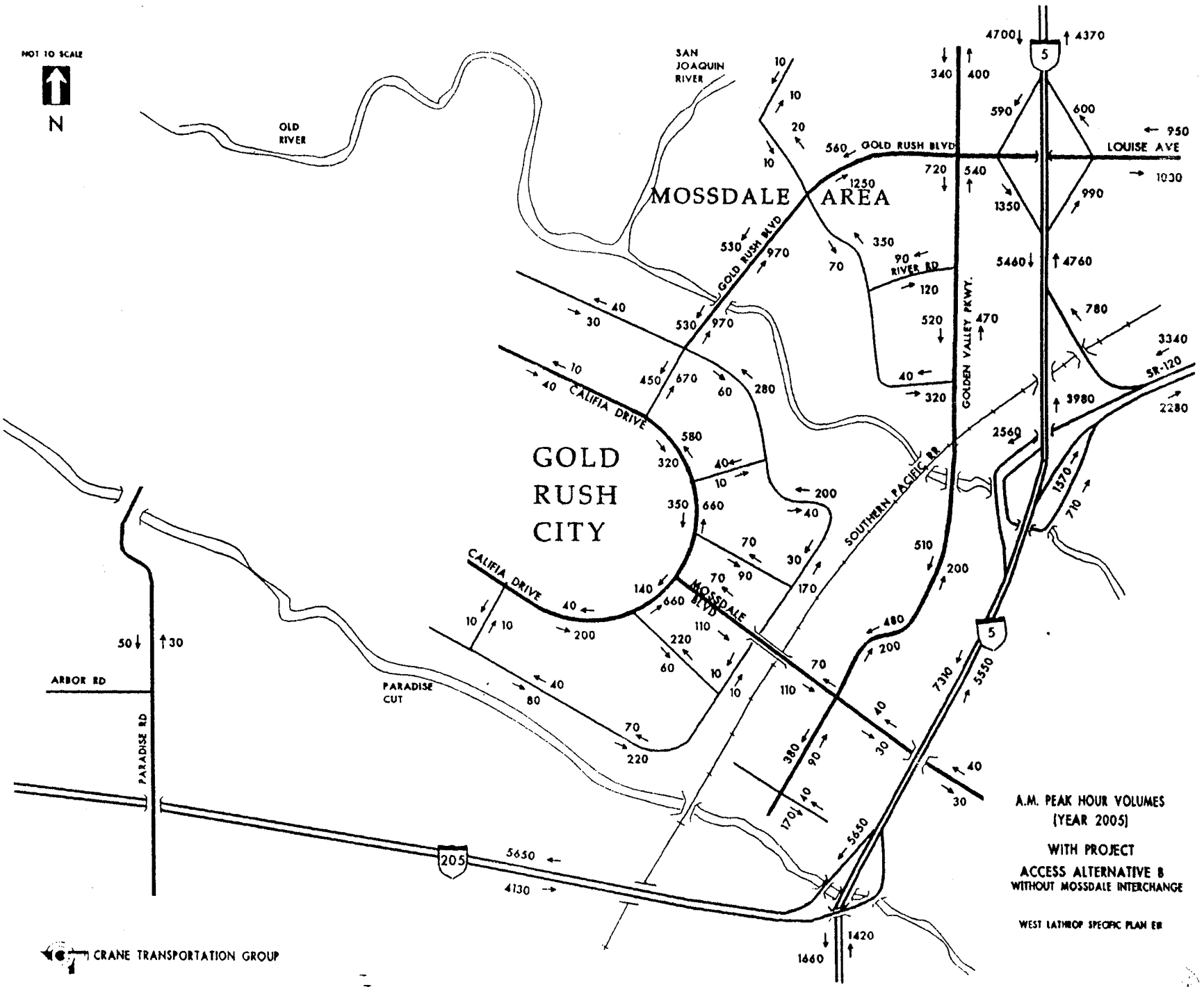
SATURDAY PEAK HOUR VOLUMES (YR 2005)
WITH PROJECT
ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE

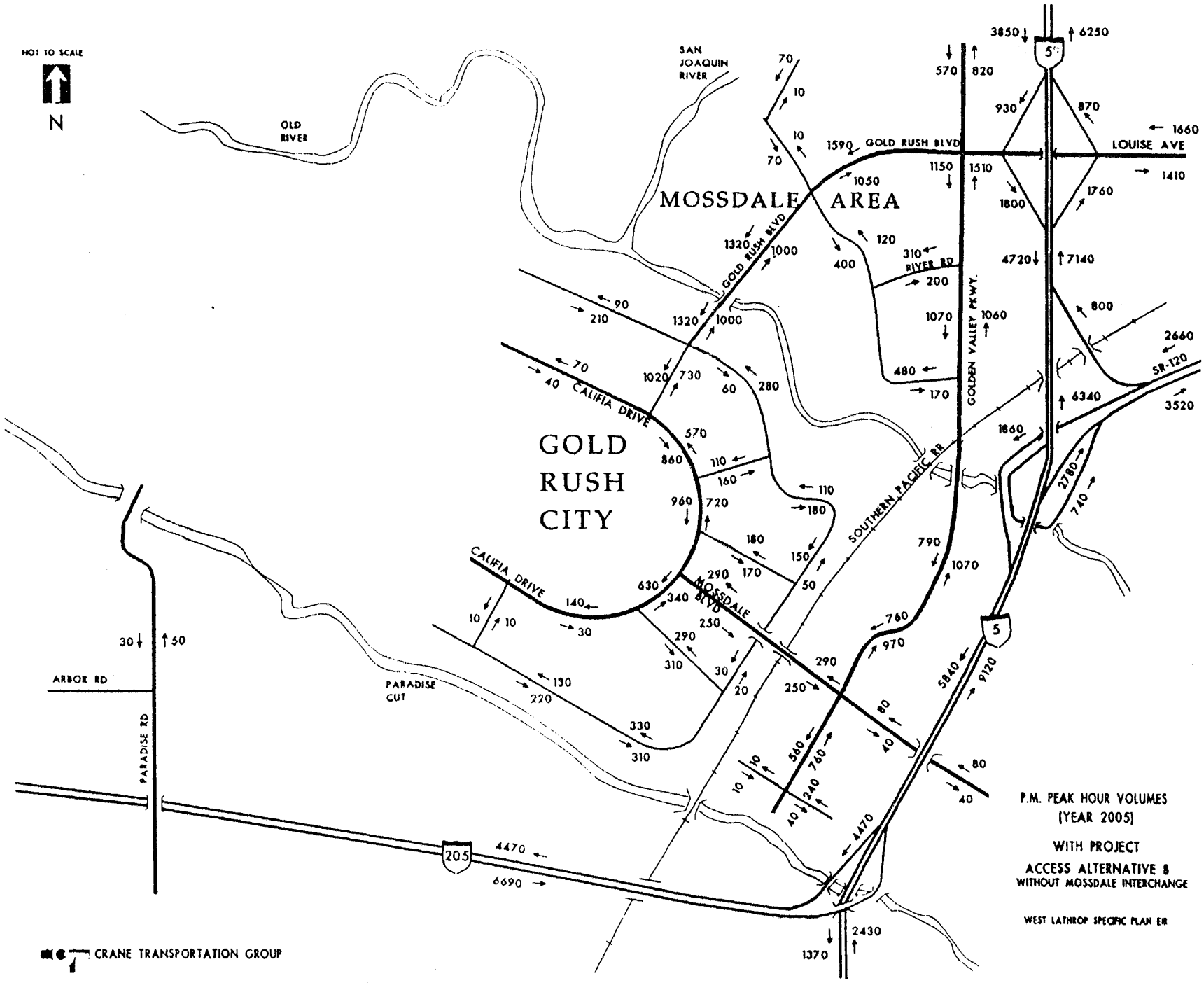
WEST LATHROP SPECIFIC PLAN EIR

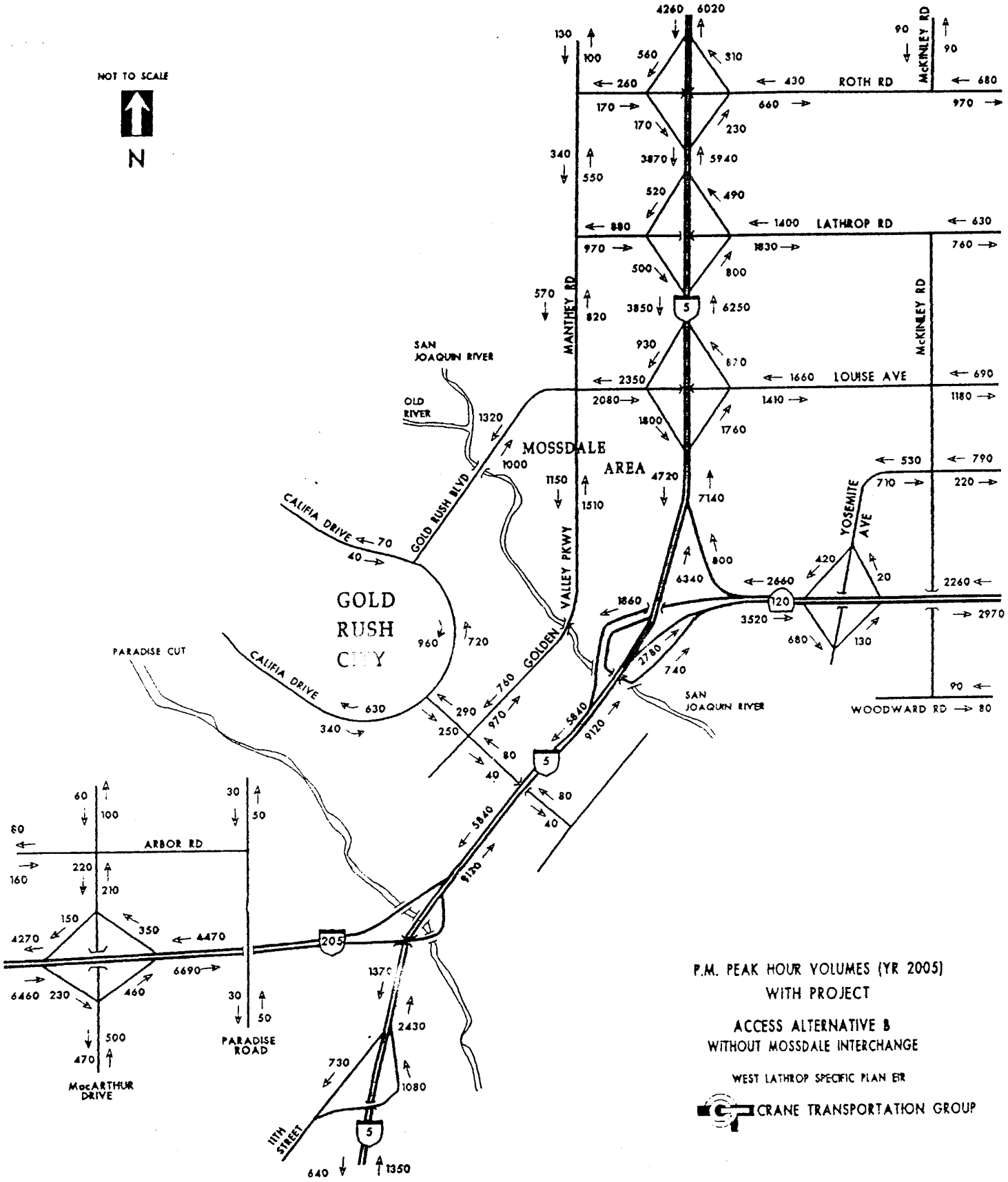
CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
OLD RIVER
SAN JOAQUIN RIVER
MOSSDALE AREA
GOLD RUSH CITY
GOLD RUSH BLVD
LOUISE AVE
GOLDEN VALLEY PKWY.
RIVER RD
CALIPIA DRIVE
MOSSDALE BLVD
SOUTHERN PACIFIC RR
SR-120
ARBOR RD
PARADISE RD
PARADISE CUT
205
5
CRANE TRANSPORTATION GROUP
SATURDAY PEAK HOUR VOLUMES
(YEAR 2005)
WITH PROJECT
ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR


NOT TO SCALE
N
ROTH RD
LATHROP RD
LOUISE AVE
MANTHEY RD
McKINLEY RD
MOSSDALE AREA
GOLD RUSH BLVD
CALIFIA DRIVE
GOLD RUSH CITY
OLD RIVER
SAN JOAQUIN RIVER
GOLDEN VALLEY PKWY
YOSEMITE AVE
WOODWARD RD
PARADISE CUT
ARBOR RD
PARADISE ROAD
MacARTHUR DRIVE
11TH STREET
A.M. PEAK HOUR VOLUMES (YR 2005)
WITH PROJECT
ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
OLD RIVER
SAN JOAQUIN RIVER
MOSSDALE AREA
GOLD RUSH CITY
GOLD RUSH BLVD
LOUISE AVE
CALIFIA DRIVE
MOSSDALE BLVD
RIVER RD
GOLDEN VALLEY PKWY.
SOUTHERN PACIFIC RR
SR-120
ARBOR RD
PARADISE RD
PARADISE CUT
5
205
A.M. PEAK HOUR VOLUMES
(YEAR 2005)
WITH PROJECT
ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
OLD RIVER
SAN JOAQUIN RIVER
MOSSDALE AREA
GOLD RUSH BLVD
LOUISE AVE
RIVER RD
GOLDEN VALLEY PKWY.
SR-120
CALIFIA DRIVE
GOLD RUSH CITY
SOUTHERN PACIFIC RR
MOSSDALE BLVD
ARBOR RD
PARADISE RD
PARADISE CUT
5
205
CRANE TRANSPORTATION GROUP
P.M. PEAK HOUR VOLUMES
(YEAR 2005)
WITH PROJECT
ACCESS ALTERNATIVE 8
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR

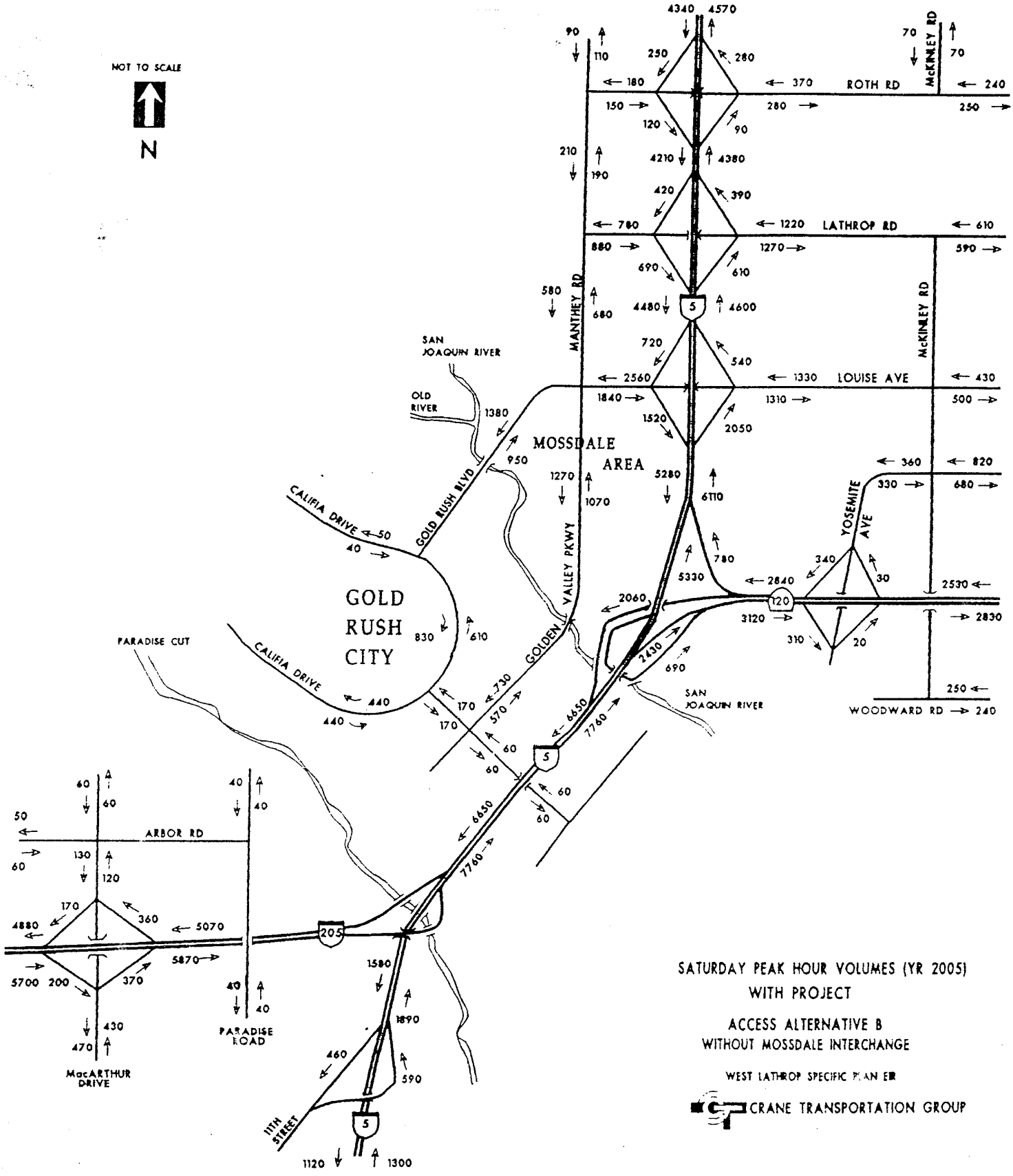


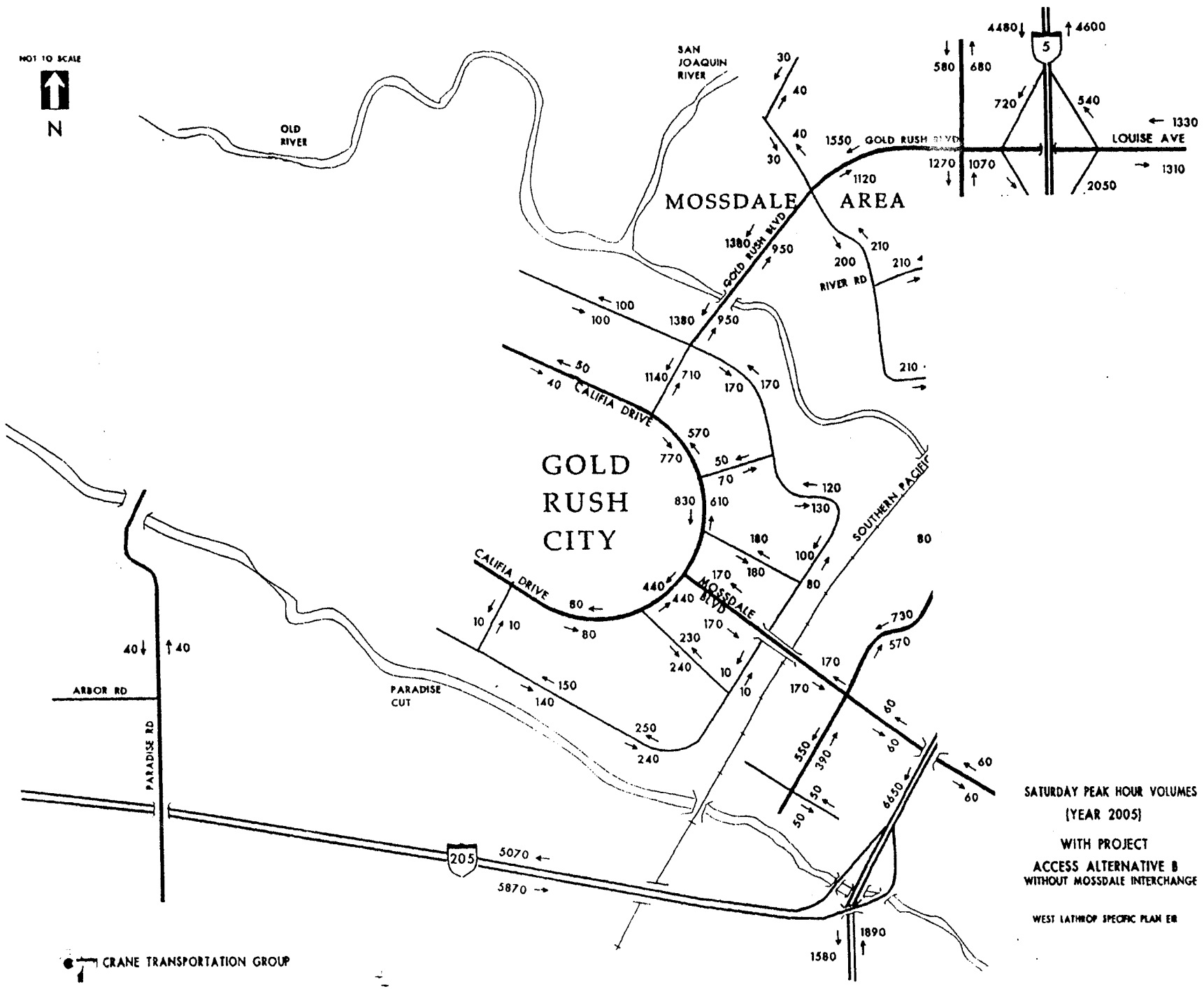
P.M. PEAK HOUR VOLUMES (YR 2005)
WITH PROJECT

ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
ROTH RD
LATHROP RD
LOUISE AVE
WOODWARD RD
McKINLEY RD
MANTHEY RD
YOSEMITE AVE
GOLD RUSH BLVD
VALLEY PKWY
GOLDEN
CALIFIA DRIVE
SAN JOAQUIN RIVER
OLD RIVER
MOSSDALE AREA
GOLD RUSH CITY
PARADISE CUT
ARBOR RD
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
SATURDAY PEAK HOUR VOLUMES (YR 2005)
WITH PROJECT
ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
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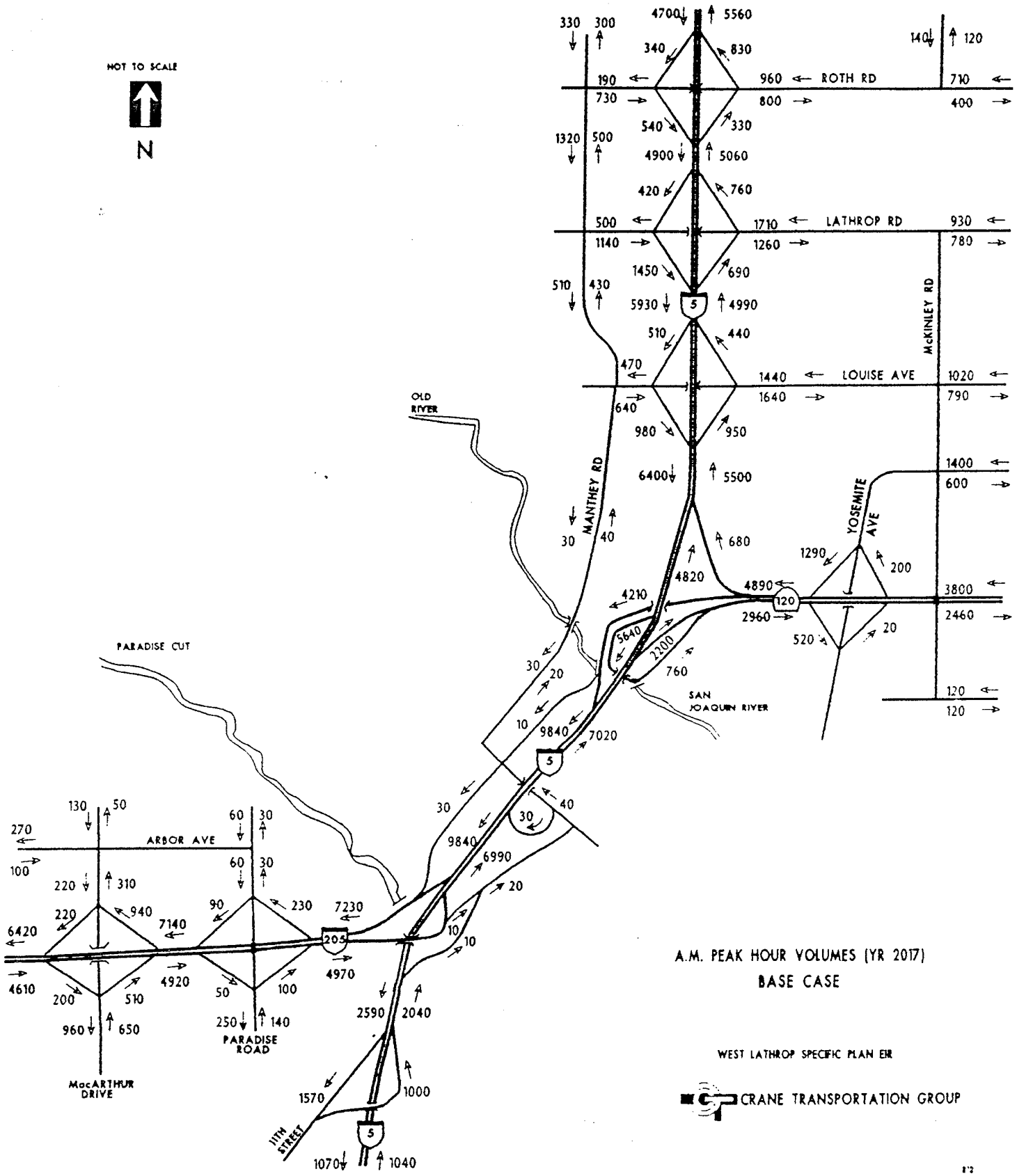
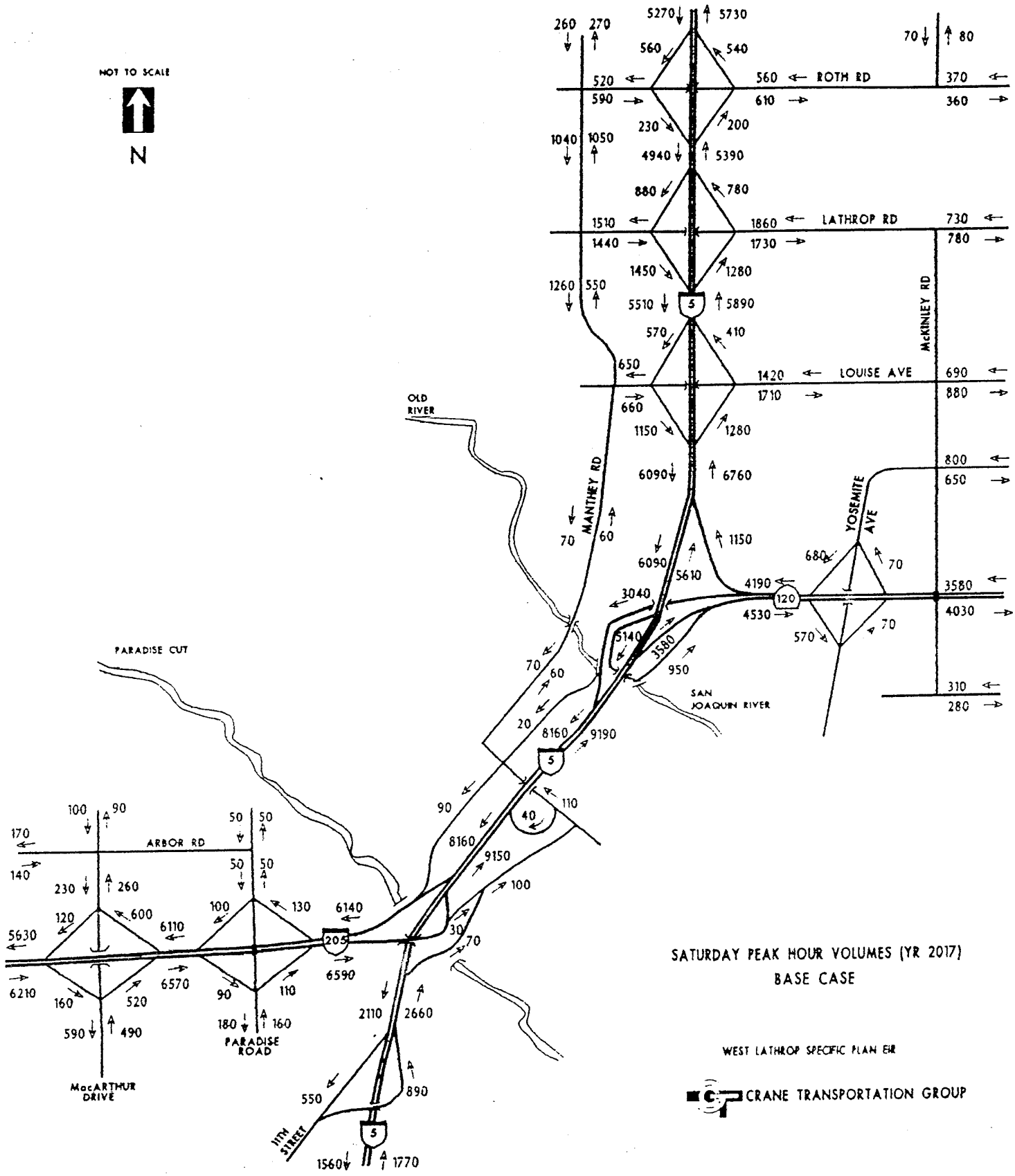
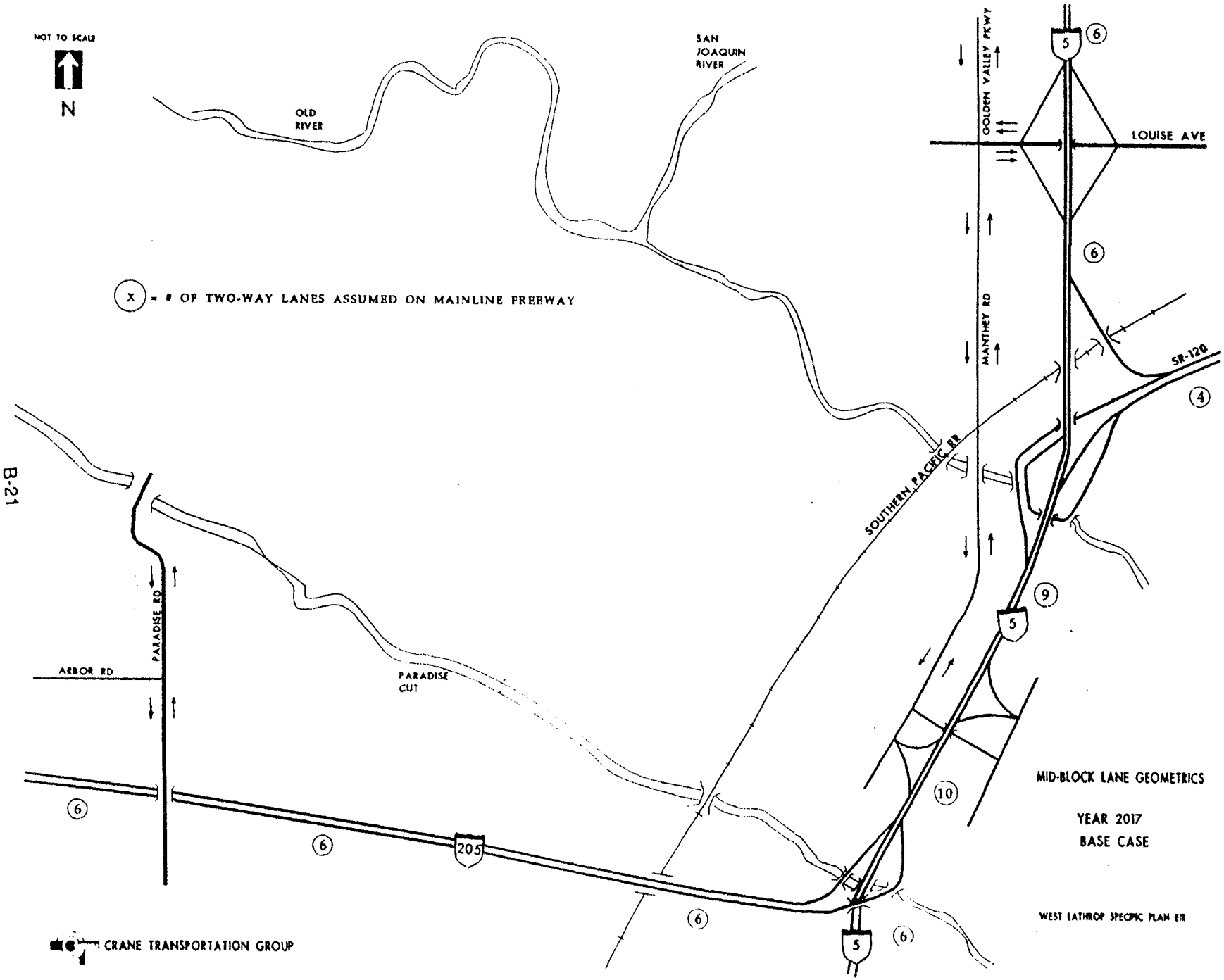
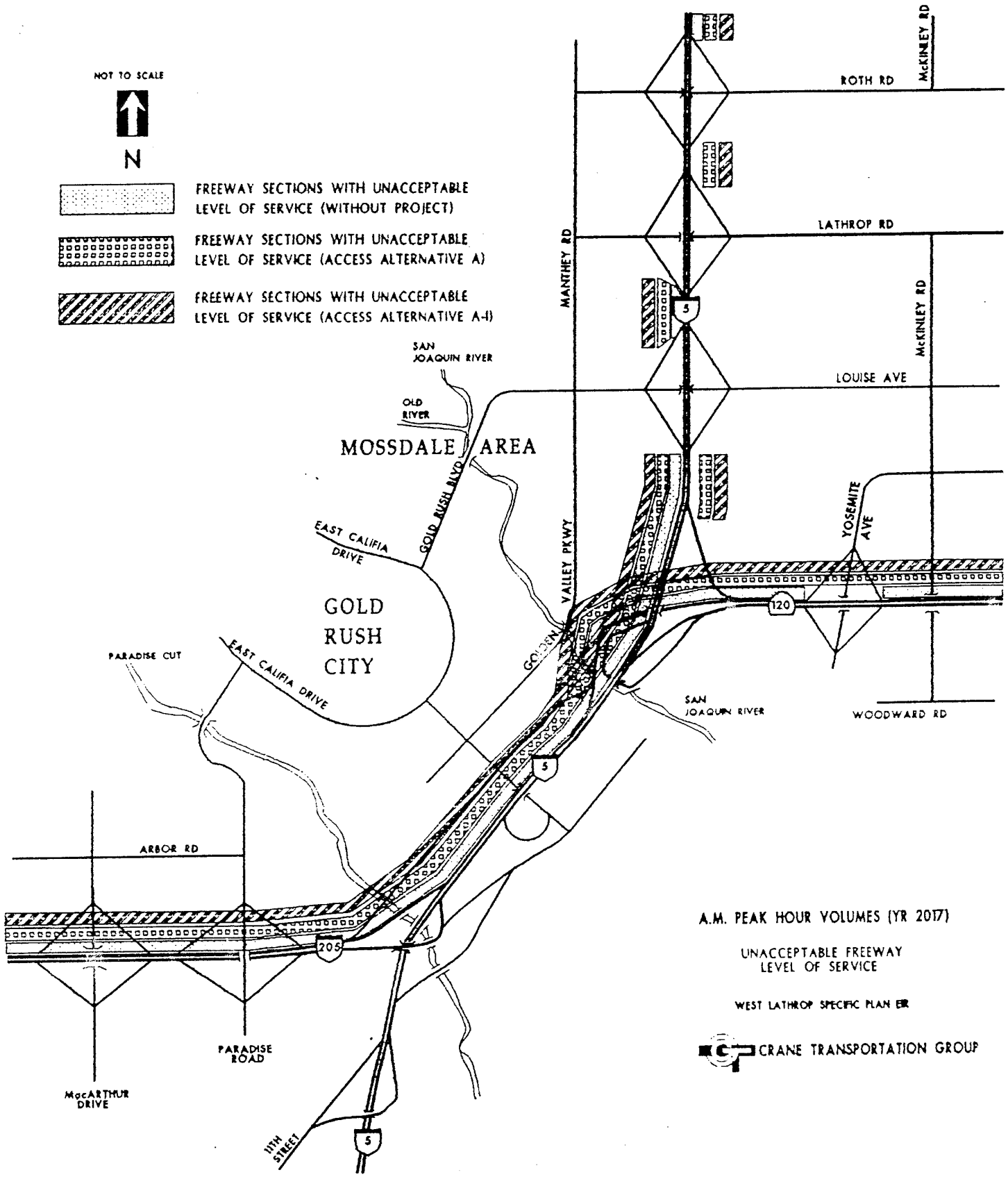
OLD RIVER
SAN JOAQUIN RIVER
MOSSDALE AREA
GOLD RUSH BLVD
RIVER RD
CALIFIA DRIVE
GOLD RUSH CITY
MOSSDALE BLVD
SOUTHERN PACIFIC
PARADISE CUT
ARBOR RD
PARADISE RD
LOUISE AVE
5
205
4480
4600
580
680
720
540
1330
1550
1270
1070
2050
1310
1120
1380
950
200
210
100
1140
710
170
50
40
570
770
70
120
130
830
610
180
80
440
10
230
240
150
140
250
730
60
550
390
6650
1890
1580
5070
5870
SATURDAY PEAK HOUR VOLUMES
(YEAR 2005)
WITH PROJECT
ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

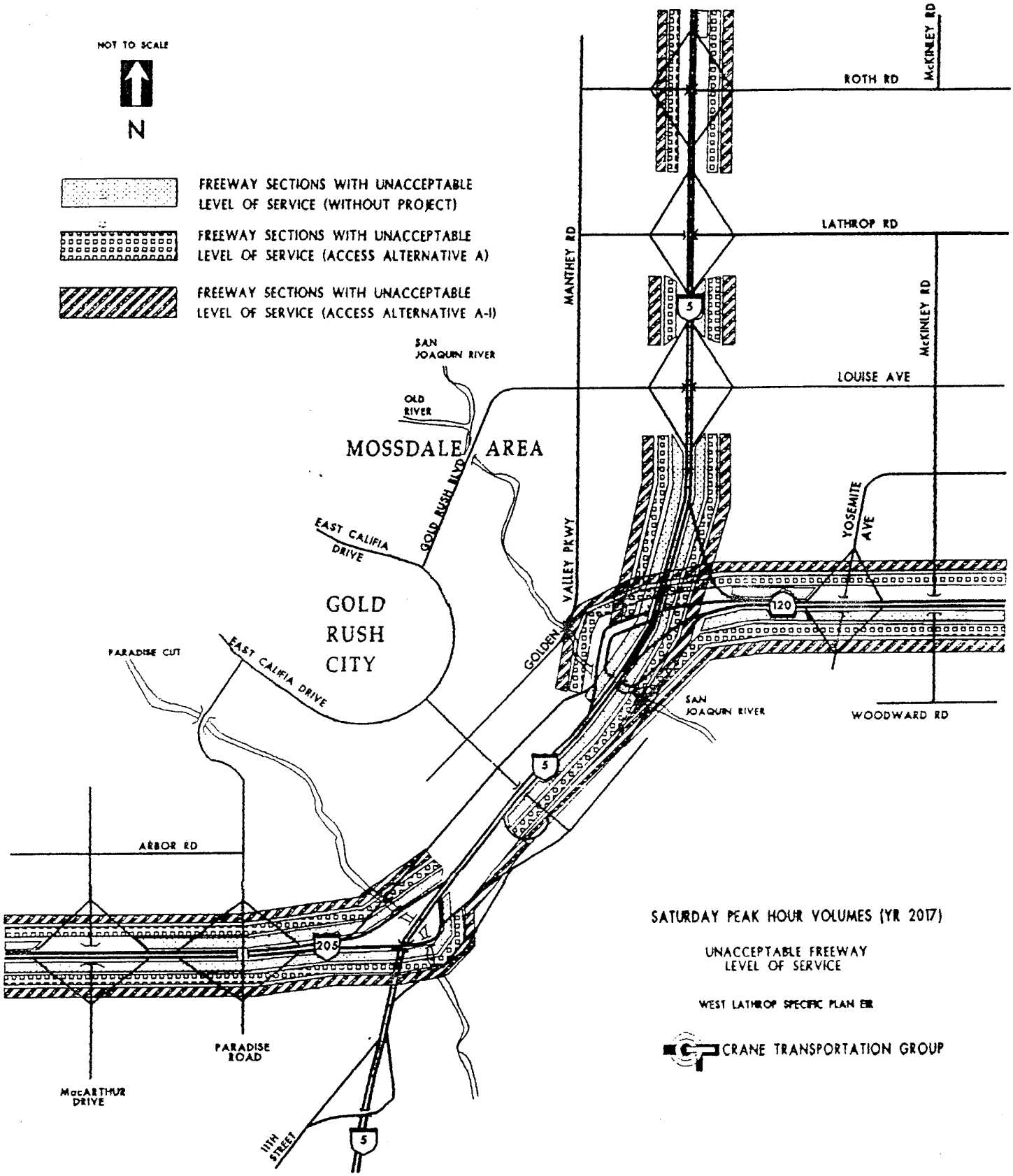
716

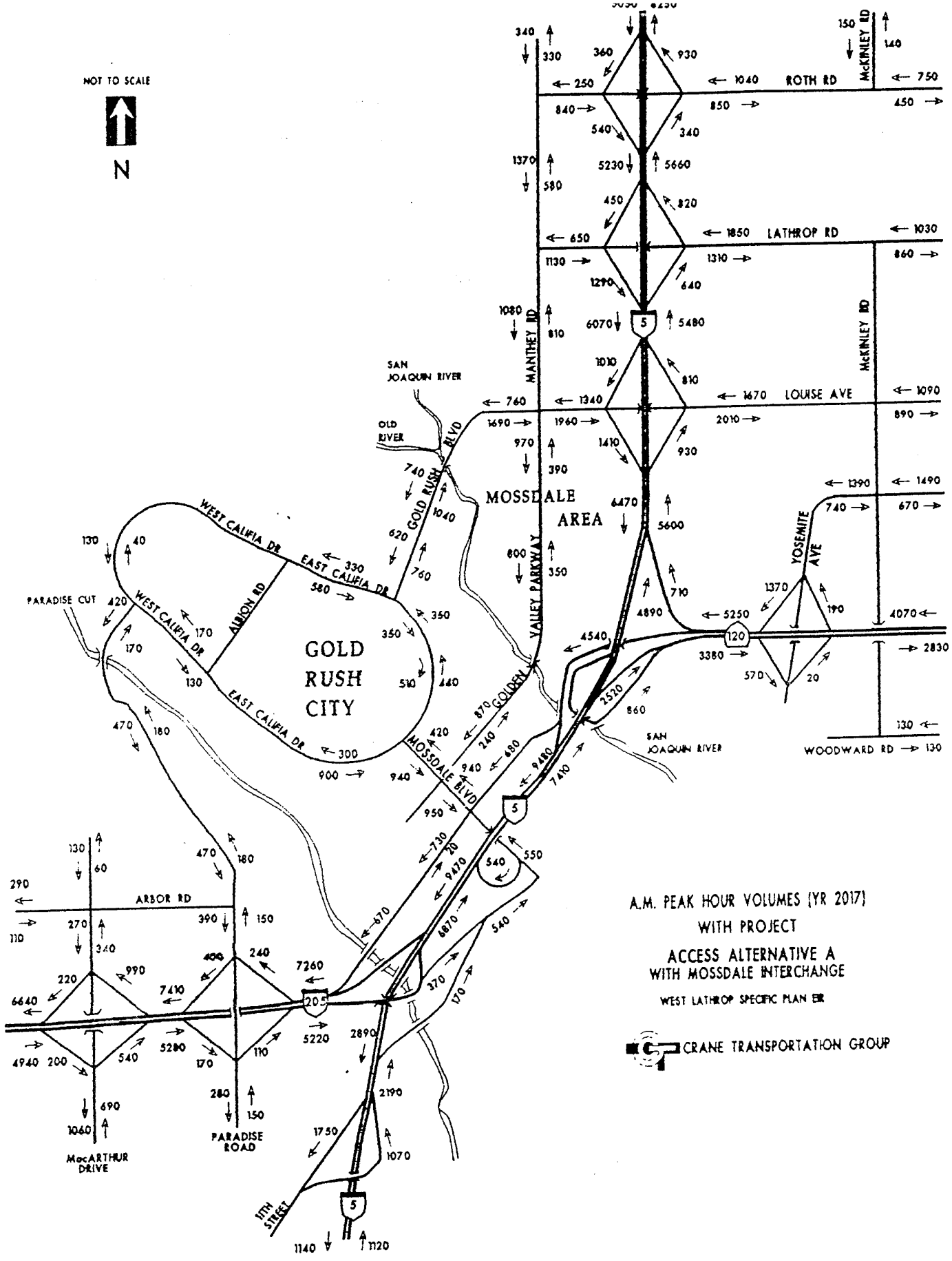

NOT TO SCALE
N
ROTH RD
LATHROP RD
LOUISE AVE
McKINLEY RD
MANTHEY RD
YOSEMITE AVE
OLD RIVER
PARADISE CUT
SAN JOAQUIN RIVER
ARBOR AVE
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
A.M. PEAK HOUR VOLUMES (YR 2017)
BASE CASE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

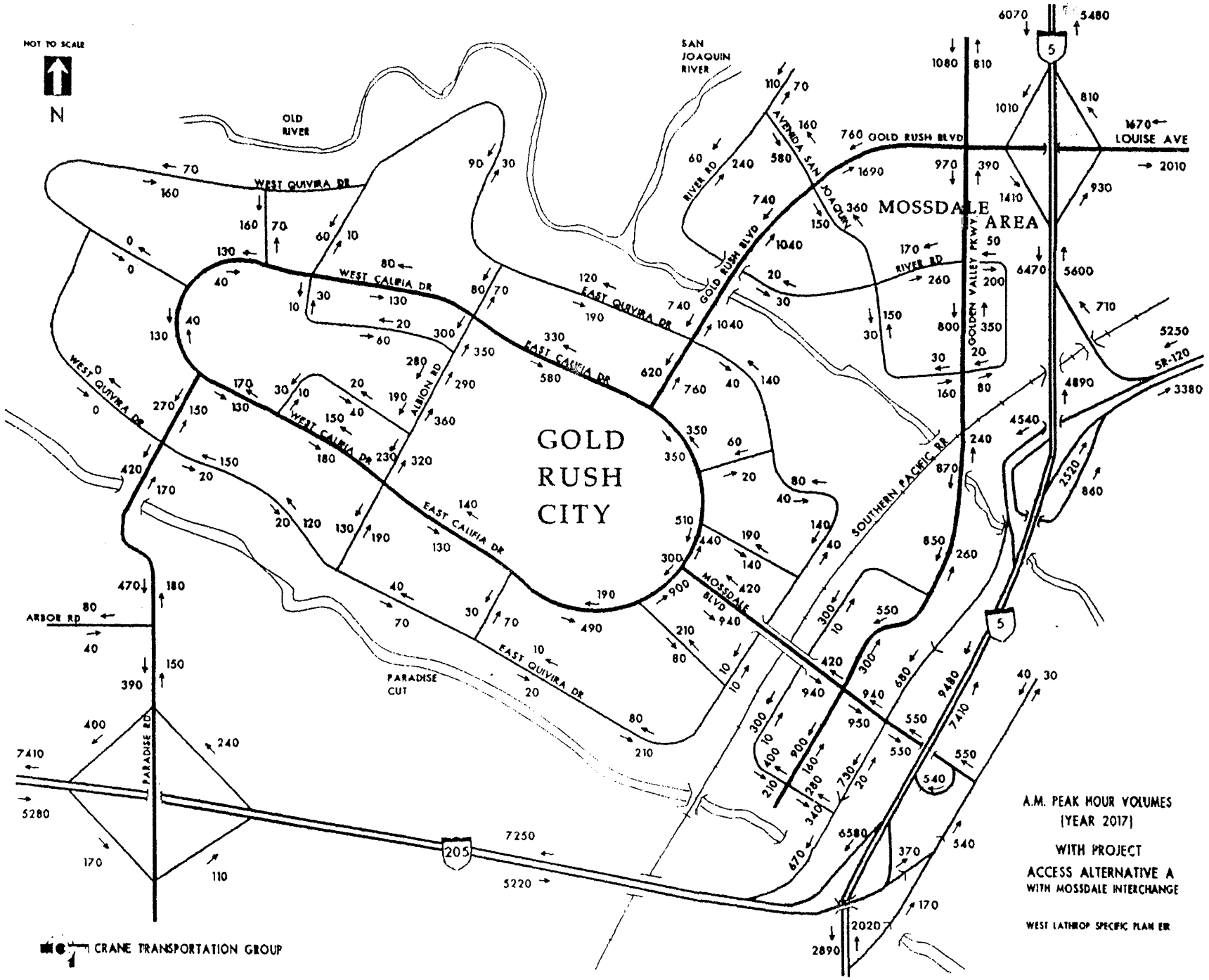

NOT TO SCALE
N
ROTH RD
LATHROP RD
LOUISE AVE
McKINLEY RD
MANTHEY RD
YOSEMITE AVE
OLD RIVER
PARADISE CUT
SAN JOAQUIN RIVER
ARBOR RD
PARADISE ROAD
MacARTHUR DRIVE
11TH STREET
SATURDAY PEAK HOUR VOLUMES (YR 2017)
BASE CASE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

