2004 HOV ANNUAL REPORT

High Occupancy Vehicles

California Department of Transportation

District 7
Los Angeles and Ventura County

" Building an effective Traffic Management System to move more people, increase mobility, and provide trip reliability in the Southern California region".

August 2005

www.dot.ca.gov/dist07

EXECUTIVE SUMMARY

The following is a summary of HOV operations for District 7 in the year 2004:

- By the end of 2004, Los Angeles County had **440 lane miles** of HOV facilities, or approximately 35% of the total 1236 HOV lane miles in the State of California. The Southern California region of 5 counties (Los Angeles, Ventura, Orange, San Bernardino, and Riverside) reported a total of 792 lane miles of HOV, excluding the Route 91 Toll Road in Orange County, which is 40 HOV lane miles.

- On average, each HOV facility in Los Angeles County carried **1500 vehicles per hour** or **3500 people per hour**, during peak hours. These volumes well exceed the minimum expected volume of 800 vehicles per hour or 1800 people per hour, as specified in the HOV Guidelines for Planning, Design, and Operations.

- On average, the person-trip volume of an HOV lane was two (2) times greater than that of a mixed-flow lane during peak hours. (i.e., two (2) regular lanes are needed to carry an equal number of people in the HOV lane.)

- The average violation rate was 2.2%, which is substantially lower than the preferable rate of below 10%, as specified in the *HOV Guidelines for Planning, Design, and Operations*.

- Since 1992, the total number of carpools on freeways with HOV lanes has increased steadily, whereas on freeways without HOV lanes, the total number of carpools has remained relatively constant or decreased. From 1992 to 2004, the data indicates an increase of 76% in the total number of carpools on freeways with HOV lanes for the morning peak 2-hour period. Significant increases in carpools were also observed in the afternoon peak 2-hour period. (For details, see tables and charts titled *Number of Carpools on Freeways*.)

- On average, the peak hour volume was 12%, and the peak 2-hour volume was 23% of the daily HOV traffic volume, excluding the El Monte Busway data, which has the 3+ occupancy requirement during peak hours.

- On average, HOV facilities operated at a level of service C during peak hours, while most of the mixed-flow lanes were operating at a level of service E-F during peak hours.

- The HOV facilities in Los Angeles County carried approximately **316,000 vehicles** or **717,000 people per day** during 2004.

- On average, HOV lane users saved approximately one minute per mile, compared to mixed-flow traffic during peak hours.

- On average, HOV facilities carried over 30% of the entire freeway's people in just 25% of the freeway's space (1 out of 4 lanes), while the adjacent mixed-flow lanes each carried under 20% of the entire freeway's people in the same 25% space.

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ACKNOWLEDGEMENTS

The Annual High Occupancy Vehicle (HOV) Operation Report is prepared by the Office of Freeway Operations, HOV Branch in District 7. The information in this report encompasses all HOV lanes in Los Angeles and Ventura Counties.

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INTRODUCTION

Caltrans, District 7 (Los Angeles/Ventura County) is home to the nation's most extensive High Occupancy Vehicle lane program, which will be adding carpool lanes to virtually every freeway in the Los Angeles area.

The HOV program is the backbone of a multi-modal transportation system. In providing an HOV system, Caltrans is providing the network necessary for the higher level mass transit systems in the future. The HOV system is also the least expensive method or alternative to accommodate economic growth and development.

The 4 billion HOV program is designed to quickly increase mobility in the region. HOV lanes are seen as the next logical step in improving freeway efficiency to accommodate future increases in population and traffic.

The central concept of the HOV program is to move more people instead of cars. We cannot build our way out of future growth and congestion, by simply adding more and more lanes. When HOV lanes were introduced in Los Angeles County, the HOV system was designed to:

a. Increase the person-movement capacity of the freeway
b. Be cost-effective, by reducing commute costs
c. Provide rideshare incentives, such as saving time and trip reliability.

The results of these goals improve air quality, conserve energy, increase mobility and efficiency of all trips, and reduce congestion. Even if you are not able to rideshare, adding HOV lanes will help your solo commute, by reducing congestion on all freeway lanes.

The Interstate 10 HOV lane, also known as the El Monte Busway, was a pioneering experiment in determining the value of the HOV lanes. The easterly section opened in January of 1973, and the westerly section joined the system in May of 1974. Originally designed for buses only, carpools with three or more people were allowed a few years later. The Route 10 El Monte Busway lane now carries as many people as three regular traffic lanes during peak hours.

The current District 7 HOV program has an important distinction from the "Diamond Lane" experiment of the 1970s: no traffic lanes are being taken away. Rather, the new HOV lanes are being added to the existing freeways, mostly through re-striping and using part of the freeway median, or outside widening.

When complete, Los Angeles County (District 7) will have more than 300 centerline miles (or over 600 lane miles) of HOV facilities in place. The HOV projects are being designed and constructed using local Proposition C funds, and federal and state funds. The funds are being programmed and administered by the Los Angeles County Metropolitan Transportation Authority.

INTRODUCTION

The minimum number of persons required in a vehicle is two to use HOV lanes, with the exception of the Route 10 El Monte Busway which requires a minimum of three persons during peak hours, and Route 91 Toll Road in Orange County, which requires a minimum of three persons at all times. Motorcycles and certain clean air vehicles with a Department of Motor Vehicles' decal, even those carrying just one person, are allowed to use the HOV lanes, by federal law.

All HOV facilities in Southern California are operated on a 24 hour basis except on State Route 14. Beginning January 1, 2001, an 18 month part-time demonstration project was conducted which allowed solo drivers to use the HOV lanes during non-peak hours. FHWA has agreed with the recommendation of Caltrans to continue with the part-time operation of HOV lanes on SR-14 freeway until such time as needed to convert to full-time.

It has been concluded that a significant growth in carpools occurred only on freeways that added HOV lanes, with the number of carpools remaining relatively constant or decreasing for those freeways without HOV lanes. Getting a solo driver out of his car is the biggest challenge, but Caltrans believes that the formation of a simple 2+ carpool is the first step toward higher levels of mass transit, which is the future goal of transportation. The reduction of drive alone is a complicated subject since new drivers join the freeway everyday and route diversion may account for some of the new carpools, instead of carpool growth. However, freeways in Los Angeles which have added HOV lanes, have shown a significant increase in the number of 2+ vehicles, with some HOV lanes carrying as much as 1800 vehicles in the peak hour. On average, for the year 2004, HOV lane users saved approximately 1 minute per mile, compared to mixed flow traffic during the peak hour.

GENERAL INFORMATION

- FREEWAYS AND HIGHWAYS IN SOUTHERN CALIFORNIA
- HOV RAMP METERING AND HOV BYPASS LANES
- PARK AND RIDE LOTS
- HOV VIOLATION FINES

FREEWAYS & HIGHWAYS IN SOUTHERN CALIFORNIA

ROUTE	
LA/VEN 01	PACIFIC COAST HWY
LA 02	GLENDALE FWY SANTA MONICA BLVD
LA 05	GOLDEN STATE FWY SANTA ANA FWY
LA 10	SANTA MONICA FWY SAN BERNARDINO FWY
LA 14	ANTELOPE VALLEY FWY
LA 18	PALMDALE RD
LA 19	ROSEMEAD BLVD
LA 22	GARDEN GROVE FWY
LA/VEN 23	LA - WESTLAKE BLVD VEN - MOORPARK FWY
LA 27	TOPANGA CANYON BLVD
VEN 33	OJAI FWY / MARICOPA HWY
VEN 34	SOMIS-LEWIS RD
LA 39	ORA - BEACH BLVD L.A. - AZUSA AVE
LA 42	MANCHESTER BLVD
LA 47	VINCENT THOMAS BRIDGE
LA 49	LANCASTER RD AVENUE D
LA 55	COSTA MESA FWY NEWPORT BLVD
LA 57	ORANGE FWY
LA 60	POMONA FWY
LA 66	FOOTHILL BLVD
LA 71	CORONA EXPRESSWAY
LA 72	WHITTIER BLVD
LA 73	73 FWY
LA 74	ORTEGA HWY

ROUTE	
LA 90	IMPERIAL HWY MARINA FWY
LA 91	ARTESIA FWY RIVERSIDE FWY GARDENA FWY
LA/VEN 101	LA - HOLLYWOOD FWY VEN - VENTURA FWY
LA 103	TERMINAL ISLAND FWY
LA 105	CENTURY FWY
LA 107	HAWTHORNE AVE
LA 110	HARBOR FWY PASADENA FWY
LA/VEN 118	RONALD REAGAN FWY
LA/VEN 126	VEN - SANTA PAULA FWY/TELEGRAPH RD LA - MAGIC MOUNTAIN PKWY LA - KOREAN WAR VETERANS MEM HWY
LA 133	LAGUNA CANYON RD
LA 134	VENTURA FWY
LA 138	PEARBLOSSOM HWY
LA 142	CARBON CANYON RD
VEN 150	OJAI SANTA PAULA RD CASSITAS PASS RD
LA 164	ROSEMEAD BLVD
LA 170	HOLLYWOOD FWY
LA 187	VENICE BLVD
LA 210	FOOTHILL FWY
LA 213	WESTERN AVE
VEN 232	VINEYARD AVE
LA 405	SAN DIEGO FWY
LA 605	SAN GABRIEL RIVER FWY
LA 710	LONG BEACH FWY

HOV RAMP METERING AND HOV BYPASS LANES

There are 871 on-ramps and 19 freeway-to-freeway connectors that are metered in Los Angeles and Ventura Counties; of which, 360 have separate HOV bypass lanes, where the HOVs do not have to stop at the ramp meter signal. Ramp metering is one of the traffic management tools to regulate the flow of traffic entering the freeways during the peak traffic hours. Ramp metering will:

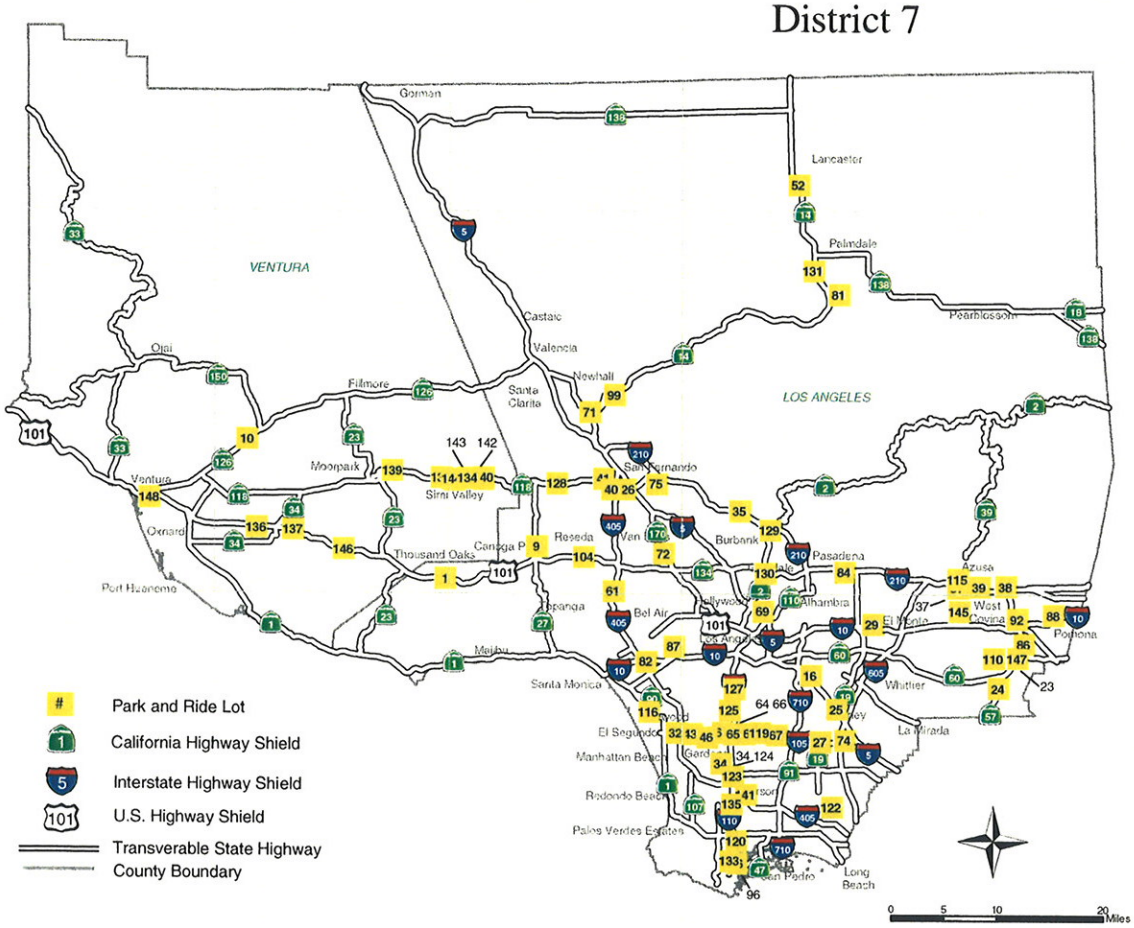
a. Smooth the overall flow of freeway traffic
b. Accommodate more vehicles per hour on the freeway
c. Decrease commuting travel times
d. Increase safety on the freeway

Ramp metering is an integral part of the Traffic Operations Program Strategic Plan which outlines the program's commitment to focus first on implementing operational strategies to reduce congestion and increase safety on California's state highway system. Ramp metering increases the capacity of the mixed flow lane and enables traffic to flow at greater speeds. Freeway congestion is most often caused by a bottleneck, where the freeway demand exceeds the freeway capacity. This condition usually occurs during the weekday peak hours, but some freeways experience congestion during the mid-day and some on weekends. When the demand exceeds the capacity, congestion creates queues of stop-and-go traffic, and ramp metering limits the amount of traffic entering the freeway so that the demand at the bottleneck does not exceed the capacity. A free-flowing traffic lane can carry 33% more cars than a congested lane.

