

U.S. Department of Transportation

Research and Special Programs Administration



APPENDIX TO PROJECT MEMORANDUM

METROPOLITAN PLANNING REVIEWS

EXAMPLES OF MPO DOCUMENTATION

Anne McEwan

May 16, 1995

Prepared for:

U.S. Department of Transportation ITS Joint Program Office



Foreword

This project memorandum was prepared by the U.S. Department of Transportation's (U.S. DOT) John A. Volpe National Transportation Systems Center (Volpe Center) under PPA HW-552 with the U.S. DOT's ITS Joint Program Office. Ms. Anne McEwan of EG&G/Dynatrend was the principal author. Mr. Allan J. DeBlasio of the Volpe Center's Economic Analysis Division is the project leader and should be contacted concerning comments on this report at (617) 494-2032.

This document contains information subject to change. It is considered an informal technical document for working level communication and dissemination of preliminary information within the cited project. The Volpe Center project leader is responsible for distribution of this report.

HOUSTON

•

¥

.

,

2

ELEMENT 3.2 DEVELOPMENT AND MAINTENANCE OF THE CONGES-TION REDUCTION/MANAGEMENT PLAN

OBJECTIVES:

- I. To identify short and long range Transportation Control Measures (TCMs) to improve traffic flow and congestion.
- 2. To evaluate the potential emissions reductions of TCMs.
- 3. To estimate VMT reductions resulting from TCM applications.
- 4. To calculate the cost-effectiveness of potential TCMs.
- 5. To develop a TCM Program which can be incorporated into the State Implementation Plan (SIP).

BACKGROUND:

ELEMENT 3.2.1 DEVELOPMENT OF THE REGIONAL CONGESTION REDUCTION MANAGEMENT PLAN

The Clean Air Act Amendments signed into law in 1990, incorporates strict deadlines for mobile source emissions reduction and requisite highway sanctions if deadlines and requirements are not met. The Act mandates that "severe" nonattainment areas for ozone must revise their State Implementation Plans to adopt TCMs, to offset growth in emissions from growth in VMT, as well as employer trip reduction programs. The purpose of implementing these requirements is to modify travel demand and limit emissions related to traffic congestion.

On November 26, 1991 Congress enacted the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). This legislation mandates that Transportation Management Areas (urbanized areas with populations over 200,000) include as part of the planning process a "congestion management system that provides for effective management of new and existing facilities... through the use of travel demand reduction and operational management strategies". Congestion Management (CM) has become the accepted term to describe a system of actions whose purpose is to alleviate traffic problems. The term incorporates aspects of Transportation Systems Management (TSM) and Travel Demand Management (TDM). The aim of CM is to reduce the need or demand for making trips while making the most efficient use of existing facilities.

The common goals of the CAAAs and ISTEA, to reduce traffic congestion and the resulting emissions, can be met by implementing a Congestion Management Plan and a TCM Program. Through the effective USC of TSM and TDM strategies, traffic flow and congestion can be improved and air quality can be improved.

The following conceptual Scope of Work identifies the major components and the intent of the Congestion Management Plan.

ELEMENT 3.2.2 DEMONSTRATION OF ADVANCED CONGESTION MANAGEMENT PLAN TECHNOLOGIES

This element provides the opportunity to demonstrate the abilities of strategies for

technologies are significant components of the development and implementation of Element 3.2.1. Specifically, these components are those strategies that seek in a real-time manner to better manage the transportation system, as well as the demand for travel on that system. This element focuses on the testing of two different, but interrelated concepts as presented in the Concept Design and Implementation Program for the Houston Smart Commuter Dcmonstration Project, developed by the Smart Commuter Project Management Team. These concepts are but two of many IVHS oriented projects currently under development in Houston, many of which could prove to be important elements to the development, implementation, and maintenance of a Congestion Management Plan.

STAFF ACTIVITIES:

ELEMENT 3.2.1 DEVELOPMENT OF THE REGIONAL CONGESTION REDUCTION/ MANAGEMENT PLAN

Task 1. Refine plan design.

Early in the study, a steering committee will be formed to review and refine the scope of work and plan design

Task 2. Data collection and assembly.

It is anticipated that several types of data will need to be collected, assessed and assembled to complete this study. Various data classifications that may be useful to the project will be investigated for their usefulness.

Task 3. Inventory of methods.

Assemble an inventory of methods that may be used to address congestion. These methods will include TCM strategies from both TSM and TDM. These strategies will include, but are not limited to the following:

- Curb cut and median restrictions
- Channelization and intersection improvements
- High occupancy vehicle lanes
- Signal coordination and timing
- Ramp metering
- One-way street conversion
- Reversible lanes
- Restricted deliveries during peak periods
- Auto restricted zones/Transit malls
- Bus shelters and amenities

- Parking controls
- Guaranteed ride home
- Congestion pricing
- Land use controls
- Telecommuting
- Intelligent vehicle highway systems
- Improvements to existing transit services
- On-site transit information and ticket sales
- Transit marketing
- Pedestrian improvements

Task 4. Define range of appropriate TCMs.

Identify and discuss the specific applications of the methods mentioned in Task 3.

Task 5. Analyze TCM impacts,

Based on the list of potential TCMs defined in Task 3, an analysis of impacts will be conducted including:

- a. Trip and VMT reductions resulting from implementation of TCM strategies.
- b. Emissions reductions resulting from implement&ion of TCM strategies.
- c. Potential TCMs effectiveness in producing emissions reductions sufficient to offset growth in VMT and vehicle trips.
- d. Implementation and maintenance costs.
- c. Potential relocation of development and/or VMT resulting from area-specific TCM applications.

Task 6. Develop implementation strategy.

Identify institutional implementation responsibilities and the various processes and instruments that local government can use to implement the plan.

- a. Examine alternative strategies for the implementing of the methods presented in the Congestion Management Plan.
- b. Identify the roles of each institutional group toward the implementation of strategies presented.
 - Private sector (major employers)

• Federal

• City

• Harris County Metropolitan Transit Authority

- State
- c. Prioritize implementation strategies and identify opportunities and/or constraints.
- Task 7. Final Report
 - a. Preparation of a Congestion Management Plan.
 - b. Preparation of a Transportation Control Measures Program.

ELEMENT3.2.2 DEMONSTRATION OFADVANCED CONGESTION MANAGE-MENTPLAN TECHNOLOGIES

1. Demonstration of advanced traffic and transit information system

To improve the peak period efficiency of a traditional suburban to downtown travel corridor (I-45 N) through greater utilization of high occupancy commute modes, shifts in travel routes and changes in travel time through the application *of* innovative communication techniques using advanced technologies.

a. Smart Commuter Bus and Traffic Information System development (METRO, TTI, TxDOT)

- b. Recruitment of test and sample groups (METRO, TTI, TxDOT)
- c. Initiate and conduct demonstration (METRO, TTI, TxDOT)
- d. Monitoring and evaluation of demonstration (TTI, METRO, TxDOT, H-GAC)
- 2. Demonstration of instant ridesharing matching service

To improve the peak period efficiency of an emerging suburban to suburban travel corridor (I-10 W) through the provision of instant ridesharing matching services.

- a Instant rideshare system development (METRO, TTI, TxDOT)
- b. Recruitment of participating employers and employees (METRO, TTI, TxDOT)
- c. Initiate and conduct demonstration (METRO, TxDOT TTI)
- d. Monitoring and evaluation of demonstration (TTI, METRO, TxDOT H-GAC)

PRODUCTS:

ELEMENT 3.2.1 DEVELOPMENT OF THE REGIONAL CONGESTION REDUCTION/MANAGEMENT PLAN

- 1. Inventory and definition of the methods that may be used to address congestion.
- 2. An identification of the roles and strategies to aid the implementation of the Congestion Management Plan and the Transportation Control Measure Program.
- 3. A Transportation Control Measures Program that can be incorporated into the State . Implementation Plan.

ELEMENT 3.2.2 DEMONSTRATION OF ADVANCED CONGESTION MANAGEMENT PLAN TECHNOLOGIES

A final report on the project detailing the results of a comprehensive evaluation program of the two technology demonstrations will be produced. This report will provide some vital feedback to development and implementation of the Congestion Management Plan (Element 3.2.1) in terms of the viability of using advanced (IVHS) technologies in impacting the level of congestion. As this project will be conducted in a complementary and compatible manner with other system oriented IVHS projects in the Houston area, the exchange of experiences and results also will provide an increased level of benefit to the successful implementation of a Congestion Management Plan



1

RECIPIENT		FUNDING SOURCE						
AGENCY		FTA	FHWA	STATE	LOCAL	FAA	UNFUNDED	TOTAL
H-GAC	Agency	60,000	70,000					130,000
	Consultant		t t	200,000				200,000
	Contract							
H-GRTS	Agency			72,000				72,000
	Consultant							I
	Contract							
TOTAL	Agency	60,000	70,000	72,000				202,000
	Consultant			200,000				200,000
	Contract							
	TOTAL	60,000	70,000	272,000				402.000

ELEMENT 3.2.1 DEVELOPMENT OF THE REGIONAL CONGESTION REDUCTION/MANAGEMENT PLAN 1993-94 UNIFIED FLAMMING WUNK FINUGRAM DUDGET

		(S THOUSANDS	S)				
	Τ.		PROJECT	· ·		NCTCOG/	Ì
NO.	FY92	TASK DESCRIPTION	TOTAL	FEDERAL	STATE	LOCAL	RPC
1	TRAN	SPORTATION PLAN PROGRAMMING AND IMPLEMEN	ITATION				
1A	1	Regional Transportation Plan Monitoring	50	40	10	0	0
18		TIP Preparation/Project Refinement	250	200	50	0	0
1C		Transportation Enhancement Programming	75	60	15	0	0
1D		Regional Thoroughfare Plan	30	24	6	0	0
1-E	1e	Suburban Mobility Initiatives	45	45	0	0	0
1E		TxDOT/MPO Travel Forecast Coordination	30	24	6	0	0
1G		Regional Traffic Count Program	100	80	20	0	0
1้ห		Regional Transportation Information System	150	120	30	0	0
11		DFW Regional Travel Model Updates	100	80	20	0	0
1.1		Demographic Forecasts & Monitoring	350	280	70	0	0
1K		1994 Regional Travel Survey *	1200	960	240	0	0
11		Transportation Corridors Before/After Studies	50	40	10	0	0
1M		Transportation Environmental Mitigation	35	28	7	0	0
1N		Regional Commuter Bail Feasibility Study	200	160	40	0	0
10		Transportation Enhancement Planning	50	40	10	0	0
1P		Economic Impact of Transportation Investments	50	40	10	0	0
						1	
		CATEGORY TOTAL	2765	2221	544	0	0
• Ad	ditiona	I State Funds for the Regional Travel Survey are being p	oursued by Tx		10 ר		
2	REGI	ONAL CONGESTION MANAGEMENT AND PROGRAMM	AING		· .		
2.4	1	Perional Conception Management Plan & Program	200	160	40	0	
2A 2D		Concession Management System Data Development	100	80	20	0	l õ
20	[Perional Freeway Incident/Motorist Assistance	50	40	10	0	l õ
20		Regional Preeway incident Motorist Assistance	20	16	10	0	l õ
20	20	NUS Application for Arterial Streate	145	10	139	6	l õ
25	26	Freeway Construction Management Program	50	40	10		
2F 2G		IVAS Technology Assessment: Phase 2	50	40	10		Ĭ
29		TVHS TECHNOlogy Assessment. Filase 2		40	10		
		CATEGORY TOTAL	615	376	233	6	0
3	AIR Q	UALITY PLANNING					
3A		Monitoring the Implementation of TCMs	100	80	20	0	0
3B		TIP Conformity Analysis	50	40	10	0	0
3Ç		Air Quality/TDM Planning	100	80	20	0	0
3D	3d	Alt Fuels & Technology Implementation Plan	16	0	15	1	0
3E		Air Quality Public Information Program	50	40	10	0	0

A.1

CATEGORY TOTAL

.

316

240

75

0

1

Regional Parking Supply and Cost Inventory

Availability of parking within the Dallas and Fort Worth Central Business Districts as well as in or near suburban employment centers is an important travel mode decision factor. An inventory of the supply and costs of parking will be the result of a regional parking survey. This project will also examine modifying parking costs and supply as a means of congestion management and identify potential pricing techniques. Consultant assistance may be requested on this project.

2E

-) - - alte

-

2D

2e Intelligent Vehicle/Highway System Application for Arterial Streets

This project will identify and evaluate low-cost, existing first generation IVHS technology as a potential congestion management strategy. Specifically, this project will identify five congested nonfreeway corridors (in the older, established areas of the Dallas-Fort Worth Metropolitan Area) **as** candidates for implementing "smart" technology. Project recommendations would complement current local government and TxDOT investments and would deal with both recurring and nonrecurring congestion. The focus will be on Roadways of Regional Significance. Identification of energy consumption, air quality, and travel benefits would be included, along with the comparison of various technological improvements. Funding from this project is being provided through the Texas Department of Transportation (TxDOT) Oil Overcharge Program.

2F Freeway Construction Management Program

Long-term major reconstruction in established freeway corridors can increase traffic in the freeway corridor in addition to forcing altered travel patterns. This study will identify methods of mitigating the negative impacts using travel demand management measures such as rideshare/carpool/vanpool incentives, high occupancy vehicle lanes, an extensive public information dissemination effort, encouragement of flexible/alternate work' schedules, or parallel public transit alternatives. Reviewing successful procedures and developing specific strategies will be part of this project. This effort will involve working closely with the Texas Department of Transportation, transportation authorities, and local governments to identify candidate freeway corridors and appropriate congestion mitigation strategies.

2G IVHS Technology Assessment: Phase 2

This project would provide for the investigation of IVHS technology on the **region's** transportation system. Various technologies including advanced traffic management systems (ATMS), advanced public transportation systems (APTS), advanced traveller information systems **(ATIS)**, advanced vehicle control systems (AVCS), and commercial vehicle operations (CVO) will be investigated for their effectiveness in relieving traffic congestion and improving air quality. In addition, the interrelationship and communication between the various IVHS subsystems will be investigated and standards proposed based on existing communications standards. Consultant assistance may be requested on this project.

MINNEAPOLIS/ST. PAUL

TABLE C2 STATUS OF TWIN CITIES AREA TSM STRATEGIES

TWIN CITIES AREA TSM STRATEGIES	STATUS
Vehicle Inspection/Maintenance (Listed in Transportation Control Plan as TSM Strategy)	• Program became operational in July, 1991
Establish VIM program	
Staggered Work Hours . Variable work hours-implemented by various agencies	 City, county and state employees have flex time programs available. Some employers allow flextime and help support van and car pooling programs.
 Traliic Flow Improvements Minneapolis Computerized Traffic Management System St. Paul Computerized Traffic Management System New Construction - Mpls., 3rd Ave Distributor; I-35E, St. Paul University and Snelling Aves St. Paul;, traffic flow improvements 	 Mpls. system installed. New hardware and software installation to be completed in late 1992. St. Paul system completed in 1991. 3rd Ave. Distributor signals computerized. Improvements completed in 1990
Alternative Fuels or Engines Gasohol demonstration project 	• MTC is implementing alternatives fuel testing program for buses in 1992; Mpls. is testing its fleet & vehicles.
 Coid Start Emissions Reductions Study the feasibility of auto plug-in program for cold-start reductions 	• Strategy found not to be feasible

Improved Public Transit	
Reduced MTC Fares	• Super Savers and other marketing concepts were introduced by the MTC
 MTC Downtown Fare Zone Community Centered Transit Flexible Transit Total Commuter Service demonstration, Elderly, Handicapped Service 	 Special reduced fares for Mpls. and St. Paul downtowns introduced "Opt Out" provisions now allow communities to develop local service Alternative modes introduced to provide specialized transit services Implementing accessible route service in addition to metro mobility service
• Responsiveness in Routing and Scheduling	• Transit agencies have active planning and communication program with communities
CBD Parking Shuttle	• Parking shuttles found not feasible
 Simplified Fare Structure Bus Shelters Rider Information Transit Marketing Cost Accounting, Transit Performance Funding Transit Maintenance Program "Real-time" monitoring Park and Ride 	 Difficult to implement due to economic conditions Established ongoing program of installing and maintaining bus shelters Region wide transit information is available through CBD Transit Sotres and a computerized phone system Transit marketing remains an integral part of transit planning Developed computer models to assess transit costs and establish performance measures Construction of new maintenance garages and bus overhaul facilities. Planning of IVHS "real time" programs implemented Joint program with Mn/DOT for the planning and construction of parkand-ride facilities

DRAF

OLPE ENTER

4

.

PORTLAND

.

.

Metropolitan Service District Portland Urbanized Area Transportation Improvement Program Fiscal Years 1993 to Post 1996 Effective 01-October-92

SUNSET HIGHWAY RAMP METERING

mus 1	-
ent ,725 0 ,598	Total Program 770,000 27,176 108,705
	ment 1,725 0 5,598 7,323

Funding Plan by Fiscal Year

	Obligated	1992	1993	1994	1995 to Post 1996	Authorized
Federal-Aid	Interstate Trans	fer			ب هذي هاية به عن يول على الله على الله على	
Pre Eng Constr Reservé Total	32,848 358,250 0 391,098	7,152 25 0 7,177	0 371,725 0 371,725	0 0 0	0 0 0	40,000 730,000 0 770,000
082703			* ***			

Annual Element

Project Description and Location Map

The basic purpose of ramp metering is to assure that free flow is maintained in freeway lanes, without breakdown into congested flow with its shock waves and stop-and-go operation. It has the following advantages:

> It allows the full capacity of downstream sections to be effectively utilized by avoiding upstream bottle-necks;

it sometimes permits a desired level of service to be attained and maintained on the facility;

in addition, it has specific operational advantages at particular problem sites.

Ramp metering is planned to be installed at selected eastbound on-ramps on the Sunset Highway at Helvetia (Schute) Road and Cornelius Pass Road. The project also covers investigating, and if feasible, adding additional ramp meters in the Sunset/217 Interchange.



:

Metropolitan Service District Transportation Improvement Program

Interstate Transfer Program

Fiscal Years 1993 to Post 1996

.