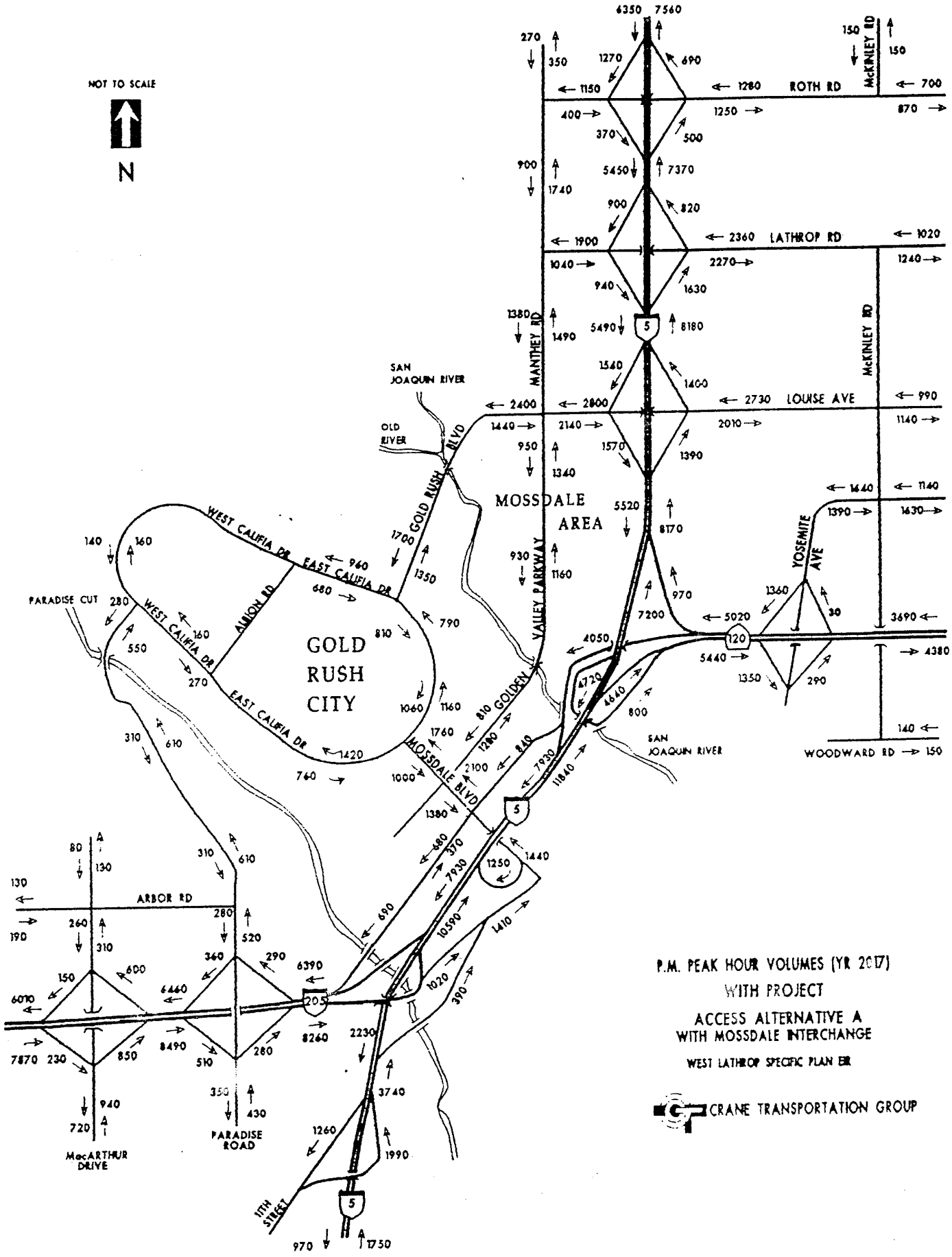

NOT TO SCALE
N
OLD RIVER
SAN JOAQUIN RIVER
(X) = # OF TWO-WAY LANES ASSUMED ON MAINLINE FREEWAY
GOLDEN VALLEY PKWY
LOUISE AVE
MANTHEY RD
SR-120
SOUTHERN PACIFIC RR
PARADISE RD
ARBOR RD
PARADISE CUT
205
MID-BLOCK LANE GEOMETRICS
YEAR 2017
BASE CASE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

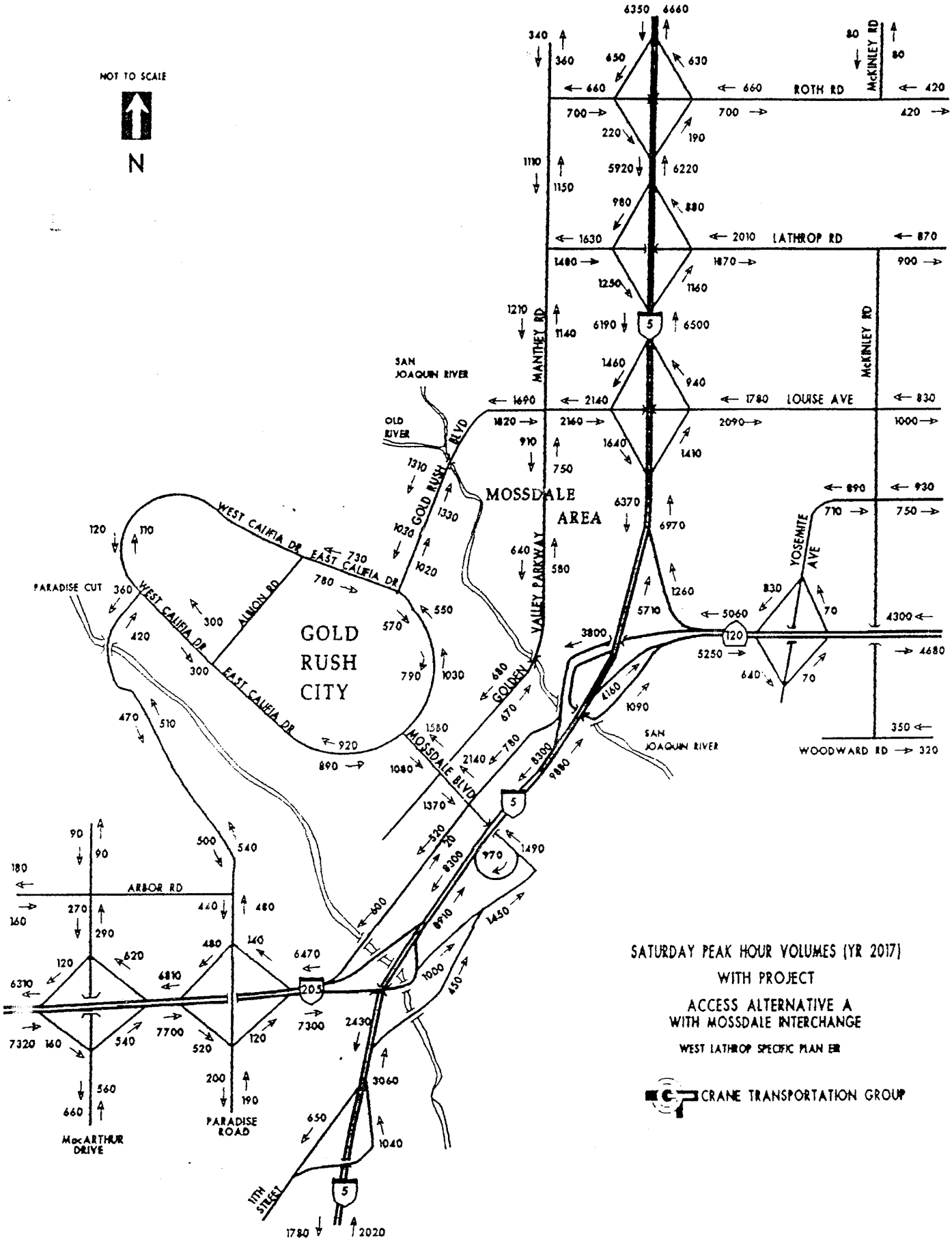

NOT TO SCALE
N
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (WITHOUT PROJECT)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE A)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE A-I)
ROTH RD
McKINLEY RD
LATHROP RD
MANTHEY RD
McKINLEY RD
LOUISE AVE
SAN JOAQUIN RIVER
OLD RIVER
MOSSDALE AREA
GOLD RUSH BLVD
EAST CALIFIA DRIVE
GOLD RUSH CITY
VALLEY PKWY
YOSEMITE AVE
PARADISE CUT
EAST CALIFIA DRIVE
SAN JOAQUIN RIVER
WOODWARD RD
ARBOR RD
PARADISE ROAD
MacARTHUR DRIVE
11TH STREET
5
120
205
A.M. PEAK HOUR VOLUMES (YR 2017)
UNACCEPTABLE FREEWAY LEVEL OF SERVICE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (WITHOUT PROJECT)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE A)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE A-1)
ROTH RD
McKINLEY RD
LATHROP RD
MANTHEY RD
McKINLEY RD
LOUISE AVE
SAN JOAQUIN RIVER
OLD RIVER
MOSSDALE AREA
GOLD RUSH BLVD
EAST CALIFIA DRIVE
GOLD RUSH CITY
VALLEY PKWY
YOSEMITE AVE
GOLDEN
PARADISE CUT
EAST CALIFIA DRIVE
SAN JOAQUIN RIVER
WOODWARD RD
ARBOR RD
PARADISE ROAD
MacARTHUR DRIVE
11TH STREET
5
120
205
SATURDAY PEAK HOUR VOLUMES (YR 2017)
UNACCEPTABLE FREEWAY LEVEL OF SERVICE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
ROTH RD
LATHROP RD
LOUISE AVE
McKINLEY RD
MANTHEY RD
SAN JOAQUIN RIVER
OLD RIVER
GOLD RUSH BLVD
MOSSDALE AREA
VALLEY PARKWAY
YOSEMITE AVE
WEST CALIFIA DR
EAST CALIFIA DR
ALBION RD
PARADISE CUT
GOLD RUSH CITY
GOLDEN
MOSSDALE BLVD
SAN JOAQUIN RIVER
WOODWARD RD
ARBOR RD
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
A.M. PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
OLD RIVER
SAN JOAQUIN RIVER
GOLD RUSH CITY
MOSSDALE AREA
WEST QUIVIRA DR
WEST CALIFIA DR
EAST QUIVIRA DR
EAST CALIFIA DR
ALBION RD
GOLD RUSH BLVD
AVENIDA SAN JOAQUIN
RIVER RD
GOLDEN VALLEY PKWY
MOSSDALE BLVD
SOUTHERN PACIFIC RR
LOUISE AVE
SR-120
ARBOR RD
PARADISE RD
PARADISE CUT
205
5
540
CRANE TRANSPORTATION GROUP
A.M. PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR


NOT TO SCALE
N
ROTH RD
LATHROP RD
LOUISE AVE
McKINLEY RD
MANTHEY RD
VALLEY PARKWAY
YOSEMITE AVE
MOSSDALE AREA
GOLD RUSH CITY
GOLD RUSH BLVD
MOSSDALE BLVD
WEST CALIFIA DR
EAST CALIFIA DR
AMION RD
PARADISE CUT
OLD RIVER
SAN JOAQUIN RIVER
ARBOR RD
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
WOODWARD RD
P.M. PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP



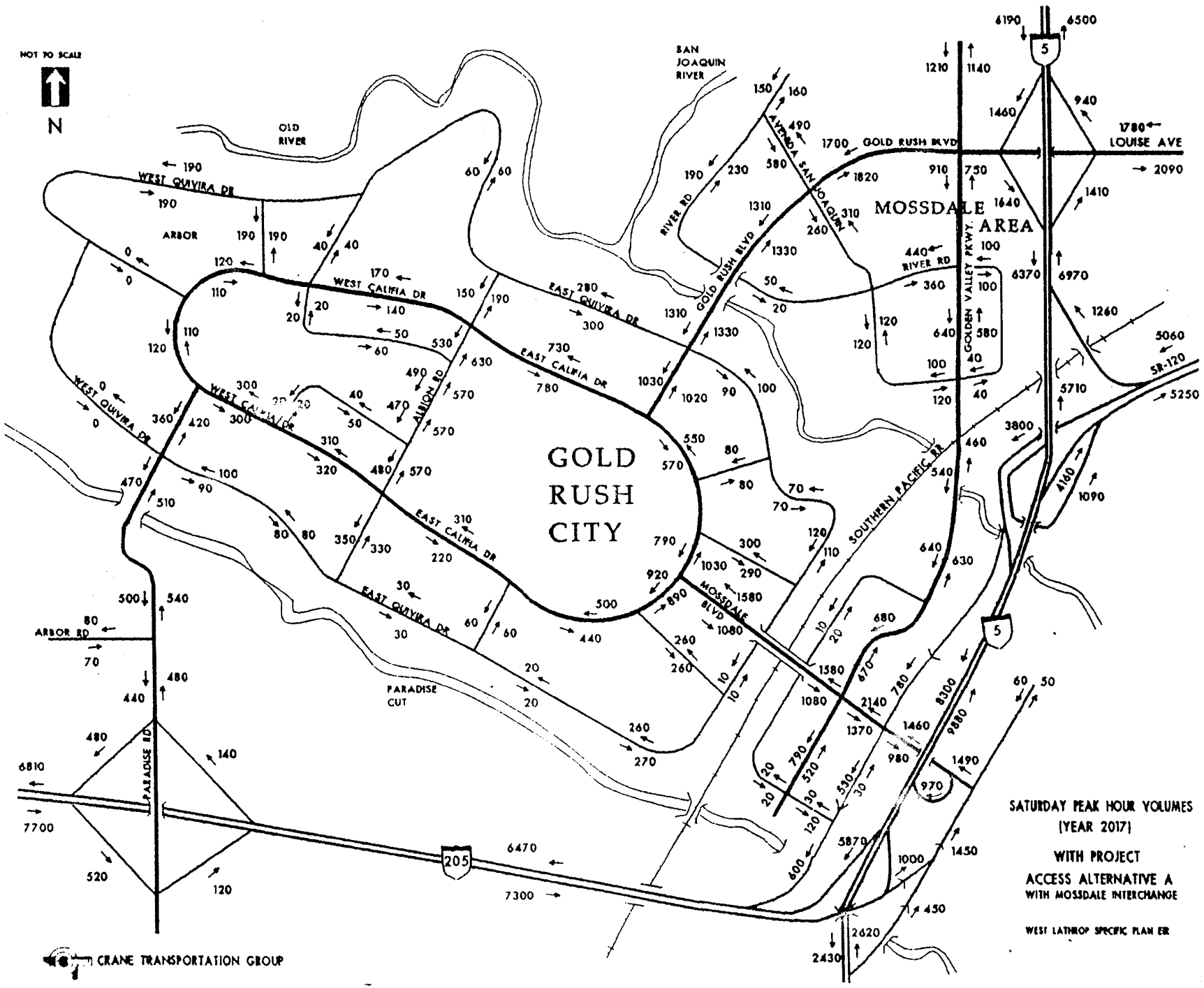
SATURDAY PEAK HOUR VOLUMES (YR 2017)