On weekdays, most ramp meters operate 4 to 8 hours during peak traffic periods. Some ramps are metered all day, including weekends. The rate at which cars are allowed onto the freeway is determined by the ramp volume, as well as the volume on the freeway. The mainline responsive controllers react to the volumes on the freeway, such that if the volumes decrease significantly, then the meter will adjust and allow more cars onto the freeway. If the freeway volumes are very light, the meter may go to continuous green.

Projects within freeway segments identified in the *Ramp Meter Development Plan* should include provisions for ramp metering. However, there are ramp locations that are not metered, due to the heavy volume of traffic and/or insufficient storage area for the metered vehicles.

PARK AND RIDE LOTS
District 7



LOT ID	DISTRICT	COUNTY	ROUTE	POSTMILE	NAME
1	7	LA	101	35.10	KANAN RD
9	7	LA	101	25.30	TOPANGA PLAZA
10	7	VEN	126	10.20	K - MART
16	7	LA	5	12.50	CITADEL
23	7	LA	60	25.60	DIAMOND BAR - WEST
24	7	LA	57	3.40	PATHFINDER RD
25	7	LA	5	8.30	LAKEWOOD-WEST LOT
27	7	LA	105	17.40	LAKEWOOD BLVD
29	7	LA	10	28.70	FIRE STATION
32	7	LA	105	2.20	AVIATION
34	7	LA	110	10.70	BAPTIST CHURCH
35	7	LA	210	16.10	LOWELL
37	7	LA	210	40.60	CITRUS COLLEGE
38	7	LA	210	44.20	LONE HILL
39	7	LA	210	41.50	GRAND AVE .
40	7	LA	118	10.50	LUTHERN CHURCH
41	7	LA	118	8.50	GM MASONIC TEMPLE
43	7	LA	105	3.70	HAWTHORNE
46	7	LA	105	5.00	CRENSHAW
52	7	LA	14	66.70	AVE K
61	7	LA	405	36.70	SKIRBALL & MULHALLOND
64	7	LA	105	7.40	VERMONT AVE
65	7	LA	105	7.70	CENTURY/HARBOR
66	7	LA	105	8.90	AVALON
67	7	LA	105	11.60	LONG BEACH BLVD
69	7	LA	14	27.10	NEWHALL - EAST LOT.
71	7	LA	14	27.10	OAK CREEK.
72	7	LA	170	16.60	RTE 170 / OXNARD
74	7	LA	105	18.80	I - 105 TERMINATION
75	7	LA	210	6.00	PAXTON
81	7	LA	14	54.20	PEARBLOSSOM
82	7	LA	10	5.80	ST JOHN'S CHURCH
84	7	LA	210	29.40	SIERRA MADRA BLVD
86	7	LA	57	5.60	LANTERMAN
87	7	LA	10	47.70	INDIAN HILLS MARKET PLACE
88	7	LA	10	45.70	GAREY / RTE 10
92	7	LA	210	47.20	VIA VERDE / 210

LOT ID	DISTRICT	COUNTY	ROUTE	POSTMILE	NAME
96	7	LA	110	1.20	SAN PEDRO II
99	7	LA	14	30.00	GOLDEN VALLEY .
104	7	LA	101	20.70	METHODIST CHURCH
110	7	LA	60	22.80	UNITED METH CHURCH
115	7	LA	10	36.50	UNITED METH CHURCH
116	7	LA	405	23.30	CONGRES CHURCH
119	7	LA	105	10.00	WILLOWBROOK
120	7	LA	110	3.90	HARBOR PARK
122	7	LA	405	3.30	MCDONALD DOUGLAS
123	7	LA	110	9.60	ARTESIA
124	7	LA	110	11.90	ROSECRANS
125	7	LA	110	15.80	MANCHESTER
126	7	LA	118	10.10	CHATSWORTH
127	7	LA	110	18.00	SLAUSON
128	7	LA	118	11.40	PORTER RANCH
129	7	LA	2	17.00	VERDUGO
130	7	LA	134	8.80	GLENDALE
131	7	LA	14	58.20	AVE S & GEIGER AVE
132	7	VEN	118	24.80	ERRINGER
133	7	LA	110	1.30	SAN PEDRO
134	7	VEN	118	27.30	TAPO CANYON
135	7	LA	110	6.80	CARSON
136	7	VEN	101	15.70	LAS POSAS RD .
137	7	VEN	101	12.30	PLEASANT VALLEY.
139	7	VEN	118	17.50	MOORPARK COLLEGE
140	7	VEN	118	28.80	STEARNS
141	7	LA	405	11.20	CARSON MALL
142	7	VEN	118	28.80	SWANKS CHEVRON
143	7	VEN	118	26.00	FARMER'S INSURANCE
144	7	VEN	118	25.70	SYCAMORE DR
145	7	LA	10	37.00	UNITED METH CHURCH
146	7	VEN	101	7.00	BORCHARD RD.
147	7	LA	60	25.60	DIAMOND BAR - EAST
148	7	VEN	101	25.00	ARMY NATIONAL GUARD

Department of Transportation
Division of Traffic Operations GIS
June 2004

Source: Office of System Management Operations
HOV Operations Branch
Park & Ride Database (Caltrans Administered)

HOV VIOLATION FINES

The Judicial Council of California sets the fines and maintains the Uniform Bail and Penalty Schedule (UBPS) for traffic violations. In that schedule the fine is $340 for violation of Section 21655.5(b) of the Vehicle Code.

The minimum fine is comprised of:

(a) Section 1464 of the Penal Code setting $220 plus a $20 surcharge and

(b) Section 42001.11 of the Vehicle Code setting a $100 minimum to $150 maximum for first offense, $150 min to 200 max for second offense within 1 year, and $250 to $500 for third offense within 2 years.

(c) The additional $1 assessment is under Section 42006 of the Vehicle Code for counties that have night court.

In addition, counties can assess an additional $10 for administration, at the discretion of the county's board of supervisors, under Section 40508.6 of the Vehicle Code.
Also, Section 1463.28 of the Penal Code provides for 30 counties to exceed fines scheduled in the UBPS.

$341 Minimum fine for first offense.
$491 Minimum fine for second offense within one year.
$741 Minimum fine for third offense within two years.

SUMMARY OF HOV FACILITIES

- SUMMARY OF HOV OPERATIONS
- STATUS OF HOV PROJECTS
- CURRENT HOV VOLUMES
- TRAVEL TIME DATA (HOV Lane Time Savings)
- TOTAL NUMBER OF CARPOOLS ON FREEWAYS
  (Comparison of Freeways with HOV Lanes vs. Freeways without HOV lanes)
- CHANGES IN 2003 - 2004
- HOV PROJECTS SCHEDULED FOR COMPLETION IN 2005 - 2006

SUMMARY OF HOV OPERATIONS

The following is a summary of HOV operations for District 7 in the year 2004:

- By the end of 2004, Los Angeles County had **440 lane miles** of HOV facilities, or approximately 35% of the total 1236 HOV lane miles in the State of California. The Southern California region of 5 counties (Los Angeles, Ventura, Orange, San Bernardino, and Riverside) reported a total of 792 lane miles of HOV, excluding the Route 91 Toll Road in Orange County, which is 40 HOV lane miles.

- On average, each HOV facility in Los Angeles County carried **1500 vehicles per hour** or **3500 people per hour**, during peak hours. These volumes well exceed the minimum expected volume of 800 vehicles per hour or 1800 people per hour, as specified in the HOV Guidelines for Planning, Design, and Operations.

- On average, the person-trip volume of an HOV lane was two (2) times greater than that of a mixed-flow lane during peak hours. (i.e., two (2) regular lanes are needed to carry an equal number of people in the HOV lane.)

- The average violation rate was 2.2%, which is substantially lower than the preferable rate of below 10%, as specified in the *HOV Guidelines for Planning, Design, and Operations.*

- Since 1992, the total number of carpools on freeways with HOV lanes has increased steadily, whereas on freeways without HOV lanes, the total number of carpools has remained relatively constant or decreased. From 1992 to 2004, the data indicates an increase of 76% in the total number of carpools on freeways with HOV lanes for the morning peak 2-hour period. Significant increases in carpools were also observed in the afternoon peak 2-hour period. (For details, see tables and charts titled *Number of Carpools on Freeways.*)

- On average, the peak hour volume was 12%, and the peak 2-hour volume was 23% of the daily HOV traffic volume, excluding the El Monte Busway data, which has the 3+ occupancy requirement during peak hours.

- On average, HOV facilities operated at a level of service C during peak hours, while most of the mixed-flow lanes were operating at a level of service E-F during peak hours.

- The HOV facilities in Los Angeles County carried approximately **316,000 vehicles** or **717,000 people per day** during 2004.

- On average, HOV lane users saved approximately one minute per mile, compared to mixed-flow traffic during peak hours.

- On average, HOV facilities carried over 30% of the entire freeway's people in just 25% of the freeway's space (1 out of 4 lanes), while the adjacent mixed-flow lanes each carried under 20% of the entire freeway's people in the same 25% space.

July 2005

STATUS OF HOV PROJECTS

ROUTE	E.A.	COST	FREEWAY MILES				
		$ (MIL)	IN SERVICE	IN CONST.	IN DESIGN	IN PLANNING	OPENING DATE
LA-10 17.0/28.0 Alameda to El Monte		58.00	11.00				1973
LA-91 6.4/16.7 Rte 110 to Rte 605 E/B			—				06/10/85
LA-91 6.4/16.7 Rte 110 to Rte 605 W/B	115864	1.80	10.30				03/11/93
LA-405 13.0/20.7 Rte 110 to 120th St.	106734	8.30	7.70				04/08/93
LA-405 SB 0.0/2.2 Bellflower to Rte 605	005854	4.80	—				10/2/93(6/97)
LA-105 2.2/18.2 Rte 405 to Rte 605		230.00	16.00				10/14/93
LA-210 25.0/43.5 Rte 134 to Sunflower Ave.	129104	8.90	18.50				12/16/93
LA-405 20.2/22.2 120th St. to Century Blvd.	105 CC0	—	2.00				01/94
LA-91 16.7/20.7 Rte 605 to Co. line (S)	115834	0.90	4.00				11/94
LA-134 0.0/5.1 Rte 101/170 to Rte 5	120284	6.60	5.10				10/02/95
LA-170 14.5/20.6 Rte 101/134 to Rte 5	120274	7.30	6.10				02/11/96
LA-134 5.5/9.7 Rte 5 to Rte 2	107734	5.00	4.20				03/12/96
LA-210 HOV Ramps at Fair Oaks	019594	4.00	0.40				05/30/96
LA-110 9.8/20.5 Rte 91 to Adams Blvd.(Elev)		344.00	10.70				6/26/96(7/97)
LA-134 9.7/13.3 Rte 2 to Rte 210	118504	7.80	3.60				08/30/96
LA-405 38.5/48.6 Rte 101 to Rte 5	120334	15.10	10.10				10/22/96
LA-10 28.0/31.1 Baldwin to Rte 605 (S)	008061	6.60	STAGE 1				Median Barrier
LA-10 31.1/33.5 Rte 605 to Puente (S)	005881	—	STAGE 1				Median Barrier
LA-118 0.0/11.4 Ven Co Line to Rte 5 (S)	115054	23.20	11.40				03/07/97
LA-605 3.8/10.8 South. St. to Telgrph Rd.	119394	14.10	7.00				04/02/97
LA-57 0.0/4.5 Co line to Rte 60	115034	18.20	4.50				08/22/97
LA-30 0.0/2.3 Sunflower to Fthill Blvd.	119981	7.00	2.30				09/08/97
LA-405 0.0/7.6 Ora Co line to Rte 710 (S)	116874	29.70	7.60				02/12/98
LA-605 10.8/20.7 Telgrph Rd to Rte 10	119944	17.30	9.90				04/03/98
LA-14 27.0/33.4 SF Rd. to Sand Cny (S)	116204	23.80	6.40				05/05/98
LA-405 7.6/13.7 Rte 710 to Rte 110	115174	28.20	6.10				10/08/98
LA-60 23.0/25.4 Brea Cny to Rte 57 N	119234	5.50	2.40				02/02/99
LA-60 25.4/30.5 57 N to Co. line	115044	20.80	5.10				02/02/99
LA-14 33.4/43.3 Sand Cny to Escondido (S)	125604	31.80	9.90				09/23/99
LA-605 0.0/3.8 Ora. Co. Line to South St.	1347U4	12.40	3.80				03/01
LA-405 31.9/39.7 S/B Only Waterford to Rte 101	1667U4	15.30	7.80				01/08/02
LA-14 43.3/54.5 Escondido to Pearlblsm	117104	27.50	11.20				07/29/02
LA-14 24.8/27.1 Rte 5 to S.F. Road	119844	5.40	2.30				08/03/02
LA-210 2.3/8.3 Foothill Bl. to SBD Co. Line	105014	91.00	6.00				11/24/02
LA-10 42.4/48.3 Rte 57 to SBD Co. Line	122404	77.20	5.90				11/13/03
LA-10 28.0/31.2 Baldwin to Rte 605	1069U4	51.70	3.20				02/04/05
LA-405 21.3/26.4 Century to Rte 90	1198U3	30.70		5.10			10/06
LA-14 54.5R/60.7R Pearlblsm to Ave P-8	125203	32.30		6.20			03/07
LA-60 22.4R/25.0R (57/60 Direct Connector)	1257U3	56.10		2.60			07/07
LA-405 25.9/29.5 Rte 90 to Rte 10	1178U3	126.60		3.60			12/07
LA-5 39.4/45.6 Rte 118 to Rte 14	122003	25.10		6.20			12/08
LA-60 11.7/18.0 Rte 605 to Azusa Ave	1294U1	57.00			6.30		10/08
LA-60 18.0/23.0R Azusa Ave to Brea Cyn Rd	129421	15.00			5.00		10/08
LA-71 0.5/4.5 Express-Freeway Conversion	210601	147.80			4.00		07/09
LA-5 44.3R/45.9R (5/14 Direct Connector)	168001	54.60			1.60		09/09
LA-5 36.4/39.4 Rte 170 to Rte 118	121901	150.50			3.00		06/10
LA-5 26.7/36.4 Rte 134 to Rte 170	121801	149.80			9.70		11/10
LA-10 31.2/33.4 Rte 605 to Puente Ave.	117071	117.10			2.20		01/11
LA-710 26.5/32.7R Rte 10 to Rte 210	020091	—			6.20		
LA-10 33.4/37.5 Puente Ave to Citrus St	117080	92.50				4.10	12/13
LA-10 37.5/42.4 Citrus St to Rte 57	119340	103.70				4.90	12/13
LA-405 29.5/39.5 Rte 10 to Rte 101	120300	640.90				10.00	04/16
LA-5 0.0/14.6 Ora Co. Line to Rte 710 (Ultimate)	2159A0	570.00				14.60	11/15
LA-5 22.6/27.1 Rte 2 to Rte 134	12120K	136.00	Non-Programmed			4.50	03/09 (RTL)
LA-5 18.4/22.4 Rte 10 to Rte 2	12160K	158.00	Non-Programmed			4.00	03/09 (RTL)
LA-10 5.5/14.8 Rte 405 to Rte 110	12340K	155.00				9.30	06/16 (RTL)
COLOR MAP SUBTOTAL - INTEGRATED PLAN		4027.90	222.50	23.70	38.00	51.40	335.60