In Federal Dollars



Effective October 1, 1992

••~ ---

Project Des	cription							, T
-	Estimated Obligated	Expenditures by 1992	Federal Fiscal 1993	Year 1994	1995	1996	Post 1996	Authori
				Category I Prog (Continued)	ects			
15 WW YEO	AVE - NN ST	HELENS RD TO MM	NICOLAI*****	*************	********733 *79	-038+++003	64+TAP1+++2W	********
Rt-of-May	760,217	242,855	0	0	D	0	0	1,003,
Constr	9,844,232	-4,060	0	0	0	0	0	9,840,
Reserve	0	0	0	0	0	0	1,406,487	1,406,
Total	10, 604, 449	238, 795	0	0	o	o	1,406,487	12,249,
16 WM ST 2	RELEKS RD - W	FRITTRIDGE TO MN	315T AVE***	*************	*******734 *79	-038+++003	67 +FAU9296 +726	5=====
Rt-of-May	150, 552	0	0	0	0	0	0	150,
Constr	1,679,640	0	0	0	0	0	0	1,679,
Reserve	0	0	0	0	0	0	43,998	43,
Total	1,830,192	0	0	0	0	C	43, 998	1,874,
17 FRONT -	- YEON CONNECT	ION***********	***********	*************	*******738 *79	-038***005	86+ FAU9300+ 726	\$*******
Rt-of-Way	1,003,071	0	0	0	0	0	0	1,003,
Constr	4, 444, 932	169,990	0	0	0	0	0	4,614,
Reserve	0	0	0	0	0	0	68,260	68,
Total	5,448,003	169,990	o	0	0	0	68,260	3, 686,
18 REGIOU	L RESERVE**	**************	***********	*************	********755 *00	-000+++000	00+VARyar**na*	********
Reserve	0	0	0	0	0	0	11,802	11.1
Total	0	0	0	0	0	0	11,802	11,:
19 RANTIES	D TRAFFIC NOR	ITORING PROGRAM*	***	**********	********771 *10	183++++018	06* F AP68***2*1	*******
Constr	108,963	74,496	0	0	0	0	0	183.
Total	108,963	74,496	0	0	0	0	0	183,-
20 MN TRAI	SPORTATION SY	STENS MANAGEMENT	PROGRAM***	*************	***************************************	-016***023	58+VARvar++726	5*******O
Pre Eng	81, 537	60,498	٥	0	0	0	0	142, (
Total	81,537	60, 498	0	C	o	D	0	142,1
21 TRAMSIT	MALL EXTENSI	ON NORTH - W BUR	ESIDE ST TO NW	IRVING******	********822 *91	-009***063	56+ F AU9341+726	;*******D·
Pre Ing	270,300	40, 900	0	0	0	0	0	311,:
Constr	0	2,876,300	0	0	0	0	0	2, 876, :
Total	270,300	2,917,200	٥	0	. o	0	° 0	3,187,1
22 SUNSET	HIGHNAY RANP	METERING*****	*************	**************	********827 *10	231****022:	35* 77 27***47*	*******671
Pre Ing	32, 848	7,152	0	0	0	0	0	40.C
Constr	358,230	25	371,725	0	0	0	ō	73Q.C
Total	391,098	7,177	371, 725	0	D	0	Ō	770, C
23 TRI-ME	RESERVE ACCO	UNT **********	***********	*************	********903 +00	-000***000	00++++++++++++++++++++++++++++++++++++	********01
Reserve	0	0	0	0	0	0	3,000,000	3,000.0
Total	, o	0	o	0	0	0	3,000,000	3,000,C
24 I-205 B	USLANES WITHD	RAMAL RESERVE (T)	********	**************	********907 *00	-000***000	00*TRA205**64*	*****18*
Reserve	0	0	0	0	0	· 0	15,941,283	15,941.2
Total	0	0	D	0	0	0	15,941,283	15, 941, 2
25 I-205/#	ILMAURIE PREL	IMINARY ALTERNAT	IVE ANALYSES (T) * * * * * * * * * * * * * * * *	******939 *00	-000+++000	00*0R*29-90na*	*******
Pre AA	997,050	14,462	0	0	0	0	0	1,011.5
Total	997,050	14,462	o	0	o	D	0	1,011,3
Total Cate	gory I							
	247, 707, 965	5, 534, 242	682,505	987, 950	0	C	20,917,847	275,850,5

Annual Element Year

Metropolitan Service District Portland Urbanized Area Transportation Improvement Program Fiscal Years 1993 to Post 1996 Effective 01-October-92

OR217 BEAV/TIG HWY - SUNSET HWY TO I-5 - RAMP METERING

		Cost Summary	
		Annual	Total
		Element	Program
Project Sponsor : ODOT	Authorization:	450,000	450,000
Federal-Aid Route: FAP 79	Local Match :	0	0
Functional Class : Connecting Link	State Match :	450,000	450,000
Length in Miles : 7.40	Total Cost :	450,000	450,000
Burd in	Dien by Figgel Your		

					1995 to		
	Obligated	1992	1993	1994	Post 1996	Authorized	
State Opera	tions						
Constr	0	0	450,000	0	0	450,000	
Total	0	0	450,000	0	0	450,000	
091510 -			+				

			#####				

Annual Element

Project Description and Location Map

The basic purpose of ramp metering is to assure that free flow is maintained in freeway lanes, without breakdown into congested flow with its shock waves and stop-and-go operation. It has the following advantages:

It allows the full capacity of downstream sections to be effectively utilized by avoiding upstream bottle-necks;

it sometimes permits a desired level of service to be attained and maintained on the facility;

in addition, it has specific operational advantages at particular problem sites.

Ramp metering is planned to be installed on all on-ramps of the Beaverton/Tigard Highway between the Sunset Highway and the I-5 freeway. The project will involve sixteen locations (excluding Walker Road) in an effort to maximize highway efficiency and uses a combination of state and Congestion Mitigation/Air Quality funds.



7

1992

Matropolitan Service District Transportation Improvement Program

Portland Urbanized Area

٠

In Total Cost Dollars

State Righway Program

×	0000
/	

•

w

Diption Estimated Expenditures by Federal Fiscal Year Obligated 1992 1993 1994 1995 1996 Post 1996 Authorized

State Operations Projects

•	A TRADET - ST JORTS		E DATHTTWG####	************	***************	*****202 **1.	-010+++05797+#	37706664173991	***************
	+34 US5081 - 41 00.00	-			•	~			
	CORSET	0	2,822,000	0	Ŭ		•	0	2, 822,000
	Total	0	2,822,000	0	0	Þ	0	0	2, 822, 000
	++35 REAVERTON TUALAT	DE BINY	. SW MASRINGTO	M DRIVE*****	****************	*****211 *86	-088***03611*2	au9091+141++4	***************
	Fre Eng	0	43,820	0	0	0	C	0	43.820
	Total	0	43.820	0	0	0	0	Ď.	43.820
		-	,	•	•	-	•	•	-2, -20
					**************	*********			
					•		-003000000-1	*T5	
	CONSTR	U	313,000	0	U	Q	5	D	313,000
	Total	0	315,000	0	D	0	0	9	315,000
	37 OR-99W - SW EAHIL	TON TO	BEAVERTON/HIL	LSDALE ENT JCT	~ GUARDRAIL***	*****224 ***	***********************	AP9+++1W+++	*****2*********
	Constr	0	0	290.000	٥	0	0	6	290.000
	Total	0	0	290,000	0	6			200,000
		-	-	2207,000	•	-	v	•	290,000
	WESE OR - TURDATIN	• 23ملىلىھ/	OVERDAL - IIUT	A TO INCTROOM		*****234 *00	-000***03839*1	AP32***29***1	*****3*********
	Constr	0	Q	a	0	01,	, 020 , 800	0	1,020,800
	Total	0	0	0	a	01,	, 020 , 800	0	1,020,800
									•
	39 OR-8 ~ TUALATIN V	ALLEY	EWY AT MARKET	CENTRE ENTRANC	_ **********************************	*****237 ***	**************	1032+++20+++	*************
	Constr	٥	٥	500.000	6	6	0		200 000
	Hetel	-		800 000		ě			300,000
	TOCAL	U U	•	500,000	0	U	0	0	300,000
	40 I-405 - FRIMONT E	IRIDGE/	RAND'S DECK RES	TORATION AND J	OINT REPAIR *****	*****377 *86	-118***05830*F	AI405**61****	*************
	Constr	0	0	1,390,000	0	0	0	0	1,390,000
	Total	0	0	1,390,000	Ô	0	0	0	1.390.000
								-	
	New York	~	AL VE UNDER S	100,000			-0490000000-9	**************************************	
	ere ang	0	25,000	U	8	0	0	0	25,000
	Constr	0	290,000	0	0	0	0	0	290,000
	Total	0	315,000	0	0	0	0	0	313,000
	42 EALARD ELIDENATIO	W PROJ	ECTS AT OR UND	ER \$100.000*	***************	*****322 *88-	-043+++04935+V		******
	Constr	8	195.700	0	n	0	0		105 700
	Total	ñ	195 700		Š		, , , , , , , , , , , , , , , , , , ,		199, 700
		•	175, 100	•	0	U	0	•.	195,700
	43 HALL BOULEVARD AT	BURNE	AN STREET - SI	GMVT+++++++++	*************	*****728 *85-	-033***03913*7	XU9091+141++ +	***************
	Constr	0	130,000	0	0	0	0	0	130,000
	Total	0	130,000	0	D	0	0	0	130,000
			•				-	-	
	44 ORE TV EXY - CARY	OH LAN	TO WALKER BO	AD - TRAFFIC S	TCRAT.5********	********		1011+++10+++	*****
	Constr	0	270.000					ne 34 23	
	Marken 1		370,000			0	U	0	270,000
	ICLAL	U	270,000	v	0	Q	0	0	270,000
	45 GR99W PACIFIC EN	WEST 2	AT 124TH AVENU	e - Signal/Rea	LIGN**********	*****914 *00-	-000***05301*7	<u> </u>	****13*********
	Constr	Ö	0	0	0	0	870,000	0	870.000
	fotal	0	0	0	0	0	870,000	۵	870 000
								-	
-	**46 OR217 BEAV/TIG HW	r - sm	ISET ENT TO I-		I W G+++++++++++++++	********	-056888801 407		
	Constr	0	0	450 000				WE 13 744	
	fint al					U I	0	Q	450,000
		0	v	450,000	8	0	0	0	430,000
5	WWW 7 REGIONAL RAMP HET	ERING,	TRAFFIC LOOP	repair, and me	BAAGE SIGNING*****	*****927 *90-	-038***04381*V/	ARV15**V15***	*****
	Constr	0	200,000	0	0	0	0	0	800.000
	Total	0	800,000	0	0	0	0	Ó	800.000
							-	•	
	48 REGIONAL PAVENCET	DECK	RESTORATIONS.	NED EXPLANTON		******		1 Days	
	Constr	0	A	200.000			·~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
	Total		ž		9		0	0	200,000
		•	U	200,000	0	0	0	0	200,000
	49 REGIONAL GUARDRAI	l impri	VENENTS***	*************	**************	*****929 *90-	·030***05323*V7	LEVAR**var***	**************
	Constr	0	0	0	920,000	0	`` a	۵	920.000
	Total	0	0	0	920.000	0	0	ň	
			-	-		•	~	v	44V, UUU
	Total State Operatio		tects						
		<u></u>	4 891 820	3 830 000				-	
		•	-, -, 340	a, 830,000	920,000	0 1,	890,800	0 1	.0, 332, 320

Metropolitan Service District Portland Urbanized Area Transportation Improvement Program Fiscal Years 1993 to Post 1996 Effective 01-October-92

OR217 BEAV/TIG HWY - SUNSET HWY TO I-5 - RAMP METERING

		Cost Summary	
		Annual	Total
		Element	Program
Project Sponsor : ODOT	Authorization:	540,000	540,000
Federal-Aid Route: FAP 79	Local Match :	0	0
Functional Class : Connecting Link	State Match :	60,000	60,000
Length in Miles : 7.40	Total Cost :	600,000	600,000

Funding	Plan	БУ	Fiscal	Year	

_ .

	Obligated	1992	·1993	1994	1995 to Post 1996	Authorized				
State Congestion Mitigation/Air Quality Program										
Constr	0	o	540,000	0	0	540,000				
Total	0	0	540,000	0	0	540,000				
091536										

Annual Element

Project Description and Location Map

The basic purpose of ramp metering is to assure that free flow is maintained in freeway lanes, without breakdown into congested flow with its shock waves and stop-and-go operation. It has the following advantages:

It allows the full capacity of downstream sections to be effectively utilized by avoiding upstream bottle-necks;

it sometimes permits a desired level of service to be attained and maintained on the facility;

in addition, it has specific operational advantages at particular problem sites.

Ramp metering is planned to be installed on all on-ramps of the Beaverton/Tigard Highway between the Sunset Highway and the I-5 freeway. The project will involve sixteen locations (excluding Walker Road) in an effort to maximize highway efficiency and uses a combination of state and Congestion Mitigation/Air Quality funds.



۰.

:

Metropolitar	Service Di	strict
Transportation	Improvement	Program

years 1993 to Post 1996

In Federal Dollars

Portland Urbanized Area

october 1, 1992

.

State Highway Program

tect Descr	iption								
/5-7	Estimated Expe	anditures by Fe	deral Fiscal Y	91 T					
	Obligated	1992	1993	1994	1995	1996	Post 1996	Authorized	

State Congestion Mitigation/Air Quality Program Projects

75 OR-43 - TAYLO	R'S FERRY ROAL	TO I-205 ()	QCS) ****	************	***********226	*00-000***03853*780	9563+3+++	********
Constr	0	0	0	1,390,400	0	a	0	1.390.400
Total	0	C	0	1,390,400	0	0	ō	1, 390, 400
76 US-308 - 8AND	Y BLVD METROPO	LITAN AREA C	ORRIDOR STU	DY++++++++++++++	*********230	*00-000***06239*FAU	9326+59++	***************
Constr	0	0	0	0	3,880,800	0	0	3,880,800
Total	0	0	o	C	3, \$80, 800	0	ō	3,880,800
77 SURSET ENT AT	VISTA RIDGE T	UNNEL MESSAG	E SIGNING (I	II)********	*************	*10143c***01892*FAP	27***47**	******72*******
Constr	0	0	0	1,320,000	0	0	. 0	1.320.000
Total	0	0	0	1, 320, 000	٥	· 0	Ò	1,320,000
78 CR217 BEAV/TI	G HMY - SUNSET	ENY TO I-5	- RAMP METE	RING******	**********913	*90-0368**06231*FAP	79***144*	*******
Constr	0	0	340,000	0	0	0	0	540.000
Total	0	o	540,000	0	0	ō	Ō	540,000
79 REGIONAL-RAMP	METERING, TRA	FFIC LOOP RE	PAIR, AND N	ESSAGE SIGNING	********927	*90-047***04383*VAR	******	*******
Constr	0	C	0	460,000	0	0	0	460 000
Total	C	C	Ó	460,000	0	õ	ō	460,000
Total State Cong	estion Mitigat	ion/Air Qual	ity Program	Protects				
-	0	0	540,000	3,170,400	3, 880, 800	C	0	7,591,200

. . . .

:

an Qir Collais

- - -

. . .

Metropolitan Service District Portland Urbanized Area Transportation Improvement Program Fiscal Years 1993 to Post 1996 Effective 01-October-92

REGIONAL RAMP METERING, TRAFFIC LOOP REPAIR, AND MESSAGE SIGNING

•		Cost Summary		
		Annual Element	Total Program	
Project Sponsor : ODOT	Authorization:	990,000	990,000	
Federal-Aid Route: VAR var	Local Match :	0	0	
Functional Class : Various Locations	State Match :	110,000	110,000	
Length in Miles : 0.00	Total Cost :	1,100,000	1,100,000	

Funding Plan by Fiscal Year

	Obligated	1992	1993	1994	1995 to Post 1996	Authorized
State Surface	Transportation	Program				
Constr	0	0	990,000	0	0	990,000
Total	0	0	990,000	0	0	990,000
092731			*	•		
			###			

Annual Element

Project Description and Location Map

This project covers several types of effort that are regionwide. Specific locations, repairs and corrective actions will be implemented throughout the year.

Б

ŕ

The funding for 1993 above covers Phase 1 of a variable motorist advisory system along I-5 and I-205 to inform the motorist of traffic conditions. The project consists of changeable message signs with up to 6 signs located at major decision points to relay real time traffic information.

The message signs will alert motorists to delays resulting from accidents or incidents as well as road conditions within their travel corridor. Advanced, real time, road advisory conditions will allow motorists to seek alternate routes where possible which will reduce travel demand around the event causing the delay. 11.2

Portland Urbanized Area

Authorized

1996

Post 1996

1993 to Post 1996 Active October 1, 1992

. '

In Federal Dollars

State Highway Program

1

Description Estim Oblig

.

.

menditures by Federal Fiscal Year

timated	Espenditures by	Federal Fiscal Year		
ligated	1992	1993	1994	1995

State Surface Transportation Program Projects

						*********************	TAL+++	***********	*****
**55 I-84 - I-84	AT \$280 AVI	HUL PARK AND R	IDE LOT		~			216 000	
Constr	0	O	216,000	U O				214 000	
Total	0	0	216,000		U	0	v	210,000	
56 I-84 - ARGA	y donne sour	DHALL (PORTLAN	D)*******	***********	223			333 000	
Constr	0	0	117,000	0	U U	υ.		117,000	
Total	0	0	117,000	Ū.	U	8	U	117,000	
57 I-84 - GATE	NAY PARK AND	RIDE LOT***	**********	************	225	*00-000***06241*FA	T#4		
Constr	0	0	D	664,000	U	U			
Total	0	0	0	664,000	v	0	0	664,000	
**58 OR-210 - 80	HOLLS AT BEI	if bird road -	LEFT TORE REF	UGETTTTTTTTT	232		MAT24-143-		
Constr	0	0	0	0	580,800	0	0	380,800	
Total	0	0	0	0	580,800	a	0	560,800	
59 WESTSIDE LI	GET RAIL EXT	TENSION TO HILL	SBOR0++++++	*********	**********246	+00-000++*00000+TP	WAAAAA UTAA		
Non-Rwy Cp	0	0	0	0	Q	22,000,000	0	22,000,000	
Total	0	0	0	0	0	22,000,000	0	22,000,000	·
• •									
60 US26 - SUNS	IT HIGHNAY C	WERLAY - STORE	Y CREEK TO CO	REFILL ROAD ++++	**********	*90-027d**03663*FJ	27***47**		
Constr	0	0	0	2,411,200	0	0		2,411,200	
Total	٥	0	0	2,411,200	0	0	0	2,411,200	
61 I-205 - WII	LAMETTE RIVI	er bridge ice d	ETECTORS	**********			4120364		
Constr	0	0	0	0	0	136,774		130,774	
Total	0	0	0	0	Q	156,774	Ģ	138,774	
62 I-405 KAST	FREMONT BRII	GE APPROACE*	***********	************	*****************	-00-000***03856*17	V1402**01**		
Constr	0	0	0	0	720,000			720,000	
Total	0	0	0	0	720,000		0	120,000	
**63 US26 - SUM2	XT / NW 1857	TH AVE INTERCEM				-84-0130084 /	M2/	. 497 000	
Constr	0	5,427,000	0	0	0	U		5,427,000	
Total	0	5,427,000	D	Q	U	0		5,447,000	
64 REGIONAL RJ	MP METERING,	TRAFFIC LOOP	REPAIR, AND N	LESSAGE SIGNING	;*******	-90-02203278-47	AKVEIVEI-		
Constr	0	0	990,000	0	U	0	, in the second s	330,000	
Total	0	· 0	990,000	o	U	v	Ŭ	\$90,000	

**65 REGIONAL PJ	VERENT, DECI	K RESTORATIONS,	AND EXPANSIO	N JOINT REPAIR		-90-04004343*V	ANTEI TAIT	193 000	
Constr	0	0	522,000	0	0		č	522,000	
Total	0	0	322,000	0	0	U	ų	344,000	
Total State St	ITIACO TTANS	portation Frogs	THE PICTOPECTS			22 186 374	•	33 804 774	
	ç	3,42/,000	T,843,000	3,0/3,200	1,300,800	44,1J9,114		22,009,116	

1993 to Post 1996

Metropolitan Service District Transportation Improvement Program

In Federal Dollars

Portland Urbanized Area

١

الملك الملك الملك الملك الملك الم october 1, 1992

State Righway Program

pescription

.

t	Estimated (Obligated	Expenditures by Fed 1992	leral fiscal Y 1993	994	1995	1996	Post 1996	Authorized	
/	and the second s	و هذه بنيو هي کې د خليه خليو چين هي بينو		و و علی من خلیل میں میں میں	يوبر ها چه ده اهد ده کرد.		ور همان بودور خاطئ وسم همگا او همه		

Federal-Aid Interstate 4R Projects

	- AIRPORT MY TH	COLUMBIA BLVD	- WIDEN SB ON-	RANE ADD AUX	L**********306	*86-062***032	70+TAI203++64	*****************
***3 1-200		460.000	0	0	0	0	٥	460,000
CORSET		460,000	ň	ő	0	ň	ő	460.000
Total	v	400,000	•	•	•	•	•	400,000
***4 1-5 -	TARL HYRONY I	ETERCEARGE GAARD	NAFLET PTER		.,320 A	-/0-011003	83 886 Jen	
Constr	0	0	0				33,636,460	53,830,480
Total	U	6	Ű		Ŭ	v	33,830,480	33, 838, 45 0
5 I-5 -	BE CONSIGTION :	CO SB I-403(8958	E) - DECK REST	ORATION TANK		*10217*014	977A157771-1	
Constr	0	. 0	0	0	0	0	1,420,188	1,420,188
Total	0	O	0	¢	ç	0	1,420,188	1,420,185
6 I-5 -	TERMINAGER BIA	D INTERCEARGE C	VERCROSSING/RA	M P3******		*84-055***019	45*FAU9383*1**	
Constr	0	11,868,000	0	0	0	Q	0	11,868,000
Total	0	11,868,000	0	0	0	0	0	11,868,000
7 I-3 -	STAFFORD INTER	EARGE ******	************	***********	**************	*86-061***032	71+5715++++1+4	******286*********
Fre Ing	654, 463	129,000	0	0	0	0	0	783,463
St-of-Way	2,003,941	0	0	0	0	0	0	2,003,941
Constr	0	0	0	0	8,447,352	0	0	8,447,332
Total	2,638,404	129,000	0	0	8,447,352	0	0	11,234,756
8 1-5 -	GEÓLOGICAL INVI	ISTIGATION OF PA	VENERT SUBSIDE	HCE MP287*	*************	+85-008+++029	10+7715+++1++	******287********
Constr	0	0	0	0	737,760	0	0	737,760
Total	0	0	0	0	737,760	0	0	737,760
					•			
9 I-203	- AT SANDY BLVI	NEST BOTHD CON	MECTION***	***********	**************	+86-038+++040	39+TAI203++641	******************
Pre Ing	38.548	- 0	D	0	0	0	٥	38.548
Constr	0	360.000	0		0	Ď	0	369,000
Total	38.549	360.000	o o	ő	ő	0		398.548
		,	-	•	•	-	•	270,010
10 T-5 -	UPPER BOOKES FI	TREY TO 1-205 TH	TERCHANCESSA	*********	************	*84-127***024		*********
Pre Eng	145.230	164.595	0	0	0		0	309.825
Constr	0	3,128,000	0	ő	0	0	0	3.128.000
Total	145.230	3,292,595	ő	0	0	0	0	3.437.823
		-//-	-	-	-	•	•	-,
11 7-5 -	AT RIGENAL 217	TRUSE MAY INTER	CRANCE CONNECT	108++++++++	*********	***************************************	77+#815++++1+4	*******
Constr	0	0	0	Ó	38.824.620	0	0	38.824.620
Total	Ď	ō	0	ő	38 824 620	õ	, i i i i i i i i i i i i i i i i i i i	38 824 620
	-	-	-	-		•	•	
12 I-84 -	UPRR (GRARAM	ROAD) BRIDGE #6	967 REPLACEMEN	T*********	************	*00-000***033	42+7209883+2+1	********
Constr		2.631.200						3 631 300
Total		2 631 200			, in the second s	Ň		2,031,200
LUCES	•		U	v	v		v	2,431,200
13 T-84 C	-	TCHNA - 22380				*-0235***043		
	MANADIA AITAA I		AVERUN TU TROU			-84-0230047	30-1AL002	
Const:	, in the second s		0	29,049,300	0	0	0	29,049,300
TOLET	0	Ų	Ø	∡y, 049, 300	D	C	Q	29,049,300
TTIA REGION	AL KARP METERI	NG, TRAFFIC LOOP	KEPAIR, AND N	ESSAGE SIGNI	G********927	-90-006+++052	76 TVARVAS**VAS	
CONSTI	0	873,840	0	o	0	D	0	\$75,840
TOTAL	0	\$75,840	Ċ	0	0	0	0	875, 849
.								
Total Fed	eral-Aid Inters	state 4R Project	8					
	2,842,182	19,616,635	0	29,049,300	48,009,732	0	55, 276, 662	134,794,517

.