WITH PROJECT

ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP


NOT TO SCALE
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OLD RIVER
SAN JOAQUIN RIVER
GOLD RUSH CITY
MOSSDALE AREA
WEST QUIVIRA DR
WEST CALFIA DR
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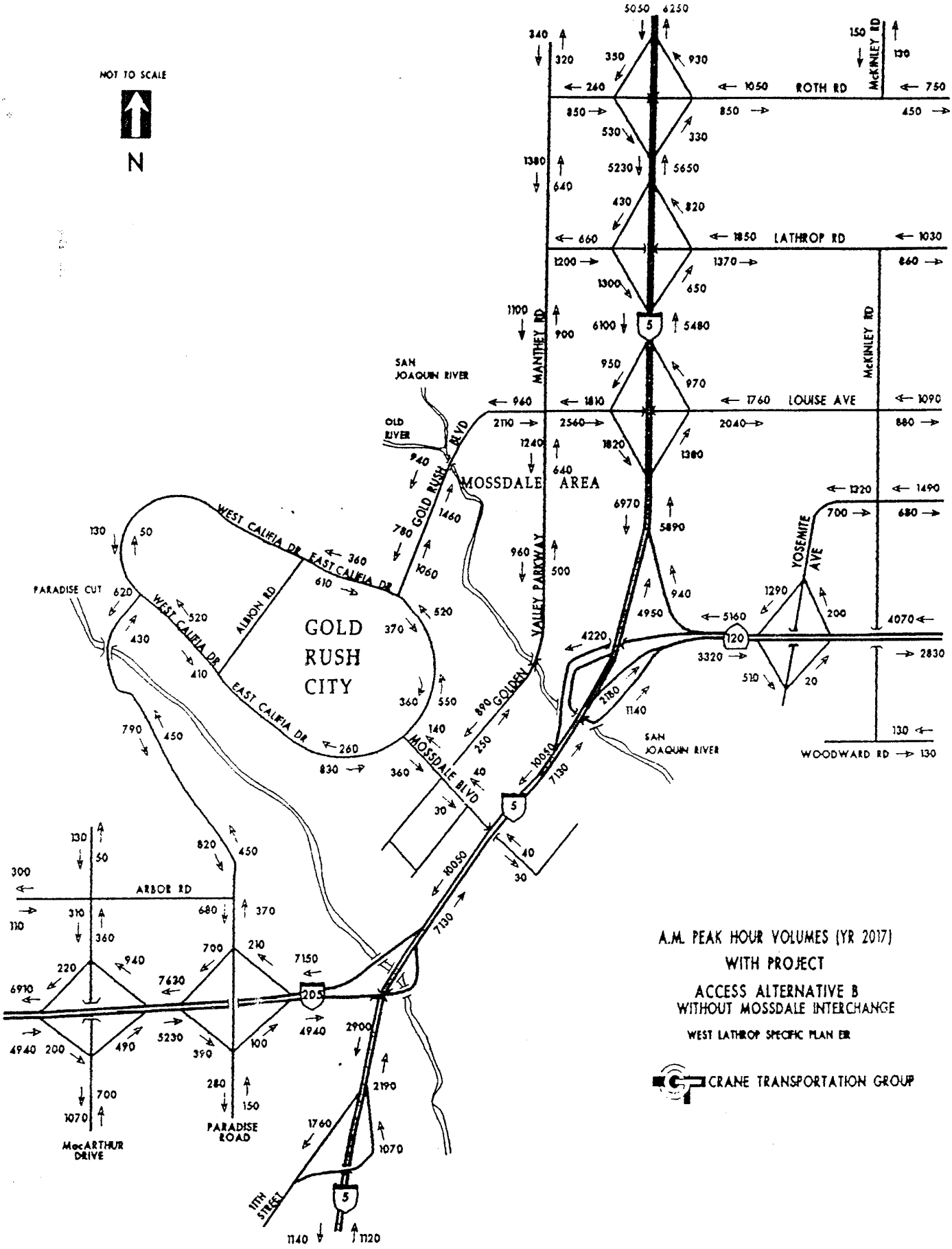
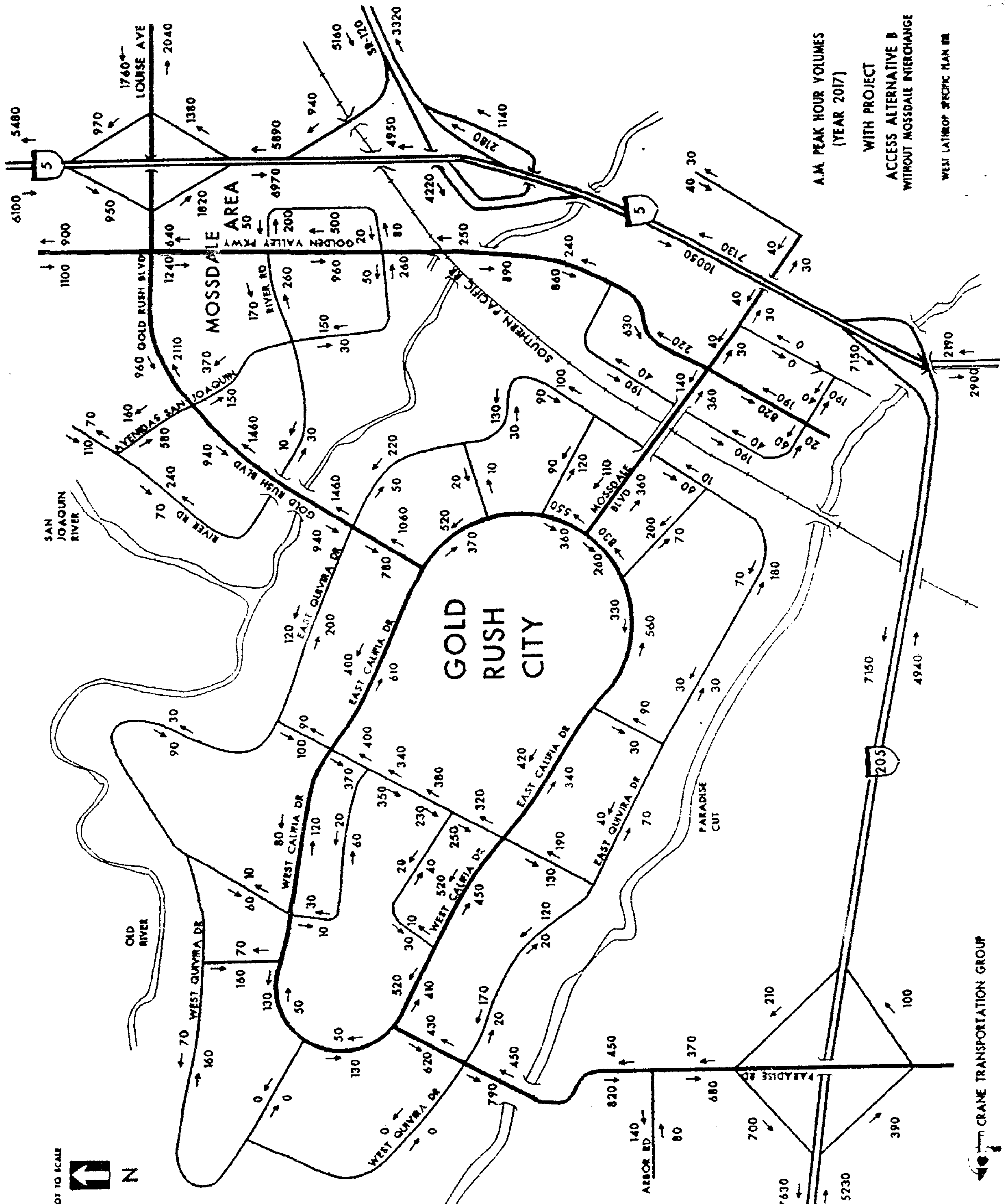
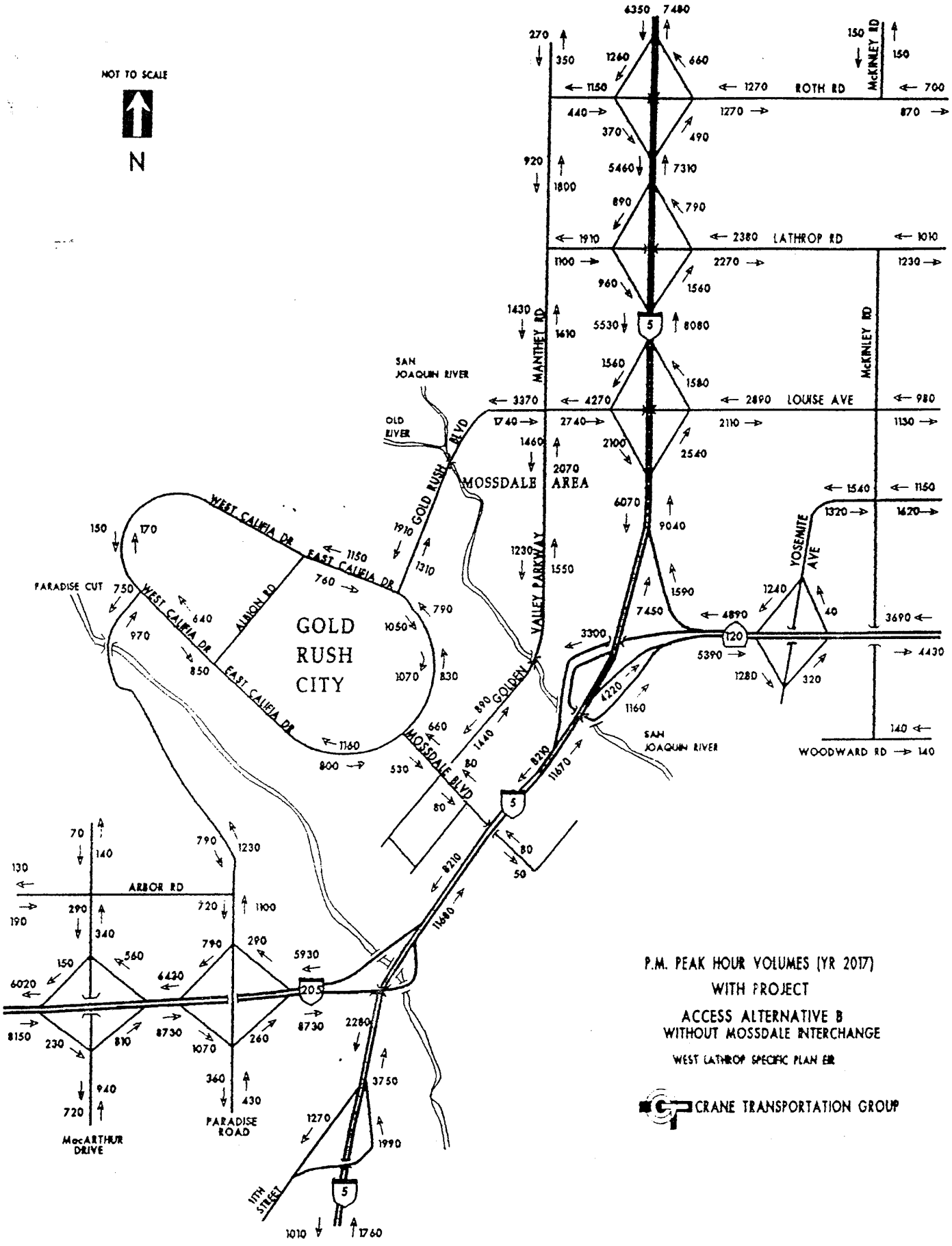
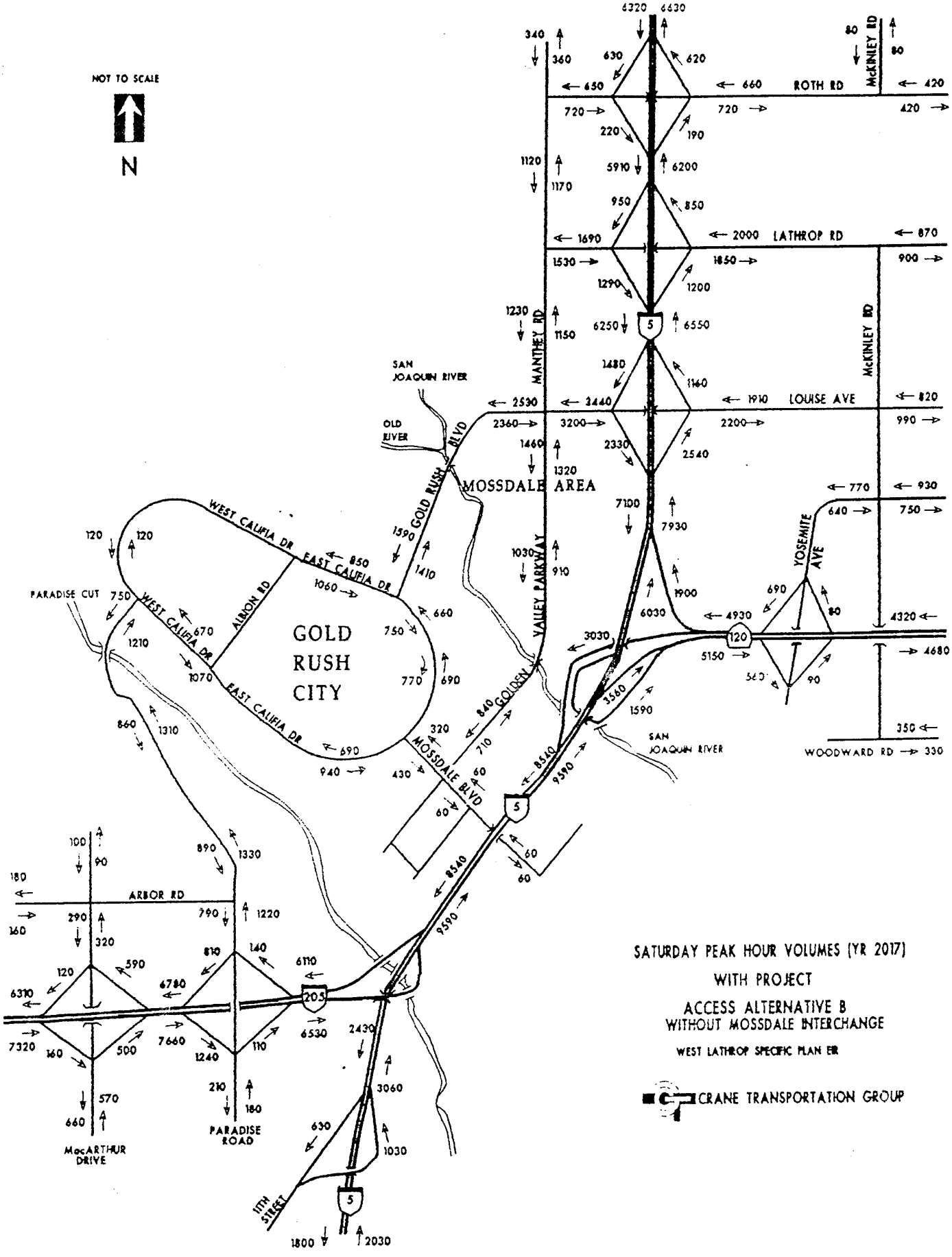
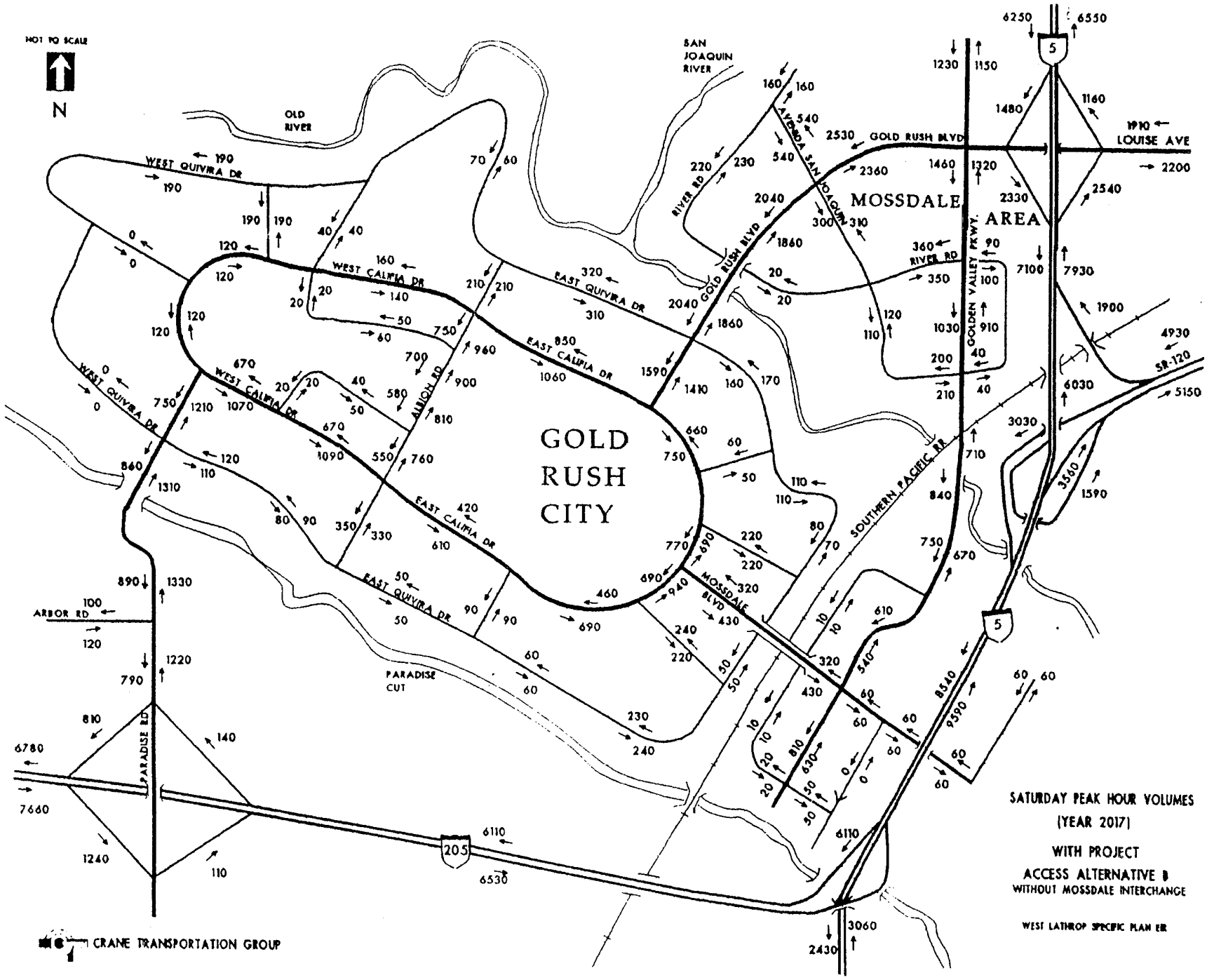
EAST CALFIA DR
ARBOR
ARBOR RD
AMBON RD
RIVER RD
AVENIDA SAN JOAQUIN
GOLD RUSH BLVD
MOSSDALE BLVD
GOLDEN VALLEY PKWY.
SOUTHERN PACIFIC RR
PARADISE CUT
PARADISE RD
LOUISE AVE
SR-120
205
5
SATURDAY PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
ROTH RD
LATHROP RD
LOUISE AVE
MANTHEY RD
McKINLEY RD
VALLEY PARKWAY
GOLDEN
MOSSDALE BLVD
GOLD RUSH BLVD
OLD RIVER
SAN JOAQUIN RIVER
MOSSDALE AREA
GOLD RUSH CITY
WEST CALIFIA DR
EAST CALIFIA DR
ALMOND RD
PARADISE CUT
YOSEMITE AVE
WOODWARD RD
ARBOR RD
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
A.M. PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

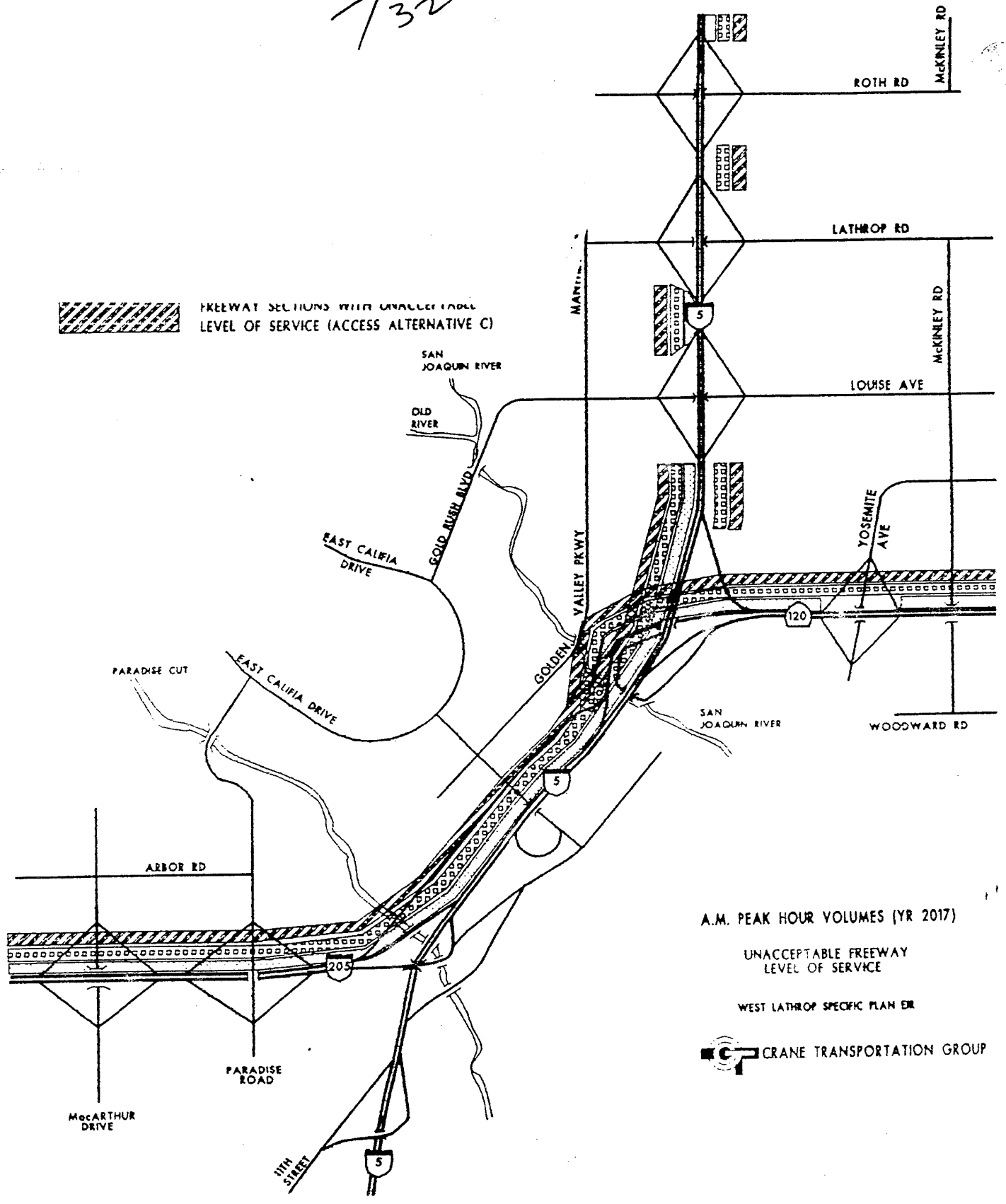

A.M. PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
GOLD RUSH CITY
MOSSDALE AREA
LOUISE AVE
SR-120
GOLD RUSH BLVD
GOLDEN VALLEY PKWY
RIVER RD
AVENIDAS SAN JOAQUIN
SOUTHERN PACIFIC RR
MOSSDALE BLVD
EAST QUIVIRA DR
EAST CALIPIA DR
WEST CALIPIA DR
WEST QUIVIRA DR
PARADISE RD
ARBOR RD
SAN JOAQUIN RIVER
OLD RIVER
PARADISE CUT
5
205
NOT TO SCALE
N
CRANE TRANSPORTATION GROUP

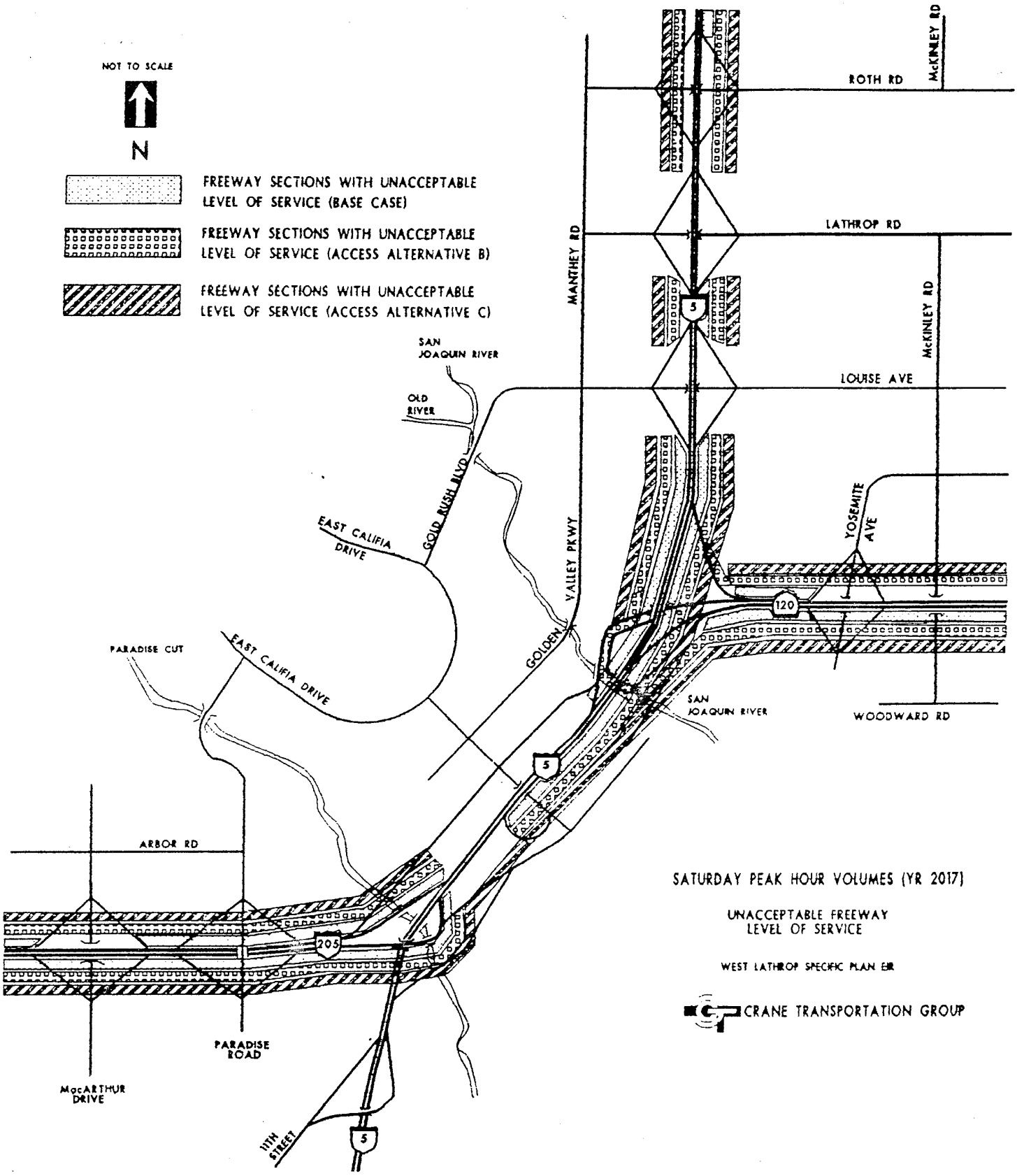

NOT TO SCALE
N
GOLD RUSH CITY
MOSSDALE AREA
ROTH RD
LATHROP RD
LOUISE AVE
MANTHEY RD
McKINLEY RD
YOSEMITE AVE
VALLEY PARKWAY
GOLD RUSH BLVD
MOSSDALE BLVD
GOLDEN
WEST CALEIA DR
EAST CALEIA DR
ALBION RD
PARADISE CUT
SAN JOAQUIN RIVER
OLD RIVER
WOODWARD RD
ARBOR RD
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
P.M. PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

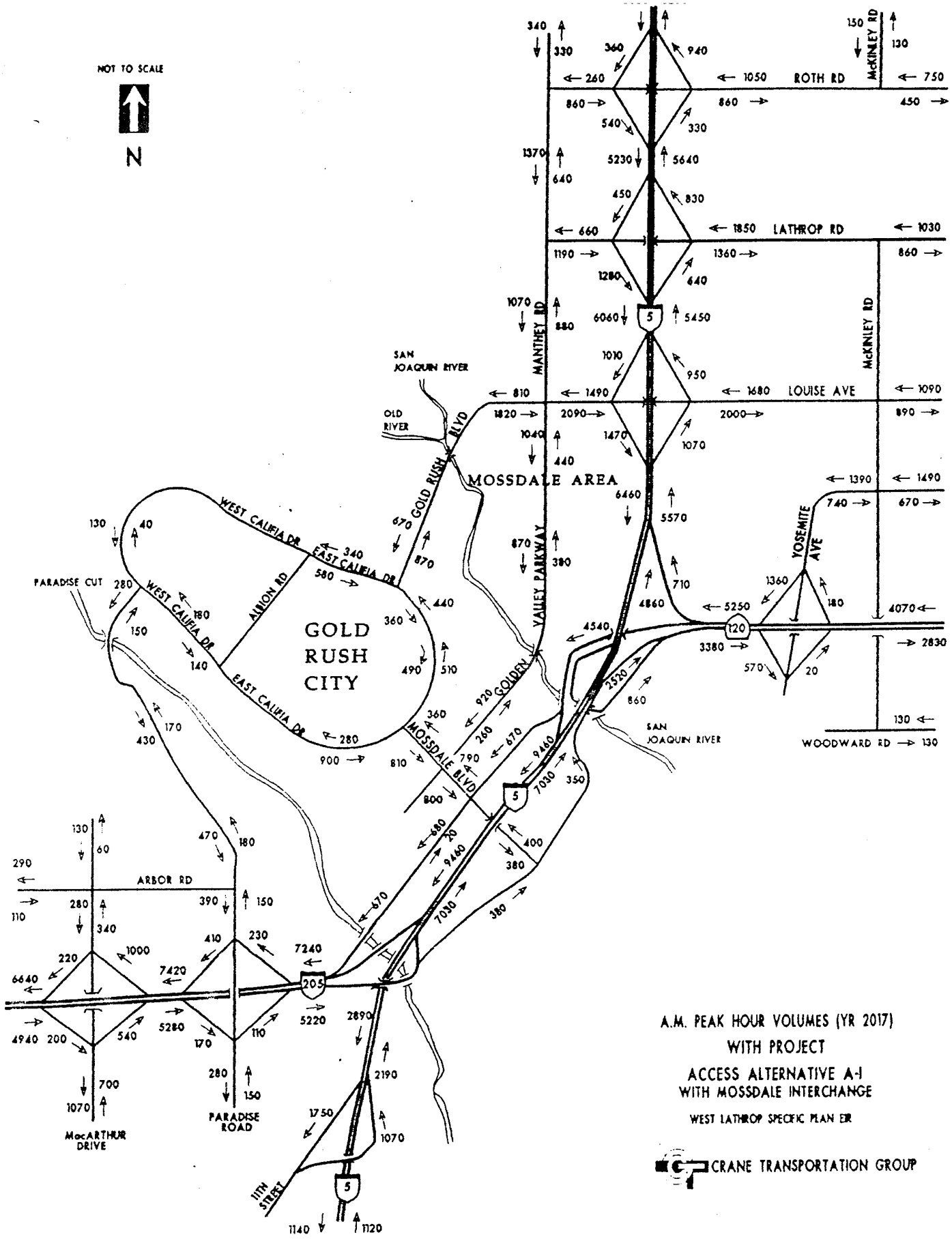

NOT TO SCALE
N
ROTH RD
LATHROP RD
LOUISE AVE
WOODWARD RD
McKINLEY RD
MANTHEY RD
VALLEY PARKWAY
YOSEMITE AVE
GOLD RUSH BLVD
MOSSDALE BLVD
GOLDEN
SAN JOAQUIN RIVER
OLD RIVER
MOSSDALE AREA
GOLD RUSH CITY
WEST CALIFIA DR
EAST CALIFIA DR
ALBION RD
PARADISE CUT
ARBOR RD
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
SATURDAY PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
N
OLD RIVER
SAN JOAQUIN RIVER
GOLD RUSH CITY
MOSSDALE AREA
WEST QUIVIRA DR
WEST CALIFIA DR
EAST QUIVIRA DR
EAST CALIFIA DR
ALLIGN RD
GOLD RUSH BLVD
AVENIDA SAN JOAQUIN
RIVER RD
GOLDEN VALLEY PKWY.
MOSSDALE BLVD
SOUTHERN PACIFIC RR
LOUISE AVE
SR-120
ARBOR RD
PARADISE RD
PARADISE CUT
5
205
CRANE TRANSPORTATION GROUP
SATURDAY PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE B
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR

T32


FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE C)
ROTH RD
McKINLEY RD
LATHROP RD
MANTHEY
LOUISE AVE
SAN JOAQUIN RIVER
OLD RIVER
GOLD RUSH BLVD
EAST CALIFIA DRIVE
VALLEY PKWY
YOSEMITE AVE
GOLDEN
PARADISE CUT
SAN JOAQUIN RIVER
WOODWARD RD
ARBOR RD
PARADISE ROAD
MacARTHUR DRIVE
11TH STREET
5
120
205
A.M. PEAK HOUR VOLUMES (YR 2017)
UNACCEPTABLE FREEWAY LEVEL OF SERVICE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

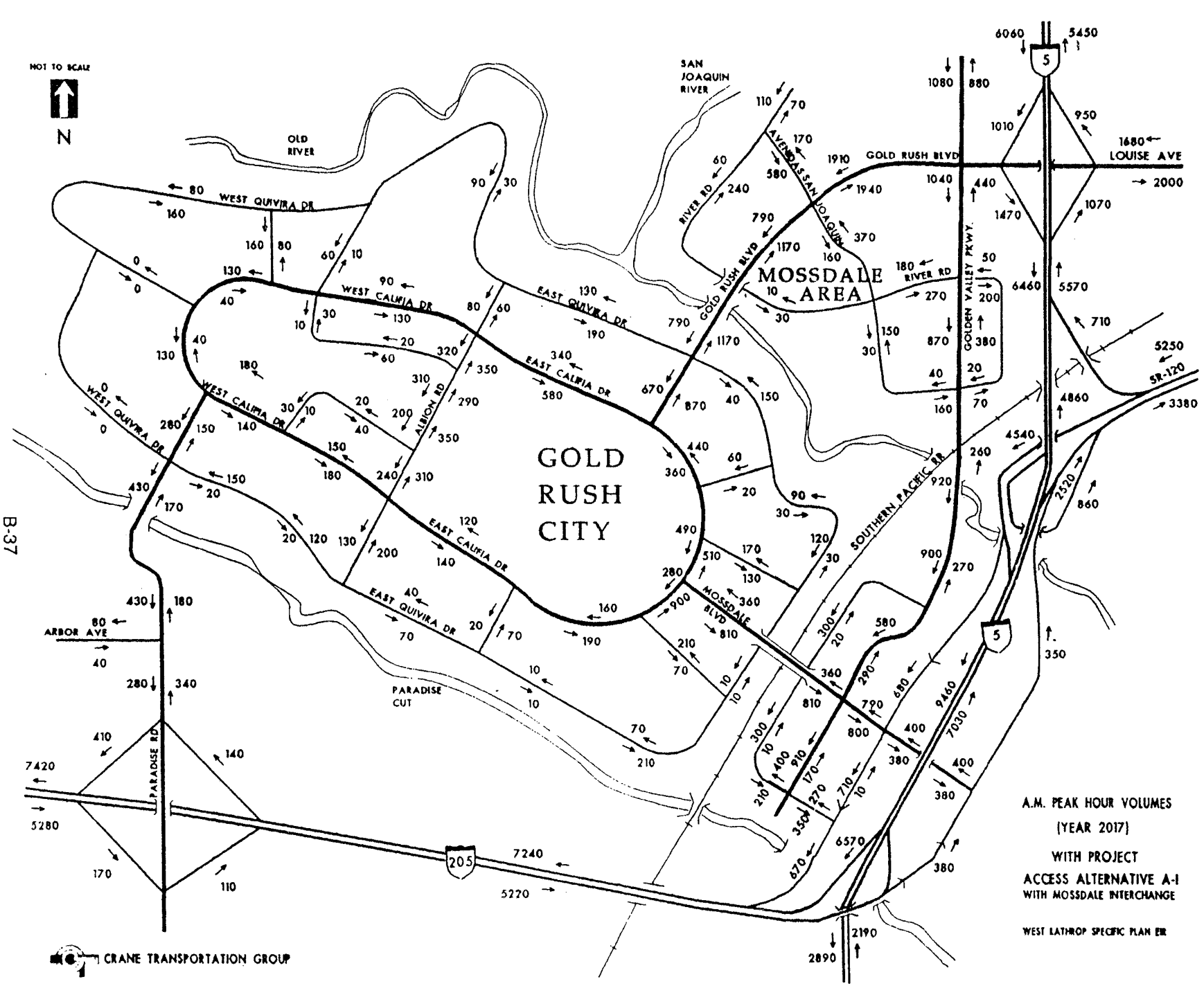

NOT TO SCALE
N
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (BASE CASE)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE B)
FREEWAY SECTIONS WITH UNACCEPTABLE LEVEL OF SERVICE (ACCESS ALTERNATIVE C)
ROTH RD
McKINLEY RD
LATHROP RD
MANTHEY RD
McKINLEY RD
LOUISE AVE
SAN JOAQUIN RIVER
OLD RIVER
GOLD RUSH BLVD
EAST CALIFIA DRIVE
YOSEMITE AVE
VALLEY PKWY
GOLDEN
PARADISE CUT
EAST CALIFIA DRIVE
SAN JOAQUIN RIVER
WOODWARD RD
ARBOR RD
PARADISE ROAD
MacARTHUR DRIVE
11TH STREET
5
120
205
SATURDAY PEAK HOUR VOLUMES (YR 2017)
UNACCEPTABLE FREEWAY LEVEL OF SERVICE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP



A.M. PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A-1
WITH MOSSDALE INTERCHANGE

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP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OLD RIVER
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GOLD RUSH CITY
MOSSDALE AREA
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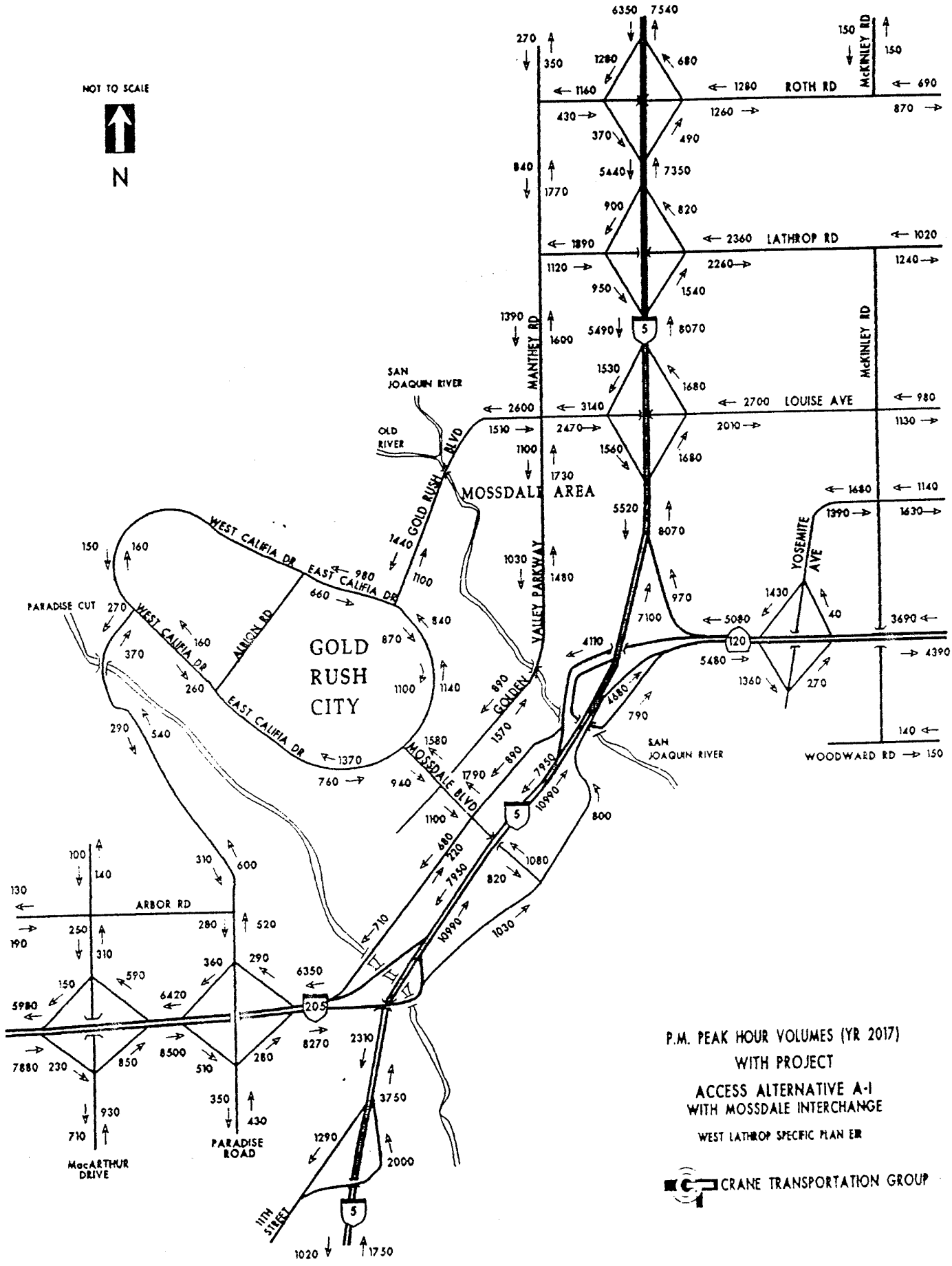
WEST CALFIA DR
EAST QUIVIRA DR
EAST CALFIA DR
ALBION RD
GOLD RUSH BLVD
RIVER RD
AVENUE SAN JOAQUIN
GOLDEN VALLEY PKWY.
MOSSDALE BLVD
SOUTHERN PACIFIC RR
LOUISE AVE
SR-120
ARBOR AVE
PARADISE RD
PARADISE CUT
205
5
A.M. PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A-1
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP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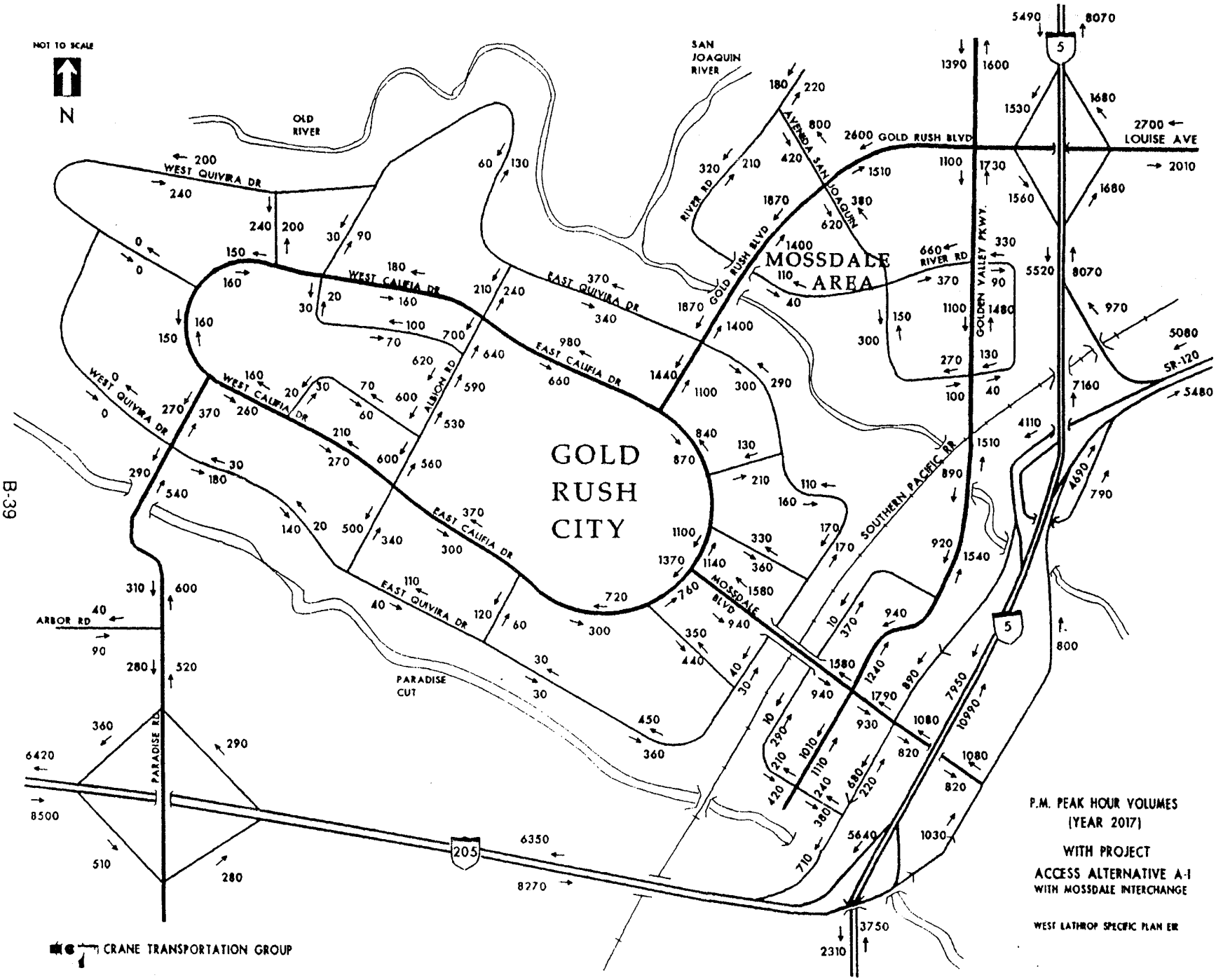
GOLD RUSH BLVD
MOSSDALE AREA
VALLEY PARKWAY
YOSEMITE AVE
WEST CALIFIA DR
EAST CALIFIA DR
ARBON RD
GOLD RUSH CITY
PARADISE CUT
GOLDEN
MOSSDALE BLVD
SAN JOAQUIN RIVER
WOODWARD RD
ARBOR RD
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
5
120
205
P.M. PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A-1
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP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MOSSDALE AREA
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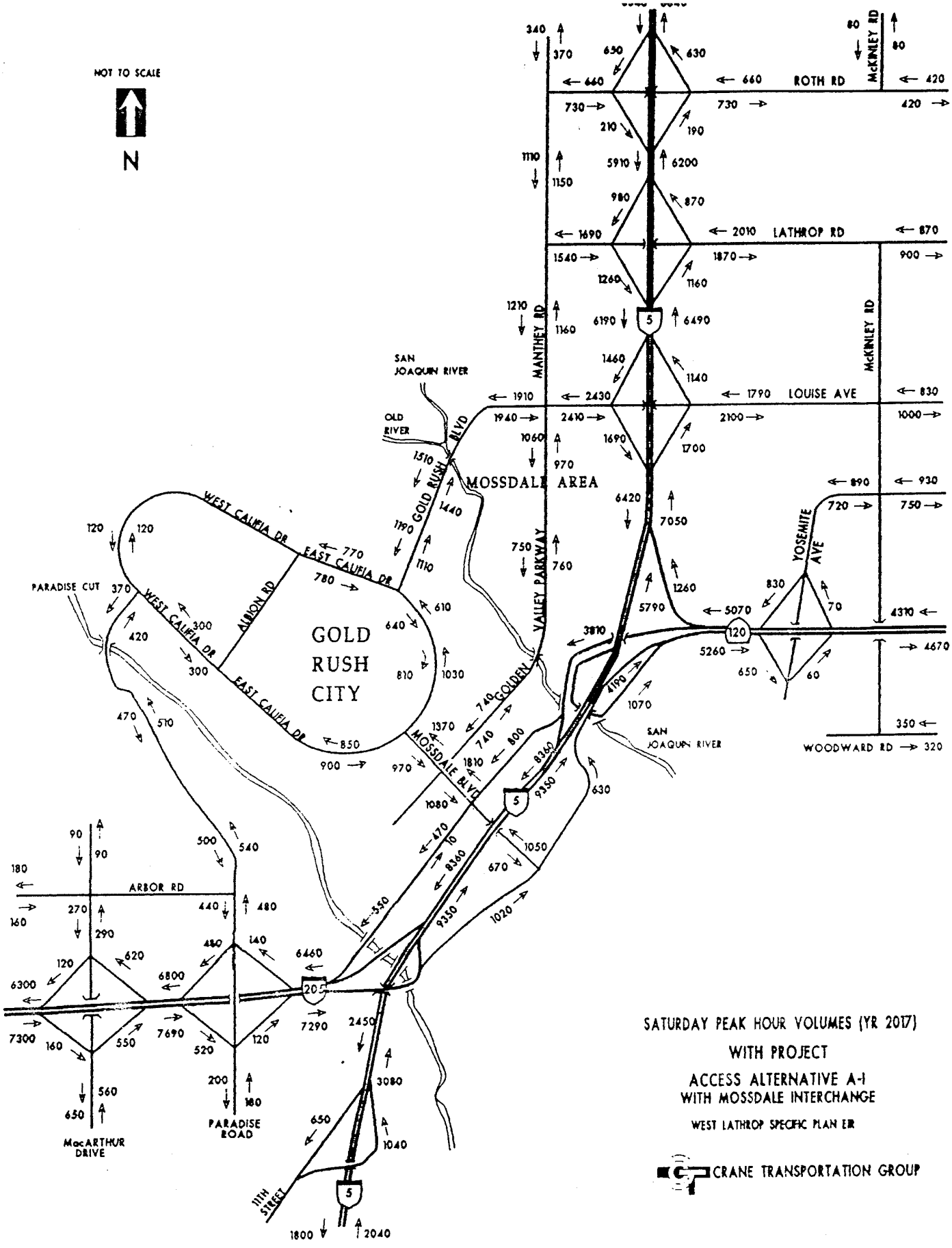
EAST CALFIA DR
ALBION RD
GOLD RUSH BLVD
AVENIDA SAN JOAQUIN
RIVER RD
GOLDEN VALLEY PKWY.
MOSSDALE BLVD
SOUTHERN PACIFIC RR
ARBOR RD
PARADISE RD
PARADISE CUT
LOUISE AVE
SR-120
205
5
P.M. PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A-1
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP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LOUISE AVE
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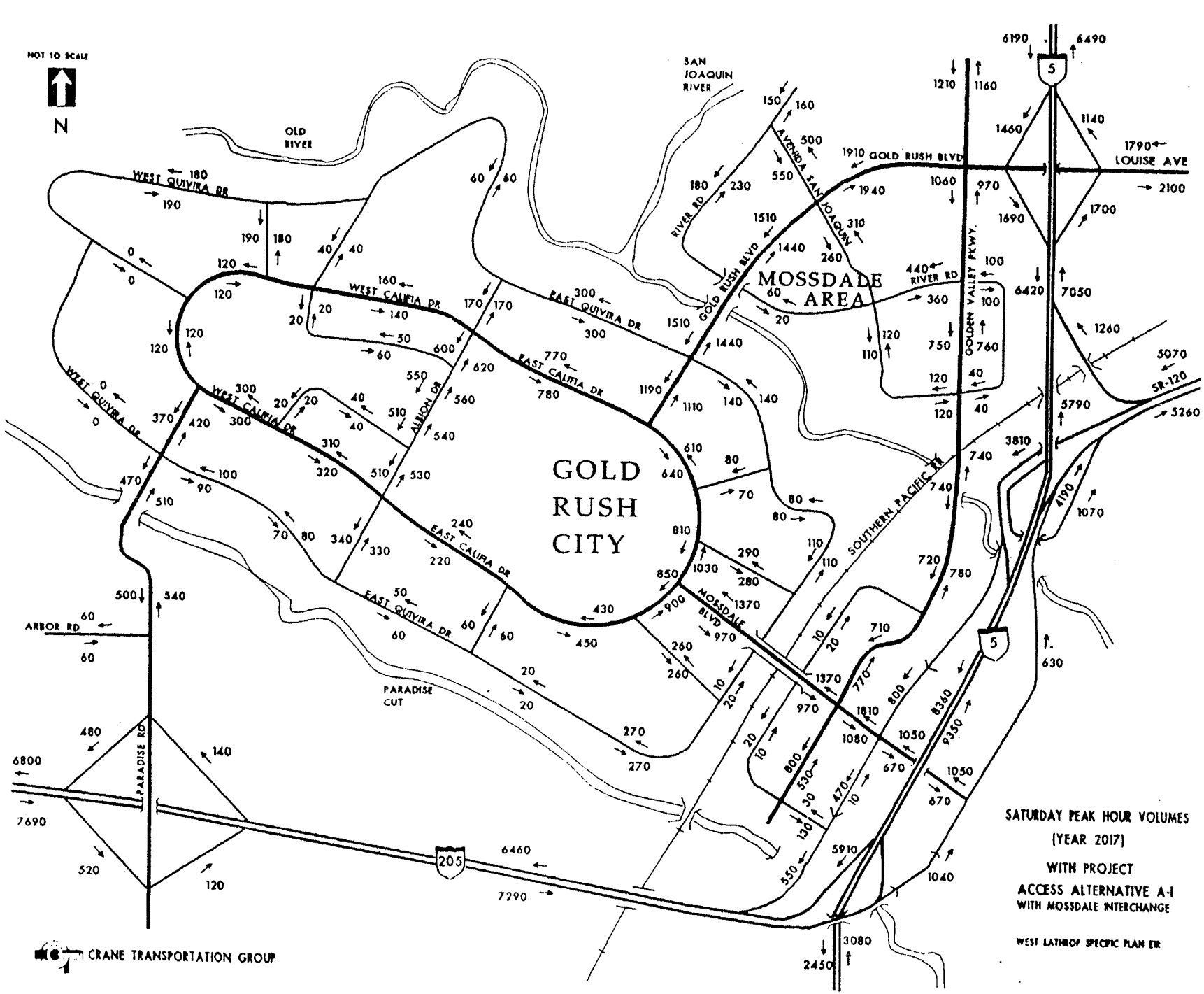
OLD RIVER
GOLD RUSH BLVD
MOSSDALE AREA
VALLEY PARKWAY
YOSEMITE AVE
WOODWARD RD
GOLD RUSH CITY
WEST CALIFIA DR
EAST CALIFIA DR
ALMOND RD
PARADISE CUT
GOLDEN
MOSSDALE BLVD
ARBOR RD
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
SAN JOAQUIN RIVER
SATURDAY PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A-1
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP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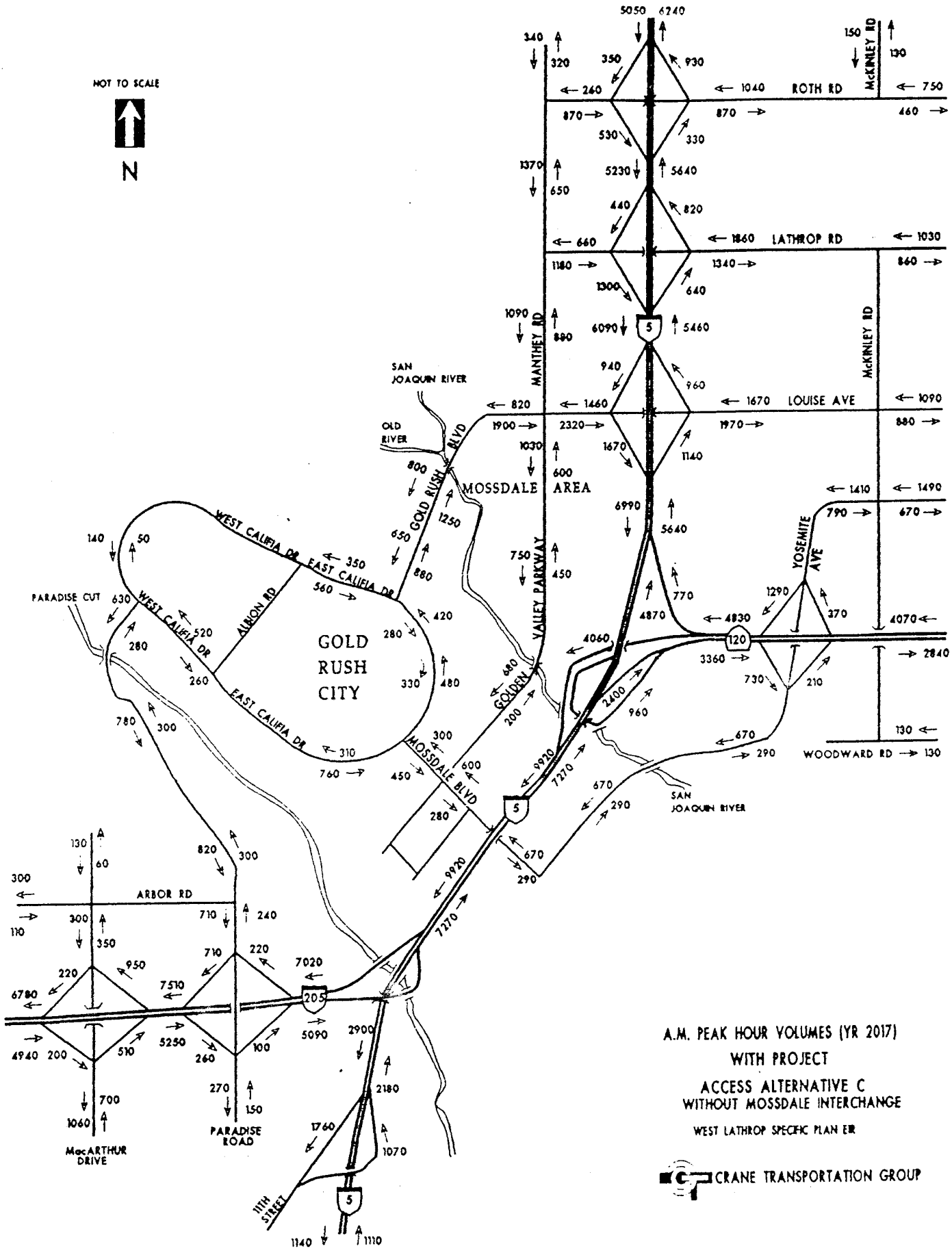
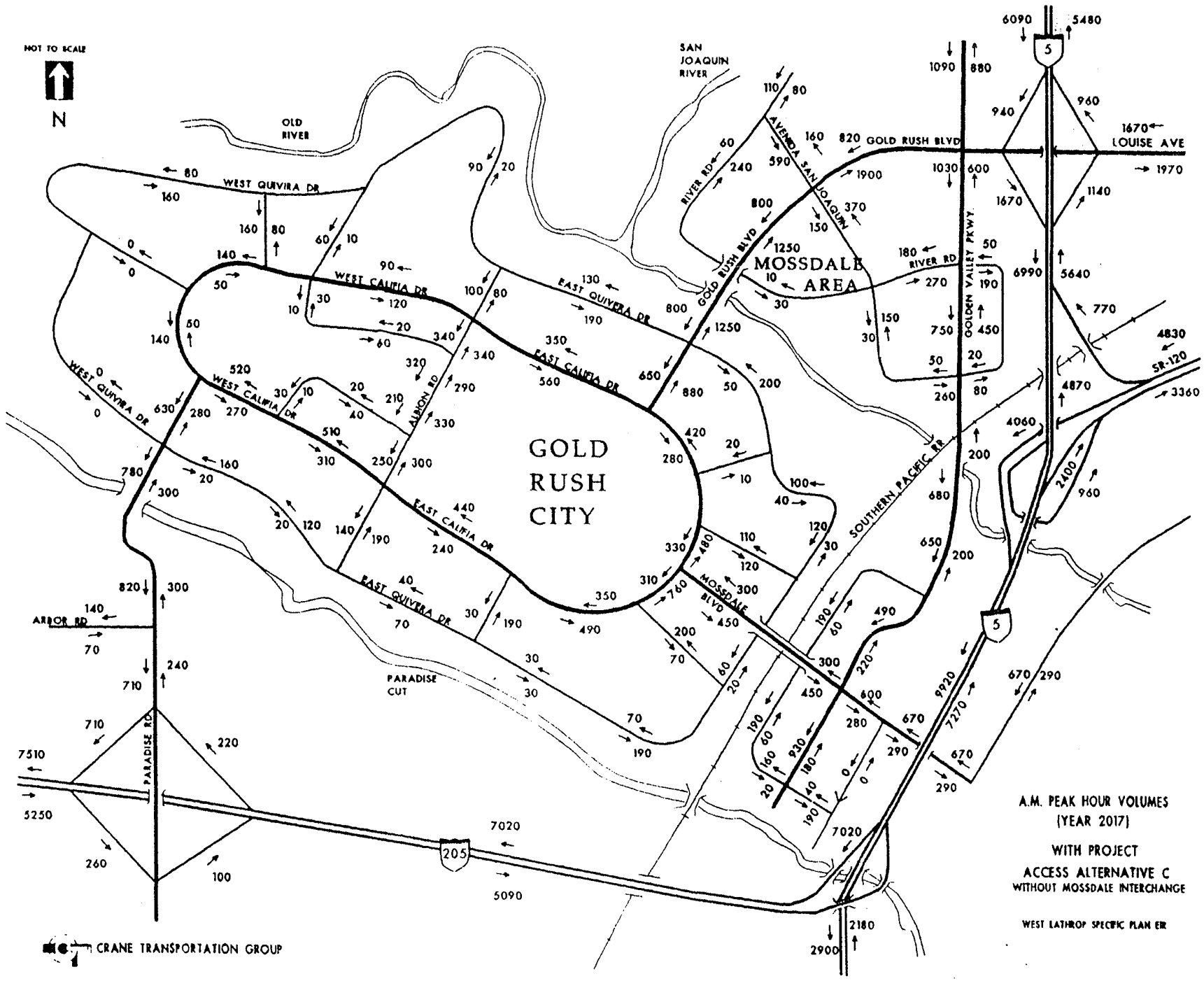
SAN JOAQUIN RIVER
WEST QUIVIRA DR
EAST QUIVIRA DR
WEST CALIFIA DR
EAST CALIFIA DR
ALBION DR
GOLD RUSH BLVD
AVENIDA SAN JOAQUIN
RIVER RD
MOSSDALE BLVD
GOLDEN VALLEY PKWY.
SOUTHERN PACIFIC RR
ARBOR RD
PARADISE RD
PARADISE CUT
LOUISE AVE
SR-120
MOSSDALE AREA
GOLD RUSH CITY
205
5
CRANE TRANSPORTATION GROUP
SATURDAY PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE A-1
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR



A.M. PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE C
WITHOUT MOSSDALE INTERCHANGE

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP


NOT TO SCALE
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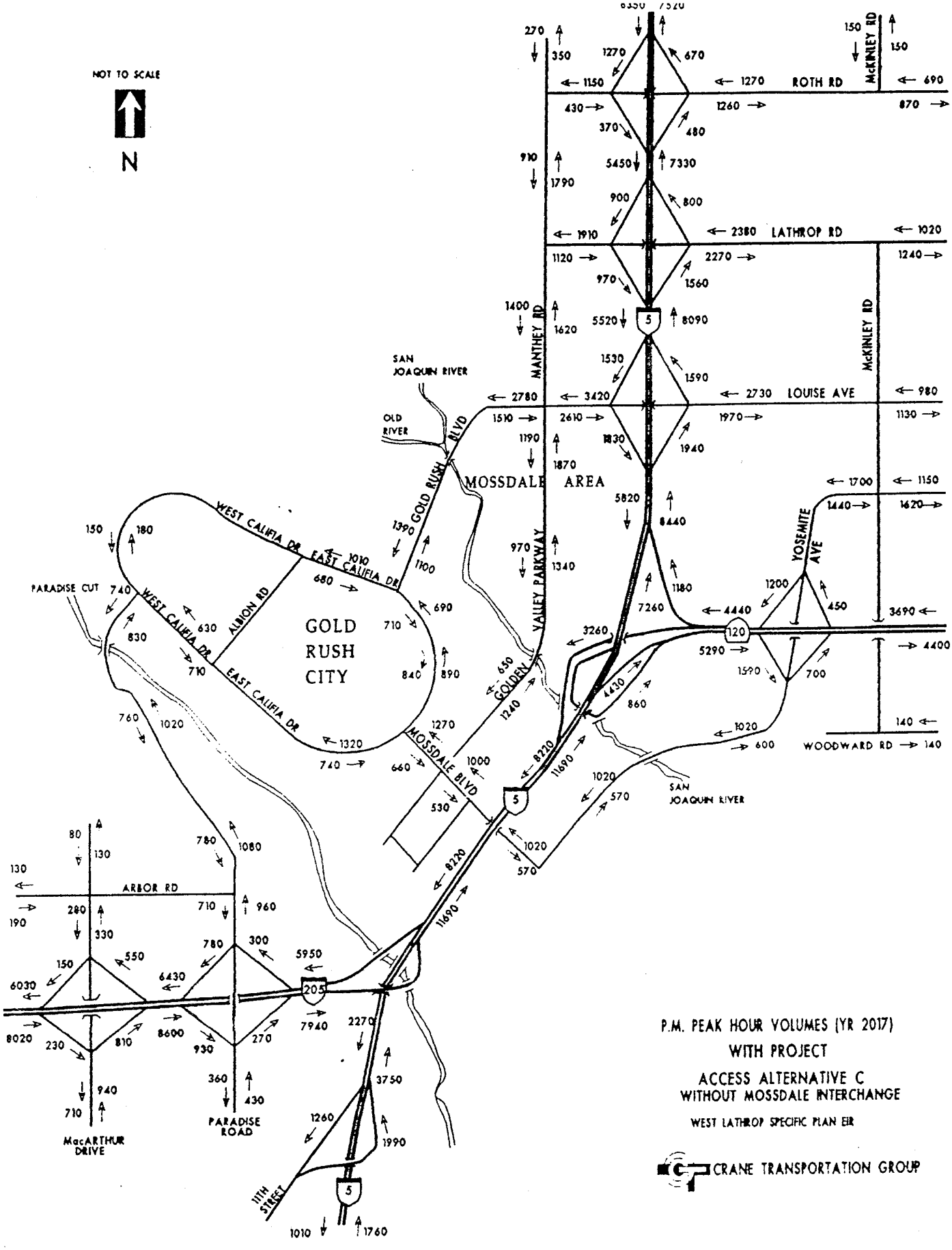
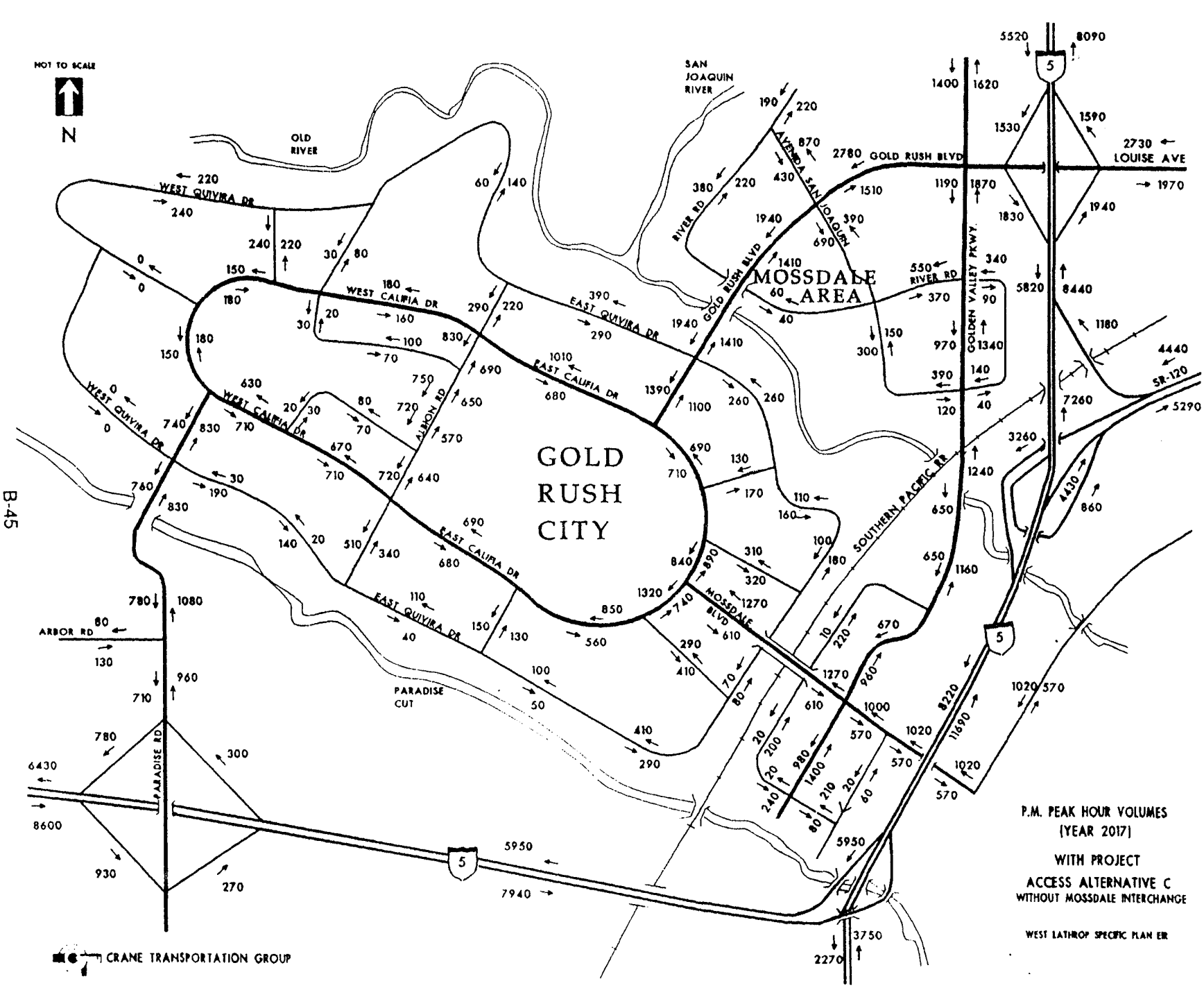
OLD RIVER
SAN JOAQUIN RIVER
WEST QUIVIRA DR
WEST CALIFIA DR
EAST QUIVIRA DR
EAST CALIFIA DR
ALBION RD
GOLD RUSH BLVD
AVENIDA SAN JOAQUIN
RIVER RD
MOSSDALE AREA
GOLDEN VALLEY PKWY
GOLD RUSH CITY
MOSSDALE BLVD
SOUTHERN PACIFIC RR
LOUISE AVE
SR-120
ARBOR RD
PARADISE RD
PARADISE CUT
205
5
CRANE TRANSPORTATION GROUP
A.M. PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE C
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR



P.M. PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE C
WITHOUT MOSSDALE INTERCHANGE

WEST LATHROP SPECIFIC PLAN EIR

CRANE TRANSPORTATION GROUP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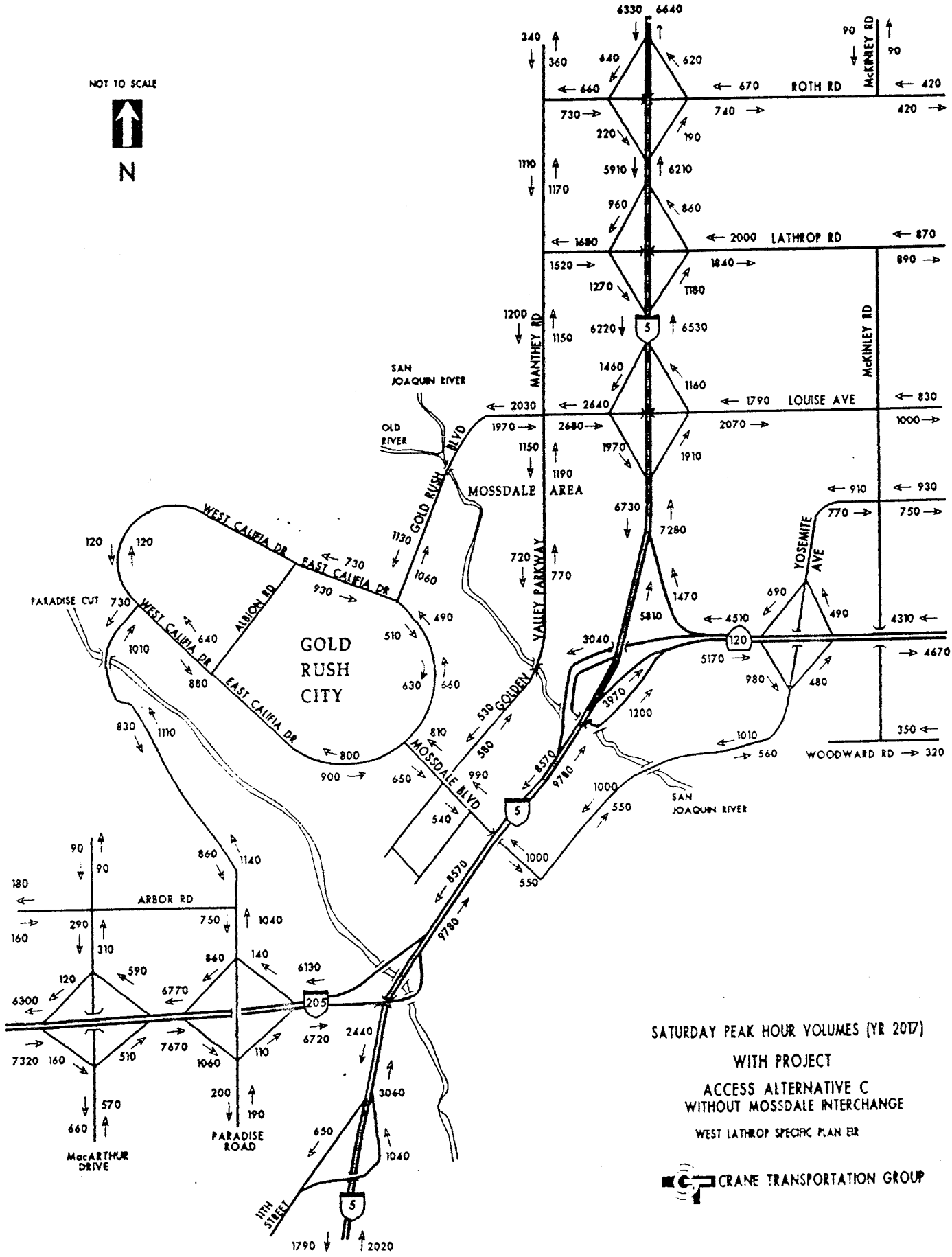
OLD RIVER
SAN JOAQUIN RIVER
GOLD RUSH CITY
MOSSDALE AREA
WEST QUIVIRA DR
WEST CALIFIA DR
EAST QUIVIRA DR
EAST CALIFIA DR
ARBOR RD
PARADISE RD
PARADISE CUT
RIVER RD
AVENIDA SAN JOAQUIN
GOLD RUSH BLVD
MOSSDALE BLVD
GOLDEN VALLEY PKWY.
SOUTHERN PACIFIC RR
LOUISE AVE
SR-120
5
P.M. PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE C
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
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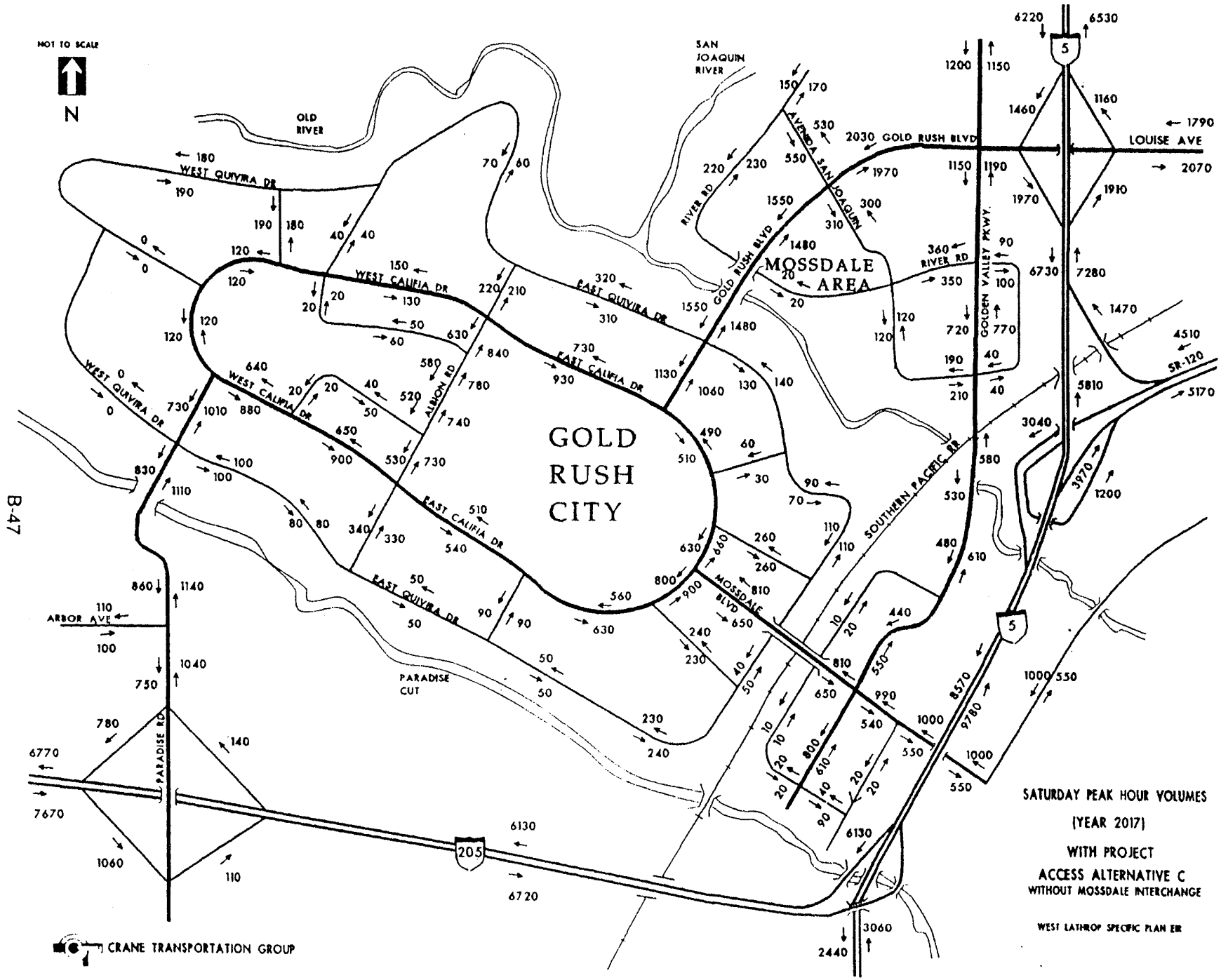
ROTH RD
McKINLEY RD
LATHROP RD
LOUISE AVE
MANTHEY RD
SAN JOAQUIN RIVER
OLD RIVER
GOLD RUSH BLVD
MOSSDALE AREA
VALLEY PARKWAY
YOSEMITE AVE
WEST CALFIA DR
EAST CALFIA DR
ALBION RD
PARADISE CUT
GOLD RUSH CITY
GOLDEN
MOSSDALE BLVD
WOODWARD RD
ARBOR RD
MacARTHUR DRIVE
PARADISE ROAD
11TH STREET
SAN JOAQUIN RIVER
SATURDAY PEAK HOUR VOLUMES (YR 2017)
WITH PROJECT
ACCESS ALTERNATIVE C
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP


NOT TO SCALE
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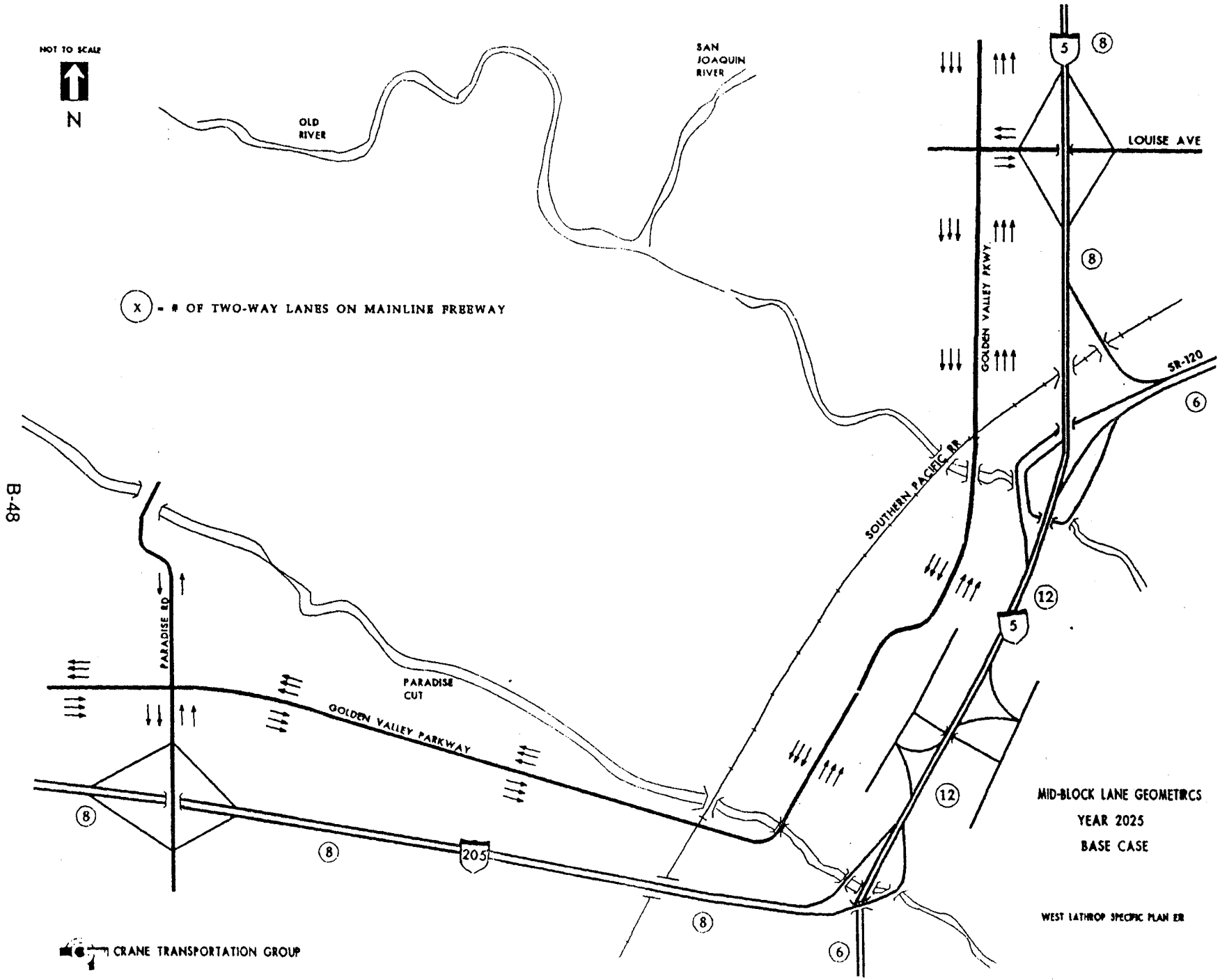
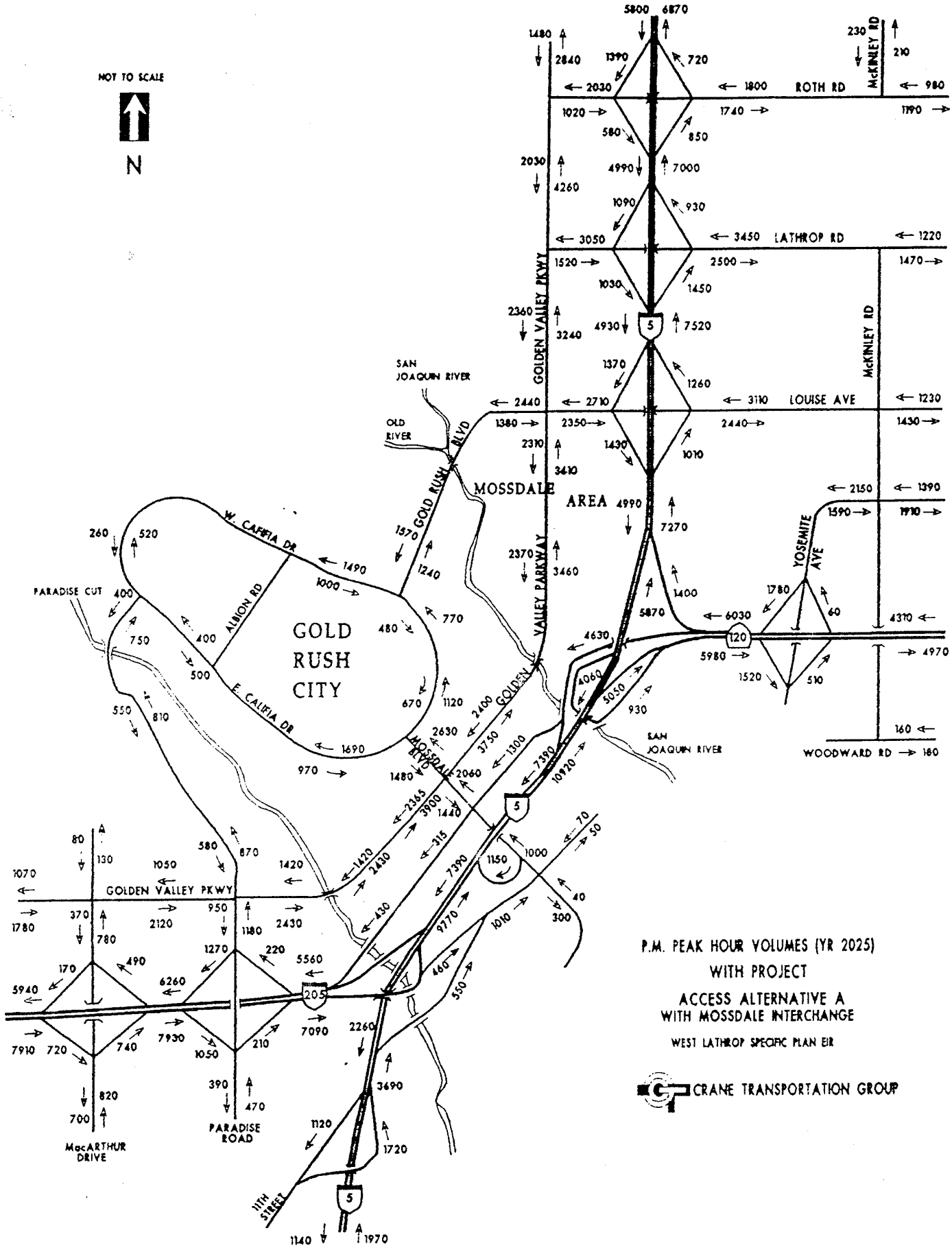
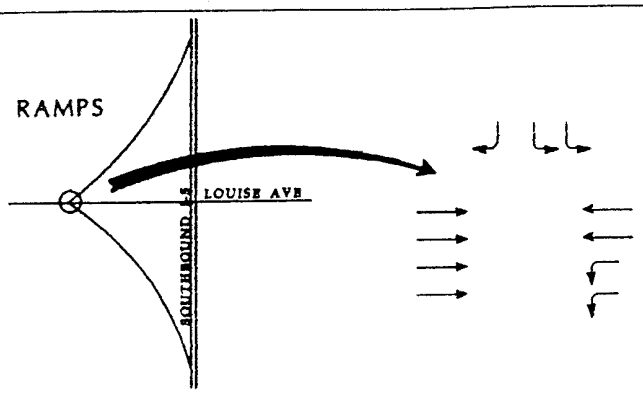
OLD RIVER
SAN JOAQUIN RIVER
GOLD RUSH CITY
MOSSDALE AREA
WEST QUIVIRA DR
WEST CALIFIA DR
EAST QUIVIRA DR
EAST CALIFIA DR
ALMOND RD
GOLD RUSH BLVD
AVENIDA SAN JOAQUIN
RIVER RD
2030 GOLD RUSH BLVD
LOUISE AVE
GOLDEN VALLEY PKWY.
MOSSDALE BLVD
SOUTHERN PACIFIC RR
ARBOR AVE
PARADISE RD
PARADISE CUT
SR-120
5
205
CRANE TRANSPORTATION GROUP
SATURDAY PEAK HOUR VOLUMES
(YEAR 2017)
WITH PROJECT
ACCESS ALTERNATIVE C
WITHOUT MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR

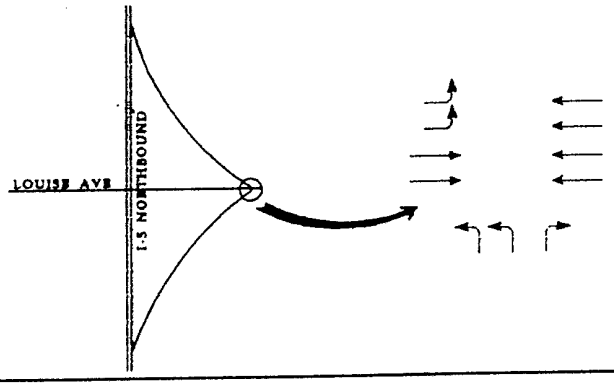

NOT TO SCALE
N
SAN JOAQUIN RIVER
OLD RIVER
(X) = # OF TWO-WAY LANES ON MAINLINE FREEWAY
LOUISE AVE
GOLDEN VALLEY PKWY.
SR-120
SOUTHERN PACIFIC RR
PARADISE RD
PARADISE CUT
GOLDEN VALLEY PARKWAY
205
MID-BLOCK LANE GEOMETRICS
YEAR 2025
BASE CASE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

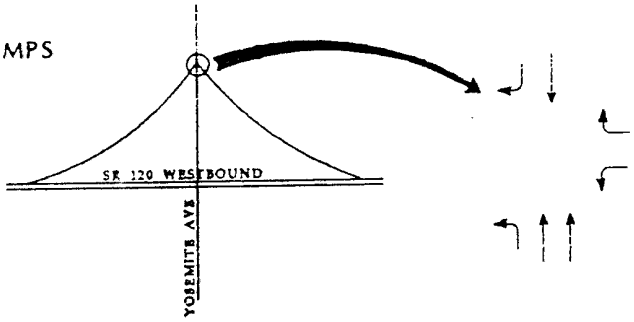

NOT TO SCALE
N
ROTH RD
LATHROP RD
LOUISE AVE
WOODWARD RD
McKINLEY RD
McKINNEY RD
GOLDEN VALLEY PKWY
YOSEMITE AVE
SAN JOAQUIN RIVER
OLD RIVER
MOSSDALE BLVD
GOLD RUSH BLVD
MOSSDALE AREA
GOLD RUSH CITY
W. CAFFIA DR
E. CAFFIA DR
ALMON RD
PARADISE CUT
PARADISE ROAD
MacARTHUR DRIVE
11TH STREET
P.M. PEAK HOUR VOLUMES (YR 2025)
WITH PROJECT
ACCESS ALTERNATIVE A
WITH MOSSDALE INTERCHANGE
WEST LATHROP SPECIFIC PLAN EIR
CRANE TRANSPORTATION GROUP

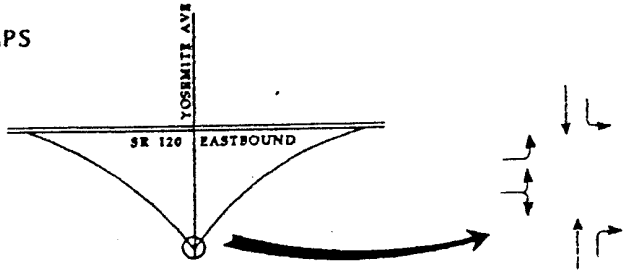
WEST LATHROP SPECIFIC PLAN EIR - YEAR 2017 WITHOUT PROJECT SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION	PM PEAK HOUR
LOUISE AVE/ SOUTHBOUND I-5 RAMPS	A/B - .60
LOUISE AVE/ NORTHBOUND I-5	C - .78
YOSEMITE/ SR 120 WB RAMPS	C - .72
YOSEMITE/ SR 120 EB RAMPS	C - .74





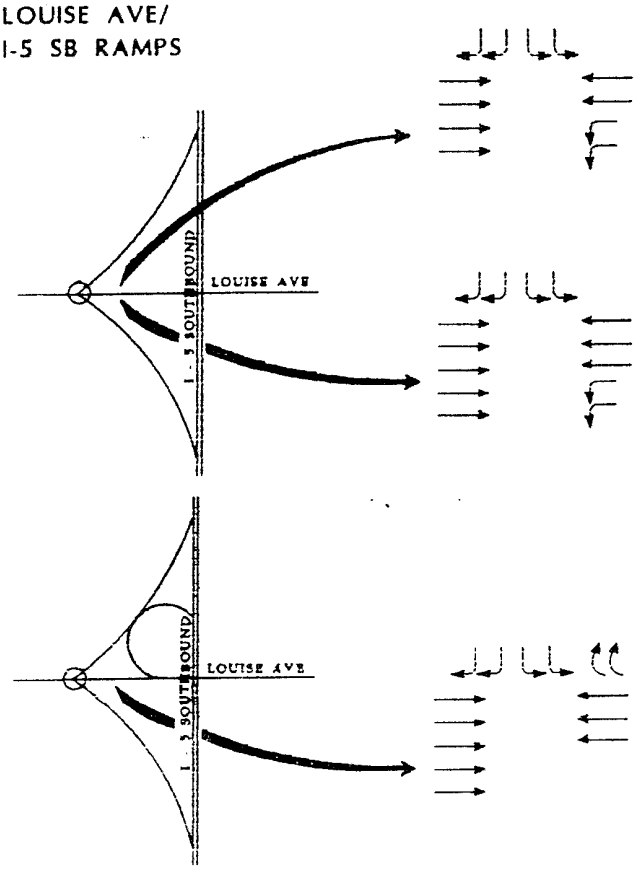


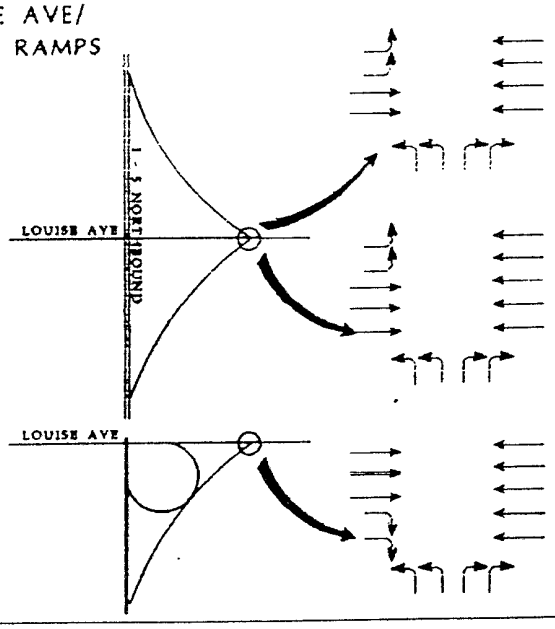


SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2017
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION	ACCESS ALTERNATIVE	AM PEAK HOUR	PM PEAK HOUR	SATURDAY PEAK HOUR
LOUISE AVE/ I-5 SB RAMPS	A	C - .72	D - .88	C - .74
	B	B - .66	F - 1.01	D - .81
	B	A - .48	E - .99	C - .77
LOUISE AVE/ I-5 NB RAMPS	A	B - .63	D - .83	B - .66
	B	C - .72	F - 130	F - 1.23
	B	C - .72	E - .98	E - .96

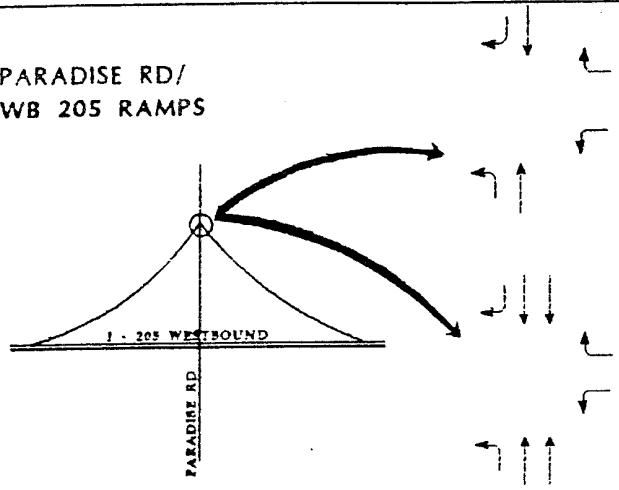


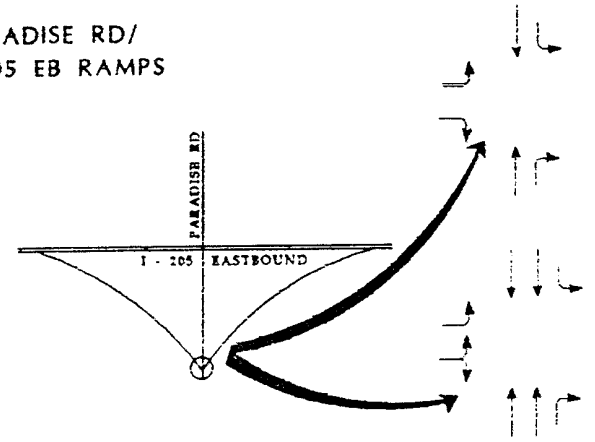


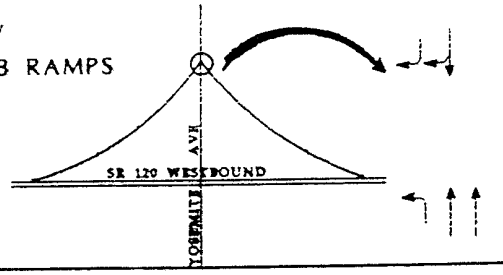
SOURCE: CRANE TRANSPORTATION GROUP

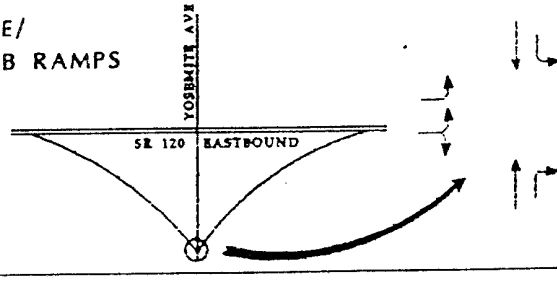
WEST LATHROP SPECIFIC PLAN EIR - YEAR 2017
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION	ACCESS ALTERNATIVE	AM PEAK HOUR	PM PEAK HOUR	SATURDAY PEAK HOUR
PARADISE RD/ WB 205 RAMPS	A	A - .36	A - .52	A - .40
	B	A - .40	A - .53	A - .49
PARADISE RD/ I 205 EB RAMPS	A	A - .17	A - .51	A - .40
	B	A - .20	A - .47	A - .47
YOSEMITE/ SR 120 WB RAMPS	A	B - .61	A/B - .60	A - .36
	B	A - .58	A - .57	A - .32
YOSEMITE/ SR 120 EB RAMPS	A	A - .23	C - .73	A - .29
	B	A - .17	D - .72	A - .28





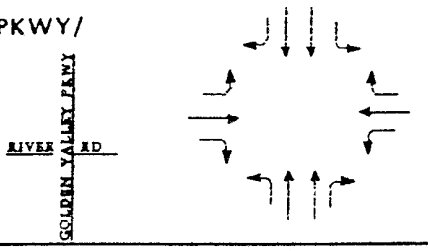


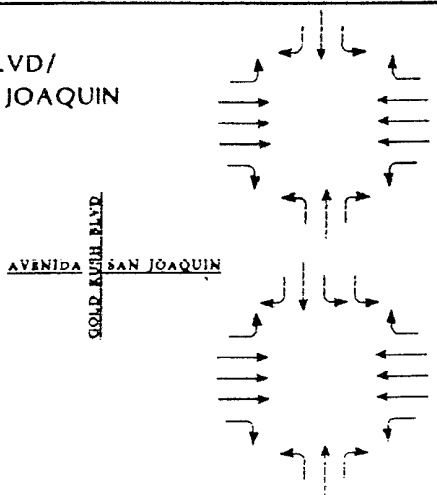


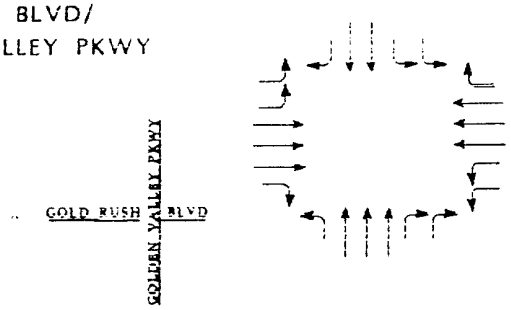
SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2017
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION	ACCESS ALTERNATIVE	AM PEAK HOUR	PM PEAK HOUR	SATURDAY PEAK HOUR
GOLDEN VALLEY PKWY/ RIVER RD	A	A - .37	C - .73	A - .53
	B	A - .45	C - .77	B - .63
GOLD RUSH BLVD/ AVENIDA SAN JOAQUIN	A	B/C - .70	C - .76	D - .82
	B	B - .65	D - .82	D - .81
GOLD RUSH BLVD/ GOLDEN VALLEY PKWY	A	B - .68	D - .88	C - .79
	B	GRADE SEPARATION REQUIRED		