S = Stip Project, State money involved No 'S' = Prop C, Federal money involved RTL = Ready To List Rev Date 07/21/05

CURRENT HOV VOLUMES **

HOV LANE CAPACITY IS 1650 VPH

Route	Location	Post Mile	Count Date	2+ Peak Hour Volume	3+ Peak Hr Volume	Dir.	HOV Lane Peak Hour	Peak 2 Hr HOV Volume	Occup. Rqmt.	Peak Period Violation Rate	HOV ADT (vehicles)	Corridor HOV ADT
10	Jackson Ave.	25.09	3-23-05	1257***	1100	W/B	6:30-7:30 A.M.	2323	3+ (2+ off peak)	13.52%	12691	23837
	Jackson Ave.	25.09	4-19-05	1154	270	E/B	3:00-4:00 P.M.	1773	3+ (2+ off peak)	0.69%	11146	
				948***	712		4:30-5:30 P.M.			25.13%		
14	Golden Valley	29.68	12-1-04	1314	158	S/B	6:30-7:30 A.M.	2027	2+ (1+ off peak)	0.30%	11613	22115
	Golden Valley	29.68	11-30-04	1334	172	N/B	4:00-5:00 P.M.	2394	2+ (1+ off peak)	0.07%	10502	
57	Pathfinder O.C.	3.16	11-17-04	1270	98	S/B	6:30-7:30 A.M.	2279	2+	0.16%	11238	22361
	Pathfinder O.C.	3.16	12-8-04	1400	141	N/B	4:00-5:00 P.M.	2656	2+	0.14%	11123	
60	Phillips Ranch	28.04	3-1-05	1277	95	W/B	7:00-8:00 A.M.	2408	2+	0.16%	12789	22477
	Phillips Ranch	28.04	3-2-05	1195	81	E/B	4:30-5:30 P.M.	2176	2+	0.08%	9688	
91	Wilmington Ave.	9.16	4-12-05	1324	137	W/B	6:30-7:30 A.M.	2470	2+	1.41%	6816	15152
	Wilmington Ave.	9.16	4-13-05	1124	149	E/B	3:45-4:45 P.M.	2065	2+	0.09%	8336	
105	Long Beach Blvd.	11.51	3-9-05	1468	228	W/B	7:30-8:30 A.M.	2894	2+	1.48%	16416	32365
	Long Beach Blvd.	11.51	3-8-05	1314	226	E/B	3:45-4:45 P.M.	2620	2+	1.20%	15949	
110*	Slauson P.O.C.	17.98	5-25-05	3460	355	N/B	7:00-8:00 A.M.	6433	2+	3.75%	28548	57627
	Slauson P.O.C.	17.98	5-25-05	2728	323	S/B	4:15-5:15 P.M.	5384	2+	0.04%	29079	
118	Reseda Ave.	5.81	10-26-04	1303	116	W/B	7:00-8:00 A.M.	2238	2+	0.00%	3351	9079
	Reseda Ave.	5.81	12-1-04	1289	140	E/B	4:15-5:15 P.M.	2349	2+	0.23%	5728	
134	Jackson Ave.	7.41	12-15-04	776	121	W/B	7:15-8:15 A.M.	1421	2+	0.00%	6183	13888
	Jackson Ave.	7.41	12-14-04	998	131	E/B	3:00-4:003 P.M.	1837	2+	0.10%	7705	
170	Sherman Way	18.27	12-14-04	983	96	S/B	6:45-7:45 A.M.	1778	2+	4.28%	5282	9882
	Sherman Way	18.27	2-1-05	888	80	N/B	3:45-4:45 P.M.	1740	2+	0.11%	4600	
210	Wilson Ave O.C.	26.57	11-3-04	1153	70	W/B	6:45-7:45 A.M.	2105	2+	1.22%	12214	36320
	Wilson Ave O.C.	26.57	6-7-05	1472	148	E/B	3:15-4:15 P.M.	2773	2+	0.14%	24106	
	Second St. O.C.	39.12	12-9-04	1653	130	W/B	6:30-7:30 A.M.	2863	2+	0.60%	11565	----
	Second St. O.C.	39.12	2-23-05	1655	193	E/B	3:45-4:45 P.M.	3223	2+	0.42%	11567	
405	Normandie	13.81	3-17-05	1282	142	N/B	7:00-8:00 A.M.	2342	2+	0.08%	13193	25393
	Normandie	13.81	3-16-05	1244	210	S/B	4:00-5:00 P.M.	2373	2+	0.48%	12200	
	Burbank Blvd.	40.28	2-15-05	1153	152	S/B	6:30-7:30 A.M.	2185	2+	0.17%	9110	----
	Burbank Blvd.	40.28	2-16-05	1178	140	N/B	4:15-5:15 P.M.	2286	2+	0.51%	9010	
605	Beverly Blvd.	14.42	3-29-05	1347	114	S/B	6:30-7:30 A.M.	2473	2+	0.96%	11667	25530
	Beverly Blvd.	14.41	4-7-05	1883	210	N/B	4:30-5:30 P.M.	3574	2+	0.05%	13863	

Total Vehicles / Day	316026
Total People / Day	716711

Average occupancy for a 2+ facility during peak hour is 2.2 and for a 3+ is 3.2 (excluding buses).

Note: ADT data is not necessarily taken at the same count locations.

* 2 lane HOV facility.

** Volume for Carpools, Vanpools, Motorcycles, and Buses. Excluding Violators.

*** Volume for Carpools, Vanpools, Motorcycles, Buses, and Violators.

Travel Time Data (HOV Lane Time Savings)

ROUTE	LIMITS	LENGTH	PEAK DIRECTION	TRAVEL TIME Mixed Flow	TRAVEL TIME HOV	HOV LANE TIME SAVINGS
10 / San Bernardino Freeway	Alameda to Route 605	13.8 mi.	Westbound (AM)	36 min. - 54 sec.	13 min. - 18 sec.	23 min. - 26 sec. *
		14.0 mi.	Eastbound (PM)	44 min. - 18 sec.	15 min. - 59 sec.	28 min. - 19 sec. *
14 / Antelope Valley Freeway	Route 5 to Pearblossom	27.9 mi.	Southbound (AM)	31 min. - 07 sec.	23 min. - 13 sec.	07 min. - 54 sec. ****
		28.5 mi.	Northbound (PM)	29 min. - 11 sec.	25 min. - 07 sec.	04 min. - 04 sec. ****
57 / Orange Freeway	Route 60 to Orange Co. Line	3.4 mi.	Southbound (AM)	08 min. - 57 sec.	03 min. - 07 sec.	05 min. - 50 sec.
		3.6 mi.	Northbound (PM)	17 min. - 32 sec.	09 min. - 46 sec.	07 min. - 46 sec.
60 / Pomona Freeway	Brea Canyon to S.B. Co. Line	5.6 mi.	Westbound (AM)	10 min. - 48 sec.	05 min. - 56 sec.	04 min. - 52 sec.
		5.9 mi.	Eastbound (PM)	06 min. - 09 sec.	05 min. - 19 sec.	00 min. - 50 sec.
91 / Artesia Freeway	Ora. Co Line to Route 605	3.2 mi.	Westbound (AM)	07 min. - 26 sec.	03 min. - 15 sec.	04 min. - 11 sec. *****
	Paramount to Route 110	7.1 mi.	Westbound (AM)	14 min. - 46 sec.	06 min. - 51 sec.	07 min. - 55 sec. *****
	Route 110 to Cherry Ave	6.1 mi.	Eastbound (PM)	28 min. - 03 sec.	10 min. - 33 sec.	17 min. - 30 sec. *****
	Route 605 to Ora. Co. Line	4.4 mi.	Eastbound (PM)	06 min. - 54 sec.	04 min. - 29 sec.	02 min. - 25 sec. *****
105 / Century Freeway	Route 405 to Route 605	15.5 mi.	Westbound (AM)	24 min. - 39 sec.	16 min. - 49 sec.	07 min. - 50 sec.
		15.7 mi.	Eastbound (PM)	34 min. - 16 sec.	20 min. - 44 sec.	13 min. - 32 sec.
110 / Harbor Freeway	Route 91 to Adams Blvd	9.8 mi.	Northbound (AM)	30 min. - 49 sec.	09 min. - 22 sec.	21 min. - 27 sec.
		9.6 mi.	Southbound (PM)	26 min. - 56 sec.	09 min. - 30 sec.	17 min. - 26 sec.
118 / Simi Valley Freeway	Route 5 to Ventura Co. Line	11.1 mi.	Westbound (AM)	13 min. - 38 sec.	11 min. - 01 sec.	02 min. - 37 sec. ***
		10.4 mi.	Eastbound (PM)	13 min. - 22 sec.	09 min. - 25 sec.	03 min. - 57 sec. ***
134 / Ventura Freeway	Route 5 to Route 210	7.7 mi.	Westbound (AM)	11 min. - 32 sec.	07 min. - 02 sec.	04 min. - 30 sec.
		8.1 mi.	Eastbound (PM)	09 min. - 45 sec.	07 min. - 12 sec.	02 min. - 33 sec.
134 / Ventura Freeway	Route 101/170 to Route 5	4.7 mi.	Westbound (AM)	06 min. - 03 sec.	04 min. - 26 sec.	01 min. - 37 sec.
		5.1 mi.	Eastbound (PM)	11 min. - 33 sec.	04 min. - 43 sec.	06 min. - 50 sec.
170 / Hollywood Freeway	Route 101/134 to Route 5	6.4 mi.	Southbound (AM)	10 min. - 10 sec	05 min. - 13 sec.	04 min. - 57 sec.
		5.8 mi.	Northbound (PM)	15 min. - 39 sec.	05 min. - 45 sec.	09 min. - 54 sec.
210 / Foothill Freeway	Route 134 to S.B. Co. Line	27.5 mi.	Westbound (AM)	61 min. - 54 sec.	41 min. - 09 sec.	20 min. - 45 sec. **
		27.3 mi.	Eastbound (PM)	51 min. - 05 sec.	39 min. - 55 sec.	11 min. - 10 sec. **
405 / San Diego Freeway	Route 5 to Waterford	15.6 mi.	Southbound (AM)	47 min. - 17 sec.	29 min. - 08 sec.	18 min. - 09 sec. **
	Route 101 to Route 5	8.3 mi.	Northbound (PM)	19 min. - 02 sec.	14 min. - 10 sec.	04 min. - 52 sec.
405 / San Diego Freeway	Century Blvd to Orange Co. Line	20.8 mi.	Northbound (AM)	41 min. - 41 sec.	21 min. - 44 sec.	19 min. - 57 sec.
		21.3 mi.	Southbound (PM)	54 min. - 03 sec.	29 min. - 56 sec.	24 min. - 07 sec.
605 / San Gabriel River Freeway	Orange Co. Line to Route 10	20.7 mi.	Southbound (AM)	36 min. - 07 sec.	20 min. - 32 sec.	15 min. - 35 sec. **
		19.9 mi.	Northbound (PM)	32 min. - 29 sec.	20 min. - 33 sec.	11 min. - 56 sec. **

Data collected Tuesday, Wednesday, or Thursday in the peak direction during the week of April 18th, 25th, May 2nd, 9th, 16th, and 23rd, 2005.
Travel time runs conducted at 8am and 5pm in the peak direction

* Effective 7/24/00, 3 or more persons per vehicle required during peak hours (5-9 a.m.; 4-7 p.m.; Mon - Fri.); In opeartion for less than 3 yrs. (Baldwin to Rte 605; Rte 57 to SBD Co. Line)

** In operation for less than 3 yrs. (Route 210...from Foothill Blvd. to SBD Co. Line; Route 405...from Waterford to Rte 101 S/B only; Route 605...from South St. to Ora. Co. Line)

*** This project included the addition of an HOV lane and regular freeway lane.

**** In operation for less than 3 yrs. (Route 5 to San Fernando Rd; Escondido to Pearblossom); Part-time use of HOV lanes effective 01/01/01 (2+ during peak hours S/B 5-9am; N/B 3-7pm).