ADDITIONAL PROJECTS AND PROGRAMS

PROJECTS INCLUDED IN THE PREFERRED PLAN

Three additional improvements that would be necessary to achieve the plan go beyond the minimum levels listed above. (See Maps 2 and 3.)

1. Deepening the Columbia and Coos Bay channels

These projects will be necessary to preserve the competitiveness of Oregon ports for international transportation. The Corps of Engineers is undertaking a feasibility study to deepen the Columbia channel to 43 feet and has completed a feasibility study to deepen the Coos Bay channel to 36 feet.

2. Implementation of Intelligent Vehicle Highway Systems (IVHS)

IVHS systems allow vehicles to exchange information about the road system and have the potential to enhance the efficiency and safety of highways by giving drivers information necessary to select routes. They control vehicle operations in such a way as to maximize use of facilities while minimizing congestion. This capability will be particularly valuable on the interstate highways and in metropolitan areas. In metropolitan areas IVHS will also be critical to implementation of management and pricing strategies discussed below. IVHS is now in its infancy in terms of application but should be implemented during the next 20 years.

3. Expanded urban transit in metropolitan areas

The level of service prescribed for metropolitan areas in the minimum levels of service was that required to meet the accessibility and balance goals in the OTP for individual travelers. However, this level will not be sufficient to reduce the per capita VMT necessary to meet the LCDC Transportation Goal Rule. To meet that rule, this plan also envisions significant additional investments in metropolitan transit service, including construction of the light rail routes in the Portland metropolitan area that are identified in the 1992 Tri-Met Strategic Plan.

SACRAMENTO

Land Use/Mobility Programs and Actions

Program	Responsible Agency/Agencies	Program/Action	Time Frame
LAND USE			
1	SACOG	Conduct research on the relationship between land use and transportation and provide the results to member jurisdictions.	1991-92
2	SACOG, Local Jurisdictions	Participate in a regional forum that will allow for discussion of regional land use issues.	1992-93
3	SACOG, Local Jurisdictions	Implement recommendations that result from a regional land use forum.	Upon comple- tion of forum
4	Local Jurisdic- tions	Include SACOG in lists of reviewing agencies for major development proposals.	Ongoing
5	SACOG, Caltrans, Transit Opera- tors	Monitor major development proposals for their potential impacts to the transportation system and, where appro- priate, recommend changes in project design that would make more efficient use of the transportation system.	Ongo i ng
6	SACO6	Develop a system of assigning priority programming sta- tus to transportation projects in jurisdictions that promote higher density development adjacent to transpor- tation corridors with transit services adequate to han- dle increased ridership and that promote mixed-use de- velopment.	1990-91
7	SACOG	Evaluate the combined transportation impacts of local general plans and recommend plan changes that would be effective in limiting or reducing vehicle trips.	1992-93 and beyond
8	SACOG, Local Jurisdictions	Participate jointly, where appropriate, in general plan updates to ensure better coordination among local gener- al plans.	1992-93 and beyond
9	Local Jurisdic- tions	Send applications for major development projects and general plan drafts to neighboring jurisdictions for their review and comment.	Ongoing
10	SACOG	Investigate the feasibility of applying the transit-ori- ented and pedestrian-oriented development concepts throughout the region and inform member jurisdictions of the results of the analysis.	1992-94
11	Local Jurisdic- tions, SACOG	Develop a list of desired high-density land uses within transportation corridors and encourage the use of fast- track processing incentives by permit agencies to pro- mote such uses.	1992-93 and beyond
12	Local Jurisdic- tions	Review transportation/circulation elements of local gen- eral plans for consistency with the Regional Transporta- tion Plan and local air quality attainment plans.	1992-93 and beyond
TRANSPORTATI	ON SYSTEM MANAGENE	KT	
13	SACOG, Local Jurisdictions, Caltrans, CHP	Build upon the callbox program to develop and implement incident management plans to help remove congestion caused by accidents and breakdowns.	1992-93 and beyond
14 .	SACOG	Develop a system of assigning priority programming sta- tus to multi-modal or system management techniques en- acted by local jurisdictions and transit operators.	1990-91
15	Caltrans	Continue research into on-board technology that would provide information to drivers regarding road conditions and possible alternative routes.	Ongoing

Status: Ongoing.

21. SACOG will encourage cities and counties to develop (where lacking) and expand (where feasible) bicycle and pedestrian route systems to link with adjoining local and state systems.

Status: Ongoing.

22. SACOG will coordinate a study with Caltrans and local jurisdictions to identify trouble spots where the relationship between trucks and automobiles needs improvements.

Status: The 1992 RTP carries this action forward, calling for SACOG and Caltrans to do this in 1992-93.

23. SACOG will identify in the 1992 RTP those urban areas where state highway bypasses would improve goods movement.

Status: Ongoing. Caltrans has completed various studies of bypass routes around local areas, such as Lincoln and live Oak, and recommendations from those studies are included in the 1992 RTP. Because of concern that the novement of people and goods on area highways will be severely impacted in the near future, Caltrans is continuing studies of the proposed Route 102 and the Routes 65/148 corridors to evaluate the need for new transportation corridors within the region. Any recommendations which evolve from those studies will be reviewed by SACOG for possible inclusion in the 1994 RTP.

<u>Caltrans Actions</u>

1. Caltrans will continue to operate the Sacramento Area Rideshare Office to develop and market ridesharing throughout the region.

Status: Ongoing.

2. Caltrans will develop and implement a regional traffic operations center for the Sacramento metropolitan area.

Status: Completed and ongoing. Caltrans and the California Highway Patrol jointly operate the Traffic Operations Center, which provides regular reports of traffic conditions to local television and radio stations in the metropolitan area. Project development is underway for changeable message signs and related operatfonal improvements.

<u>Public Transit</u>

Major accomplishments in transit planning within the region include the completion of the <u>Sacramento Systems Planning Study</u> by Regional Transit, implementation of expanded intercity transit services within Yolo County by the Yolo County Transit Authority (YCTA), and the implementation of a successful commuter service by the Hub Area Transit Authority (HATA) between Marysville-Yuba City and Sacramento. Regional Transit will soon begin an alternatives analysis for the South Sacramento light rail extension, and has commenced work on a longrange Transit Master Plan. When the plan is completed, SACOG will review its recommendations for inclusion in the 1994 RTP. LOS ANGELES

.

SYSTEM MANAGEMENT PROGRAM

Under current conditions of funding and environmental constraints, it is imperative that a priority emphasis in addressing mobility needs be placed on system management. In accordance with regional policy, the utilization and capacity of the existing infrastructure must be managed with maximum efficiency in order to minimize costs and impacts. Accordingly, a strong emphasis on system management is included throughout the alternatives evaluation for the Plan. The development of both the needs assessment and the modal system cornponents presupposed a far greater degree of management effort and effectiveness than currently excists. Programs to achieve the degree of efficiency anticipated in the Plan development process must therefore be implemented as a necessary precondition for other components of the Plan.

The expression "system management" addresses a very wide range of problems and facilities. Most broadly, system management (in contrast to demand management, which addresses the behavior of people) can be viewed as a set of programs to address freeways and arterials, on the one hand, and another set of programs to address both regular, recurrent congestion as well as nonrecurrent congestion on the other. In many cases, these programs overlap.

Taken together, all of these system management efforts must eliminate the equivalent of about 800,000 vehicle hours of delay daily. The effectiveness of all remaining Plan elements at reducing that delay resulting simply from excess vehicle demand depends directly on the success of these efforts.

The action program to achieve this reduction is outlined below:

Agency	Action	Date
Caltrans, County Commissions, SCAG,	Program to implement 600 ramp meters and HOV by-pass lanes.	1989- 1993
RCTC, Caltrans	Implement ramp meters and auxiliary lanes on Route 9 1 from Orange County line to San Bernardino County line.	1989- 1993
Riverside County	implement countywide program signal mitigation districts.	of 1989-1993
City of Los Angeles, City of Anaheim	Implement ATSAC signal control on 1,000 intersections.	1989-1993
Local jurisdictions	Implement ATSAC or similar intercon- nected signal control at 1,000 intersec- tions regionwide.	1989- 1993



and a had all the

Ĵ.

Agency	Action	Date
L.A. County Public Works	Finance and implement a 5-year signal synchronization program. Effect multi- jurisdictional coordination of traffic control centers.	1989-1993
SCAG	Survey local jurisdictions and identify candidate locations and targets for intersection channelization improve- ment [Overall Work Program).	1989-1990
Local jurisdictions	Implement projects to improve 125 intersection channelizations.	1989-1993
Caltrans 7, 8, 11, 12	Expand personnel and equipment for Incident Management Program; de- velop new program for Orange County; implement program to provide geo- graphic dispersal of response team.	1989-1993
Caltrans	Program, purchase, and install change- able message signs and closed circuit cameras at appropriate locations.	1989-1993
SCAG	Evaluate costs, benefits, and feasibility of increased night time maintenance (OWP).	1989-1990
СНР	Implement stricter enforcement of regulations on spilled loads and cleanup costs.	1989-1993
СНР	Implement stricter enforcement of codes governing unsafe loads.	1989-1993
СНР	Implement refined law enforcement techniques which concentrate on congestion management and mitigation.	1989-1993
L.A. City, LACIC, Caltrans	Demonstrate and evaluate benefits of "smart" technology on a corridor basis.	1989-1993
OCTC	Implement Superstreet improvements on defined system.	1989-1993
Caltrans 7, 8, 12	Implement or upgrade Traffic Opera- tions Centers.	1989-1993

.

.

٠

.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS 1991-1997 FEDERAL TIP LOCAL HIGHWAY PROGRAM ORANGE COUNTY

** ANAHEIM **

AGENCY# F PRJ CODE	PROJECT DESCRIPTION TYPE OF WORK	SOURCE RCH D I S T		BIENN FED	IAL ELEMENT STA OTHER	so/s 1	91/92	92/93	93/94	94/95	95/96	96/97
PPNO EA PROG	A I R BASIN - AIR QUALITY (ENV) ELEMENT - PRI = RTIP(STIP) STIP TYPE	YR ADDED CMP (N/S FUND)					(5	\$1 ,000)			
05030 120	EVENT COMMUNICATION SYSTEM ANAHEIM COMMERCIAL AND RECREATION AREA	RTIP	TEC	=\$1043								
84076	SCAB		P R C	23 93		23						
		MFED	Ť	116		116						
			P R		782	782						
		OCUTT	T		782	782						
			P R		145	145						
		TDA	T		145	145						
05030 160	KATELLA AVE FROM LEWIS ST TO STATE STATE COLLEGE BLVD RECONSTRUCTION	RTIP	TEC=	=\$340								
24005	SCAB AN	90 STIP (S) OCUTT	P R C T		3 4 0 3 4 0	340 340						

• •

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS 1991-1997 FEDERAL TIP LDCAL HIGHWAY PROGRAM LOS ANGELES COUNTY

DATE : 01/29/91

** CULVER CITY **

AGENCYM PRJ CODE	PROJECT DESCRIPTION TYPE OF WORK	SOURCE RCH DIST		BIENNIAL FED	. ELEMENT STA OTHER	90/91	91/92	92/93	93/94	94/95	95/96	96/97
PPNO EA PROG	RTIP COMMENTS AIR BASIN - AIR QUALITY (ENV) ELEMENT - PRI=RTIP(STIP) STIP TYPE	YR ADDED CMP (N/S FUND)					(\$	1 ,000)			
0 4 2 2 0 0 0 0	LOCAL SIGNALIZTIDN IN CONJUNCTION WITH SAMRT STREETS	RTIP	TEC=	S72 1								
27 10	SCAB AN	FAU	P R C T	721 721		721 721						
04220 160	SEPULVEDA BLVD GREENLAWN AVE TO WASHINGTON RECONSTRUCTION	RTIP	TEC=:	S23 1								
2711	SCAB AN	FAU	R C T	199 199	3 2 3 2	231 231						
04220 120	WASHINGTON BLVD FROM RTE 405 TO FAIRFAX VENICE BLVD SMART STREET	RTIP	TEC=	\$945								
2520	SCAB	IFAU	P R C T	945 945		945 945						
04220 160	WASHINGTON BLVD SAWTELLE TO WASATCH	I RTIP	TEC=	\$231								
2712	SCAB AN	FAU	P R C T	199 199	3 2 3 2	231 231						

IRS

HB4C

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS 1991-1997 FEDERAL TIP STATE HIGHWAY PROGRAM LOS ANGELES COUNTY

RTE PROJECT DESCRIPTION SOURCE BIENNIAL ELEMENT PMB RCH FED STA OTHER 90/91 91/92 92/93 93/94 94/95 95/96 96/97 PMA TYPE OF WORK DIST 4.8% 4.64: 4.8% 4.8% 4.8% 4.8% 4.8% PPNO RT I P COMMENTS YR ADDED EA AIR BASIN - AIR QUALITY (ENV) CMP (N/S)(\$1,000)PROG ELEMENT - PRI=RTIP(STIP) STIP TYPE FUND 134 IN GLENDALE 90TI P TEC=\$493 7.9 GLENDALE AVE/VERDUGO RD R 8.3 SOUNDWALLS: SOUTH (EB) SIDE Ρ R 07 64 55 9 0688M 8 8 STIP R 02058G SCAB AN С 429 (S) 369 60 F HB311 SND Т 424 69 64 429 134 IN GLENDALE **90TIP** TEC=S4192 R 9.0 RTE 2/0.1 MI W PATRICIAN (POR) R 11.6 SEISMIC RETROFIT 07 Ρ 470 77 547 R 9 0 STIP 0690S 11649G SCAB AN (S) С 3135 510 3645 F 1 4192 HA4S HAS 3605 587 134 IN PASADENA AT SAN RAFAEL AV & NEAR 90TIP TEC=S3420 R 12.4 SAN DIMAS ON RTE 210:R25.0/R44.3 METER AND WIDEN RAMPS 07 Ρ 408 446 .0 38 9 0 STIP R 0747G 11750G SCAB С 2721 253 2974 (S) IR Т 3129 3420 TSM 291 90TI P TEC=\$1430 138 NEAR GORMAN 5.3 FIVE MILES EAST OF RTE 5 Ρ 6.2 CORRECT CURVES 07 147 24 171 8 8 STIP R 119 0692H С 1140 11541G SCAB (S) F Т FCR 147 24 171 1259 HE12 138 NEAR PEARBLOSSOM 90TI P TEC=S5227 EXCL 57.2/60.2 51.6 AVE T/RTE 18 69.4 PASSING LANES, WIDEN BR, CHANNELIZE 07 Ρ 314 365 51 06958 LOCAL 50% 8 8 STIP R 10733G SCAB С 2091 340 2431 (S)

2431

365

F

Т

2405

391

DATE: 03/06/91

.

. .

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS 1991-1997 FEDERAL TI P STATE HIGHWAY PROGRAM LOS ANGELES COUNTY .

a

DATE: 03/06/91

RTE **PROJECT DESCRIPTION** SOURCE **BIENNIAL ELEMENT** PMB RCH FED STA OTHER 94/95 92/93 93/94 96/97 90/91 91/92 95/96 РМА TYPE OF WORK DIST 4.8% 4.6% 4.8% 4.8% 4.8% 4.8% 4.8% PPNO RT I P COMMENTS YR ADDED EA AIR BASIN - AIR QUALITY (ENV) CMP (N/S)(\$1,000) PROG ELEMENT - PRI=RTIP(STIP) STIP TYPE FUND 47 IN IA & LONG BCH, 1.1 SHENRY FORD 90TI P TEC=\$1362 2.3 DR/RTE 103&RTE 103-FR R T 47/RT 1 4.7 REHAB RAMPS 07 Ρ STIP R 0441M 88 10231G SCAB AN 1171 191 1362 (S) С FAU8 Т HA22 RAS 1171 1362 191 **90TIP** TEC=\$1027 47 IN LONG BEACH 6.2 RTE I/WILLOW ST Ρ 07 7.2 REPAIR FOR RELINQUISHMENT 0434R 90 STIP R 11622G 1027 SCAB AN С (S) FAUB 1027 HA22 RAS Т 0.4 MI E OF 280TH ST 90TIP 48 NEAR GORMAN. TEC=\$1456 6.8 TO 1.1 MIW OF THREE POINTS RD 7.5 CORRECT CURVES 07 Ρ 163 27 190 8 8 STIP R 0448S 11519G SEDAB С 1266 (S) F Т 1266 HE12 FCR 163 27 190 **90TIP** 5 7 ORA C O L/RTE 6 0 TEC=S416 R . 0 R 4.5 RAMP METER & BYPASS LN Ρ 07 54 46 8 C451A 8 8 STIP R 069210 SCAB С 51 311 362 (S) F HB4N TSM Т 357 59 416 RTIP TEC=S2103 **57 NEAR DIAMOND BAR** R 3.2 AT PATHFINDER RD INTERCHANGE MOD Ρ 236 38 274 .O WIDEN OC & MODIFY SOUTHERLY RAMPS 07 0457A 8 8 STIP R 019010 SCAB С 1573 256 1829 (S) FAU Т HE1 1 FCRL 1809 294 2103

TRAFFIC SYSTEMS MANAGEMENT PLAN 1991-92

ىدە بەمدەتىيە ، مەربىر

TABLE A-1 NEW PROJECTS PRICRITY LIST IN PRIORITY CRDER (All amounts in thousands)

Estimate of TSM capital outlay funds	availabte:
Less funds for TSM projects from the	1988 STIP:
Estimate of funds available for new	ISM projects:

				ALLOC		cap	Cap
Pank	Lead Agency	Co.	Project Description	Request	Support	Outlay	Outlay
NOUN	2022				- 1 7	•	
	a	~~	Des 15 CR. Research Research Company City Diver Patroning	¢1 705		C1 305	C1 705
7	Caltrans II	SD	Rte 15 58, Bernardo Center Dr-Centre City Pkwy, metering	21,202	~~~~	31,303	31,000
2	Pasadena	LA	Rte 210 Fwy Corridor, information/control system	\$2,090	\$575	\$1,517	52,822
3	Caltrans 11	SD	Rte 805 Fwy NB, Governor Dr-Miramar Rd, ramp metering	\$1,048		\$1,048	\$3,870
Ĩ.	Caltrans 7	ΙA		\$1,600		\$1,600	\$5,470
-				\$140		£140	£5 470
5	Caltrans /	LA	East LA Interchange, expand LUIV surveillance	\$100		3100	35,050
6	Caltrans 7	LA	Rte 5 SB/Rte 110 SB Fwy Connector, ramp metering	\$210		\$210	55,840
7	Caltrans 7	LA	V Thomas Bridge, satellite communication demonstration	\$298		\$298	\$6,138
ġ	Caltrans 12	0.00	Phase 1 Traffic Operations System computer system	\$4.95		\$495	\$6.633
		0.0	Page 1 That the operations system, compared system	61 770		E1 770	\$7 057
9	Caltrans 12	ога	RTE 57 FWY, RTE 5 10 LA LO LINE, Famp metering	\$1,520		31,320	3 7,933
10	Caltrans 8	SBd	Rte 10 Fwy, LA Co Line-Milliken Av, ramp metering	\$5,144		\$5,144	\$11,097
11	Anaheim	Ога	Rte 57/Rte 5 Fwv corridors, event communication system	\$1,285		\$1.285	\$12,382
12	Caltrans 11	SD	Instite Operations Center ungrade control system	\$417		\$417	\$12 700
47		20	De Recipier de la contra de la contra la socialitativa	e1 170		e1 170	e17 070
15	Caltrans II	20	Kte ous Fwy NB, Murray Ridge-clairemont Mesa, metering	\$1,150		31,130	313,929
- 14	Anaheim	Ora	Rte 57/Rte 5 Fwy corridors, event info/guidance system	\$1,165		51,165	\$15,094
15	Anaheim	Ora	Tustin Av & La Palma Av, turn lanes at intersection	\$347		\$347	\$15,441
16	Anaheim	0ra	Lakeview Av & La Palma Av turn Lanes at intersection	\$529		\$529	\$15,970
10			Clarence R. Buse Vier Charle Charles at intersection	e1 179	e775	6957	014 077
- 17	Los Angeles Lo	LA	GLENOAKS BL, BUENA VISTA ST-Chevy Chase DF, Signal Coord	31,120	3213	3033	310,623
18	Alameda Co	Ala	Rte 880 Fwy at Nowry Av, ramo metering, auxiliary lanes	51,725	\$144	\$1,5/9	\$18,402
19	Commerce	LA	Telegraph Av/Atlantic Bl (Mixmaster), intersec improvs	\$115	S10	\$105	\$18,507
20	Caltrans 8	Div	Pte 60/01/215 interchange install CNS & CCTV	\$960		\$960	\$19 467
24				ep 700		C9 700	C28 147
21		L.A.	105, Phase 1-1, communication system a CCTV	30,700		30,700	320,107
- 22	Caltrans /	LA	Rte 5 Fwy, Pasadena Av-Burbank Bl, ramp metering	\$200		\$200	\$28,307
23	City Riverside	Riv	Van Buren Bl at Rte 91/Indiana Av, signal improvements	\$163	\$11	\$152	\$28,519
24	Caltrans 7	14	Rte 1/Los Alamitos Traffic Circle restrine & sign	\$288		\$288	\$28,807
25		1.4	Dec 101 (Hellowed Fight Nelsons Av 60 an entry materia	¢125		\$125	528 072
23		LA	Rte 101 (nottywood Pwy), Metrose XV 38 on ramp, metering	3123		107	azo, 734
26	Caltrans /	LA	Rte 10 (Santa Monica Fwy), intra-red camera demonstration	\$197		\$197	\$29,127
27	Corona	Riv	6th St. Rte 91-Magnolia Av. signal coordination	\$355	\$ 30	\$325	\$29,454
28	Caltrans 7	14	TOS Phase 1-2 communication system & CCTV	\$5 210		\$5,210	\$34 664
20	City San Diego	ch	ED bel Mar Height De angeren as CD Star E First HOV bypage	\$27	¢7	\$20	ez/ 48/
47	city san biego	30	EB DEL HAF HEIGHTS KO ON FAID TO SB KLE 3 FWY, HUV Dypass	136	•/	320	\$J4,004
30	Caltrans /	LA	Rie 10 Fwy Smart Street Corridor, central computer system	\$175		\$175	\$34,854
- 31	Riverside Co	Riv	Magnolia Av, E 6th St-Pierce St, signal coordination	\$316	\$ <u>2</u>	\$314	\$35,172
32	Caltrans 7	LA	Rte 10 Fwy Smart Corridor, accident investigation sites	\$460		\$460	\$35,633
77	Caltrans 4	Al a	Pte 880 Suy Ubinois Pd-Pte 238 camp metering CMS CCTV	\$3 516		\$3 516	CT0 1/0
27		201	ALE OG FWY, WITIPPLE REALE 20, Tand metering, Cha, Colv	a),) (0			337,147
-24	Laitrans 4	SCL	Rte 85 Fwy, Rte 101 (San Jose)-Rte 280, ramp metering	54,900		34,900	244,049
35	Caltrans 4	SCL	Rte 87 Fwy, Rte 85-Rte 280, ramp metering	\$1,100		\$1,100	\$45,149
36	Caltrans 12	Ora	Rte 91 (Riverside Fwy), changeable message signs	\$420		\$420	\$45.569
37	Caltrane 12	069	Pte (AS (Sap Diego Eur)) changeable message signs	\$420		\$420	\$/5 080
70		010	the work (and brege ray), changeduce message signs	#1 700	•	+1 200	er 7 200
20	caltrans 5	Sac	Rte 50 Fwy, Rte 5 to Stockton BL, Famb metering & 105 1mbs	\$1,300		31,200	347,209
39	Caltrans 6	Fre	Rte 41 Fwy SB, Herndon Av-Ashlan Av, ramp metering	\$950		\$950	\$48,239
40	Anaheim	'Ora	Santa Ana Cyn Rd at Imperial Hwy, left turn lanes	\$202		\$202	\$48.441
41	City San Diego	SD .	Mira Mesa/Miramar area traffic signal system	\$1 272	\$294	\$978	\$40 410
/ 2			line is a first in Veria Place in a signed system	e1 107		e1 107	#50 577
46	Caltrans 7	LA	Lincoth Bt (Rt I), Venice Bt-Rte iu, signat coordination	31,103		\$1,105	\$20,222
43	Caltrans 7	LA	Rte 110 (Harbor Fwy), expand CCTV surveillance	\$200		\$200	\$50,722
44	Caltrans 8	Sød	Rte 60 Fwy, LA Co Line-Rte 15, ramp metering	\$Z,530		\$2,530	\$53,252
45	San Pablo	22	San Pablo Av. R H Miller Dr-Rheem Av. signal coordination	\$475	\$75	\$400	\$53,652
1.4	San Francisco	22	Buc/IPV cignal presention 1/ Locations on actoricle	2/27		\$/37	\$54 080
	Sen riencisco	31	Searcher argimet pre-emptron, 14 tocations on arterials				434,007 AFE 201
41	K 1 CRMOND	ماتا	San Papio AV, Natalle Ct-Koosevelt AV, channel, sig coord	\$1,371	\$179	\$1,192	\$22,281
48	Richmond	CC	San Pablo Av, Clinton Av-McBryde Av, signal coordination	\$285	\$35	\$250	\$55,531
49	Caltrans 11	SD	Rte 15 Fwy NB, Poway Rd-Camino Del Norte, ramo metering	\$1,260		\$1,260	\$56,791
50	Caltrans 8	SRA	Rte 10/215 interchange changeable message signs CCTV	5940		SOAD	\$57 751
21		300	te los la change, changedte message signs, derr	2700		5700	#50 700
21	cattrans II	20	KTE IS FWY SB, LITFACADO PKWY-EL NORTE PKWY, FAMD metering	2404		2404	308,720
*****		:2522:			=========		2222222222
52	Caltrans 11	SD	Rte 163 Fwy NB, Balboa Av-Kearny Villa Rd, ramp metering	\$875		\$875	\$59,595
53	Caltrans 11	SD	Rte 5 Fwy, First Av-Old Town Av, ramo metering	\$1.780		\$1.780	\$61.375
54	Santa Claca Co	SC1	Capital 2 Almagan Evolve signal accordination	£1 200	\$147	C1 0C7	\$47 / 70
55	Colored CO	301	TOC Deeps 1.7 comparing the Coordination	31,200	3147	+7,000	402,420
22	Lattrans /	LA	ius, mase ind, communication system & CETV	\$7,550		ə7,220	\$69,978
56	Contra Costa Co	CC	Willow Av, Hawthorne Dr-7th St, intersection improvements	\$988	\$200	\$788	\$70,766
57	Caltrans ó	Fre	Rte 99 Fwy NB, Jensen Av-Ventura St. auxiliarv lane	\$1,400		\$1,400	\$72,166
58	Solano Co	Sol	Cordelia-Vacaville near Pte 80 monify 6 intersections	\$2 412		\$2 412	\$74 578
20	City San Diana	cn.	Doubtous troilay signal presenting successfully	,-12 ere	æ1		\$7/ 4/0
75	City Sent Diego	30	Volume Contract Signal pre-emotion system	200	30	302	3/4,040
60	rremont	ALA	warm springs BL, Mission BL-Scott Creek Rd, sig coord	\$196	\$24	\$172	\$74,812
61	Contra Costa Co	22	Willow Pass Rd/Bailey Rd, signal coordination, new signal	\$199	\$15	\$184	\$74,996
62	Los Angeles Co	LA	San Gabriel BL, California BL-Rosemead BL, signal coord	\$179	\$28	\$151	\$75,147