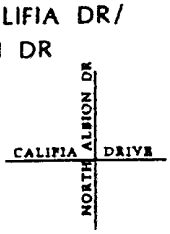
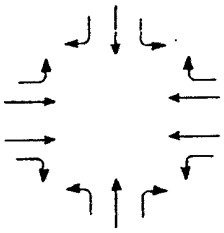
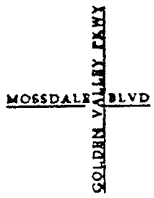
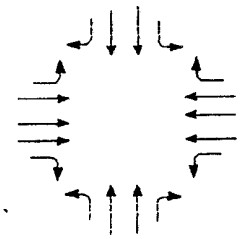
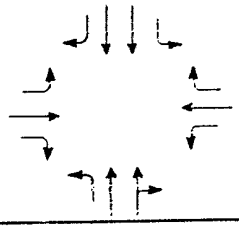
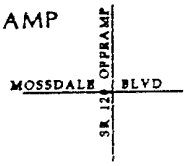
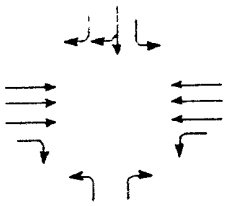






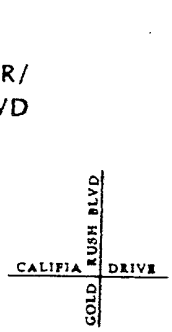
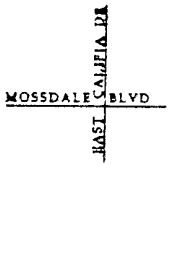
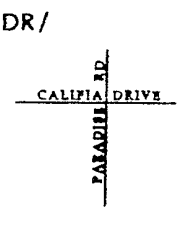
SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2017
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION		ACCESS ALTERNATIVE	AM PEAK HOUR	PM PEAK HOUR	SATURDAY PEAK HOUR
EAST/WEST CALIFIA DR/ NORTH ALBION DR	 	A	A - .35	B - .64	A - .59
		B	A - .51	D - .87	D - .82
MOSSDALE/ GOLDEN VALLEY PKWY	 	A	B - .64	C/D - .80	C - .74
		B	A - .34	C - .71	A - .46
MOSSDALE/ SR 120 OFFRAMP	 	A	A - .51	C - .75	B - .61
		B	N/A	N/A	N/A

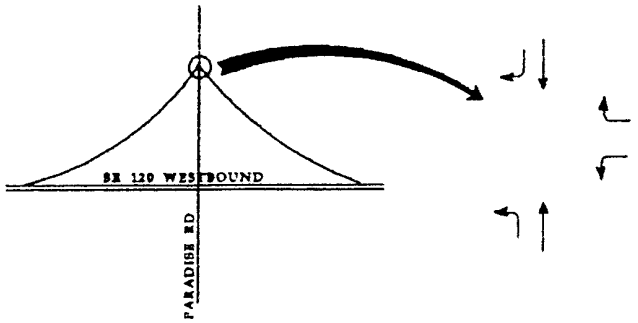
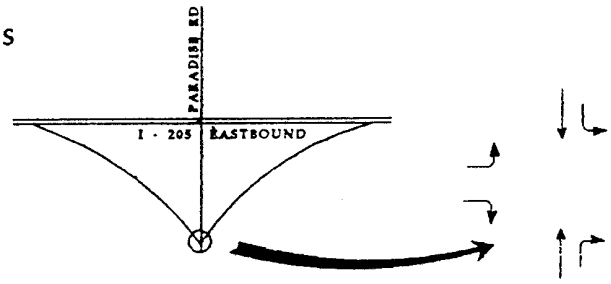
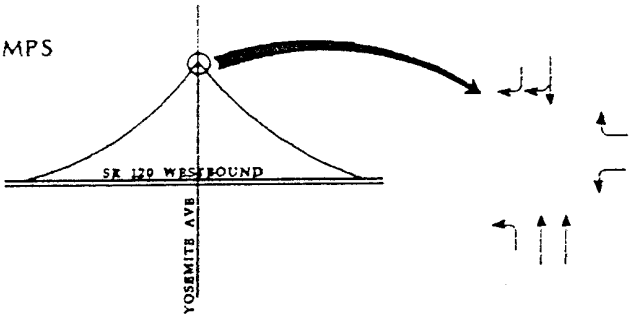
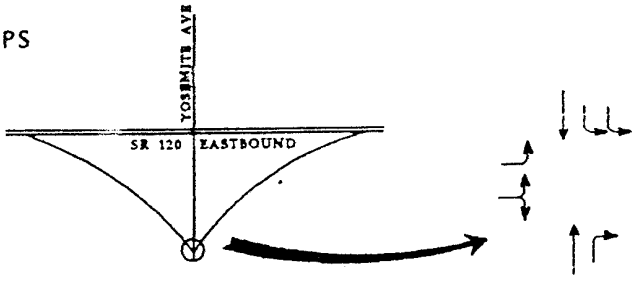
SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2017
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION		ACCESS ALTERNATIVE	AM PEAK HOUR	PM PEAK HOUR	SATURDAY PEAK HOUR
EAST CALIFIA DR/ GOLD RUSH BLVD		A	A - .53	D - .84	C - .76
		B	A - .55	D - .85	C/D - .80
EAST CALIFIA DR/ MOSSDALE		A	A - .57	C - .77	B - .64
		B	A - .29	B - .63	A - .43
EAST/WEST CALIFIA DR/ SOUTH ALBION RD		A	A - .26	A - .59	A - .45
		B	A - .35	B - .61	B/C - .70
WEST CALIFIA DR/ PARADISE RD		A	A - .23	A - .25	A - .34
		B	A - .54	C - .79	D - .81

SOURCE: CRANE TRANSPORTATION GROUP

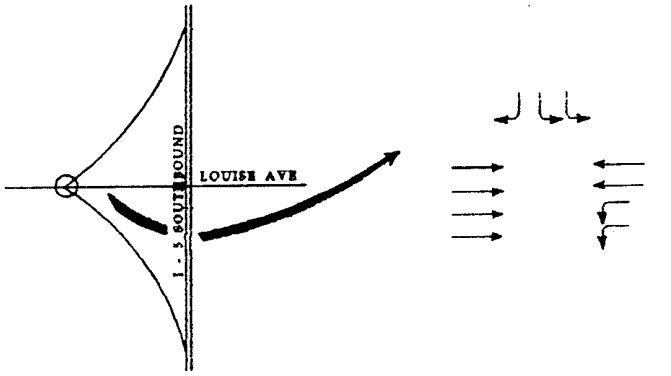
WEST LATHROP SPECIFIC PLAN EIR - YEAR 2025 WITHOUT PROJECT
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

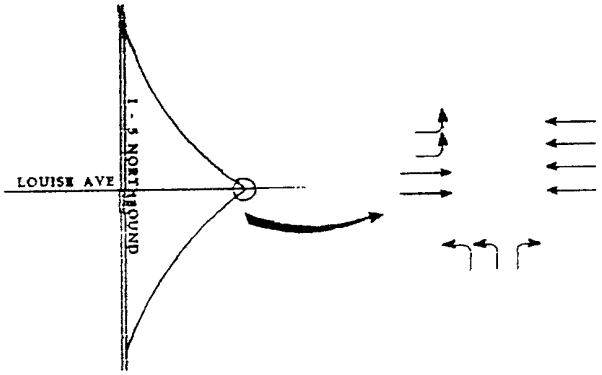
INTERSECTION		PM PEAK HOUR
PARADISE RD/ WB 205 RAMPS		B - .66
PARADISE RD/ I 205 EB RAMPS		B - .62
YOSEMITE/ SR 120 WB RAMPS		C - .77
YOSEMITE/ SR 120 EB RAMPS		C - .76

SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2025 WITHOUT PROJECT
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

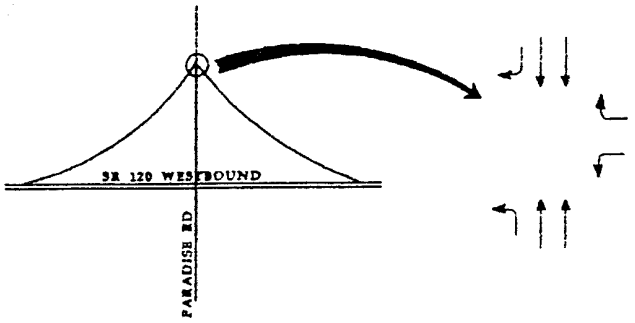
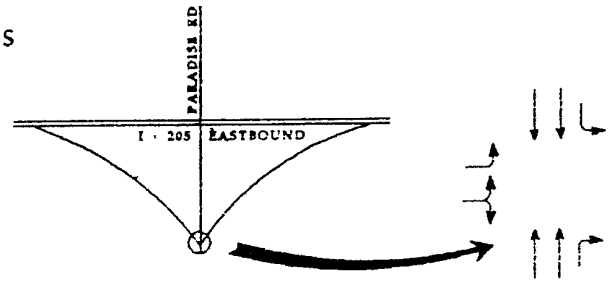
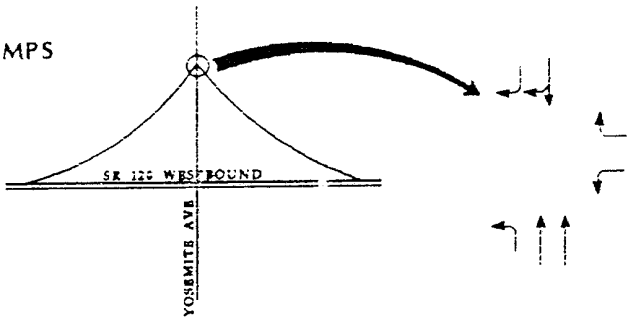
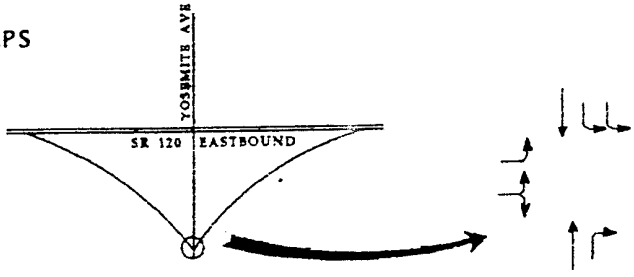
INTERSECTION	PM PEAK HOUR
LOUISE AVE/ I-5 SB RAMPS	A/B - .60
LOUISE AVE/ I-5 NB RAMPS	C - .78





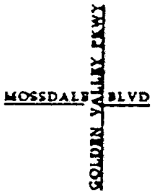
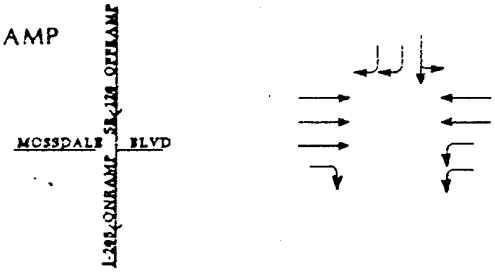
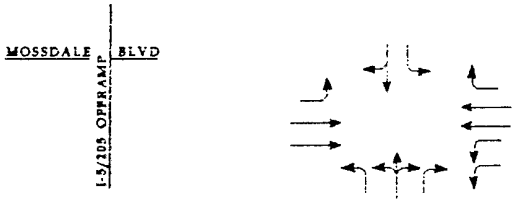
SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2025
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION		PM PEAK HOUR
PARADISE RD/ WB 205 RAMPS		C - .79
PARADISE RD/ I 205 EB RAMPS		B - .64
YOSEMITE/ SR 120 WB RAMPS		D - .85
YOSEMITE/ SR 120 EB RAMPS		C - .75

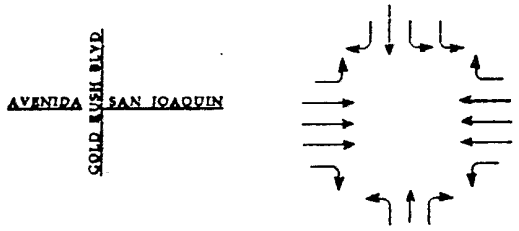
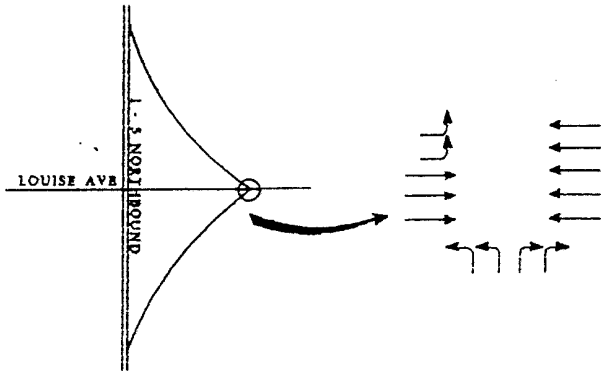
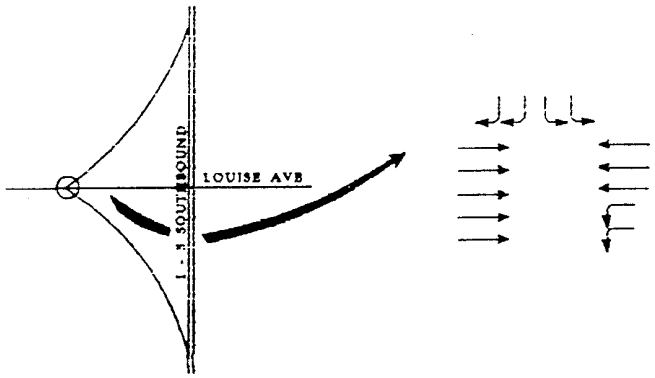
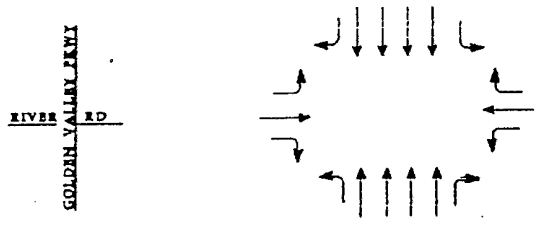
SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2025
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION		PM PEAK HOUR
MOSSDALE/ GOLDEN VALLEY PKWY		GRADE SEPARATION REQUIRED
MOSSDALE BLVD SR 120 OFFRAMP/I-205 ONRAMP		B - .66
MOSSDALE BLVD/ 5/I-205 OFFRAMP		A - .46

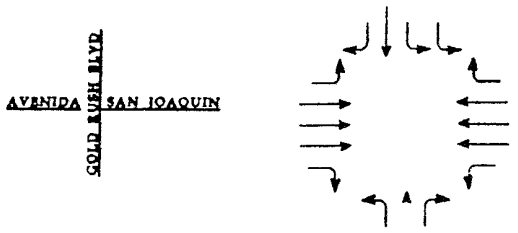
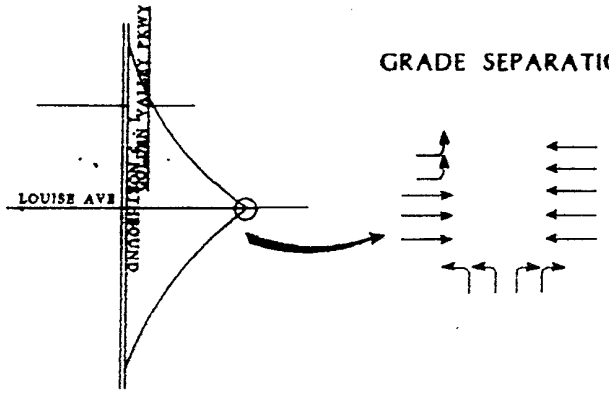
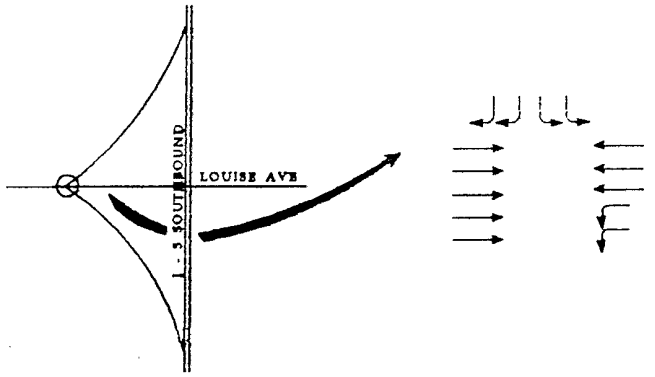
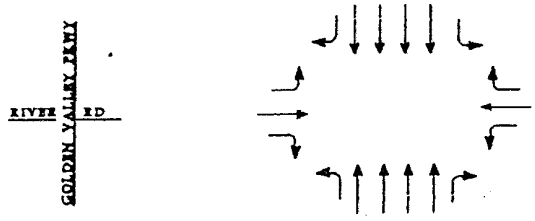
SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2025
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION		PM PEAK HOUR
GOLD RUSH BLVD/ AVENIDA SAN JOAQUIN		C - .71
LOUISE AVE/ I-5 NB RAMPS		D - .83
LOUISE AVE/ I-5 SB RAMPS		D - .86
GOLDEN VALLEY PKWY/ RIVER RD		C - .78

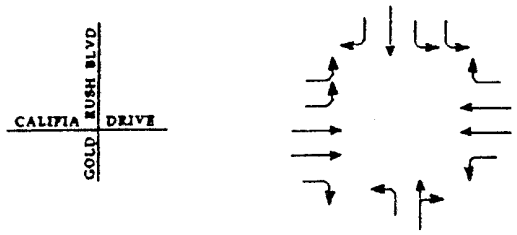
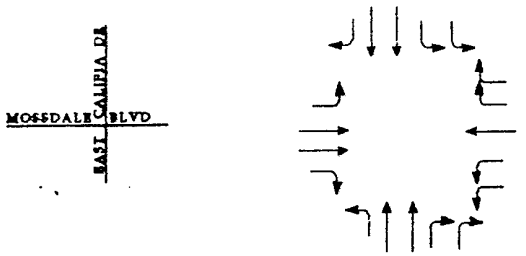
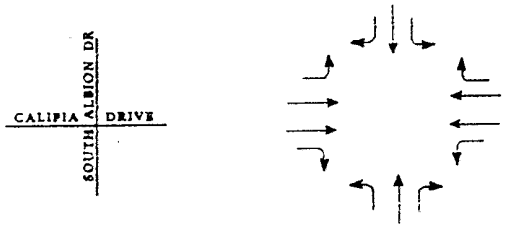
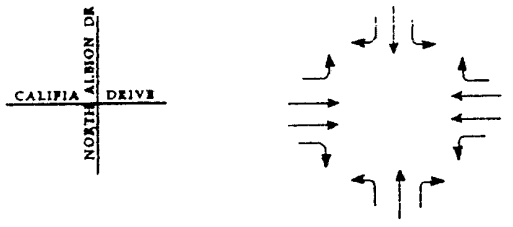
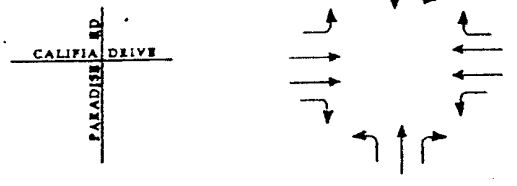
SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2025
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION		PM PEAK HOUR
GOLD RUSH BLVD/ AVENIDA SAN JOAQUIN		C - .71
LOUISE AVE/ I-5 NB RAMPS		GRADE SEPARATION REQUIRED D - .83
LOUISE AVE/ I-5 SB RAMPS		D - .86
GOLDEN VALLEY PKWY/ RIVER RD		C - .78

SOURCE: CRANE TRANSPORTATION GROUP

WEST LATHROP SPECIFIC PLAN EIR - YEAR 2025
SIGNALIZED GEOMETRICS AND LEVEL OF SERVICE

INTERSECTION		PM PEAK HOUR
EAST CALIFIA DR/ GOLD RUSH BLVD		D - .82
EAST CALIFIA DR/ MOSSDALE		D/E - .90
EAST/WEST CALIFIA DR/ SOUTH ALBION RD		A - .59
EAST/WEST CALIFIA DR/ NORTH ALBION RD		D - .86
WEST CALIFIA DR/ PARADISE RD		B - .61

SOURCE: CRANE TRANSPORTATION GROUP

ROUNDABOUT LEVEL OF SERVICE

LOCATION	YEAR 2017		YEAR 2025
	Access Alt. A	Access Alt. B	Access Alt. A
N. Albion/Califia	A - 1.7[1] (2)[2]	C - 20.0 (2)	B - 7.8 (2)
Gold Rush Blvd./Califia	B - 8.1 (3)	C - 22.4 (3)	B - 14.3 (3)
Mossdale Blvd./Califia	A - 4.3 (3)	A - 1.7 (3)	D - 37.6 (3)
S. Albion/Califia	A - 1.6 (2)	A - 4.0 (2)	A - 3.7 (2)
Paradise/Califia	A - 0.4 (3)	B - 6.8 (2)	A - 1.4 (2)

[1] Level of service - average delay in seconds.
[2] Number of lanes in roundabout. All roundabouts with 300-foot inside diameter of island.

Source: Crane Transportation Group

YEAR 2017 INTERSECTION LEVEL OF SERVICE
ALTERNATIVE E (REVISED)
PM PEAK HOUR MITIGATED

INTERSECTION	Level of Service - Volume/Capacity Ratio
Louise Ave/I-5 Northbound Ramps Loop on-ramp-I-5 SE Quadrant	D/E - .90
Louise Ave/I-5 Southbound Ramps Loop on-ramp/I-5 NW Quadrant	D - .89
Paradise Rd/I-205 Westbound Ramps	A - .59
Paradise Rd/I-205 Eastbound Ramps	A/B - .60
Golden Valley Parkway/ Gold Rush Boulevard	Grade Separated Interchange

Source: Crane Transportation Group

APPENDIX C

CALINE4 INPUT DATA AND ASSUMPTIONS

Meteorology

Wind Speed	.5 meter per second
Wind Angle	Worst case
Stability	Pasquill-Turner Class G
Mixing Height	1000 meters
Averaging Time	1 hour
Surface Roughness	100 centimeters
Temperature	10 degrees C
Sigma Theta	5 degrees

Traffic volumes, speeds and levels of service supplied by traffic engineers.

Emission Factors generated by CARB's CT-EMFAC computer program.

Background concentrations were estimated based partly on the procedures recommended in the State of California Department of Transportation, Office of Transportation Laboratory, Air Quality Technical Analysis Notes, 6/88. The procedure was as follows. Existing 1 hour average CO concentrations were based on the recommendation contained in the Caltrans document, i.e. 3 ppm. This estimate was found to be consistent with monitoring done in a rural area of Stanislaus county as reported by the CARB in its annual summaries of air pollution data.

Predicting CO concentrations in future years was much more problematic. This is because the project involves an amount of development which has the potential for changing the rural character of the area. Given the level of detail available regarding overall VMT in the area, it was not possible to use a VMT-based approach to determine an appropriate factor by which to scale existing CO background. As a result, an alternate procedure was developed and discussed with Mr. David Stegnaro, Environmental Planner, SJVUAPCD (telephone conversation 5/25/95) and Mr. John Nguyen, Transportation Civil Engineer, Environmental Program, Caltrans (telephone conversation, 5/31/95).

Existing traffic volumes on various roadway segments were compared with those predicted for 2005, 2017 and 2025. Emission factors for each case (considering year and average speed) were prepared and used to calculate an emissions rate for each link for the various years. For example, for 2017, the changes in roadway segment emissions ranged from a 37% decrease in emissions on I-205 to an increase of 1281% on Mossdale west of I-5 (that is, emissions on this segment would increase by more than twelve times). While this information provided upper and lower bounds for the required CO background concentration, no specific estimate emerged.

In order to pick a conservative estimate, in the absence of specific information, it was assumed that overall traffic in the area would grow by a factor of eight, i.e. 800% by 2025. Since emissions are estimated to decrease by approximately four by 2025 (for example, based on EMFAC7F1.1, the CO emission factor for 35 mph is 10.9 gr/mi in 1995 and 2.8 gr/mi in 2020), these assumptions suggest that CO background will double by 2025 and become 6 ppm.. To be conservative, that figure was used for both intermediate years and the no-project alternative as well. It is noteworthy that the Caltrans recommendation for "isolated communities and small towns", based on the 1988 document cited above, is also 6 ppm.