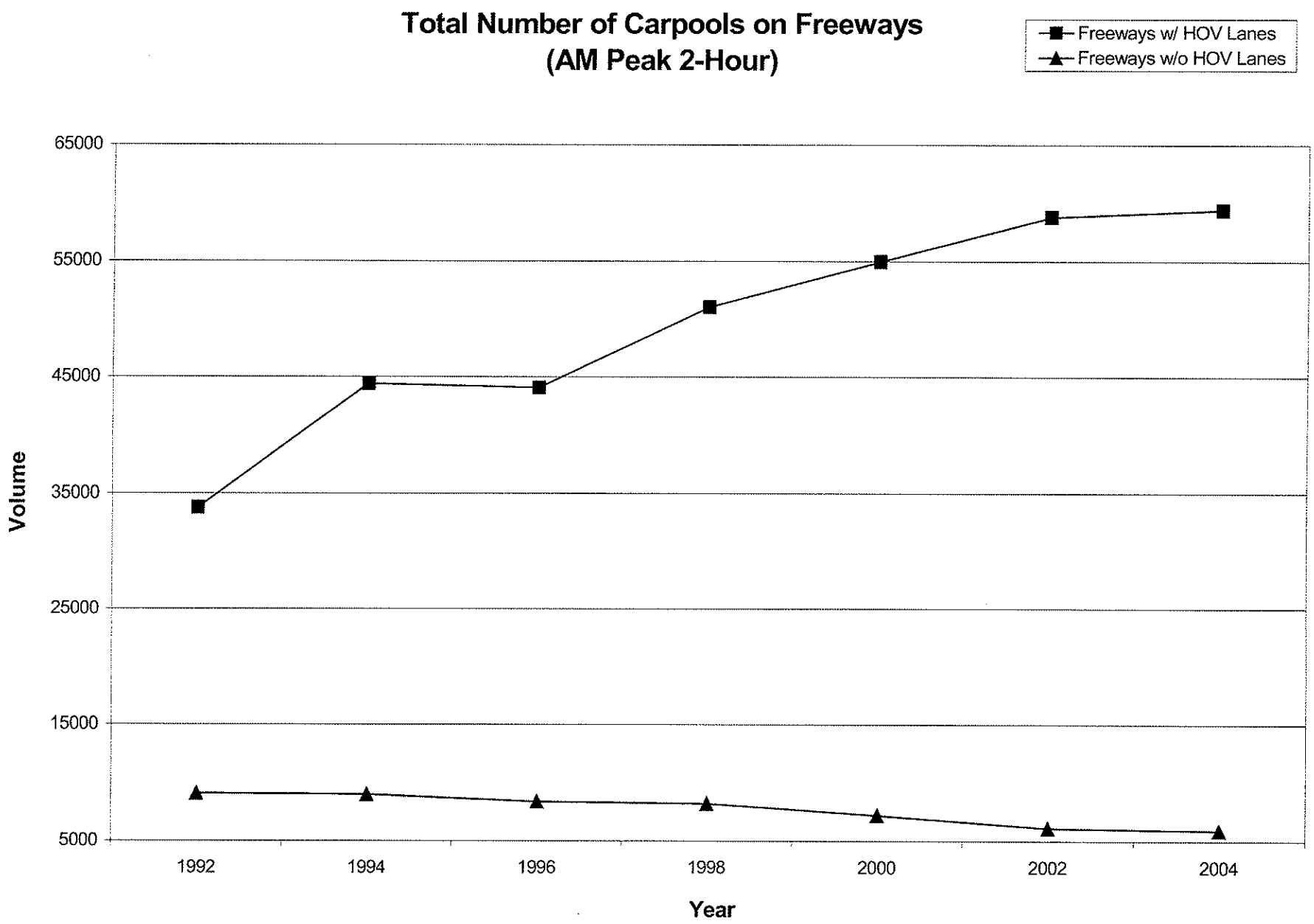
***** Temporary HOV lane closure. Travel time study was conducted from Ora. Co. Line to Rte 605 (3.2 mi.) and from Paramount to Rte 110 (7.1 mi.) W/B direction; From Rte 110 to Cherry Ave (6.1 mi.) and from Rte 605 to Ora. Co. Line (4.4 mi.) E/B direction.

Number of Carpools on Freeways (AM Peak 2-Hour)

	Route	Length of HOV Lanes	Opening Date of HOV Lanes	Location	AM Peak 2-Hour Number of Carpools in HOV lanes							AM Peak 2-Hour Total Number of Carpools on freeway						
					Base Year 1992	1994	1996	1998	2000	2002	2004	Base Year 1992	1994	1996	1998	2000	2002	2004
Freeways w/ HOV Lanes	10 *	11 Miles	Jan-73	Warwick	2312	1849	1139	1475	1683	1762	2155	2362	2294	1219	1550	1768	1817	2275
				Jackson	*1722*	1722	1879	1430	1870	2074	2284	*1812*	1812	1969	1476	1895	2119	2379
	14	6.4 Miles	May-98	Golden Valley	-	-	-	1491	2099	2184	1995	1290	1834	1174	*1971*	2718	2503	2370
	57	4.5 Miles	Aug-97	Pathfinder	-	-	-	1615	2006	2168	2216	1420	1660	1315	2360	2271	2478	2641
	60	7.5 Miles	Feb-99	Phillips Ranch	-	-	-	-	2548	2657	2373	*945*	*945*	945	1121	2843	3262	2988
	91	14.3 Miles	Mar-93	Wilmington	-	1120	1952	2209	2679	2361	2431	2185	2875	2777	3079	3599	3191	2936
				Bloomfield	-	-	1449	1622	1838	2654	2654	2105	1580	2504	2557	2663	3184	3184
	105	16 Miles	Oct-93	Lakewood	-	1674	2232	2134	2402	2370	2305	-	2642	2787	2629	2942	2843	2718
				Long Beach	-	2444	2679	2908	2893	2931	2789	-	3010	3395	3242	3294	3246	2984
	110 *	10.7 Miles	Jun-96	Slauson	-	-	3084	5199	6427	5699	6330	2585	3110	4144	5754	6992	6334	6880
	118	11.4 Miles	Mar-97	Reseda	-	-	-	1004	1197	1905	2222	1519	1391	1220	1909	1597	3235	3207
				Porter Ranch	-	-	-	946	793	1068	1342	1264	1628	1283	1836	2013	1813	2077
	134	12.9 Miles	Oct-95	Jackson	-	-	810	1260	1146	1356	1376	2165	2320	2540	3075	1961	2571	1986
			Mar-96	Pass	-	-	1016	1017	1071	1572	1473	1760	2195	1721	1722	2041	2457	2258
	170	6.1 Miles	Feb-96	Sherman Way	-	-	1102	1334	1503	1415	1755	1650	2150	2137	2454	2303	3210	3560
	210	18.5 Miles	Dec-93	2nd St.	-	2338	2721	2775	2608	2648	2789	2215	3833	3801	3460	3158	3058	3289
				Wilson	-	2186	*1807*	1807	1926	1860	2040	3390	3392	*3667*	3601	2958	2952	2964
	405	10.1 Miles	Oct-96	Burbank	-	-	1529	1851	1576	2361	2136	1495	2115	2084	2581	1901	3291	2931
		11.9 Miles	Apr-93	Normandie	-	1021	1578	2034	2638	2616	2267	*2311*	2311	2238	2294	3073	2676	2882
	605	16.9 Miles	Apr-97	Beverly	-	-	-	*949*	2369	2323	2422	*1280*	1280	1095	2369	2959	2548	2882
	Total				4034	14354	24977	35060	43272	45984	47354	33753	44377	44015	51040	54949	58788	59391
	% Change From Base Year											-	31%	30%	51%	63%	74%	76%
Freeways w/o HOV Lanes	2			Trentway								2070	*1230*	1230	1670	1785	1425	1475
	5			Greenwood								2370	2280	2030	1425	1690	1305	1275
	101			Encino								2140	3036	2592	*2508*	2262	2496	1812
	710			Gage								2465	2400	2500	2585	1460	875	1325
	Total											9045	8946	8352	8188	7197	6101	5887
	% Change From Base Year											-	-1%	-8%	-9%	-20%	-33%	-35%

Note: For statistical purposes, if the data of the year is not available and the facility was open at the time, the data for the following year is used.

* Volume for Carpools, Vanpools, and Buses. All other volumes are Carpools and Vanpools only. Violators excluded



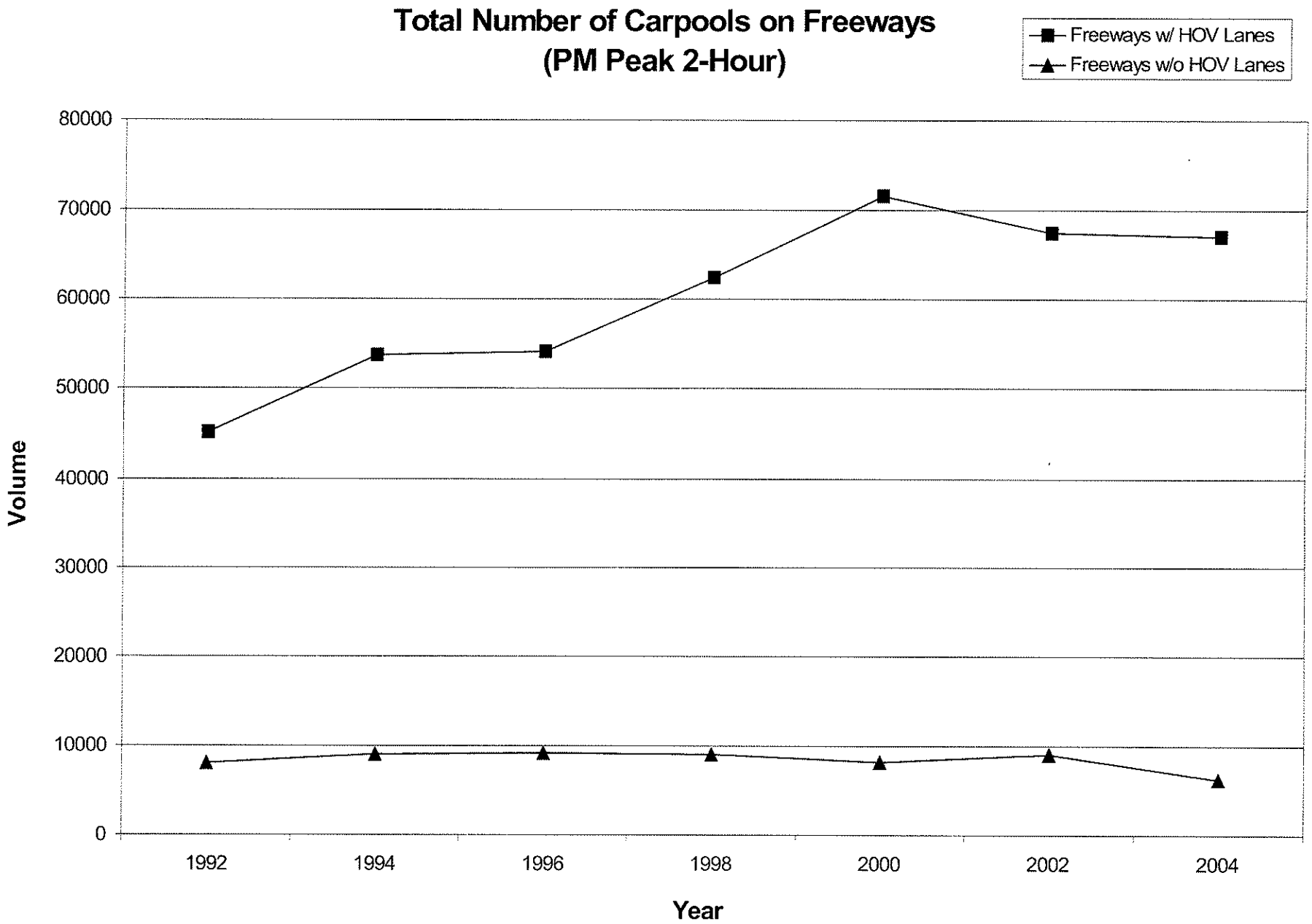
Note: The volume on freeways w/ HOV lanes is the total carpool volume at various locations on freeways, I-10, SR-14, SR-57, SR-60, SR-91, I-105, I-110, SR-118, SR-134, SR-170, I-210, I-405, and I-605.
The volume on freeways w/o HOV lanes is the total carpool volume at various locations on freeways, SR-2, I-5, US-101, and I-710.