A - 1.1

Cum

\$64,000 \$4,800 \$59,200

īotal

31 Cos Angeles Co LA Sames Monice Smart Corridor (Systems Manager) 550 550 35 City Riverside Riv Van Buren Bi, Magnolia Av-Luruba Bi, signal coordination 551 5555 555								•
	ć3	Los Angeles Co	LA	Santa Monica Smart Corridor (Systems Manager)	\$500		\$500	\$75,647
bit y iverside Riv Van Buren Bi, Magnolia Av-Lundba i, signal coordination 52.0	ó4	Alameda Co	Ala	Castro Valley BL, Lake Chabot Rd-Marsnall St, signal coord	\$158	\$38	\$120	\$75,767
57 USARDigues Co. 300 Salarshing Number of Linger Versions Linger ver	ĆĎ	City Riverside	Riv	Van Suren BL, Magnolia AV-Juruba BL, Signal coordination	\$547	470 275	\$%08 \$222	\$76,122
35 remer Stort 2, Cartan Av (St. 7-2), Galaen Villagersite St. signal coord 370 322 366 67 Riversites Co. LA viration BJ. Coortidor, signal coordination 3570 3520 3572 3575 3570 357	30	Los Appeles Co	200	Possesses Av Highland Av-Santa Sectrumes Av Sig coord	sz. 197	\$458	\$1.739	\$78 350
öö Riverside Co City Vertura City Vertura Vertura Los Angeles Co La Angeles Co	-58 - 58	demet	Riv	Fioriga Av (Rt 74), Golden Village-Yale St, signal coord	\$70	\$2	\$68	\$78.177
70 City Ventura Ven Main StyThembon Bi Corridor, signal coordination 502 510 5772 71 Los Angeles Co. La Aviation BI, Iokth St-Bacific Caast Mey (Rt 1), sig coord 5570 510 5772 72 Fairfax Mrn Sir Francis Drake BL, Dak Maror-Lagunitas, signals & coord 511 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 513 512 5150 5160 5160 5160 5160 5160 5160 5160 5160 5160 5160 5160 5160 5150	69	Riverside Co	Riv	Florida Av (Rt 74), Yale St-Fairview Av, signal coord	\$45	\$2	\$43	\$78,470
71 Los Angeles Co LA Aviation BL, 104th St-Recific Cosst Hwy (R 1), sig coord 31,513 5710 5710 5710 5710 5710 5710 5710 5710	70	City Ventura	Ven	Hain St/Thompson Bl corridor, signal coordination	\$802	\$10	\$792	\$79,262
72 Fairtax Hrn Sir Prancis Orace Bi, Lak Manor-Lagunitas, Signals & coord 51,32<	71	Los Angeles Co	LA	Aviation BL, 104th St-Pacific Coast Hwy (Rt 1), sig coord	\$570	\$170	\$400	\$79,662
12 Starburger, Starbandisa, Yallevik, Signal coord 5222 S10 5276 12 Starbandisa, Signal coord 5222 S10 5276 12 Starbandisa, Starbandisa, Starbandisa, Yalley, Starbandisa, Starbandis, Starbandisa, Starbandisa, Sta	72	Fairtax	MCD	Sir Francis Drake BL, Uak Manor-Lagunitas, Signals & Coord	S1,212 S4	3120	31,307 SL 425	381,049
TS Carlsbad SD Pacomar Airport Kd 2 Li camino Real (eft turn Lanes) SL22 SD ST60 76 Caltrans 11 SD Varing Rd approach to UK Re 8 Fw, Long odetectors, RMS S160 S160 77 Caltrans 11 SD Rte 8 Fwy, Kimitz Blvd-Midkey Dr, rane metering S1,550 S1,550 70 Caltrans 11 SD Rte 8 Fwy, Kimitz Blvd-Midkey Dr, rane metering S1,250 S1,250 71 Caltrans 12 On Rte 405 Fwy, Namore Bl-reinview Rd, rane metering S1,226 S122 S1,226 71 Caltrans 7 Namore Rternal Ar-Strewanson RL, signal coordination S127	74	San Diego Co	SD	Supervater Pd. Irov St-Paradise Valley Rd. Signal coord	\$228	\$10	\$218	\$85,400
76 City Riverside RV Arlington Av, Hagnolia Ar-Tyler St, signal coordination \$73 \$74 Stepson Free Kerling \$74 \$74 Stepson Free Kerling \$750 \$75 \$750 \$75 \$750 \$75 \$750 \$75 \$750 \$750 \$75 \$750 <	75	Carlsbad	SD	Palomar Airport Rd & El Camino Real, left turn lanes	\$444	\$59	\$385	\$86.077
77City RiversideRiv ArLington Av, Hagnolia Av-Tyter St, signal coordination\$738\$796\$64278Caltrans 11SDRte 5 Fwy At Fainmount Av on ramo, metering\$1,550\$1,550\$42070Caltrans 11SDRte 5 Fwy At Palomar Alproprix At, ramo metering, aux lanes\$2,005\$225\$22581City FresnoFre McKinley Av and Hermon Av at Rte 41 Fwy, turn lanes\$2,005\$225\$32582Caltrans 12Dra Rte 405 Fwy, Herbor Bi-Tairview Rd, ramo metering, aux lanes\$2,005\$23582Caltrans 1St artogas Sunnyvale Rd, Bollinger Rd-Promoet Rd, signal coord\$102\$17\$45683Caltrans 7LARte 37/210 Fwys, Sunset Crossing Rd-Allen Av, ramp meter\$3,500\$3,50084Caltrans 7LARte 37/210 Fwys, Sunset Crossing Rd-Allen Av, ramp metering\$320\$35085Caltrans 7LARte 37/210 Fwys, Sunset Crossing Rd-Allen Av, ramp metering\$320\$35085Commere LAWasnington Bi, Rte 710-Ktets 5, truck/Loss turnouts\$323\$30\$3086Caltrans 7LARte 170 (Nollywood) Fwy, Rte 5-stee 101, ramp metering\$320\$320\$32087Caltrans 7LARte 170 (Nollywood) Fwy, Rte 5-stee 101, ramp metering\$1,000\$419\$51087Arcadigal Control System (Wasning Aux, Signal coord\$1,000\$219\$300\$220\$32087Caltrans 7LAWestern Av (Rt 213), Summerland Av, signal coord\$1,251\$125<	76	Caltrans 11	SD	Waring Rd approach to WB Rte 8 Fwy, loop detectors, CMS	\$160		\$160	\$86,237
78 Caltrans 11 SD NB Rte 15 Fwy at Palomar Airport Rd, ramo metering \$1,550 \$220 80 Carisbad SD Rte 5 Fwy at Palomar Airport Rd, ramo metering, aux lanes \$22,980 \$225 \$22,755 80 Caltrans 12 Ora Rte 405 Fwy and Hermon Av at Rte 41 Fwy, turn Lanes \$58 \$38 81 Clupertino SCI Saratoga-Summyvale Rd, Sollinger Rd-Prospect Rd, sig coord \$1,250 \$1,250 85 Fuenont Ala Blacow Rd, Central Av-Stevenson BL, signal coordination \$225 \$1,250 85 Turaipa SL (Lathato) Hwy, Rte 5-Vernapo BL, ramp metering \$3,500 \$33 \$350 86 Caltrans 7 LA Rte 12 (Glendale) Hwy, Rte 5-Vernapo BL, ramp metering \$3,500 \$330 89 Commerce LA Washington BL, Rue 710-Rte 5, truck/bas turnouts \$430 \$330 \$400 91 City San Diego SD Claitrans 7 LA Western Av (Rt 213), Summerland Av-Rte 405, signal coord \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$470 \$471 \$512 \$523 \$5	77	City Riverside	Riv	Arlington Av, Magnolia Av-Tyler St, signal coordination	\$738	\$96	\$642	\$86,879
70Calitrans 1SURts 5 Hwy, Himitz BivG-Hidawy Dr, Famo metering, aux Lanes52/2052/2151City FreshoFre McKinley Av and Hermon Av at Rte 41 Fwy, turn Lanes52/8052/2552/8152Calitrans 12Dra Rte 405 Fwy, Harbor Bi-Tairview Rd, ramo metering, cound51/851/8153Calitrans 7LA Rte 57/20 Central Av-Strewnson Bi, Signal coordination51/251/254Fremont Ala Biacow Rd, Central Av-Strewnson Bi, Signal coordination52/251/755TucaipaSid Tucaipa Bi, 14th St/Sand Camyon Rd-Bryant St, signal coord32/2053/0056Calitrans 7LA Rte 57/20 Fwke S, truck/Lus turnouts53/0053/0057Calitrans 7LA Rte 17/0 (Hollswood) Fwy, Rte 5-Rte 101, ramp metering52/0153/0050Commere LA vasnington Bi, Rte 710-Kret S, truck/Lus turnouts53/254/050Calitrans 7LA Rte 170 (Hollswood) Fwy, Rte 5-Rte 101, ramp metering53/053/050Calitrans 7LA Western Av (Rt 213), Summerland Av, signal coord54/353/050Calitrans 7LA Western Av (Rt 213), Summerland Av, signal coord54/256/2550Calitrans 7LA Western Av (Rt 213), Summerland Av, signal coord54/256/2550Calitrans 7LA Western Av (Rt 213), Summerland Av, signal coord54/2551/2551/25Calitrans 7LA Area control system (Wather A, Signal coord54/2551/2550Calitrans 7LA Area control system57/551/15 </td <td>78</td> <td>Caltrans 11</td> <td>SD</td> <td>NB Rte 15 Fwy at Fairmount Av on ramp, metering</td> <td>\$1,550</td> <td></td> <td>\$1,550</td> <td>\$88,429</td>	78	Caltrans 11	SD	NB Rte 15 Fwy at Fairmount Av on ramp, metering	\$1,550		\$1,550	\$88,429
Die Leif SpearDie Leif SpearDie Leif SpearDie Leif Spear<	20	Caltrans 11	SD	Rie & Fwy, Nimitz Blvd-Midway Dr, ramp metering	3020 \$7 080	\$225	\$020	\$89,049
12 <td>81</td> <td>Carlsbad City Ecesno</td> <td>50</td> <td>Kte 5 rwy at Patomar Airport Ku, rand metering, duk tanes McKiniau Av and Herndon Av at Pte 41 Fuv turn lanes</td> <td>\$2,700</td> <td></td> <td>\$58</td> <td>\$91,804</td>	81	Carlsbad City Ecesno	50	Kte 5 rwy at Patomar Airport Ku, rand metering, duk tanes McKiniau Av and Herndon Av at Pte 41 Fuv turn lanes	\$2,700		\$58	\$91,804
33CupertinoSICSaratoga-Sumyvale Rd, Bollinger Rd-Prospect Rd, Sig coordSi77SI2SiA784FreemontAlaBlacow Rd, Central Av-Stevenson Bd, Signal coordSi20Si75Si9085Caltrans 7LARte 57/201 Fwys, Sumset Crossing Rd-Allen Av, ramp meteringSi300Si30087Caltrans 7LARte 2 (Glendale) Fwy, Rte 5-Verdugo Bl, ramp meteringSi20Si2088Caltrans 7LARte 170 (Mollywood) Fwy, Rte 5-Verdugo Bl, ramp meteringSi20Si2089CommerceLAWasnington Bl, Rte 710-Rte 5, truck/bus turnoutsSi20Si20Si2091Citry San DiegoMillcreat area, signal coordinationSi20Si20Si20Si2092Santa AnoOraPhase 1, Traffic Management Centre & CCTUSi1000Si20Si2092Santa AnoOraPhase 1, Traffic Management Centre & CCTUSi1000Si20Si2093ArcadiaLACitywide signal control system, upgradeSignal coordSi25Si25194Caltrans 7LAWestern Av (Rt 213), Summerland Av-Rte 405, signal coordSi165Si156Si2594Caltrans 12Ora Bastanchury Rd at Associated Rd, right turn laneSi70Si4Si15697FullertonOra Bastanchury Rd at Associated Rd, right turn laneSi70Si166Si15698Caltrans 12Area control system (West Willshire ATSAC)Si,205Si205Si225Si225Si225 <td< td=""><td>82</td><td>Caltrans 12</td><td>Ora</td><td>Rte 405 Fwy. Harbor Bl-Fairview Rd. ramp metering</td><td>\$1.286</td><td></td><td>\$1,286</td><td>\$93,145</td></td<>	82	Caltrans 12	Ora	Rte 405 Fwy. Harbor Bl-Fairview Rd. ramp metering	\$1.286		\$1,286	\$93,145
84FremontAlaBlacour Rd, Central Av-Stevenson BL, signal coordination\$102\$17\$8585Yucaipa BL, 14th St/Sand Canyon Ard-Bryant SL, signal coordination\$265\$75\$19086Caltrans 7LARte 57/210 Fwys, Sunset Crossing Rd-Allen Av, ramp metering\$930\$93087Caltrans 7LARte 170 (Hollywood) Fwy, Rte 5-Verquoy BL, ramp metering\$820\$82088Caltrans 7LARte 170 (Hollywood) Fwy, Rte 5-Verquoy BL, ramp metering\$820\$82098CommerceLAWasnington BL, Rte 7010-Rte 5, truck/bus turnouts\$430\$30\$40090Citry San DiegoSD"Hillcrest area, signal coordination\$100\$417\$47092Santa AnaOraPhase 1, Traffic Management Center & CCTV\$1000\$419\$58194Caltrans 7LAWestern Av (Rt 213), Sthmerland Av, signal coord\$623\$662395Caltrans 7LAWestern Av (Rt 213), Sthmerland Av, signal coord\$125\$125\$50196Caltrans 12OraPastific Coast Hwy (Rt 1) at Warner Av, intersec improvs\$156\$156\$156\$15697FullencoPasternok State Rd, Park Rtdge Bl-Lake Murrer Al, signal coord\$225 <td< td=""><td>83</td><td>Cupertino</td><td>SCI</td><td>Saratoga-Sunnyvale Rd, Bollinger Rd-Prospect Rd, sig coord</td><td>\$179</td><td>\$12</td><td>\$167</td><td>\$93.315</td></td<>	83	Cupertino	SCI	Saratoga-Sunnyvale Rd, Bollinger Rd-Prospect Rd, sig coord	\$179	\$12	\$167	\$93.315
85YucaipaSBdYucaipa 81, 14th St/Sand Lanyon Rd-Bryant St, signal coord\$225\$75\$19086Caltrans 7LARte 570 (Hollywood) Fwy, Rte 5-Verdugo 81, ramp metering\$930\$93087Caltrans 7LARte 170 (Hollywood) Fwy, Rte 5-Verdugo 81, ramp metering\$920\$92088Caltrans 7LARte 170 (Hollywood) Fwy, Rte 5-Verdugo 81, ramp metering\$820\$82080Citry San DiegoDHillcrest area, signal coordination\$322\$40\$22991Citry San DiegoDCitry Sand areadiaLaCitrywide signal control system, upgrade\$1,000\$10\$20\$80392Santa AnaDraPhase 1, Tarffic Management Center & CCTV\$1,201\$1,251 <td< td=""><td>84</td><td>Fremont</td><td>Ala</td><td>Blacow Rd, Central Av-Stevenson Bl, signal coordination</td><td>\$102</td><td>\$17</td><td>\$85</td><td>\$93,400</td></td<>	84	Fremont	Ala	Blacow Rd, Central Av-Stevenson Bl, signal coordination	\$102	\$17	\$85	\$93,400
86Caltrans 7LARt e 57/210 Fwys, Sumset Crossing Rd-Allen Av, ramp metering\$3,500\$3,50087Caltrans 7LARt e 170 (Hollywood) Fwy, Rte 5-Rte 101, ramp metering\$820\$82088Caltrans 7LARte 170 (Hollywood) Fwy, Rte 5-Rte 101, ramp metering\$820\$82089CommerceLAWasnington BI, Rt 710-Rte 5, truck/bus turnouts\$430\$40090City San DiegoSDClairenont Mess BI, Luna Av-Shauline St, signal coord\$470\$47091City San DiegoSDClairenont Mess BI, Luna Av-Shauline St, signal coord\$623\$62392Santa AnaOra Phase 1, Traffic Management Center & CTV\$1,000\$11,851\$13,85194Caltrans 7LAWestern Av (Rt 213), Summerland Av-Rte 405, signal coord\$623\$623\$62395Caltrans 7LAWestern Av (Rt 213), Summerland Av-Rte 405, signal coord\$1,851\$14,85195Caltrans 7LAWestern Av (Rt 213), Summerland Av-Rte 405, signal coord\$1,857\$15596Caltrans 7LAWestern Av (Rt 213), Summerland Av-Rte 405, bu turnouts\$1,057\$11,55197FulleronOra Bastanchury Rd at Associated Rd, right turn lane\$170\$14\$15697FulleronOra Bastanchury Rd at Associated Rd, right turn lane\$1,057\$17,557\$12598Caltrans 12Ora Pacific Coast Hwy (Rt 1) at Warner Av, intersection improvements\$226\$225\$225\$225\$225\$225	85	Yucaipa	SBd	Yucaipa Bl, 14th St/Sand Canyon Rd-Bryant St, signal coord	\$265	\$75	\$190	\$93,590
87Caltrans / Caltrans	86	Caltrans 7	LA	Rte 57/210 Fwys, Sunset Crossing Rd-Allen Av, ramp meter	\$3,500		\$3,500	\$97,090
ConstraintsLAWashington BL, RE 710-Rte 3, truck/bus turnoutsS420S30S40090City San DiegoSDHillorest area, signal coordinationS129S40S23991City San DiegoSDHillorest area, signal coordinationS170S470S47092Santa AnaDraPhase 1, Traffic Management Center 2 CCTVS1,000S40S20193ArcadiaLACityView signal control system, upgradeS100S421S41194Caltrans 7LAHestern Av (Rt 213), Summerland Av-Rt e405, signal coordS125S42395Caltrans 7LAHestern Av (Rt 213), Summerland Av-Rt e405, signal coordS125S151S12596CubertinoSCIStenotruly Rd at Associated Rd, right turn laneS170S144S156S156S15697FulleronDraPacific Coast Mwy (Rt 1) at Warner Av, intersec improvsS156S156S156S15697FulleronCaltrans 12DraPacific Coast Mwy (Rt 1) at Warner Av, intersection improvementsS225	87 99	Caltrans /		Rie 2 (Giendale) Fwy, Rie 5-Verdugo Bi, Famp metering	3730		3930	\$98,020
00City San Diego00Ciairemont Mesa Signal coordination532954052991City San Diego00Ciairemont Mesa Bl, Luna Av-Shawline St, signal coord5470547092Santa Ana07aPhase 1, Traffic Management Center & CCTV51,0005419558193ArcadiaLACitywide signal control system, upgrade510052058094Caltrans 7LAHestern Av (Rt 213), Zibh St-Summerland Av, signal coord5423542395Caltrans 7LAHestern Av (Rt 213), Summerland Av-Rte 405, signal coord31,8515112596Kern CoKerAirsport Dr, Roberts In-Norris Rd, channelization & signals5715512597FullertonDraBastanchury Rd at Associated Rd, right turn lane5170514515698Caltrans 12DraBastanchury Rd at Associated Rd, right turn lane51055156515699CubertinoSCIStevens Creek Bl, De Arza Bl, & Wolfe Rd, 15 bus turnouts51,0575751,55090Caltrans 12Dra Area control system (He'u'lishire ATSAC)55,26255,26255,262910City San DiegoDn Awajo Rd, Park Ridge Bl-Lake Murray Bl, signal coord575151725572910SaramentoSacFreeport Bl, Blair Av-Vallejo Way, signal coordination596851705810910SaramentoSacFreeport Bl, Sarat Bl Ark Tal Frey, redic signal500510520910Irvine <td>80</td> <td>Comperce</td> <td></td> <td>Washington Bl. Rte 710•Rte 5, truck/bus turnouts</td> <td>\$430</td> <td>\$30</td> <td>\$400</td> <td>SCO 2/1</td>	80	Comperce		Washington Bl. Rte 710•Rte 5, truck/bus turnouts	\$430	\$30	\$400	SCO 2/1
91City'san DiegoSDClairemont Mess Bl, Luna Av-Shawline St, signal coord5470547092Santa AnaDra Phase I, Traffic Management Center & CTVSI,0005421580 :94Caltrans 7LALestern Av (Rt 213), 25th St-Summerland Av, signal coord5423562395Caltrans 7LAWestern Av (Rt 213), Summerland Av-Rte 405, signal coord51,551512596Kern CoKer Airport Dr, Roberts Ln-Norris Rd, channelization & signals57155125557097FullertonOra Bastanchury Rd at Associated Rd, right turn lane51705145156515697FullertonOra Bastanchury Rd at Associated Rd, right turn lane51705175175517598CubertinoSII Stevens Creek Bl, De Anza Bl, & Wolfe Rd, 15 Dus turnouts51,057571,5175179517690CubertinoSII A Area control system (West Wilshire ATSAC)55,24255,24255,24552,25752,252512102City of LALAArea control system (West Wilshire ATSAC)55,27555,20553,20551651751751751751751751751751751751751751751751	90	City San Diego	SD	Hillcrest area, signal coordination	\$329	\$40	\$289	\$99.529
92Santa AnaOraPhase 1, Traffic Management Center & CCTV\$1,000\$2419\$58193ArcadiaLACitywide signal control system, upgrade\$100\$20\$80094Caltrans 7LAWestern Av (Rt 213), 25th St-Summerland Av, Rt et 405, signal coord\$623\$62395Caltrans 7LAWestern Av (Rt 213), Summerland Av, Rt et 405, signal coord\$125\$57096Caltrans 12OraBastanchury Rd at Associated Rd, right turn lane\$170\$14\$15697FullertonOraBastanchury Rd at Associated Rd, right turn lane\$170\$14\$15697GupertinoSCIStevens Creek BI, De Anza BI, & Wolfe Rd, IS bus turnouts\$1,057\$1,050\$22598Caltrans 12OraBastanchury Rd (H 1), intersection improvements\$2,242\$3,242\$3,277\$1,050\$200\$2,205\$253\$2,255\$2,255\$2,255\$2,255\$2,255\$2,255\$2,255\$2,255\$2,255\$2,255\$3,066\$511\$2,557\$1,050\$2,60\$2,60\$2,60\$2,60\$2,60\$2,60\$2,60<	91	City San Diego	SD	Clairemont Mesa Bl, Luna Av-Shawline St, signal coord	\$ 470		\$470	\$99,90
93ArcadiaLACitywide signal control system, upgrade5100\$20\$80194Caltrans 7LAWestern Av (Rt 213), Stim Str-Summerland Av, signal coord\$623\$623\$62395Caltrans 7LAWestern Av (Rt 213), Stim Str-Summerland Av-Rte 405, signal coord\$1,851\$1,851\$1,85197FullertonOra Bastanchury Rd at Associated Rd, right turn lane\$170\$114\$156\$15697GuertinoStlStevens Creek Bl, De Anza Bl, & Wolfe Rd, 15 Dus turnouts\$1,057\$1,050\$15697DepertinoStlNoterey Av (Rt 74) at Rte 111, intersection improvements\$225\$	92	Santa Ana	Ога	Phase 1, Traffic Management Center & CCTV	\$1,000	\$419	\$581	\$100,58
94Caltrans 7LAWestern Av (Rt 213), 25th St-Summerland Av, signal coordSocalSocal95Caltrans 7LAWestern Av (Rt 213), Summerland AvrRe 405, signal coordSileSiSileSiSileSi96Kern CoKer Airport Dr, Roberts Ln-Norris Rd, channelization & signalsS715S125S156S15697FullertonOra Bastanchury Rd ta Associated Rd, right turn laneS170S114S156S157S175S17S47S175S17S47S175S17S47S175S17	93	Arcadia	LA	Citywide signal control system, upgrade	\$100	\$20	580	\$100,660
Y3CaliforniaCalify and Calify Summeriand Avertie 407, signal coordSignalY5Califrans 12OraBastanchury Rd at Associated Rd, right turn laneSi715Si125Si500Y5Califrans 12OraPacific Caast Hwy (Rt 1) at Warner Av, intersect improvsSi156Si156Y5Califrans 12OraPacific Caast Hwy (Rt 1) at Warner Av, intersect improvsSi156Si156Y5CupertinoSCLStevens Creek BL, De Anza BL, & Wolfe Rd, 15 bus turnoutsSi, 057Si 1, 057Y5Navajo Rd, Park Ridge Bl-Lake Murray BL, signal coordS5, 242S5, 245Si 242Y5SacramentoSacramentoSacramentoSi 270Si 257Si 257Y6San JoseSCLCitywide traffic signal control systemSi 261Si 257Si 257Si 257Y6PalmdaleLAPalmdale Rd (Rt 138) at Rte 14 Fwy, traffic signalS50Si 250Si 250Si 250Y7Si 7Si 7Si 7Si 7Si 70Si 35Si 255Si 250Y7Si 7Si 7Si 7Si 7Si 70Si 73Si 73Si 73Si 73Y7Si 7Si 7Si 7Si 7Si 73Si 73 </td <td>94</td> <td>Caltrans 7</td> <td>LA</td> <td>Western Av (Rt 213), 25th St-Summerland Av, signal coord</td> <td>5625</td> <td></td> <td>\$623</td> <td>\$101,283</td>	94	Caltrans 7	LA	Western Av (Rt 213), 25th St-Summerland Av, signal coord	5625		\$623	\$101,283
One in the one of the intervent of the in	96	Kern Co	LA	Airport Dr. Poberts in-Norris 2d, channelization & signals	\$715	\$125	5590	\$103,13(
98Caltrans 12OrsPacific Coast Hwy (Rt 1) at Warner Av, intersec improvsS156S156S15699GupertinoSCLStevens Creek BL, De Anza BL, & Wolfe Rd, 15 bus turnoutsS1,057S7S1,050101City of LALAArea control system (West Wilshire ATSAC)S5,242S5,242S5,245102City of LALAArea control system (West Wilshire ATSAC)S5,242S5,245S5,255103City of LALAArea control system (Weid-Wilshire ATSAC)S5,265S5,245S5,275104San JoseSCLCitywide traffic signal control systemSignal coordinationS986S170S1816105SacramentoSacramentoSacramentoSacramentoS906S10S80S10S80105SacramentoSacramentoSacramentoS3,066S511S2,555S15,05S5,242S2,555S15106PalmdaleLAPalemdale Rd (Rt 138) at Sth St East, traffic signalS90S10S80S10S20S250S250S1S225S250S250S1S225S20S20S200	97	Fullerton	0ra	Rastanchurv Rd at Associated Rd. right turn lane	\$170	\$14	\$156	\$103,72
99CupertinoStlStevens Creek BLDe Anza BL& Wolfe Rd, 15 bus turnouts\$1,057\$7\$1,050\$225\$25,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,262\$5,265\$5,262\$5,265\$5,262\$5,265\$5,262\$5,265\$5,262\$5,265\$5,262\$5,265\$5,262\$5,265<	98	Caltrans 12	Ora	Pacific Coast Hwy (Rt 1) at Warner Av, intersec improvs	s156		\$156	\$104.0361
100Paim DesertRivMonterey Av (Rt 74) at Rte 111, intersection improvements\$225\$225\$225\$225\$225\$225\$225\$225\$212\$221\$221\$221\$221\$221\$221\$221\$221\$222	99	Cupertino	SCL	Stevens Creek Bl, De Anza Bl, & Wolfe Rd, 15 bus turnouts	\$1,057	\$7	\$1,050	\$105,086
101City of LALAArea control system (West Withire ATSAC)55,24235,24235,242102City of LALAArea control system (Wid-Withire ATSAC)S5,205S5,215S5,255S5,255S5,255 <td>100</td> <td>Palm Desert</td> <td>Riv</td> <td>Honterey Av (Rt 74) at Rte 111, intersection improvements</td> <td>\$225</td> <td></td> <td>\$225</td> <td>\$105,31</td>	100	Palm Desert	Riv	Honterey Av (Rt 74) at Rte 111, intersection improvements	\$225		\$225	\$105,31
102City of LA CIty of LA CALA A free control system (HioMitshire Aist)35,0035,0035,00103City San DiegoSDNavajo Rd, Park Ridge Bi-Lake Murray Bl, signal coordination\$751\$172\$577\$1105SacramentoSacFreepoott Bl, Blair Av-Vallejo Uay, signal coordination\$96\$170\$816\$1105SacramentoSacFreepoott Bl, Blair Av-Vallejo Uay, signal coordination\$96\$10\$80\$10106PalmdaleLAPalmdale Rd (Rt 138) at Sth St East, traffic signal\$90\$10\$80\$10107PalmdaleLAPalmdale Rd (Rt 138) at Sth St East, traffic signal\$50\$5\$45\$10107PalmdaleLAPalmdale Rd (Rt 138) at Sth St East, traffic signal\$70\$13\$57\$13\$57\$13\$57\$13\$57\$13\$57\$13\$57\$13\$57\$15\$10\$10\$10\$10\$13\$15\$245\$10\$10\$10\$13\$15\$25\$30\$13\$15\$25\$30\$15\$25\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$17\$13\$15\$12\$13\$11\$11 </td <td>101</td> <td>City of LA</td> <td>LA</td> <td>Area control system (West Wilshire ATSAC)</td> <td>\$5,242</td> <td></td> <td>\$5,242</td> <td>\$110,55</td>	101	City of LA	LA	Area control system (West Wilshire ATSAC)	\$5,242		\$5,242	\$110,55
101101101101101101101101101101105SacramentoSacFreeport Bl, Blair Av-Vallejo Way, signal coordination\$986\$170\$816\$107105PalmdaleLAPalmdale d (Rt 138) at Rt H 4 Fwy, traffic signal\$90\$10\$80\$10107PalmdaleLAPalmdale Rd (Rt 138) at Sth St East, traffic signal\$50\$55\$45\$108107PalmdaleLAPalmdale Rd (Rt 138) at Sth St East, traffic signal\$70\$13\$57\$13108City of FresnoFre Ashlan Av at First St & Cedar Av, 2 bus turnouts\$70\$13\$57\$13108City of FresnoFre Ashlan Av at First St & Cedar Av, 2 bus turnouts\$70\$13\$57\$13109IrvineOraCitywide traffic signal control system\$32,066\$511\$22,555\$250\$200\$200\$200\$200\$200\$200\$200\$200\$112El Cajon\$105\$26\$77\$1,665\$11,665\$11,665\$11,665\$11,665\$11,665\$11,665\$11,665\$12,62\$73\$1,665\$11,665\$11,665\$12,25\$16\$233\$16\$235\$16\$235\$16\$235\$16\$235\$16\$235\$16\$235\$16\$235\$16\$235\$16\$235\$16\$235\$16\$235\$16\$16\$235\$16\$16\$16\$17,665\$11,665\$11,665\$11,66	102	City San Diego	SD SD	Newsio Rd Pack Ridge Ri-Lake Murray Ri signal coord	\$751	\$172	\$579	\$116 3371
105SacramentoSacFreeport BL, Blair Av-Vallejo Way, signal coordination\$986\$170\$816\$106PalmdaleLAPalmdale Rd (Rt 138) at Rte 14 Fwy, traffic signal\$90\$10\$80\$107PalmdaleLAPalmdale Rd (Rt 138) at Sth St East, traffic signal\$50\$5\$45\$108City of FresnoFreAshlan Av at First St & Cedar Av, 2 bus turnouts\$70\$13\$57\$109IrvineOraCitywide traffic signal control system\$3,066\$511\$2,555\$109IrvineOraCitywide traffic signal control system\$200\$200\$111Kern CoKerYt Vernon Av, Calif Av-College Av, signal coordination\$225\$30\$195\$112El CajonSDCitywide traffic signal control system\$200\$200\$\$113City San DiegoSDRosecrans St, Kurtz St-Camino Del Rio, channelization\$1,665\$1,665\$\$114Caltrans 12DraBeach Bl (Rt 39), Orangethorpe Av-Rosecrans Av, turn lns\$1,665\$1,665\$\$\$116OntarioSdd Holt Blvd & Grove Av, intersection improvement\$2149\$\$\$\$\$\$\$\$\$\$\$116ConcordCCMonument Bl/Clayton Rd, signal coordination\$253\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$ <td>104</td> <td>San Jose</td> <td>SCI</td> <td>Citywide traffic signal control system</td> <td>\$4,713</td> <td>\$517</td> <td>\$4,196</td> <td>\$120,533</td>	104	San Jose	SCI	Citywide traffic signal control system	\$4,713	\$517	\$4,196	\$120,533
106PalmdaleLAPalmdale Rd (Rt 138) at Rte 14 Fwy, traffic signal\$90\$10\$80\$10107PalmdaleLAPalmdale Rd (Rt 138) at Sth St East, traffic signal\$50\$5\$45\$13108City of FresnoFre Ashlan Av at First St & Cedar Av, 2 bus turnouts\$70\$13\$57\$1	105	Sacramento	Sac	Freeport BL, Blair Av-Vallejo Way, signal coordination	\$986	\$170	\$816	\$121,34
107PalmdaleLAPalmdale Rd (Rt 138) at 5th St East, traffic signal55055545 st108City of FresnoFree Ashlan Av at First St & Cedar Av, 2 bus turnouts570\$13\$57 st109IrvineOraCitywide traffic signal control system\$250\$250\$250110Mission ViejoOraCitywide traffic signal control system\$200\$200\$200111Kern CoKerMt Vernon Av, Calif Av-College Av, signal coordination\$225\$30\$195 st112El CajonSDCitywide traffic signal control system\$200\$200\$200 st113City San DiegoSDRosecrans St, Kurtz St-Camino Del Rio, channelization\$105 \$26\$77 st114Caltrans 12OraBeach Bl (Rt 39), Orangethorpe Av-Rosecrans Av, turn Ins\$1,665\$1,665 st116OntarioSBdHolt Blvd & Grove Av, intersection improvement\$149 \$20\$122 st117ConcordCCMonument Bl/Clayton Rd, signal coordination\$663 \$122 st\$14118Kern CoKerFairfax Rd, Eucalyptus Dr-Center St, channel & signals\$1,437 \$237 \$1,200 st\$2,833121Kern CoKerFairfax Rd, Eucalyptus Dr-Center St, channel & signals\$2,833 \$2,833\$2,833122Costa MesaOrararbor Bl & Sunflower Av, turn lanes\$2,233\$2,833 \$2,833\$2,833123Long BeachLAClark Av & Carson St, intersection improvement\$876 \$150 \$776 \$30 \$122124<	106	Paimdaie	LA	Paimdale Rd (Rt 138) at Rte 14 Fwy, traffic signal	\$90	\$10	\$80	\$121,42
1001111111111111111111111101Iryine0raCitywide traffic signal control system\$3,066\$511\$2,555\$250\$251\$16\$252\$251\$16\$252\$251\$16\$252\$251\$16\$235\$251\$16\$235\$251\$16\$235\$251<	107	Palmdale City of Feerre	LA	Paimdale Rd (Rt 138) at 5th St East, traffic signal	550	55 e17	\$45	\$121,4727
110Hission ViejoOraCitywide traffic signal control system5250	100	Irvine	Ora	Cityude traffic signal control system	\$3.066	\$511	\$2.555	\$121,53;
111Kern CoKerHt Vernon Av, Calif Av-College Av, signal coordination\$225\$30\$195\$1112El CajonSDCitywide traffic signal control system\$200\$200\$200\$201113City San DiegoSDRosecrans St, Kurtz St-Camino Del Rio, channelization\$105\$26\$77\$1114Caltrans 12DraBeach Bl (Rt 39), Orangethorpe Av-Rosecrans Av, turn lns\$1,665\$1,665\$1\$651\$165\$1115City RiversideRivJurupa Rd & Van Buren Bl, intersection improvement\$149\$20\$129\$2\$129\$1116OntarioSBdHolt Blvd & Grove Av, intersection improvement\$149\$20\$129\$1117ConcordCCMonument Bl/Clayton Rd, signal coordination\$663\$122\$541\$1118Kern CoKerFairfax Rd, Eucalyptus Dr-Center St, cnannel & signals\$1,437\$237\$1,200\$2120Santa AnaOraCitywide traffic signal control system\$2,833 <td< td=""><td>110</td><td>Mission Viejo</td><td>Ora</td><td>Citywide traffic signal control system</td><td>\$250</td><td></td><td>\$250</td><td>\$124.33</td></td<>	110	Mission Viejo	Ora	Citywide traffic signal control system	\$250		\$250	\$124.33
112El CajonSDCitywide traffic signal control system\$200\$200\$113City San DiegoSDRosecrans St, Kurtz St-Camno Del Rio, channelization\$105\$26\$77\$114Caltrans 12OraBeach Bl (Rt 39), Orangethorpe Av-Rosecrans Av, turn Ins\$1,665\$1,665\$\$115City RiversideRivJurupa Rd & Van Buren Bl, intersection improvement\$149\$20\$\$\$116OntarioSBdHolt Blvd & Grove Av, intersection improvement\$<	111	Kern Co	Ker	Ht Vernon Av, Calif Av-College Av, signal coordination	\$225	\$ 30	\$195	\$124,53
113City San DiegoSDRosecrans St, KurtzSt, Kurtz St-Camino Del Rio, channelization\$105\$26\$793114Caltrans 12OraBeach Bl (Rt 39), Orangethorpe Av-Rosecrans Av, turn Ins\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,665\$1,265\$26\$129\$105\$26\$129\$105\$261\$117\$201\$117\$201\$251\$16\$2235\$16\$2235\$117\$201\$117\$201\$12\$541\$117\$201\$16\$2235\$16\$2235\$117\$201\$121\$160\$211\$213\$215\$825\$22\$212\$121 </td <td>112</td> <td>El Cajon</td> <td>SD</td> <td>Citywide traffic signal control system</td> <td>\$200</td> <td></td> <td>\$200</td> <td>\$124,731</td>	112	El Cajon	SD	Citywide traffic signal control system	\$200		\$200	\$124,731
11Caterans 12Ura seach 81 (Kt 39), Urangethorpe Av-Rosecrans AV, turn ths\$1,005\$1,055\$1,055\$1,205\$1,205\$1,105\$1,005\$1,005\$1,005\$1,055\$1,015\$1,025\$1,025\$1,015\$1,005\$1,025\$1,016\$1,055\$1,015\$1,025\$1,025\$1,015\$1,025\$1,055\$1,055\$1,055\$1,055\$1,055\$1,055\$1,055\$1,055\$1,055\$1,055\$1,055\$1,055\$1,055 <td>113</td> <td>City San Diego</td> <td>SD</td> <td>Rosecrans St, Kurtz St-Camino Del Rio, channelization</td> <td>\$105</td> <td>\$Z6</td> <td>\$79 61 44F</td> <td>\$124,810</td>	113	City San Diego	SD	Rosecrans St, Kurtz St-Camino Del Rio, channelization	\$105	\$Z6	\$79 61 44F	\$124,810
116OntarioSBdVit Blud a van bullen bit, intersection inprovementS25S16S25S16S25S16S237S12S16S235S15S237S120S1S17S237S120S17S237S120S17S17S237S120S17S16S235S17S16S235S15S16S235S16S121S16S235S16S1726S120S17S17S237S120S17 <td>115</td> <td>City Piverside</td> <td>UFA Riv</td> <td>Seach SL (Kt SY), Orangethorpe AV-Kosecrans AV, turn ins</td> <td>200, ا د 120 ع</td> <td>\$20</td> <td>\$1,005</td> <td>\$120,47</td>	115	City Piverside	UFA Riv	Seach SL (Kt SY), Orangethorpe AV-Kosecrans AV, turn ins	200, ا د 120 ع	\$20	\$1,005	\$120,47
117ConcordCCMonument BL/Clayton Rd, signal coordination\$663\$122\$541\$1118Kern CoKerFairfax Rd, Eucalyptus Dr-Center St, cnannel & signals\$1,437\$237\$1,200\$1119Costa MesaOraHarbor Bl & Sunflower Av, turn lanes\$723\$94\$629\$1120Santa AnaOraCitywide traffic signal control system\$2,833\$2,835\$350\$350\$350\$350\$350\$2,8	116	Ontario	S8d	Holt Blvd & Grove Av. intersection improvement	\$251	\$16	\$235	\$126.83
118Kern CoKerFairfax Rd, Eucalyptus Dr-Center St, cnannel & signals\$1,437\$237\$1,200\$119Costa MesaOraHarbor Bl & Sunflower Av, turn lanes\$723\$94\$629\$120Santa AnaOraCitywide traffic signal control system\$2,833\$2,833\$2,833\$121Kern CoKerN Chester Av, Kern Riv Br-Universe Av, channel & signals\$980\$155\$825\$122City San DiegoSDDowntown surveillance camera system\$350\$350\$350\$350\$350123Long BeachLAClark Av & Carson St, intersection improvement\$876\$150\$726\$124Riverside CoRivHarbor Bl & South Coast Dr, turn lanes\$12,162\$12,162\$12,162\$12,162\$12,162\$12,162126Costa MesaOraHarbor Bl & South Coast Dr, turn lanes\$1,930\$130\$1,800\$127Los Angeles CoLAColima Rd & Fullerton Rd, intersection improvement\$3,000\$100\$2,900\$128Los Angeles CoLAColima Rd & Azusa Av, intersection improvement\$3,000\$100\$2,900\$129Pico RiveraLASeverty Blvd, reversible Lane\$273\$78\$195\$130SardenaLA/ermont Av, 135th St-168th St, signal coordination\$670\$70\$600\$132City of FresnoFreHetrobolitan area traffic signal control system\$10,600 <td>117</td> <td>Concord</td> <td>CC 33</td> <td>Monument Bl/Clayton Rd, signal coordination</td> <td>\$663</td> <td>\$122</td> <td>\$541</td> <td>\$127,380</td>	117	Concord	CC 33	Monument Bl/Clayton Rd, signal coordination	\$663	\$122	\$541	\$127,380
119Costa MesaOraHarbor Bl & Sunflower Av, turn lanes\$723\$94\$629\$120Santa AnaOraCitywide traffic signal control system\$2,833\$2,833\$2,833\$121Kern CoKer N Chester Av, Kern Riv Br-Universe Av, channel & signals\$980\$155\$825\$122City San DiegoSDDowntown surveillance camera system\$350\$350\$350\$350\$350123Long BeachLAClark Av & Carson St, intersection improvement\$876\$150\$726\$124Riverside CoRivWashington St, Rte 111-Country Club Dr, signal coord\$202\$9\$193\$125City of LALAArea control system (Ventura/Victory ATSAC)\$12,162\$12,162\$12,162\$12,162126Costa MesaOraHarbor Bl & South Coast Dr, turn lanes\$1,930\$130\$1,800\$127Los Angeles CoLAColima Rd & Fullerton Rd, intersection improvement\$3,000\$100\$2,900\$129Pico RiveraLAJavington Blvd, reversible Lane\$301\$86\$215\$130SardenaLA/ermont Av, 135th St-168th St, signal coordination\$670\$70\$600\$132City of FresnoFreHetrobolitan area traffic signal control system\$10,600\$1,270\$9,330\$	118	Kern Co	Ker	Fairfax Rd, Eucalyptus Dr-Center St, channel & signals	s1,437	\$237	\$1,200	\$128,580
120Santa AnaOraCitywide traffic signal control system\$2,833\$2,835\$3,50\$350\$5,55\$825\$350\$350\$5,50\$5,726\$5,10\$12,162\$12,1	119	Costa Mesa	Ora	Harbor Bl & Sunflower Av, turn lanes	\$723	\$94	\$629	\$129,20
121Kern CoKern & Chester AV, Kern Riv Br-Universe AV, channel & signals\$980\$155\$825\$122City San DiegoSDDowntown surveillance camera system\$350\$350\$350\$350\$350123Long BeachLAClark AV & Carson St, intersection improvement\$876\$150\$726\$124Riverside CoRivWashington St, Rte 111-Country Club Dr, signal coord\$202\$9\$193\$125City of LALAArea control system (Ventura/Victory ATSAC)\$12,162\$12,162\$12,162\$126Costa MesaOraHarbor Bl & South Coast Dr, turn lanes\$1,930\$130\$1,800\$127Los Angeles CoLAColima Rd & Fullerton Rd, intersection improvement\$3,000\$100\$2,900\$129Pico RiveraLAHashington Blvd, reversible Lane\$301\$86\$215\$130Pico RiveraLAJermont AV, 135th St-168th St, signal coordination\$670\$70\$600\$132City of FresnoFreHetrobolitan area traffic signal control system\$10,600\$1,270\$9,330\$	120	Santa Ana	Ora	Citywide traffic signal control system	\$2,833		\$2,833	\$132,0
123Lorry sam brego30030	127	Kern Co City Son Dione	Ker	N LINESTER AV, KERN KIV BR-UNIVERSE AV, Channel & Signals	\$980	\$155	2025 e250	2122,50%
124Riverside CoRivHashington St, Rte 111-Country Club Dr, signal coordS202S9S193S125City of LALAArea control system (Ventura/Victory ATSAC)S12,162S12,162S126Costa MesaOraHarbor Bl & South Coast Dr, turn lanesS1,930S130S1,800S126Costa MesaOraHarbor Bl & South Coast Dr, turn lanesS1,930S130S1,800S127Los Angeles CoLAColima Rd & Fullerton Rd, intersection improvementS3,000S100S2,900S128Los Angeles CoLAColima Rd & Azusa Av, intersection improvementS3,000S100S2,900S129Pico RiveraLAHashington Blvd, reversible LaneS301\$86S215S130SiceraLAJermont Av, 135th St-168th St, signal coordinationS670S70\$600S132City of FresnoFreMetropolitan area traffic signal control systemS10,600S1,270S9,330S	123	Long Beach	30 1.4	Clark Av & Carson St. intersection improvement	\$876	\$150	\$726	\$133 9
125City of LALAArea control system (Ventura/Victory ATSAC)\$12,162	124	Riverside Co	Riv	Washington St, Rte 111-Country Club Dr. signal coord	\$202	\$9	\$193	\$134.1
126Costa MesaOraHarbor BL & South Coast Dr, turn Lanes\$1,930\$130\$1,800\$127Los Angeles CoLAColima Rd & Fullerton Rd, intersection improvement\$3,000\$100\$2,900\$128Los Angeles CoLAColima Rd & Azusa Av, intersection improvement\$3,000\$100\$2,900\$129Pico RiveraLAHashington Blvd, reversible Lane\$301\$86\$215\$130Pico RiveraLABeverty Blvd, reversible Lane\$273\$78\$195\$131GardenaLA/ermont Av, 135th St-168th St, signal coordination\$670\$70\$600\$132City of FresnoFreHetropolitan area traffic signal control system\$10,600\$1,270\$9,330\$	125	City of LA	LA	Area control system (Ventura/Victory ATSAC)	\$12,162	,	\$12,162	\$146,2
127Los Angeles CoLAColima Rd & Fullerton Rd, intersection improvement\$3,000\$100\$2,900\$128Los Angeles CoLAColima Rd & Azusa Av, intersection improvement\$3,000\$100\$2,900\$129Pico RiveraLAHashington Blvd, reversible Lane\$301\$86\$215\$130Pico RiveraLASeverty Blvd, reversible Lane\$273\$78\$195\$131GargenaLAFermont Av, 135th St-168th St, signal coordination\$670\$70\$600\$132City of FresnoFreHetropolitan area traffic signal control system\$10,600\$1,270\$9,330\$	126	Costa Mesa	Ora	Harbor BL & South Coast Dr, turn lanes	31,930	\$130	\$1,800	\$148,098
120Los Angeles LoLALotima kd & Azusa AV, intersection improvement55,000\$100\$2,9003129Pico RiveraLAHashington Blvd, reversible Lane\$301\$86\$215\$130Pico RiveraLASeverty Blvd, reversible Lane\$273\$78\$195\$131GardenaLAJermont AV, 135th St-168th St, signal coordination\$670\$70\$600\$132City of FresnoFreHetropolitan area traffic signal control system\$10,500\$1,270\$9,330\$	י <u>27</u> י	Los Angeles Co	LA	Colima Rd & Fullerton Rd, intersection improvement	\$3,000	5100	\$2,900	\$150,998 \$157 2
'30Pico RiveraLASeverty Blvd, reversible Lane3273\$78\$195\$'31GardenaLA/ermont Av, 135th St-168th St, signal coordination\$670\$670\$600\$'32City of FreshoFreMetropolitan area traffic signal control system\$10,500\$1,270\$9,330\$	120	LUS ANGELES CO Pico Rivera	LA 1.≜	Loting Ku & Azusa Av, intersection improvement	33,000 3301	001 C AR2	32,900 \$215	\$153,5
*31 Gargena LA /ermont Av, 135th St-168th St, signal coordination \$670 \$70 \$600 \$ *32 Sity of Fresho Fre Metropolitan area traific signal control system \$10,600 \$1,270 \$9,330 \$	30	Pico Rivera	LA	Severty Blvd, reversible Lane	\$273	\$78	\$195	\$154,34
*32 Sity of Fresho Fre Metropolitan area traffic signal control system \$10,500 \$1,270 \$9,330 \$	*31	Sardena	LA	/ermont Av, 135th St-168th St, signal coordination	S670	\$70	\$600	\$154,908
	*32	City of Fresno	Fre	Metropolitan area traffic signal control system	\$10,500	\$1,270	\$9,330	\$164,231