Number of Carpools on Freeways (PM Peak 2-Hour)

	Route	Length of HOV Lanes	Opening Date of HOV Lanes	Location	PM Peak 2-Hour Number of Carpools in HOV lanes							PM Peak 2-Hour Total Number of Carpools on freeway						
					Base Year 1992	1994	1996	1998	2000	2002	2004	Base Year 1992	1994	1996	1998	1998	2002	2004
Freeways w/ HOV Lanes	10 *	11 Miles	Jan-73	Warwick	1956	1789	1858	1878	2194	2102	2596	2550	2377	2113	2100	2739	2902	3236
				Jackson	*1972*	1972	1709	1575	1926	2290	1686	*2322*	2322	1834	1740	2476	2960	2266
	14	6.4 Miles	May-98	Golden Valley	-	-	-	1828	2047	2080	2336	1768	1460	1834	*3088*	3292	2568	2775
	57	4.5 Miles	Aug-97	Pathfinder	-	-	-	1590	2397	2196	2626	2305	2505	1475	2815	3427	3151	2866
	60	7.5 Miles	Feb-99	Phillips Ranch	-	-	-	-	2434	2352	2126	*1369*	*1369*	1369	*1901*	3509	3637	2871
	91	14.3 Miles	Oct-85	Wilmington	2683	1125	2657	2378	2669	2242	1993	4653	2975	2881	3828	3754	3392	3068
				Artesia	-	-	1926	1432	2617	2904	2904	2655	2110	3821	3252	3837	3989	3989
	105	16 Miles	Oct-93	Lakewood	-	1757	2105	2055	2127	2320	2630	-	3145	2776	3053	3031	3059	3421
				Long Beach	-	2176	2637	2517	2543	2555	2521	-	3541	3425	3297	3402	3151	3114
	110 *	10.7 Miles	Jun-96	Slauson	-	-	2788	3904	4997	4677	5285	*3270*	3270	4708	5544	6332	5902	6515
	118	11.4 Miles	Mar-97	Reseda	-	-	-	779	1478	1761	2314	*1609*	1609	1811	2054	3218	3166	3139
				Porter Ranch	-	-	-	751	1315	1818	1950	1984	2126	1789	2301	3090	3233	2800
	134	12.9 Miles	Oct-95	Jackson	-	-	1200	1547	1931	1553	1785	3020	2420	2555	3717	3046	3093	3005
			Mar-96	Pass	-	-	1068	1075	1411	1337	1416	1955	2445	2488	2320	2716	2287	2446
	170	6.1 Miles	Feb-96	Sherman Way	-	-	868	1007	998	978	1697	1915	2025	2023	2437	2038	1963	2572
	210	18.5 Miles	Dec-93	2nd St.	-	2451	2422	2691	2824	2646	3194	3150	4686	4002	3906	4539	3840	4044
				Wilson	-	2209	2524	2603	3245	2450	2715	3432	4759	4816	5273	5459	4406	4137
	405	10.1 Miles	Oct-96	Burbank	-	-	1141	1558	2306	2271	2259	2705	3215	2856	3568	3746	3096	3364
		11.9 Miles	Apr-93	Normandie	-	*1536*	1536	2049	2717	2783	2283	*2205*	2205	2816	*3559*	4087	3998	3018
	605	16.9 Miles	Apr-97	Beverly	-	-	-	1286	3092	2957	3496	2305	3155	2695	2721	3757	3647	4391
	Total				6611	15015	26439	34503	47268	46272	49812	45172	53719	54087	62474	71495	67440	67037
	% Change From Base Year											-	19%	20%	38%	58%	49%	48%
Freeways w/o HOV Lanes	2			Trentway								*2052*	2052	1884	2016	1386	2316	1122
	5			Greenwood								1945	3090	3120	3255	3100	2995	1880
	101			Encino								3984	3816	4122	3714	3600	3648	3192
	710			Gage								-	-	-	-	-	-	-
	Total											7981	8958	9126	8985	8086	8959	6194
	% Change From Base Year											-	12%	14%	13%	1%	12%	12%

Note: For statistical purposes, if the data of the year is not available and the facility was open at the time, the data for the following year is used.

* Volume for Carpools, Vanpools, and Buses. All other volumes are Carpools and Vanpools only. Violators excluded.



Note: The volume on freeways w/ HOV lanes is the total carpool volume at various locations on freeways, I-10, SR-14, SR-57, SR-60, SR-91, I-105, I-110, SR-118, SR-134, SR-170, I-210, I-405, and I-605.
The volume on freeways w/o HOV lanes is the total carpool volume at various locations on freeways, SR-2, I-5, US-101, and I-710.

CHANGES IN 2003 - 2004

The following is a list of HOV lanes under construction in the year 2004:

- San Diego Freeway (Route 405), 10.2 lane-miles of carpool lanes, between Century Boulevard and Imperial Highway (Route 90), is expected to open in October 2006.

- Pomona Freeway (Route 60) / Orange Freeway (Route 57) HOV lane direct connector, 5.2 lane-miles, is expected to open in July 2007.

- San Diego Freeway (Route 405), 7.2 lane-miles of carpool lanes, between Imperial Highway (Route 90) and Santa Monica Freeway (Route 10), is expected to open in December 2007.

Legislative bills that affected traffic operations:

- Senate Bill 63 which became effective January 1, 2000, reduced the minimum occupancy requirement from 3 to 2 persons per vehicle on the I-10 El Monte Busway, on a 24-hour basis. Signs were changed and the facility was monitored through electronic counts, tachometer runs, and manual counts for six months. The Department submitted an operational report to the Legislature. The conclusion – The HOV facility became congested for a couple of hours during the morning and afternoon peak periods; Buffer violations increased from vehicles exiting the congested HOV lane; Observed a significant reduction of 3-person carpools; Public inquiries increased to various agencies and officials regarding the facility.

- Assembly Bill 71 which became effective July 1, 2000, allowed certain clean air vehicles to use the State's HOV system, regardless of the number of people in the vehicle. The Department of Motor Vehicles' decal must be displayed on the vehicle to qualify for the exemption. Signs were installed on all HOV facilities in California.

- Assembly Bill 769 which became effective July 24, 2000, overrode Senate Bill 63, and restored the 3 or more occupancy requirement during the peak hours, on the I-10 El Monte Busway. Senate Bill 63 had attracted too many users to the HOV lane and caused considerable congestion to peak hour traffic. These delays were conveyed to elected officials and various agencies. The 3 or more persons requirement is currently in effect Monday through Friday from 5-9a.m. and 4-7p.m.; The 2-person carpools are allowed to use the HOV lanes all other times. Signs were changed and the facility was monitored for five months. The Department submitted an operational report to the Legislature. The conclusion – The facility is no longer congested, however the occupancy violation rate in the peak period sometimes reaches 50%; More regulatory signs displaying the hours and occupancy requirement were added to the facility; Implemented increased presence and enforcement by the California Highway Patrol. The 3+/2+ variable occupancy HOV lane is still in effect with FHWA approval.

CHANGES IN 2003 - 2004

- Assembly Bill 1871 which became effective January 1, 2001, began an 18-month demonstration project to evaluate part-time use of the HOV lanes on State Route 14 between Santa Clarita and Palmdale. This project only allows carpools in the HOV lanes during peak periods (Southbound, 5-9a.m. and Northbound, 3-7p.m., Monday - Friday). Solo drivers are allowed to use the HOV lanes all other times. The double-yellow buffer lines will remain throughout the demonstration, and users still need to observe the designated openings for entering and exiting the HOV lanes. Some of the openings (ingress/egress locations) were lengthened in April 2001 to provide more access on the steep uphill grades of the facility. FHWA has agreed with the recommendation of Caltrans to continue with the part-time operation of HOV lanes on SR-14 freeway until such time as needed to convert to full-time, given the Route 5/14 direct connectors will be completed in the year 2009.

HOV PROJECTS
SCHEDULED FOR COMPLETION IN 2005 - 2006

ROUTE	POST MILE	PROJECT LIMITS	OPENING DATE
LA-10	28.0/31.2	Baldwin to Route 605	February 2005
LA-405	21.3/26.4	Century Boulevard to Route 90	October 2006

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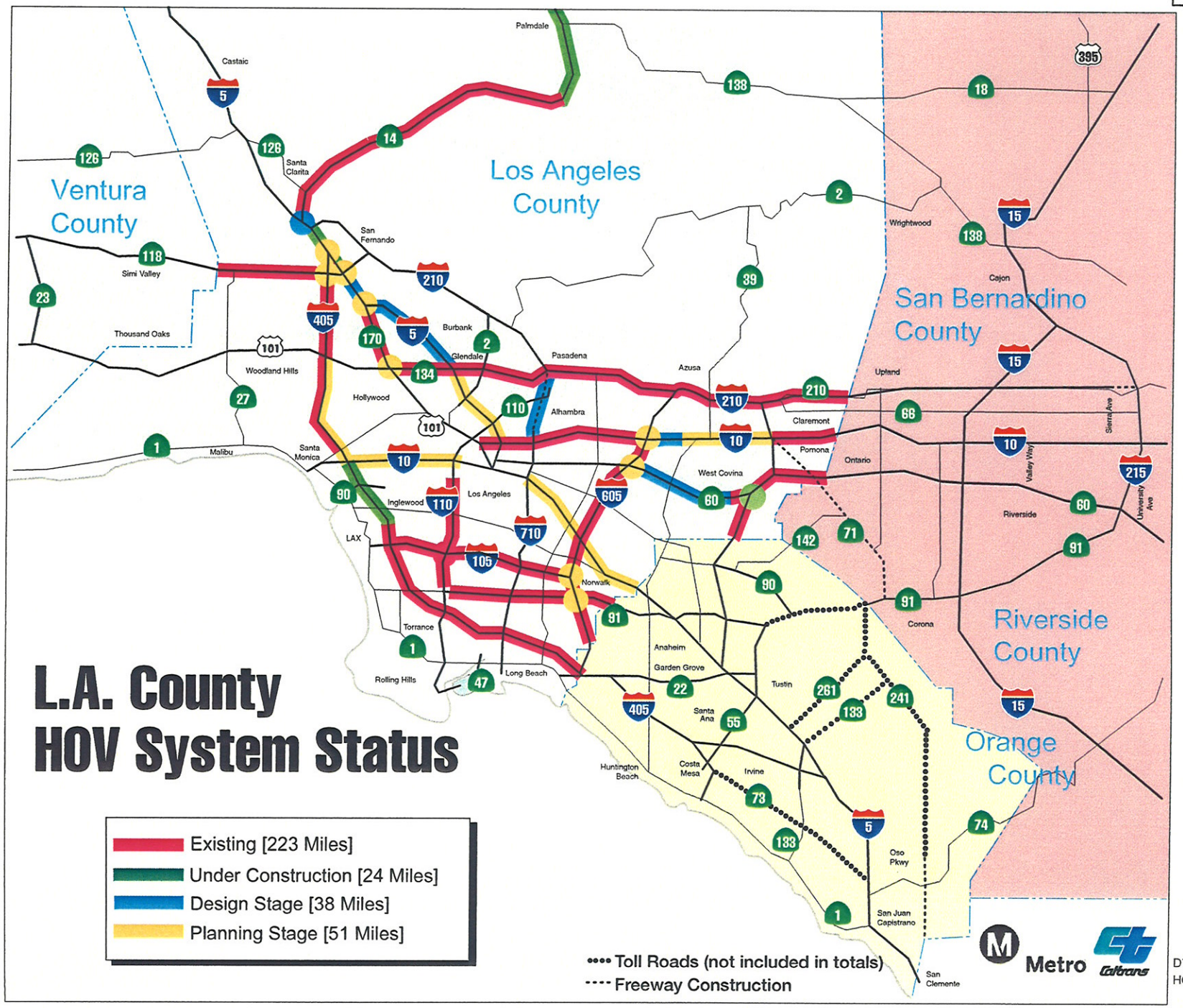
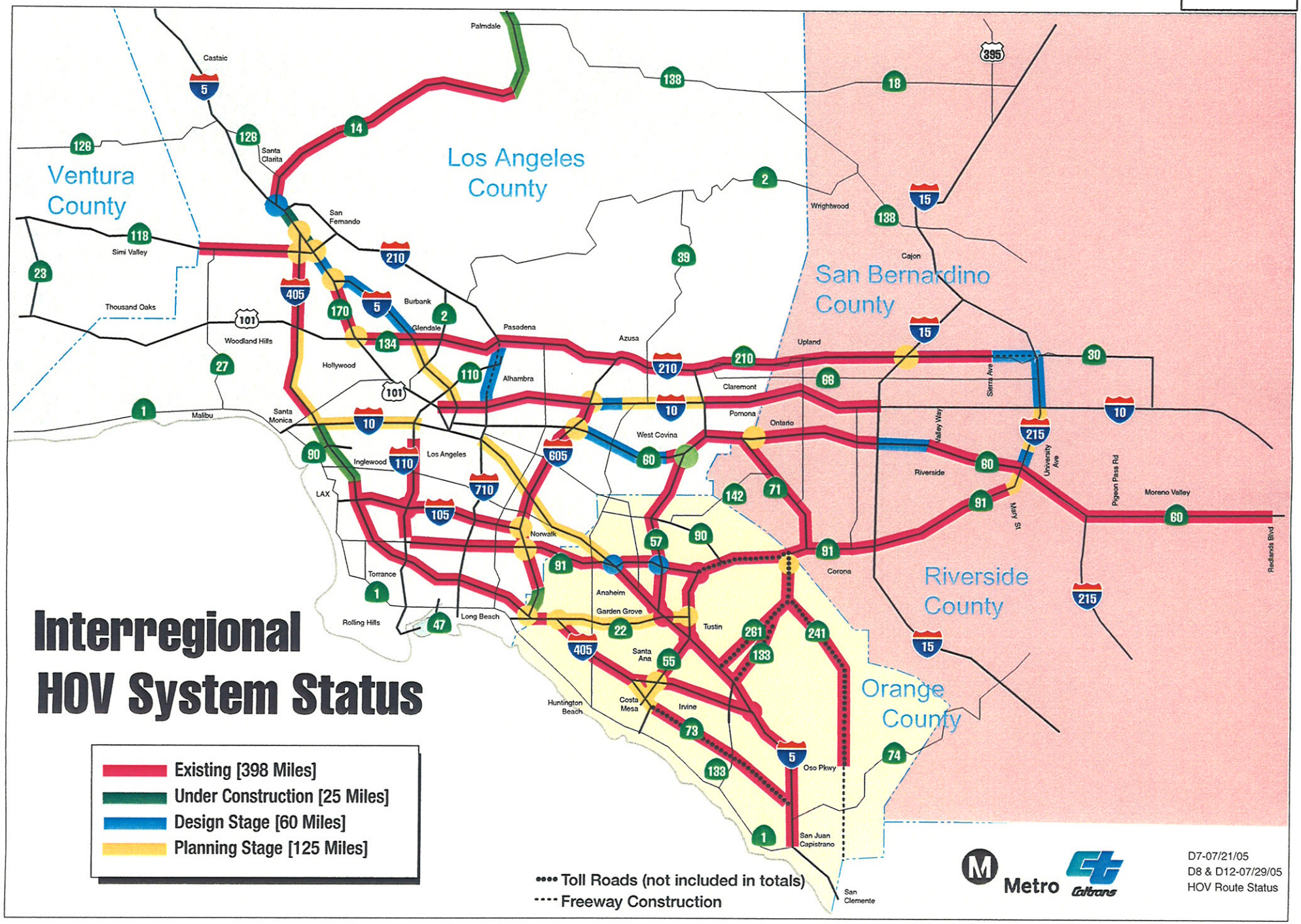
HOV SYSTEM STATUS MAP

- **LOS ANGELES COUNTY**
- **INTERREGIONAL** (Los Angeles, Orange, Riverside, and San Bernardino County)

July 2005



D7-07/21/05
HOV Route Status


Interregional
HOV System Status
Existing [398 Miles]
Under Construction [25 Miles]
Design Stage [60 Miles]
Planning Stage [125 Miles]
Toll Roads (not included in totals)
Freeway Construction
Ventura County
Los Angeles County
San Bernardino County
Riverside County
Orange County
Palmdale
Castaic
Santa Clarita
San Fernando
Simi Valley
Thousand Oaks
Woodland Hills
Hollywood
Burbank
Glendale
Pasadena
Alhambra
Azusa
Wrightwood
Cajon
Upland
Claremont
Pomona
Ontario
West Covina
Malibu
Santa Monica
Inglewood
Los Angeles
LAX
Norwalk
Torrance
Rolling Hills
Long Beach
Anaheim
Garden Grove
Santa Ana
Tustin
Costa Mesa
Irvine
Huntington Beach
Riverside
Corona
Moreno Valley
Oso Pkwy
San Juan Capistrano
San Clemente
Valley Way
Sierra Ave
University Ave
Mary St
Pigeon Pass Rd
Redlands Blvd
Metro
Caltrans
D7-07/21/05
D8 & D12-07/29/05
HOV Route Status

FACT SHEET AND INGRESS/EGRESS MAP

FACT SHEET

ROUTE 10
SAN BERNANDINO FREEWAY
EL MONTE BUSWAY

Project Limits & Length:	FROM ALAMEDA ST TO EL MONTE STATION	11 MILES
	FROM ROUTE 57 TO SAN BERNARDINO CO. LINE	5.9 MILES
	FROM BALDWIN AVE TO SAN GABRIEL RIVER FWY	3.2 MILES
Date of Opening:	FROM ALAMEDA ST TO EL MONTE STATION	JAN 1973
	FROM ROUTE 57 TO SAN BERNARDINO CO. LINE	NOV 13, 2003
	FROM BALDWIN AVE TO SAN GABRIEL RIVER FWY	FEB 4, 2005
Cost:	FROM ALAMEDA ST TO EL MONTE STATION	$58.0 MILLION
	FROM ROUTE 57 TO SAN BERNARDINO CO. LINE	$77.2 MILLION
	FROM BALDWIN AVE TO SAN GABRIEL RIVER FWY	$51.7 MILLION
Current Peak Hr Volume:	1100 VEHICLES @ JACKSON (HOV 3+)	
Park & Ride Facilities:	8 (DEL MAR, SANTA ANITA, W. COVINA PKWY, BARRANCA, VIA-VERDE, GILLETTE, FAIRPLEX, and GAREY)	
Number of Ingress/Egress:	FROM ALAMEDA ST TO EL MONTE STATION	2 E/B, 5 W/B
	FROM ROUTE 57 TO SAN BERNARDINO CO. LINE	2 E/B, 3 W/B
	FROM BALDWIN AVE TO SAN GABRIEL RIVER FWY	1 E/B, 1 W/B

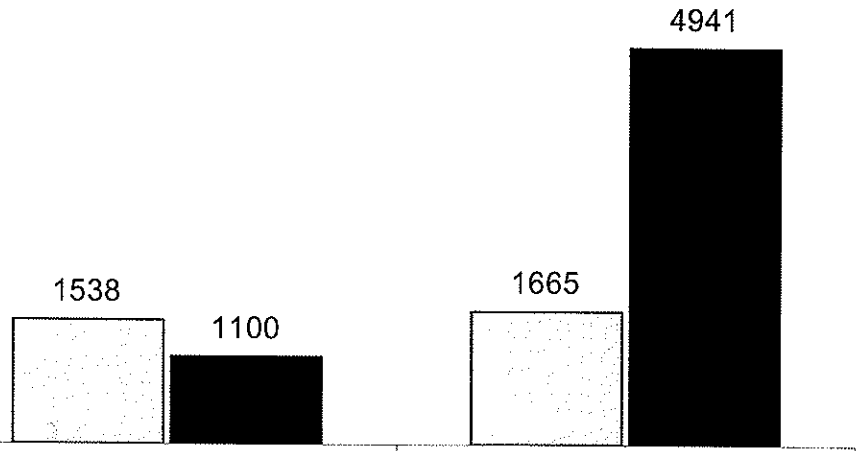
Unique Features:

Fly over on & off ramps at Del Mar. Bus only connectors to and from I-710 north of I-10; Four on line stations at El Monte, University, Hospital, and Union Station.

SB 63 – Authored by Senator Solis – passed and was enacted January 1, 2000, which lowered the occupancy requirement from 3 or more to 2 or more persons per vehicle. Caltrans and MTA studies have predicted detrimental affects on the operation of the facility.

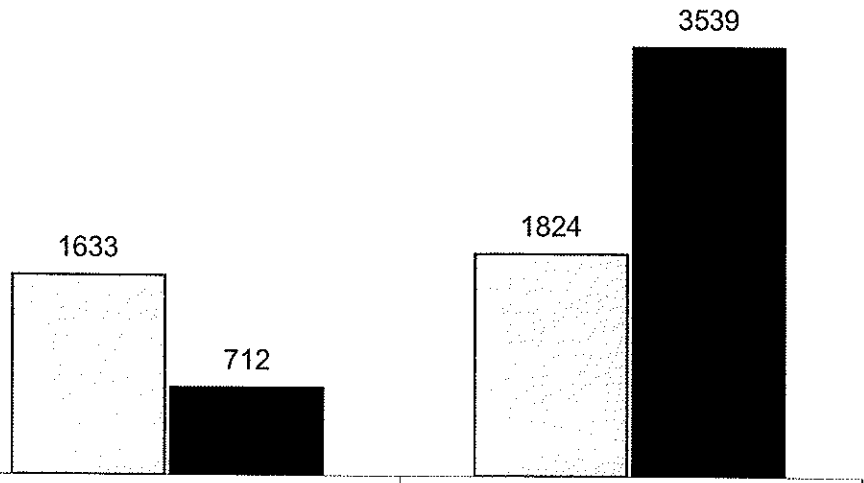
AB 769 – Effective July 24, 2000, overrode SB 63 and restored the 3 or more occupancy requirements during peak hours. SB 63 had attracted too many users to the HOV lane and caused considerable congestion to peak hour traffic. The 3 or more persons requirement is currently in effect Monday through Friday from 5-9 a.m. and 4-7 p.m.

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1538	1665
■ HOV Lane	1100	4941

Location: LA-10-W/B @ Jackson Ave
Date/Time: 03-23-05 / 6:30-7:30 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1633	1824
■ HOV Lane	712	3539

Location: LA-10-E/B @ Jackson Ave
Date/Time: 04-19-05 / 4:30-5:30 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 10

Co. Rte. Dir.	LA - 10 - WB	LA - 10 - EB
Location	JACKSON	See 2+/3+ P.M. Summary Sheet
Post Mile	25.09	
Date	03/23/05	
HOV Peak Hour	6:30 - 7:30 AM	
Occupancy Requirement	3 +	
HOV VEHICLE SUMMARY		
Carpools	997	
Vanpools	28	
Buses	52	
Motorcycles	23	
HOV lane Violators	172	
Total Vehicles in HOV Lane	1272	
Carpools Using Mainline	35	
HOV People Summary		
People in Carpool & Vanpools	3207	
People in Buses	1711	
People on Motorcycles	23	
Violators	329	
Total HOV People	5270	
Mainline Summary		
Mixed-Flow lanes	4	
Mixed-flow Vehicles	6150	
Mixed-Flow People	6660	
Mixed-Flow People/Lane	1665	
Trucks on Mainlines	160	
Freeway Summary		
Total Mixed-Flow People	6660	
Total HOV People	5270	
Total Freeway People	11930	
Percent Carried in HOV Lane	44.17%	
Percent Carried per Mixed-Flow Lane	13.96%	
Occupancy		
HOV Occupancy	4.14	
Mainline Occupancy	1.08	
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	3.17	

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

CALTRANS - DISTRICT 7

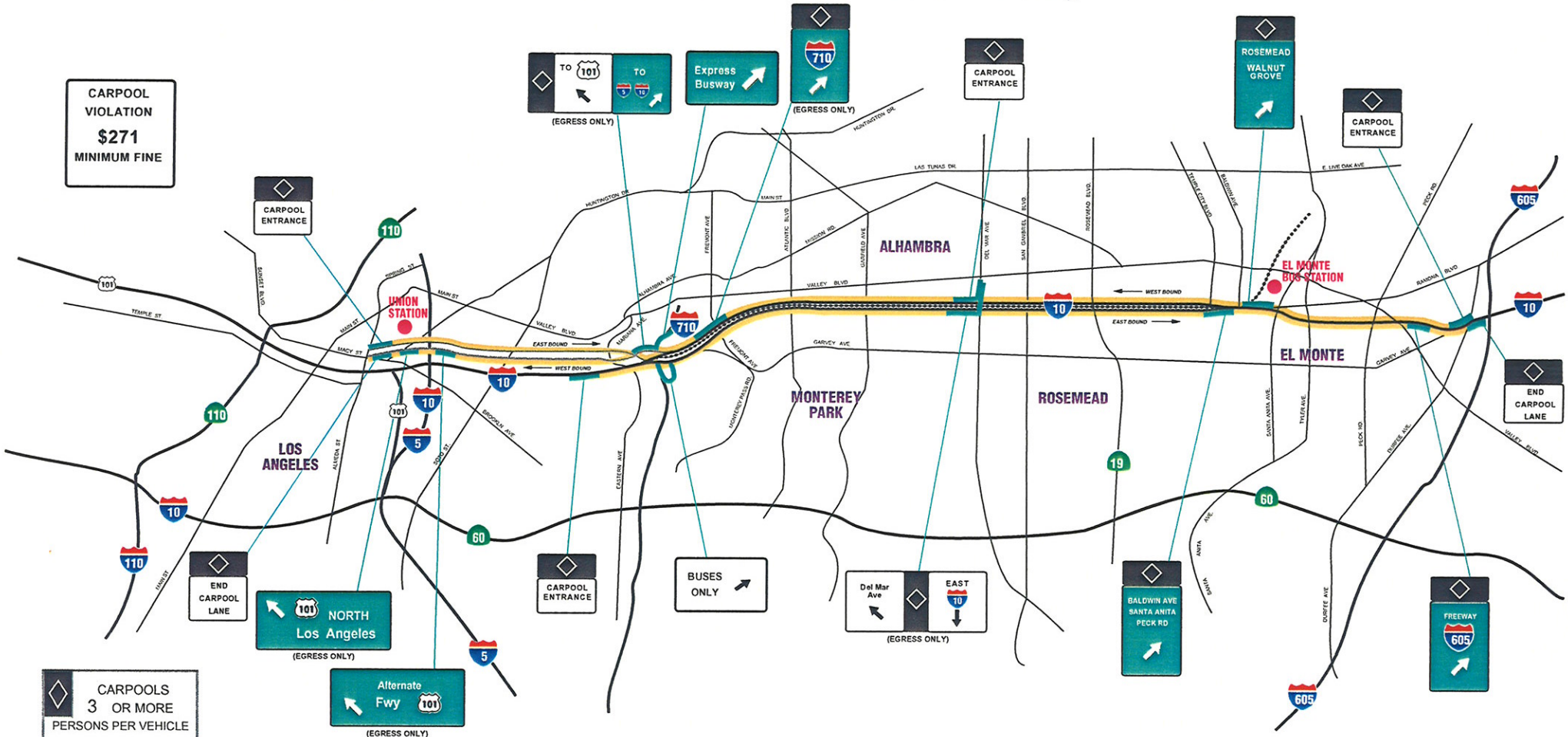
HOV Operation on Route 10

Co. Rte. Dir.	LA - 10 - EB	LA - 10 - EB
Location	JACKSON	JACKSON
Post Mile	25.09	25.09
Date	04/19/05	04/19/05
HOV Peak Hour	15:00 - 16:00 PM	16:30 - 17:30 PM
Occupancy Requirement	2 +	3 +
HOV VEHICLE SUMMARY		
Carpools	1042	566
Vanpools	35	57
Buses	37	54
Motorcycles	40	35
HOV lane Violators	8	239
Total Vehicles in HOV Lane	1162	951
Carpools Using Mainline	535	45
HOV People Summary		
People in Carpool & Vanpools	2475	2103
People in Buses	822	1401
People on Motorcycles	40	35
Violators	8	475
Total HOV People	3345	4014
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	6485	6530
Mixed-Flow People	7095	7295
Mixed-Flow People/Lane	1774	1824
Trucks on Mainlines	208	110
Freeway Summary		
Total Mixed-Flow People	7095	7295
Total HOV People	3345	4014
Total Freeway People	10440	11309
Percent Carried in HOV Lane	32.04%	35.49%
Percent Carried per Mixed-Flow Lane	16.99%	16.13%
Occupancy		
HOV Occupancy	2.88	4.22
Mainline Occupancy	1.09	1.12
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.89	2.20