.

.

.

•

-

- -- -

A - 1.2

TRAFFIC SYSTEMS MANAGEMENT PLAN 1991-92

۰.

•

۶

.

TABLE A-2 NEW PROJECTS PRIORITY LIST SORTED BY COUNTY AND LEAD AGENCY (All amounts in thousands)

				Alloc		Cap
Papr	Lead Adency	Co.	Project Description	Request	Support	Outlay
Kank	Lead Agene)					
18	Alameda Co	Ala	Rte 880 Fwy at Mowry Av, ramp metering, auxiliary lanes	\$1,723	\$144	\$1,579
64	Alameda Co	Ala	Castro Valley BL, Lake Chapot Rd-Marshall St, signal coord	\$158	\$38	\$120
33	Caltrans 4	Ala	Rte 880 Fwy, Whipple Rd-Rte 238, ramp metering, CMS, CCTV	\$3,516		\$3,516
60	Fremont	Ala	Warm Springs Bl, Mission Bl-Scott Creek Rd, sig coord	\$196	\$24	\$172
84	Fremont	Ala	Blacow Rd, Central Av-Stevenson Bl, signal coordination	\$102	\$17	\$85
117	Concord	CC	Monument Bl/Clayton Rd, signal coordination	2003	\$122	\$541
56	Contra Costa Co	CC	Willow Av, Hawthorne Dr-7th St, intersection improvements	\$988	\$200	>/88 *19/
61	Contra Costa Co	22	Willow Pass Rd/Bailey Rd, signal coordination, new signal	\$199	513	D1 103
47	Richmond	22	San Pablo Av, Natalie Ct-Roosevelt Av, channel, sig coord	>1,2/1	31/7 #75	31,172
48	Richmond	CC	San Pablo Av, Elinton Av-HeBryde Av, signal coordination	5265	3)) 675	323U \$100
45	San Pablo	CC	San Pablo AV, R H Miller Dr-Rheem AV, Signal coordination	34/3	ə ()	2400
39	Caltrans 6	Fre	Rte 41 Fwy SB, Herndon Av-Ashtan Av, ramp metering	3730		2730 e1 /00
57	Caltrans 6	Fre	Rte 99 Fwy NB, Jensen Av-Ventura St, auxiliary lane	⇒1,400 ¢59		\$1,400 \$58
81	City Fresho	Fre	McKinley Av and Herndon Av at Kte 41 Fwy, turn lanes	336 \$70	e17	\$57
108	City of Fresho	Fre	Ashian Av at First St & Ledar Av, 2 bus turnouts	\$10 \$10 400	e1 270	077 09
152	City of Fresho	rre Voo	Metropolitan area trattic signal control system	\$70,800	\$125	\$500
90	Kern Lo	кег	Airport UF, Roberts Ln-Norris Rd, Chammetization & Signats	\$225	\$30	\$195
111	Kern Co	Ker	At vernon Av, Calif Av-College Av, Signal Cooloniation	¢1 /37	\$237	\$1 200
171	Kern Lo	Ker	Pairtax Rd, Eucalyptus Dr-Lenter St, Channet & Signats	SORU	\$155	\$825
121	kern Lo	Ker	N LNESTER AV, KERN KIV BR-Universe AV, Channet & Signats	\$100	\$20	\$80
73	Arcaula	LA 1.4	Channachia manage aigns ungsade	\$1 600		\$1 600
4	Caltrans /	LA	Changeable message signs, upgrade	\$1,000		\$160
2	Caltrans 7		East LA Interchange, expand curv surventionce	\$210		\$210
2	Caltrans /	LA	Kte 3 SB/Rte 110 SB PWy Connector, Tand metering	\$208		\$208
21	Caltrans /		TOS Phase 1-1 communication system & CCTV	SE 701		\$8 700
21		LA	Tus, Phase 1-1, communication system a conv	\$200		\$200
22			Rie J rwy, Fasadena Av-buldank bi, Tamp Meter ing	\$288		\$288
24			Rte 1/Los Aldantos frante chete, restripe a sign	\$125		\$125
25	Caltans 7	LA	Rie 101 (Hollywood Pwy), Heliose RV 35 oli 1200, Heleinig	\$107		\$197
20			TOS Phase 1-2 communication surface & CONCISCICATION	\$5 210		\$5 210
20	Caltrans 7	1.4	Den 10 Euro Smort Street Corridor - central computer system	\$175		\$175
20	Caltrans 7	1.6	Pte 10 Fwy Smart Screet Confider, Central Conduct System	\$460		\$460
62	Caltrans 7	1 4	Lincoln RI (Rt 1) Venue RI-Rte 10 signal coordination	\$1 103		\$1 103
42	Caltrans 7	1.6	Pte 110 (Merber Elw) expand CTV curveillance	\$200		\$200
55	Caltrans 7	1.0	TOS Phase 1-3 communication system & CCTV	\$7.550		\$7.550
86	Caltrans 7	1 4	Rte 57/210 Fuvs Sunset Crossing Rd-Allen Av ramp meter	\$3,500		\$3,500
87	Caltrans 7	LA	Rte 2 (Glendale) Fwy. Rte 5-Verdugo Bl. ramo metering	\$930		\$930
88	Caltrans 7	LA	Rte 170 (Hollywood) Fwy. Rte 5-Rte 101, ramo metering	\$820		\$820
94	Caltrans 7	LA	Western Av (Rt 213), 25th St-Summerland Av, signal coord	\$623		\$623
95	Caltrans 7	LA	Western Av (Rt 213), Summerland Av-Rte 405, signal coord	\$1.851		\$1,851
73	City of LA	LA	Area control system (East Wilshire ATSAC)	\$4,425		\$4,425
101	City of LA	LA	Area control system (West Wilshire ATSAC)	\$5,242		\$5,242
102	City of LA	LA	Area control system (Mid-Wilshire ATSAC)	\$5,205		\$5,205
125	City of LA	LA	Area control system (Ventura/Victory ATSAC)	\$12,162		\$12,162
19	Commerce	LA	Telegraph Av/Atlantic Bl (Mixmaster), intersec improvs	\$115	\$10	\$105
89	Commerce	LA	Washington BL, Rte 710-Rte 5, truck/bus turnouts	\$4 3 0	\$30	\$400
131	Gardena	LA	Vermont Av, 135th St-168th St, signal coordination	\$670	\$70	\$600
.123	Long Beach	LA	Clark Av & Carson St, intersection improvement	\$876	\$150	\$726
17	Los Angeles Co	LA	Glenoaks BL, Buena Vista St-Chevy Chase Dr, signal coord	\$1,128	\$275	\$853
62	Los Angeles Co	LA	San Gabriel Bl, California Bl-Rosemead Bl, signal coord	\$179	328	\$151
63	Los Angeles Co	LA	Santa Monica Smart Corridor (Systems Manager)	\$500		\$500
67	Los Angeles Co	LA	Rosecrans Av, Highland Av-Santa Gertrudes Av, sig coord	SZ, 197	\$458	\$1,739
71	Los Angeles Co	LA	Aviation BL, 104th St-Pacific Coast Hwy (Rt 1), sig coord	\$570	\$170	\$400
127	Los Angeles Co	LA	Colima Rd & Fullerton Rd, intersection improvement	\$3,000	\$100	\$2,900
128	Los Angeles Co	LA	Colima Rd & Azusa Av, intersection improvement	\$3,000	\$100	32,900
106	Palmciale	LA	Palmdale Rd (Rt 138) at Rte 14 Fwy, traffic signal	\$90	\$10	\$80
107	Paimonale	LA	Paimdale Rd (Rt 138) at 5th St East, traffic signal	\$50	\$5	S45
2	Pasadena	LA	Rte 210 Fwy Corridor, information/control system	\$2,090	\$573	\$1,517
129	Pico Rivera	LA	Washington Blvd, reversible lane	\$301	\$86	\$215
130	Pico Rivera	LA	Beverly Blvd, reversible Lane	\$273	378	\$195
72	Fairfax	Mrn	SIF Francis Drake SL, Cak Manor-Lagunitas, signals & coord	\$1,513	3126	\$1,387
11	Anaheim	Ora	Rte 57/Rte 5 Fwy corridors, event communication system	\$1,285		\$1,285
14	Anaheim	Ora	Rte p//Rte 5 Fwy corrigors, event info/guidance system	\$1,165		\$1,165
15	Ananeim	Ora	IUSTIN AV & La Palma AV, turn lanes at intersection	\$547		74ز3
16	Ananeim	Ura	Lakeview AV & La Palma AV, turn lanes at intersection	3529		3529
4U	Ananeim .	ura	santa Ana UVn ko at Imperial Hwy, left turn lanes	\$202		\$202

-

Total

A - 2.2

8	Caltrans 12	Ora	Phase 1 Traffic Operations System, computer system	\$495		\$495
9	Caltrans 12	Эга	Rte 57 Fwy, Rte 5 To LA Co Line, ramp metering	\$1,320		\$1.320
36	Caltrans 12	Ога	Rte 91 (Riverside Fwy), changeable message signs	\$420		\$420
37	Caltrans 12	Сга	Rte 405 (San Diego Fwy), changeable message signs	\$420		\$/20
32	Caltrans 12	Ora	Rte 405 Fwy, Harbor Bl-Fairview Rd, ramp metering	\$1.286		542U
08	Caltrans 12	Ora	Pacific Coast Hwy (Rt 1) at Warner Av. intersec improvs	\$156		\$1,250
114	Caltrans 12	200	Reach RI (Pt 30) Orangethorne Av-Rosecrans Av turn ins	\$1 645		\$156
110	Cattians Iz	200	Hennen Gi & Sumflauer Av turn lange	\$777	***	\$1,665
17			Habba Di 2 Sauth Canat Dr. turn isbar	\$1.020	374	\$629
120		Ona	Hardor bl & South Coast br, turn tanes	a(, 730 ¢170	\$150	\$1,800
97	Fullerton	ora	Bastanchury ko at Associated ko, right turn tane	2110	\$14	\$156
109	Irvine	ora	Citywide traffic signal control system	\$3,066	\$511	\$2,555
110	Mission Viejo	Ora	Citywide traffic signal control system	\$250		\$250
92	Santa Ana	Ora	Phase 1, Traffic Management Center & CCTV	\$1,000	\$419	\$581
120	Santa Ana	Ora	Citywide traffic signal control system	\$2,833		\$2.833
20	Caltrans 8	Riv	Rte 60/91/215 interchange, install CMS & CCTV	\$960		\$960
23	City Riverside	Riv	Van Buren Bl at Rte 91/Indiana Av, signal improvements	\$163	S11	\$152
65	City Riverside	Riv	Van Buren BL, Magnolia Av-Jurupa BL, signal coordination	\$410	\$55	6755
77	City Riverside	Riv	Arlington Av. Magnolia Av-Tyler St. signal coordination	\$738	304	4333 64/5
115	City Biyerside	210	lurima Pd 2 Van Ruren RL intersection improvement	\$149	\$20	3042
37		Di.	Ath St. Bto Ol-Morpelio Av. cienti constinution	\$355	+20	\$129
21	Lorona	RIV	oth St, Kte yr-Magnotia Av, Signat Coordination		320	\$325
68	Hemet	RIV	Florida AV (Rt 74), Golden Village-Tale St, Signal Coord	\$/U	52	\$68
100	Paim Desert	Riv	Monterey Av (Rt 74) at Rte 111, intersection improvements	\$225		\$225
- 31	Riverside Co	Riv	Magnolia Av, E 6th St-Pierce St, signal coordination	\$316	\$2	\$314
69	Riverside Co	Riv	Florida Av (Rt 74), Yale St-Fairview Av, signal coord	\$45	\$2	\$43
124	Riverside Co	Riv	Washington St. Rte 111-Country Club Dr, signal coord	\$202	\$9	\$107
38	Caltrans 3	Sac	Rte 50 Fwy. Rte 5 to Stockton Bl. ramp metering & TOS imps	\$1,300		\$1 300
105	Sacramento	Sac	Freeport BL Blair Av-Valleio Way, signal coordination	\$986	\$170	-1,000 #81/
10		he2	Pte 10 Eury 14 Colline-Williken Av ramp metering	\$3 144		
10		200	Bre 40 End 14 Colline-Bre 15 comp motoring	\$2 530		33,144
94 E 0		200	Rie bu rwy, LA Lu Line-Rie 13, Tamp metering	\$940		\$2,530
50	Caltrans o	280	kte 10/215 interchange, changeable message signs, cuiv	3700		\$960
116	Ontario	SBC	Holt Blvd & Grove Av, intersection improvement	\$251	\$16	\$235
66	Upland	SBd	16th St, Benson Av-Tanglewood Av, signal coordination	\$547	\$49	\$498
85	Yucaipa	SBd	Yucaipa BL, 14th St/Sand Canyon Rd-Bryant St, signal coord	\$265	\$75	\$190
34	Caltrans 4	SCL	Rte 85 Fwy, Rte 101 (San Jose)-Rte 280; ramp metering	\$4,900		\$4,900
35	Caltrans 4	SCI	Rte 87 Fwy. Rte 85-Rte 280, ramp metering	\$1,100		\$1 100
83	Cuperting	SCI	Sacatoga-Supervale Rd. Bollinger Rd-Prospect Rd. sig-coord	\$179	\$12	\$167
$\tilde{\mathbf{\omega}}$	Cupertino	SCI	Stevens Creek RI De Anza RI & Holfe Rd 15 bus turnouts	\$1.057	\$7	\$1 050
104	Sap loss	CC1	Stevens greek by be while by a worre way is bus tarnouts	\$4 713	\$517	\$6 106
2/		361		e1 200	#J/7	
24	Santa Llara Lo	SCL	Lapital & Almaden Exploys, signal coordination	31,200	ə 147	31,055
	Caltrans 11	SD	Rte 15 SB, Bernardo Center Dr-Centre City Pkwy, metering	\$1,505		\$1,305
- 3	Caltrans 11	SD	Rte 805 Fwy NB, Governor Dr-Miramar Rd, ramp metering	\$1,048		\$1,048
12	Caltrans 11	SD	Traffic Operations Center, upgrade control system	\$417		54 17
- 13	Caltrans 11	SD	Rte 805 Fwy NB, Murray Ridge-Clairemont Mesa, metering	s1,130		\$1,130
49	Caltrans 11	SD	Rte 15 Fwy NB, Poway Rd-Camino Del Norte, ramp metering	\$1,260		\$1,260
51	Caltrans 11	SD	Rte 15 Fwy SB. Citracado Pkwy-El Norte Pkwy, ramp metering	\$969		\$969
52	Caltrans 11	SD	Rte 163 Fwy NB, Balboa Av-Kearny Villa Rd, ramp metering	\$875		\$875
53	Caltrans 11	SD /	Rte 5 Fuy First Av-Old Town Av. ramo metering	\$1,780		\$1 780
76	Caltrans 11	ŝ	Using Pd approach to UP Pte 8 Fuy loop detectors CNS	\$160		\$140
79		50	WE BE IS Such to we are a rwy, toop detectors, and	e1 660		P1 550
70		30	No Rie (J Fwy al Failaddic Av Oil (dap), metering	\$1,330		
19	cattrans ii	50	Kte o Pwy, Himitz Blvd-Hidway Ur, Pamp metering	3020		302U
15	Carlsbad	SD	Palomar Airport Rd & El Camino Real, lett turn lanes	5444	\$29	\$385
80	Carisbad	\$D	Rte 5 Fwy at Palomar Airport Rd, ramp metering, aux lanes	\$2,980	\$225	\$2,755
29	City San Diego	SD	EB Del Mar Heights Rd on-ramp to SB Rte 5 Fwy, HOV bypass	\$27	\$7	\$20
41	City San Diego	SD	Mira Mesa/Miramar area, traffic signal system	\$1,272	\$294	\$978
59	City San Diego	SD	Downtown trolley signal pre-emption system	\$68	\$6	\$62
90	City San Diego	SD	Hillcrest area signal coordination	\$329	\$40	\$289
01	City San Diego	SD	Clairemont Mesa RI 11ma Av-Shauline St signal coord	\$470		\$470
107	fity San Diace	50	Navajo Dd. Daek Didas Bistaka Museau Di cisnal coord	\$751	¢177	6570
147	City San Diego	30	novoju ku, raik kluge bitlake muiray bi, Signal Coord	4121 640E	#112 @92	
112	LITY San Diego	20	Rosecrans St, KUTTZ St*Lamino Del Kio, channelization	2102 2102	≥ ∠0	\$17
122	LITY San Diego	SD	Downtown Surveillance camera system	\$350		2220
112	EL Cajon	SD	Citywide traffic signal control system	\$200		\$200
74	San Diego Co	SD	Sweetwater Rd, Troy St-Paradise Valley Rd, signal coord	\$228	S1 0	3218
46	San Francisco	SF	Bus/LRV signal pre-emption, 14 locations on arterials	\$437		\$437
58	Solano Co	Sol	Cordelia-Vacaville, near Rte 80, modify 6 intersections	\$2,412		\$2,412
70	City Ventura	Ven	Main St/Thompson Bl corridor, signal coordination	\$802	\$10	\$792
			· · ·			

.

٩

.

page	1			TRAFFIC SYSTEM MANAGEMENT (TSM) 1991-1992		28-Aug-19	
RANK/	LEAD AGENCY	CNTY	FWV/RTE	(Al) amount in thousands) TO SEGMENT/PROJECT DESCRIPTION	DTAL \$ LLOC FOILEST SU	Tanaat	CAP \$
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				441.21		
Ramp	Metering				91 81 81 81 81 81 81 81 81 81 81 81 81 81	11 11 11 11 12 12	04 81 82 82 82 84 84 84 84 84 84 84 84 84 84 84 84 84
Q	Caltrans 7	LA	R-5/R-110	On the connector from the southbound Rte 5 Fwy 21 to the southbound Rte 110 Fwy, less than half mile. Ramp metering plus restriping to provid additional storage capacity in <u>Los Angeles</u> .	0		210
52	Caltrans 7	LA	R-5	On the Rte 5 Fwy between Pasadena Ave. in <u>Pasadena</u> 20 and Burbank Blvd. in <u>Burbank</u> , almost ten miles. Installation of loop <u>detectors</u> and other equipment for existing traffic controllers in both directions to enable tie of existing ramp metering.	00	2 2 1 1 2 2	200
25	Caltrans 7	ΓA	R-101	In <u>Hollywood</u> , at the Rte 101 Fwy interchange with 12 Melrose Ave. Provision of HOV bypass for southbound on-ramp.	25	0 6 1 1 1 8 8	125
86	Caltrans 7	LA	R-57/R-210	On the Rte 57 and Rte 210 fwy between Sunset Crossing 35 Road in <u>diamond Bar</u> and Allen Ave. in <u>Gelndora</u> , six and one- <u>half miles</u> . Ramp metering in both directions for fourteen ramps at eight interchanges, with HOV bypasses for twelve ramp	500 s.		3500
87	Caltrans 7	ΓP	R-2	In Glendale, on the Rte 2 Fwy between Rte 5 and 93 one mile north of Rte 210, almost eight miles. Ramp metering westbound for seven ramps, with HOV bypasses at six.	08		930
88	Caltrans 7	Γ	R-170	On the San Fernando Valley, on the Rte 170 Fwy 82 between the Rte 101 Fwy and Rte 5 Fwy six miles. Ramp metering northbound for nine ramps at nine interchanges, all with HOV bypasses.	0		820
5	Caltrans 12	Ŋ	R-57	On the Rte 57 fwy between Rte 5 in <u>Santa Ana</u> and 13 the Los Angeles county line in <u>Brea</u> , almost twelve miles. Ramp metering northbound for seventeen ramps at ten interchanges and southbound for one ramp with HOV bypasses at all locations.	1		1320

page	2	-		TRAFFIC SYSTEM MANAGEMENT (TSM) 1991-1992		28-Aug-1	166
RANK/	, LEAD AGENCY	CNTY	FWY /RTE	(All amount in thousands) TC Al SEGMENT/PR0.JECT DESCRIPTION	DTAL \$ LLOC FOIFST	\$ SUPPORT	CAP \$
82	Caltrans 12	Ю	R-405	In <u>Costa Mesa</u> , on the southbound Rte 405 Fwy on ramps from northbound Harbor Blvd. and from southbound Fairview Rd. Construct additional lane at each ramp, with ramp metering at Harbor Blvd. and a changeable message sign at fairview Rd.	286		1286
10	Caltran 8	Sbd	R-10	In <u>Ontario</u> , on the Rte 10 Fwy between the Los Angeles 3 County Tine and Milliken Ave., over nine miles. Ramp metering in both directions for twenty ramps at nine interchanges with HOV bypasses as feasible, plus incident detection stations at quarter mile intervals.	3144	 	3144
44	Caltran 8	Sbd	R-60	In <u>Chino</u> and <u>Ontario</u> , on the Rte 60 Fwy between the 24 Los Angeles County line and Rte 15, nine miles. Ramp metering in both directions for sixteen ramps with HOV bypasses as feasible, plus installation of incident detection stations at quarter-mile intervals.	230	; 1 2 1 1 1 4 3	2530
	IC SIGNAL COOM	o ind t i	0 0 *====================================		11 11 11 11 11 11 11 11		
63	Arcadia	LA		On eight arterials, upgrading of capacity of Master 10 System Traffic Signal Computer from thirty-two to sixty-four intersections.	00	20	80
42	Caltrans 7	LA	Lincoln Blvd.	On Lincoln Blvd. between Venice Blvd. in <u>Venice</u> 11 and the Rte 10 Fwy in <u>Santa Monica</u> , over two miles. Traffic signal interconnection, plus equipment upgrade at twelve intersections.	103	5 5 7 7 7 7	1103
94	Caltrans 7	ΓP	Western Ave.	On Western Ave. between 25th St. in <u>San Pedro</u> and <u>65</u> Summerland Ave. in <u>Palos Verdes</u> , two miles. Traffic signal interconnection at six intersections, plus equipment upgrade.	23		623
6 2	Caltrans 7	LA	Western Ave.	On Western Ave. between Summerland in Palos Verdes 16 and the Rte 405 Fwy in Torrance, eight miles. Traffic signal interconnection at twenty-two	851	C 2 3 4 5 4 8 8 8 8 8	1851

		•	•				
page	8			TRAFFIC SYSTEM MANAGEMENT (TSM) 1991-1992		28-Aug-1	166
RANK SEQ	/ LEAD AGENCY	CNTY	FWY/RTE	(ATT amount IN thousands) SEGMENT/PROJECT DESCRIPTION	ALLOC REQUEST	\$ SUPPORT	CAP \$ OUTLAY
116	Ontario	Sbd	Holt Blvd/ Grove Ave.	At the intersection of Holt Blvd. and Grove Ave. Construction of two dual left-turn lanes and two right-turn lanes, plus other modifications.	251	16	235
Free	way Management	Techno	logy		19 30 31 31 31 31 31 31 31 31 31 31 31 31 31	2) 2) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1)	
4	Caltran 7	LA L	4 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	On freeways in Los Angeles County. Upgrading of Changeable message sign system by replacing twenty-three traffic controllers, installing forty- three scan cameras at seven existing changeable messag sign locations, and improving sign panels of nine existing changeable message signs. Part of District 7 traffic operations system and of changeable message sign master plan.	1600 I	6) 11 14 14 18 18 18 19 11 11 11 11	1600
ى م	Caltran 7	LA LA	4 4 7 7 8 4 4 4 4 7 7 7 7 7 7 7 7 7 7 7	In Los Angeles, on approaches to the East Los Angeles Interchange almost five miles. Expansion of existing closed circuit TV system from one to five cameras. Part of District 7 traffic operations system and of closed circuit TV master plan.	160	/ 	160
2	Caltran 7	ΓA	R-47	In <u>San Pedro</u> , on Rte 47 at the Vincent Thomas Bridge. Installation of satellite antenna as demonstration of transmission of existing closed circuit TV to the District 7 traffic operations center Also demonstration of remote control of closed circuit TV camera.	298	1 1 1 1 1 1 1 1	298
21	Caltran 7	LA	R - 5	On the Rte 5 Fwy between the East Los Angeles Interchange in Los Angeles and McBean Parkway Drive in <u>Santa Clarita</u> , and on short stretches of adjacent Rte <u>10 and 101</u> , about thirty-nine miles overall. Acquisition and installation of communication lines, replacing leased lines, to tie existing and future multi-district traffic operations system equipment (ramp metering, closed circuit TV, changeable message signs, etc.) into the District 7 traffic operations center. Also, installation of thirty- three closed circuit TV cameras at nine locations on Rte 5.	8700	4 4 1 1 1 4 4 4 1 1 1	8700

page	6 a			TRAFFIC SYSTEM MANAGEMENT (TSM) 1991-1992		28-Aug-	166
RANK				(All amount in thousands)	ALLOC	\$	CAP \$
SEG	# LEAD AGENCY	CNTY	FWY/RTE	SEGMENT/PROJECT_DESCRIPTION	REQUEST	SUPPORI	OUTLAY
26	Caltran 7	LA	R-10	On the Rte 10 Fwy between Los Angeles and Santa Monica. Installation of infra-red camera at existing closed circuit TV location as demonstration of effectiveness at night. To tie into District 7 traffic operations center.	197		197
28	Caltran 7	LA	R-5 R-101	On the Rte 5 Fwy between the Orange County line in <u>Santa Fe Springs</u> and the East Los Angeles Interchange in <u>Los Angeles</u> , and in Los Angeles on the Rte 101 Fwy between Vermont Ave. and Rte 10, about twenty miles overall. Acquisition and installation of communication lines, replacing leased lines, to tie existing and future multi-district traff operations system equipment (ramp metering, closed circuit TV, changeable message signs, etc.) into the District 7 traffic operations center. Also installation of fifteen closed circuit TV's at four locations.	5210 ic		5210
	Caltran 7	ΓA	R-10	In the Rte 10 Fwy corridor between <u>Santa Monica</u> and <u>Downtown Los Angeles</u> . for the <u>Santa Monica</u> <u>Smart Corridor Demonstratioin project</u> : <u>Development</u> of <u>Specifications</u> for computer hardware and <u>software</u> <u>system</u> , and <u>installlation</u> of <u>system</u> in the <u>District</u> 7 traffic operations center.	175		175
32	Caltran 7	LA	R-10	On the Rte 10 Fwy between Rte 405 in <u>West Los</u> Angeles and Santa Fe Ave. in <u>Los Angeles</u> , about twelve miles. Installation of approximately sixteen off-freeway accident investigation sites. Part of the Smart Corridor Demonstration.	460		460
43	Caltran 7	LA LA	R-110	In Los Angeles, on the Rte 110 Fwy. Installation of four closed circuit TV cameras, an expansion of the Rte 110 Transitway closed circuit TV Project. To tie into the District 7 traffic operations center.	200	, , , , , , , , , , , , , , , , , , ,	200
55	Caltran 7	LA	R-101	In Los Angeles, on the Rte 101 Fwy between	7550		7550

		-		-	ž		- •
page	e, 10			<pre>TRAFFIC SYSTEM MANAGEMENT (TSM) 1991-1992</pre>	TOTAL \$	28-Aug-	1991
SEG	<pre>// // LEAD AGENCY</pre>	CNTY	FWY/RTE	SEGMENT/PROJECT DESCRIPTION	ALLOC Request	\$ SUPPORT	cap \$ Outlay
			R-10	Fwy between Rte 101 and 105, and on the Rte 10 Fwy between Rte 5 and 710, about thirty-four miles overall. Acquisition and installation of communicati lines, replacing unreliable leased lines, to the existing and future multi-district traffic operations system equipment (ramp metering, closed circuit TV, changeable message signs, etc.) into the Distric 7 traffic operations center. Also installation of fort five closed circuit.TV cameras at five locations.	ion s ty-		
63	LA County	LA	R-10	In the Rte 10 Fwy corridor, between <u>Santa Monica</u> and downtown <u>Los Angeles</u> . Installation of central control center and highway advisory radio.	500	2	500
2	Pasadena	LA	R-210 R-110 R-134	Installation of changeable message signs, highway advisory radio, and closed circuit TV in areas which will provide direct benefit to traffic in the Interstate 210 corridor, the Rte 110 Fwy/Arroyo Parkw corridor and Rte 134 Fwy corridor.	2090 way	573	1517
129	Pico Rivera	ΓA	Washington Blvd.	On Washington Blvd., between Paramount Blvd. and the east city limit, over one mile. Installation of reversible lane.	301	86	215
130	Pico Rivera	LA	Beverly Blvd.	On Beverly Blvd., between San Gabriel River Parkway and Rosemead Blvd., about half mile. Installation of reversible lane.	273	78	195
=	Anaheim	0ra	R-57 R-5	In the Rte 57 and Rte 5 Fwy corridors in the vicinity of Anaheim Stadium. Establishment of Event Communication System by providing real time traffic signal operation for one hundred annual special events. Installation of seven closed circuit TV's and detectors at fourteen intersections to tie into the Districtd 12 traffic operations center.	1285		1285
14	Anaheim	Ora	R-57 R-5	In the Rte 57 and Rte 5 Fwy corridors in the vicinity of Anaheim Stadium. Establishment of Motorist Information and Route Guidance System to provide real time information to motorists for	1165		1165

page l	11			TRAFFIC SYSTEM MANAGEMENT (TSM) 1991-1992		28-Aug-	1991
RANK/				(AII amount in thousands)	ALLOC	~	CAP \$
SEQ #	LEAD AGENCY	CNTY	FWY/RTE	SEGMENT/PROJECT DESCRIPTION	REQUEST	SUPPORT	OUTLAY
				one hundred annual special events. Installation of changeable message signs, highway advisory radio, and Anaheim traffic management center. To tie to the District 12 traffic operations center and highway advisory radio.			
	altran 12	Ora	R-47	In <u>San Pedro</u> , at the District 12 Office. Conversion of freeway system control from District 7 in Los Angeles County to District 12. Purchase and installation of basic hardware and software.	495		495
36 C	altran 12	0ra	R-91	At three locations on the Rte 91 Fwy. Installation of three changeable message signs: in fullerton, for eastbound traffic west of the Rte 5 Fwy; and in <u>Anaheim</u> , eastbound west of State College Blvd. and westbound east of Lakeview Ave	420		420
37 C	altran 12	Ora	R-405	At three locations on the Rte 405 Fwy. Installation of three changeable message signs: in <u>Irvine</u> , for northbound traffic south of MacArthur Blvd.; in <u>Costa Mesa</u> , southbound north of Harbor Blvd.; and in <u>Seal Beach</u> , southbound north of Seal Beach Blvd	420		420
92	ianta Ana	Ora	R-405	On the Rte 405 Fwy, almost three miles, and on MacArthur Blvd., over three miles. Phase I: Establishment of a Traffic Management Center and installation of closed circuit TV. A Smart Corridor project, to tie into the District 12 traffic operations center.	1000	419	581
20 (àltran 8	Riv	R-60/91 /215	In <u>Riverside</u> , on the approaches to the Rte <u>60/91/21</u> 5 interchange, over nine miles. Installation of closed circuit TV and Changeable message signs.	096		096
50 (caltran 8	Sbd	R-10/ 215	In San Bernardino, on the approaches to the Route 10/215 Interchange, ten miles. Installation of closed circuit TV and changeable message signs.	960		960

WASHINGTON, DC

-

	_	-		· · · · ·											
FY 1995-2000	15	REMARKS:			See Transportation Enhancements (#12)	LRE		1/Special Legislation	Extend Minn.Ave. between Sheiff Rd. & Meade St. to Increase	accessionity and reip to promote the economic growth of nearby commercial areas.	Restore G SI., N.W. In front of MLK Library from pedestrian to vehkular traffic.	FTA Transit Project	Meet TCM objec- tives, LRE.	(Meet TCM objec- tives.	Meet TCM objec- tives.
	=				Boing	2001	going	going	1999		2001	1995	1998	1998	1998
	13		Environ. Review		8	ΞΞ	ਲ	8	EA		DEIS	B	DEIS	DEIS	DEIS
	12		Funding Sources		STP	Ŧ	LOCAL	SHNI 11	STP		LOCAL	STP LOCAL WMATA	SHN	SHN	SHN
	E		Amt	of Match	1,150		1,800	100	4	<u> </u>	488	3,100			
	₽		Federal	Total	400	·		004	160			1,800			
	6		Program	Total FY95-00	1,650	500	1,800	500	5,000		3,251	5,350	300	300	30
(so	8			FY2000										300	90 90
S (in \$1,00	7			FY1998 FY1999 F						<u> </u>		00 00 00			
ITAL COST	9				500			1,500		2,763					
INTS: CAPI	2		2-06811	FY1897			<u></u>		3,300 ab			·			
PROVEME	4		<u>لا</u>	FY1896											
LATION IM	3			FY1995	1,650 ad		1,800 80	800	500		488 88 88	5,350			
RANSPORT	2		Funds In	FY 94	1,100 80		3,000 Bd								
DISTRICT OF COLUMBIA T	-		PROJECT		Roadside Improvements Citywide	Southern Avenue Naylor Rd. to Erie St.	Local Street Improve- ments Citywide	Intelligent Vehicle Highway System (IVHS)	Minnesota Averue Extension		Liberty Plaza Improvements	Metrobus Replacement Program	New York Ave. and Bladensburg Rd. Grade Separation	East Capitol Street and Benning Road Grade Separation	New York Ave. and Florida Avenue Grade Separation
					11	18	6	20	5		22	23	24	52	28

- -

8/21/94

JULY 1, 1894

				•	TRANSPO	MONTGO	MERY COUN IMPROVEME	TY ENT PROGRI	W				
-	6	6		4		CAPITOL	COSTS (In \$	1,000)	101	11	10	13	14
-)			FY 1995 - 2	2000							
	MCDOT	Funds	Annual Element	500	r va				Program Total	Funding Shares	Funding Source	Juris diction	Environ. Review
	OTHER PROJECTS		CRL			0001-1		BL	00-0811				
-	Bridge Replacement	346	2439										
	Projects	126	æ					_					
		р 2825	2424	1052	322				6237	80/0/20	BR	MGC	
0	Arhancad Transnottation	0	2 1800	0	0				1800	56/00/44	SHVI	MGC	
1	Management System		2										
e	Annual Bikeway Program		358										
			992						1350	0/0/100	VN	MGC	
			5										
4	Annual Sidewalk Program		1260										
			60										
			7180						8500	0/0/100	NA	MGC	
S	ADA Compliance Transportation		800						<u></u>				
	Access		8610						9410	0/0/100	NA	MCG	
9	Briggs Chaney Road		74	_, ., _, _, _,									
	Old Columbia Pk. to 1400 west		8 797						871	0/0/100	NA	MCG	
2	Briggs Chaney Road Automobile Dr. to Gateshead		0		1300								
	Manor way					4	6700 c		8800	0/0/100	NA	MCG	

37

FY 1005-2000

•

4

NORTHERN VIRGIMA TRANSPORTATION IMPROVEMENT PROGRAM CAPITAL COSTS (in \$1,000)

	3	•	₹	9 2	1005.0000	4	9		10	•	12	13	4
VIRIGINIA DEPARTMENT OF		FUNDS	!						PROGRAM TOTAL	FUNDING SHARE8	FUNDING SOURCE	JURIS- DICTION	ENV. REVIEW
TRANSPORTATION		FY94 TIP	AE FY05	FYBB	FY07	FY98	FY00	FY2000	FY\$5-2000	FEDERAL			
TE 234 11. WEST POUTE 96 (ECLIPSE DRIV 11. EAST SCI, MANASSAS VLLEL LANE	Ġ	8		р 9066			6460		16365	2	<i>с</i>	PWC	
TE 234 11. EAST SCL MANASSAS • 11. EAST SCL MANASSAS • 14. EAST SCL MANASSAS		-1			3810 b			5240	9050	1	S	PWC	
TE 234 11. EAST SCL MANASSAS • 11. EAST SCL MANASSAS • 14.LEL LANE		1			2450 b	· · · <u>, · · · · · · · · · · · · · · · ·</u>		7515	0965	ı	Ø	PWC	
TE 234 (MANASSAS BYPASS) S FORD ROAD • W. OF RELOC. LINGTON RD. VES ON 6 LANE R.W		1	12113 b 0894			<u></u>			22007		BONDS	PWC	
TE 234 (MANASSAS BYPASS) ² Reloc Wellington Rd Rte 21 Ves on 6 Lane Rw			12318 b 18091		····				30409	ł	BONDS	PWC	
TE 234 (MANASSAS BYPASS) TE 60 , DALLS EADD DAAD		3000	15700				_		15700	80/20	HN	PWC	DEIS (4)
LIDENC INTERCHANGE AREA) LUDING INTERCHANGE AREA) VES ON 6 LANES RW		3	16000						16000	80/20	STP		FEIS (1)
TE 234 (MANASSAS BYPASS) N. OF MANASSAS) - TE 234/649 (LIMSTRONG) S. OF MAN VES ON NEW LOCATION NLY)	IASSAS	4020	1024			- <u>-</u>			1024	80/20	STP	PWC	
TE 244 SITCH STREET • S. SCOTT ST.			45	135					180	90/10	STP(HES)	ARC	
TE 267 (DULLES TOLL RD) TE 28 - ROUTE 123 EN TO 8 LANES		1	3000	10000	26000				39000	1	BONDS	FXC	
TE 267 (DULLES TOLL ROAD) TE 28 - ROUTE 123 ETC SYSTEM		- 1	2000		13600	<u> </u>			15800	1	TOLL	FXC LDC	

9/21/94

page 3

This Transportation Control Measure will increase the number of bicycle racks and lockers at transit stations where more than 80 percent of the existing facilities are regularly in use, and provide bicycle facilities at stations that currently have none. Racks and lockers will also be provided at selected commuter rail and selected park & ride facilities in the region. <u>Recommended locations are available for METRO rail stations. State and local agencies will recommend locations for commuter rail and P & R facilities.</u> Installation of racks and locks will cost a total of \$300,000 (15% in D.C, 55% in MD and 30% in Vii). It was assumed that a total of 25 canopies will be constructed by 1999 at the rate of 5 a year (1 in D.C., 2 in MD and 2 in VA). The annual cost for installation of canopies is estimated to be \$5000.

Complete 164 miles (30%) of the Bicycle Element of Long Range Plan (old M-37).

This Transportation Control Measure will construct 164 miles of the bicycle facilities identified in the Bicycle Element of the Long Range Transportation Plan by 1999. The total mileage of the bicycle element of the currently adopted LRP is 536 miles and will cost approximately \$73 million. <u>This TCM will implement</u> approximately 30% by mileage of the adopted plan by 1999 at an annual cost of approximately \$6 million.

Provide adequate bicycle **facilities at all government** and **public buildings in the region** and **develop guidelines for private building owners to provide bicycle facilities.(M-70)**

The measure assumes a total of 1000 new bicycle racks will be installed at government facilities by 1999 at the rate of 200/year (20% in D.C., 40% in MD and 40% in VA).

Group 3 - Employer Support Programs

MEASURE M-47: Integrated Ridesharing Measures

This Transportation Control Measure would integrate three measures aimed at enhancing ridesharing capabilities in the region:

- (1) upgrade the computer services of the MWCOG Ride Finders program to include integrated transit information and to provide real time transit information (ATIS) through kiosks and other outlets where feasible;
- (2) implement satellite ridesharing or Transportation Management Associations (TMAs) at all major employment centers with interconnection

through the MWCOG program; and

(3) A "Guaranteed Ride Home" program to be implemented by the COG Ride Finders or other regional agency.

The measure as analyzed <u>assumes 15 kiosks (6 in MD. 6 in VA and 3 in DC) and 15 new TMAs (6 in MD, 6 in VA and 3 in DC) will be in place by 1999</u>. It is also assumed that there is additional transit capacity available to accommodate the 3400 new transit riders.

MEASURE M-92 Metro Washington Regional Telework Measure

This measure builds on the previous telecommuting measures (M-46, M-58, M-80, M-81, M-82) and creates a new measure requiring both public and the private sector participation.

A US DOT report "Transportation Implications of Telecommuting April 1993, and a forthcoming USDOE study both predict that the number of workers telecommuting several days a week from home will increase by 10 to 20% per year up to the year 2000. Use of telework centers is also predicted to grow. The recommended regional strategy therefore is to provide maximum encouragement for t&commuting from home in the short term, and to start developing regional centers on a small scale and expand as demand increases.

The new telecommuting measure as proposed will have the following components.

1) Create a Washington Region Telework Resource Center. The center will perform the following functions:

1) Develop a program to educate employers and employees on the benefits of telecommuting and telework

2) Actively encourage employers (government / private sector) to establish telecommuting programs for their employees, and provide planning assistance and other technical expertise towards successful implementation of telecommuting program and teleworkcenters around the region.

3) Coordinate local, state and federal telecommuting and telework initiatives.

4) Disseminate information on the experience of Telework centers and Telecommuting around the nation and the world.

page 4

.

TABLE 2

.

Measure	NOx em	uission R	eduction	(T/D)
	1999	2000	2010	2020
M-47: Integrated Ridesharing (modified)	0.16	0.15	0.13	0.12
M-92: Telecommuting Support	0.66	0.63	0.53	0.52
M-24: Speed Limit Adherence (Regional)	-	-	1.71	1.70
Totals by year	0.82	0.78	2.37	2.34
Target	-0.013	0.233	1.387	1.895

NOx emission benefit of the recommended Nox Mitigation Measures

privately funded, publicly supported roads to be built in the U.S. in over 100 years. An Automatic Vehicle Identification system will be employed to electronically collect tolls from passing cars. Also, the right-of-way for the project allows for future expansion of the roadway and mass transit development in the median This project illustrates a potential approach to developing transportation infrastructure at a time when public funds are increasingly scarce.

Potomac Yards Development

Potomac Yards is a large tract of undeveloped land, formerly a railyard, along the George Washington Memorial Parkway and the Potomac River in Alexandria. The city has adopted a plan to guide the redevelopment of the area. The goals of the plan are to encourage the redevelopment of the land as a pedestrian-oriented urban environment with a mix of uses. The plan calls for the area to be predominantly residential with a mix of land uses with community facilities, office, supporting retail, restaurants and higher density housing concentrated near a planned Metro station The plan allows for a possible shopping center to serve the district and nearby residential neighborhoods with a variety of retail and service uses scattered throughout the district at appropriate locations. A variety of parks and open spaces all connected by bike and pedestrian trails also are included.

Inner Beltway Revitalization Strategy

In 1993, Prince George's County formulated an Inner Beltway Revitalization policy that encourages more development in the portion of the County inside the Beltway. This portion of the county comprises less than one-third of the county's area but houses nearly two-thirds of its population and is well-served by existing roads, transit facilities, schools and other infrastructure. This strategy promotes more efficient use of existing infrastructure by taking advantage of the transit services in the area and by promoting mixed-use development around the Metro stations and reuse of existing commercial space.

Transit District Overlay Zones

In 1985, Prince George's County implemented a special zone called a transit district overlay zone (TDOZ). This zone imposes special development requirements on the one-half mile area around a transit station. Through the use of this tool the county promotes