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

4/22/2005 11:06 AM C:\CountData\LA 10 JACKSON +2+3 4-19-05 PM

SAN BERNARDINO FREEWAY HOV LANE
Alameda St. to San Gabriel River Freeway



California Department of Transportation District 7, Los Angeles and Ventura Counties 100 S. Main St., Los Angeles, CA 90012
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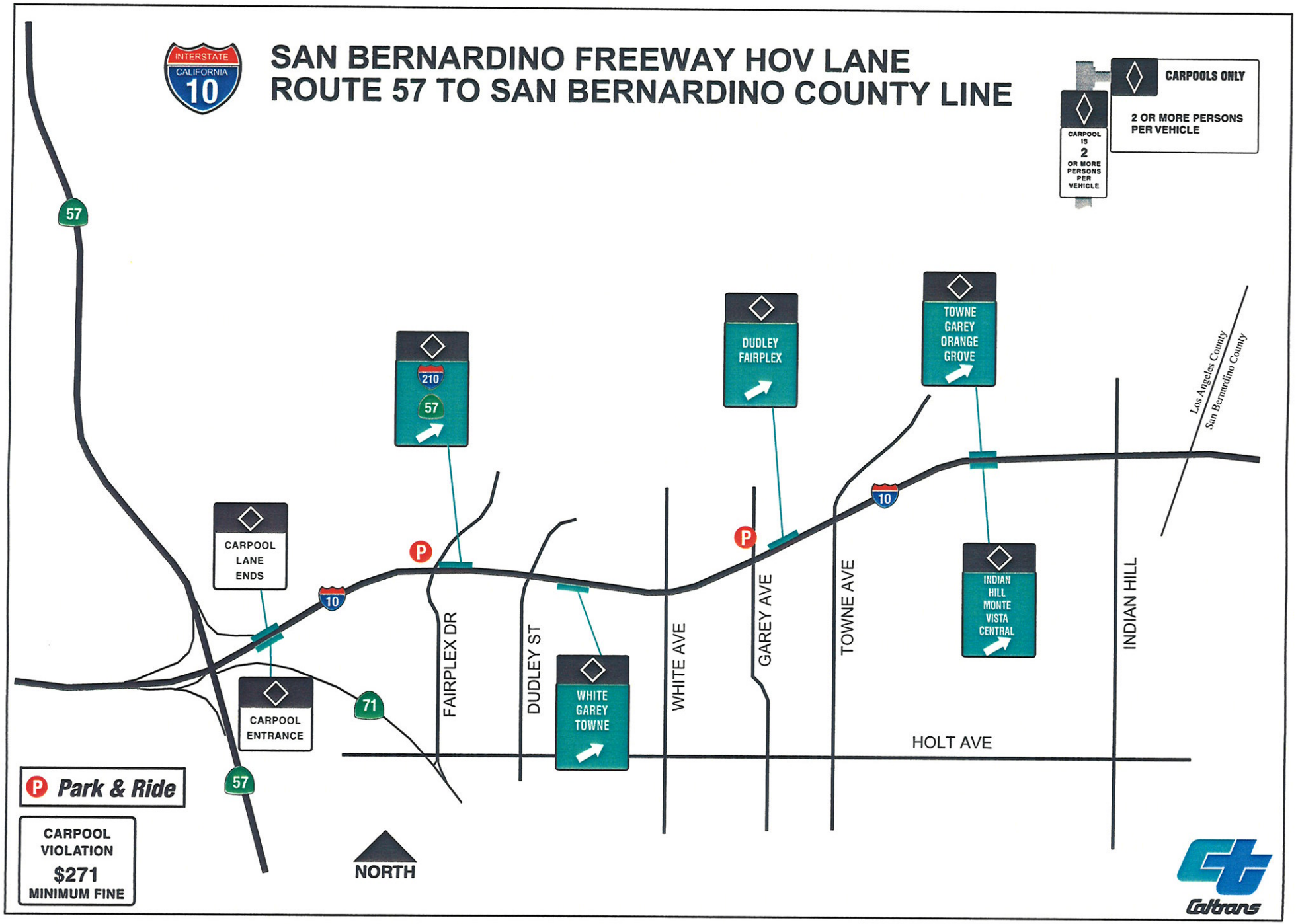
Caltrans

10_HOV.FH11 3/15/2005

SAN BERNARDINO FREEWAY HOV LANE
ROUTE 57 TO SAN BERNARDINO COUNTY LINE



District 7 Graphic Services ¥ 10 HOVegresing ¥ 4/27/04

FACT SHEET

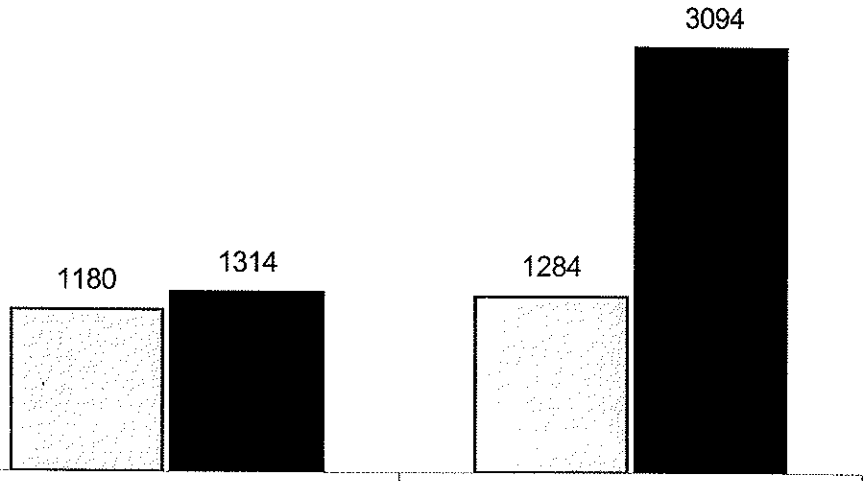
ROUTE 14
ANTELOPE VALLEY FREEWAY

Project Limits & Length:	FROM SAN FERNANDO RD TO SAND CANYON	6.4 MILES
	FROM SAND CANYON TO ESCONDIDO	9.9 MILES
	FROM ESCONDIDO TO PEARBLOSSOM	11.2 MILES
	FROM ROUTE 5 TO SAN FERNANDO RD	2.3 MILES
Date of Opening:	FROM SAN FERNANDO RD TO SAND CANYON	MAY 5, 1998
	FROM SAND CANYON TO ESCONDIDO	SEP. 23, 1999
	FROM ESCONDIDO TO PEARBLOSSOM	JUL. 29, 2002
	FROM ROUTE 5 TO SAN FERNANDO RD	AUG. 3, 2002
Cost:	FROM SAN FERNANDO RD TO SAND CANYON	$23.8 MILLION
	FROM SAND CANYON TO ESCONDIDO	$31.8 MILLION
	FROM ESCONDIDO TO PEARBLOSSOM	$27.5 MILLION
	FROM ROUTE 5 TO SAN FERNANDO RD	$5.4 MILLION
Current Peak Hr Volume:	1334 VEHICLES @ GOLDEN VALLEY	
Park & Ride Facilities:	8 (SAN FERNANDO RD (3), GOLDEN VALLEY RD (3), SAND CANYON RD, and SIERRA HWY)	
Number of Ingress/Egress:	10 NORTHBOUND & 12 SOUTHBOUND	

Unique Features:

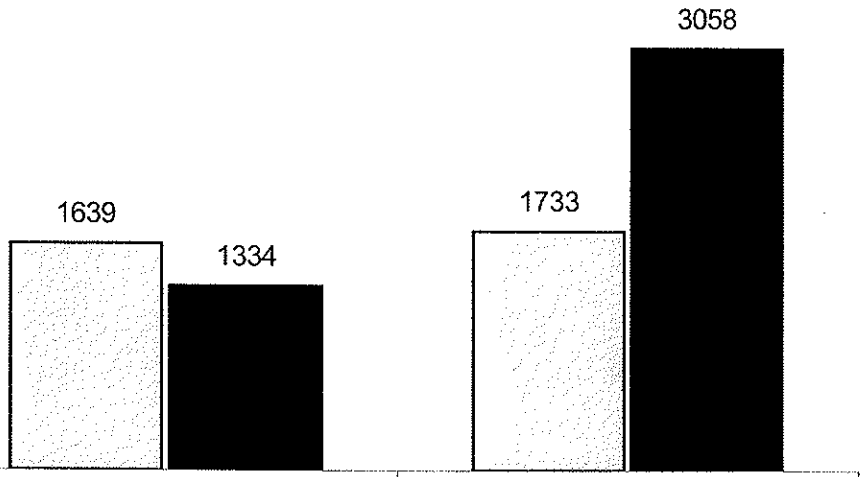
AB 1871 - Effective January 1, 2001, began an 18-month demonstration project to evaluate part-time use of the HOV lanes on State Route 14. This project only allows carpools in the HOV lanes during peak periods (Southbound, 5-9a.m. and Northbound, 3-7p.m., Monday - Friday). Solo drivers are allowed to use the HOV lanes all other times. The double-yellow buffer lines will remain throughout the demonstration, and users still need to observe the designated openings for entering and exiting the HOV lanes. Some of the openings (ingress/egress locations) were lengthened in April 2001 to provide more access on the steep uphill grades of the facility. FHWA has agreed with the recommendation of Caltrans to continue with the part-time operation of HOV lanes on SR-14 freeway until such time as needed to convert to full-time, given the 5/14 direct connectors will be completed in the year 2009.

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1180	1284
■ HOV Lane	1314	3094

Location: LA-14-S/B @ Golden Valley
Date/Time: 12-01-04 / 6:30-7:30 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1639	1733
■ HOV Lane	1334	3058

Location: LA-14-N/B @ Golden Valley
Date/Time: 11-30-04 / 4:30-5:30 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 14

Co. Rte. Dir.	LA - 14 - SB	LA - 14 - NB
Location	GOLDEN VALLEY	GOLDEN VALLEY
Post Mile	29.68	29.68
Date	12/01/04	11/30/04
HOV Peak Hour	6:30 - 7:30 AM	16:30 - 17:30 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1269	1247
Vanpools	25	63
Buses	10	3
Motorcycles	10	21
HOV lane Violators	4	1
Total Vehicles in HOV Lane	1318	1335
Carpools Using Mainline	259	240
HOV People Summary		
People in Carpool & Vanpools	2824	2977
People in Buses	260	60
People on Motorcycles	10	21
Violators	4	1
Total HOV People	3098	3059
Mainline Summary		
Mixed-Flow lanes	3	3
Mixed-flow Vehicles	3540	4916
Mixed-Flow People	3851	5198
Mixed-Flow People/Lane	1284	1733
Freeway Summary		
Total Mixed-Flow People	3851	5198
Total HOV People	3098	3059
Total Freeway People	6949	8257
Percent Carried in HOV Lane	44.58%	37.05%
Percent Carried per Mixed-Flow Lane	18.47%	20.98%
Occupancy		
HOV Occupancy	2.35	2.29
Mainline Occupancy	1.09	1.06
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	2.41	1.77

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

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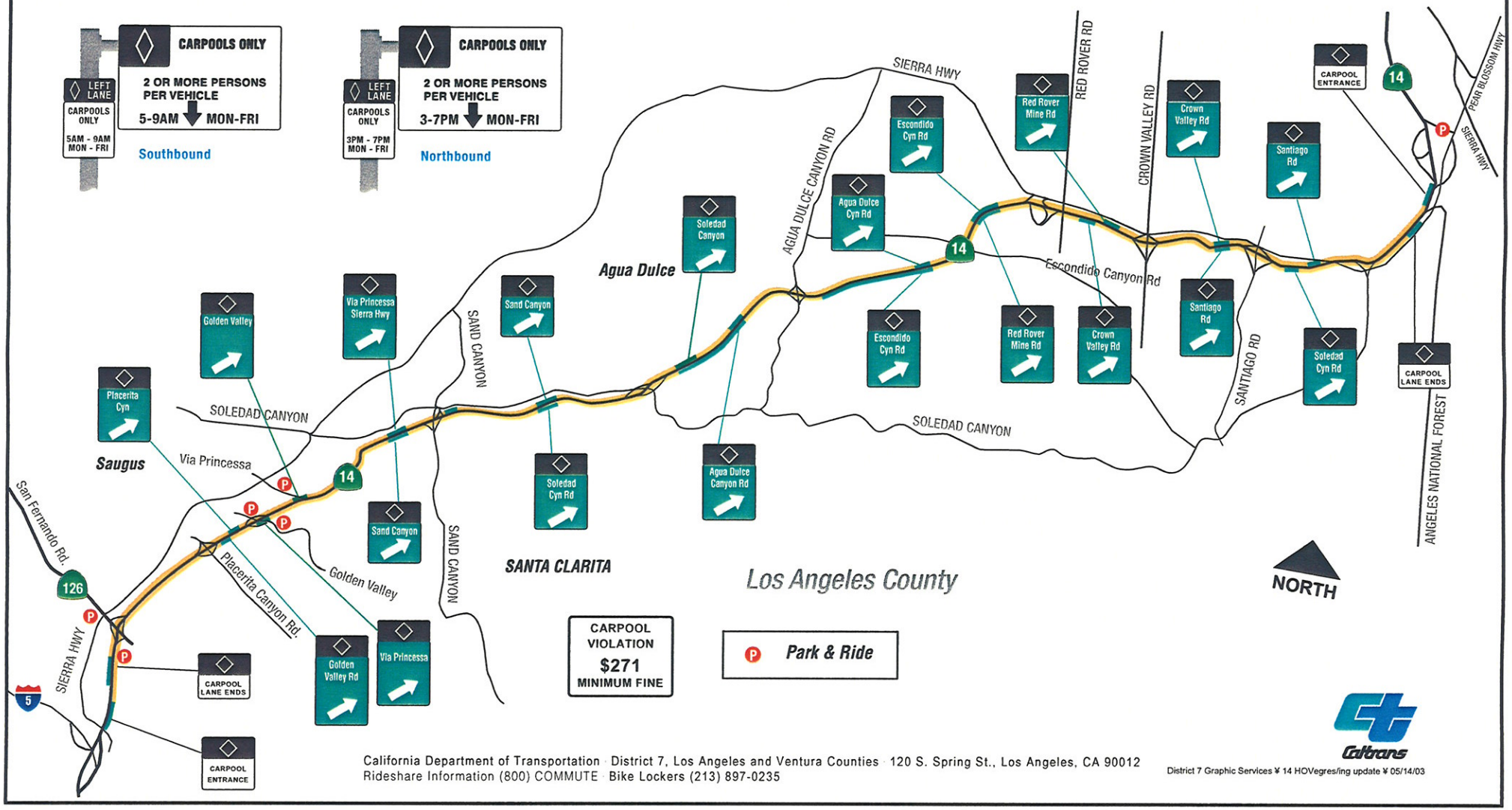
ANTELOPE VALLEY FREEWAY HOV LANE

Interstate 5 (I-5) to Pearblossom Hwy



California Department of Transportation District 7, Los Angeles and Ventura Counties 120 S. Spring St., Los Angeles, CA 90012
Rideshare Information (800) COMMUTE Bike Lockers (213) 897-0235

District 7 Graphic Services ¥ 14 HOVegres/ing update ¥ 05/14/03

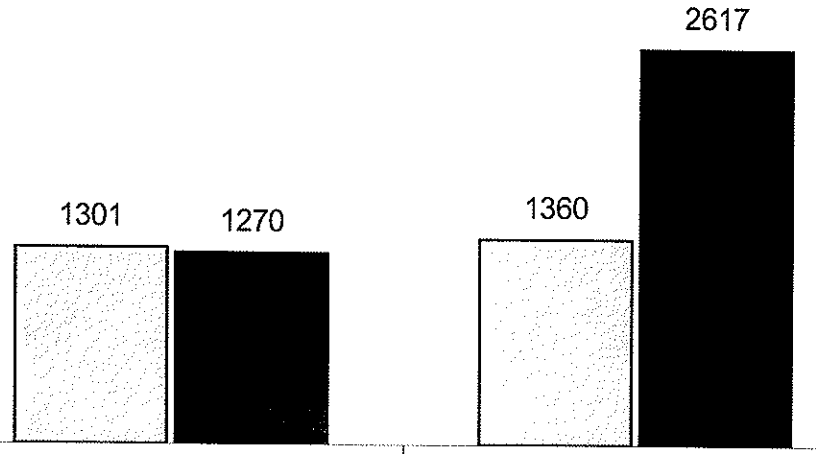
FACT SHEET

ROUTE 57
ORANGE FREEWAY

Project Limits & Length:	FROM ROUTE 60 TO ORANGE COUNTY LINE; 4.5 MILES
Date of Opening:	AUGUST 22, 1997
Cost:	$18.2 MILLION
Current Peak Hr Volume:	1400 VEHICLES @ PATHFINDER
Park & Ride Facilities:	1 (PATHFINDER)
Number of Ingress/Egress:	2 NORTHBOUND & 3 SOUTHBOUND

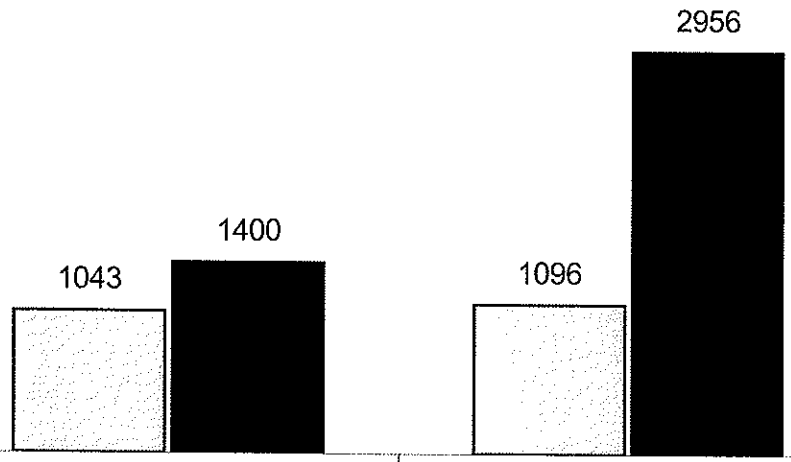
Unique Features:

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1301	1360
■ HOV Lane	1270	2617

Location: LA-57-S/B @ Pathfinder
Date/Time: 11-17-04 / 6:30-7:30 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1043	1096
■ HOV Lane	1400	2956

Location: LA-57-N/B @ Pathfinder
Date/Time: 12-08-04 / 4:00-5:00 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 57

Co. Rte. Dir.	LA - 57 - SB	LA - 57 - NB
Location	PATHFINDER	PATHFINDER
Post Mile	3.16	3.16
Date	11/17/04	12/08/04
HOV Peak Hour	6:30 - 7:30 AM	16:00 - 17:00 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1230	1375
Vanpools	11	9
Buses	2	0
Motorcycles	27	16
HOV lane Violators	2	2
Total Vehicles in HOV Lane	1272	1402
Carpools Using Mainline	215	165
HOV People Summary		
People in Carpool & Vanpools	2588	2940
People in Buses	2	0
People on Motorcycles	27	16
Violators	2	2
Total HOV People	2619	2958
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	5205	4170
Mixed-Flow People	5440	4385
Mixed-Flow People/Lane	1360	1096
Freeway Summary		
Total Mixed-Flow People	5440	4385
Total HOV People	2619	2958
Total Freeway People	8059	7343
Percent Carried in HOV Lane	32.50%	40.28%
Percent Carried per Mixed-Flow Lane	16.88%	14.93%
Occupancy		
HOV Occupancy	2.06	2.11
Mainline Occupancy	1.05	1.05
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.93	2.70

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

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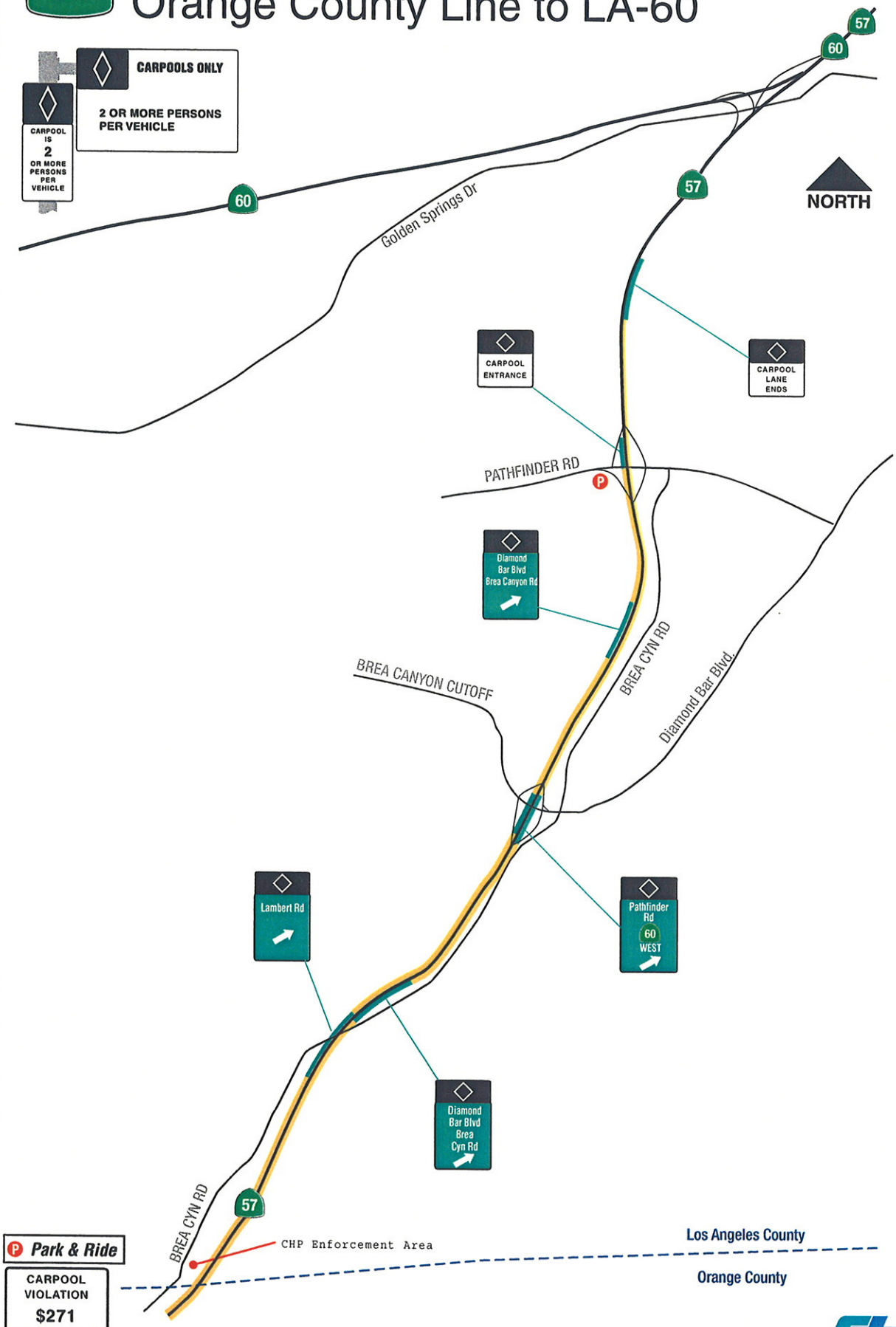
ORANGE FREEWAY HOV LANE

Orange County Line to LA-60



Park & Ride

CARPOOL VIOLATION $271 MINIMUM FINE

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Rideshare Information (800) COMMUTE • Bike Lockers (213) 897-0235

District 7 Graphic Services • 57 HOVegres/ing • 12/26/01

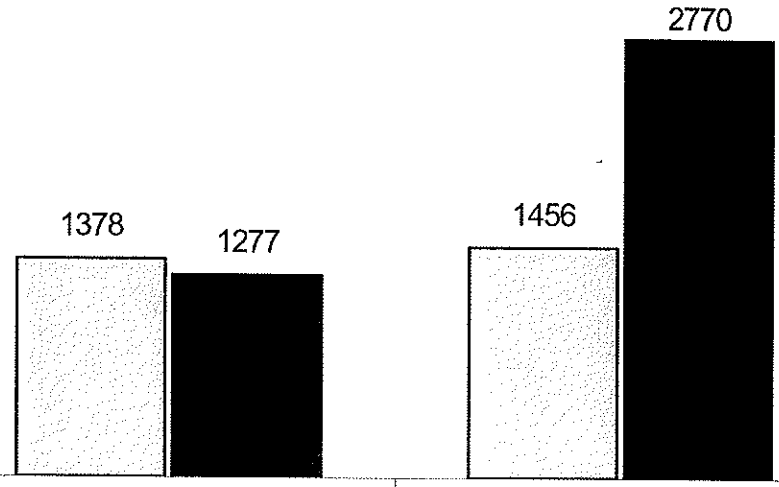
FACT SHEET

ROUTE 60
POMONA FREEWAY

Project Limits & Length:	FROM BREA CANYON TO RTE 57 N FROM RTE 57 N TO COUNTY LINE	2.4 MILES 5.1 MILES
Date of Opening:	FROM BREA CANYON TO RTE 57 N FROM RTE 57 N TO COUNTY LINE	FEB. 2, 1999 FEB. 2, 1999
Cost:	FROM BREA CANYON TO RTE 57 N FROM RTE 57 N TO COUNTY LINE	$5.5 MILLION $20.8 MILLION
Current Peak Hr Volume:	1277 VEHICLES @ PHILLIPS RANCH	
Park & Ride Facilities:	2 (DIAMOND BAR BLVD (2))	
Number of Ingress/Egress:	3 IN EACH DIRECTION	

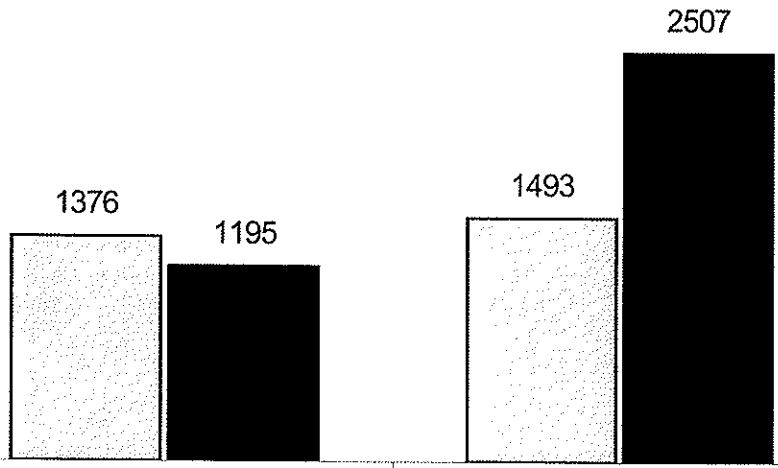
Unique Features:

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1378	1456
■ HOV Lane	1277	2770

Location: LA-60-W/B @ Phillips Ranch
Date/Time: 03-11-05 / 7:00-8:00 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1376	1493
■ HOV Lane	1195	2507

Location: LA-60-E/B @ Phillips Ranch
Date/Time: 03-02-05 / 4:30-5:30 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 60

Co. Rte. Dir.	LA - 60 - WB	LA - 60 - EB
Location	PHILLIPS RANCH	PHILLIPS RANCH
Post Mile	28.04	28.04
Date	03/01/05	03/02/05
HOV Peak Hour	7:00 - 8:00 AM	16:30 - 17:30 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1245	1160
Vanpools	13	6
Buses	3	3
Motorcycles	16	26
HOV lane Violators	2	1
Total Vehicles in HOV Lane	1279	1196
Carpools Using Mainline	295	430
HOV People Summary		
People in Carpool & Vanpools	2634	2411
People in Buses	120	70
People on Motorcycles	16	26
Violators	2	1
Total HOV People	2772	2508
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	5510	5505
Mixed-Flow People	5825	5970
Mixed-Flow People/Lane	1456	1493
Trucks on Mainlines	486	524
Freeway Summary		
Total Mixed-Flow People	5825	5970
Total HOV People	2772	2508
Total Freeway People	8597	8478
Percent Carried in HOV Lane	32.24%	29.58%
Percent Carried per Mixed-Flow Lane	16.94%	17.60%
Occupancy		
HOV Occupancy	2.17	2.10
Mainline Occupancy	1.06	1.08
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.90	1.68

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

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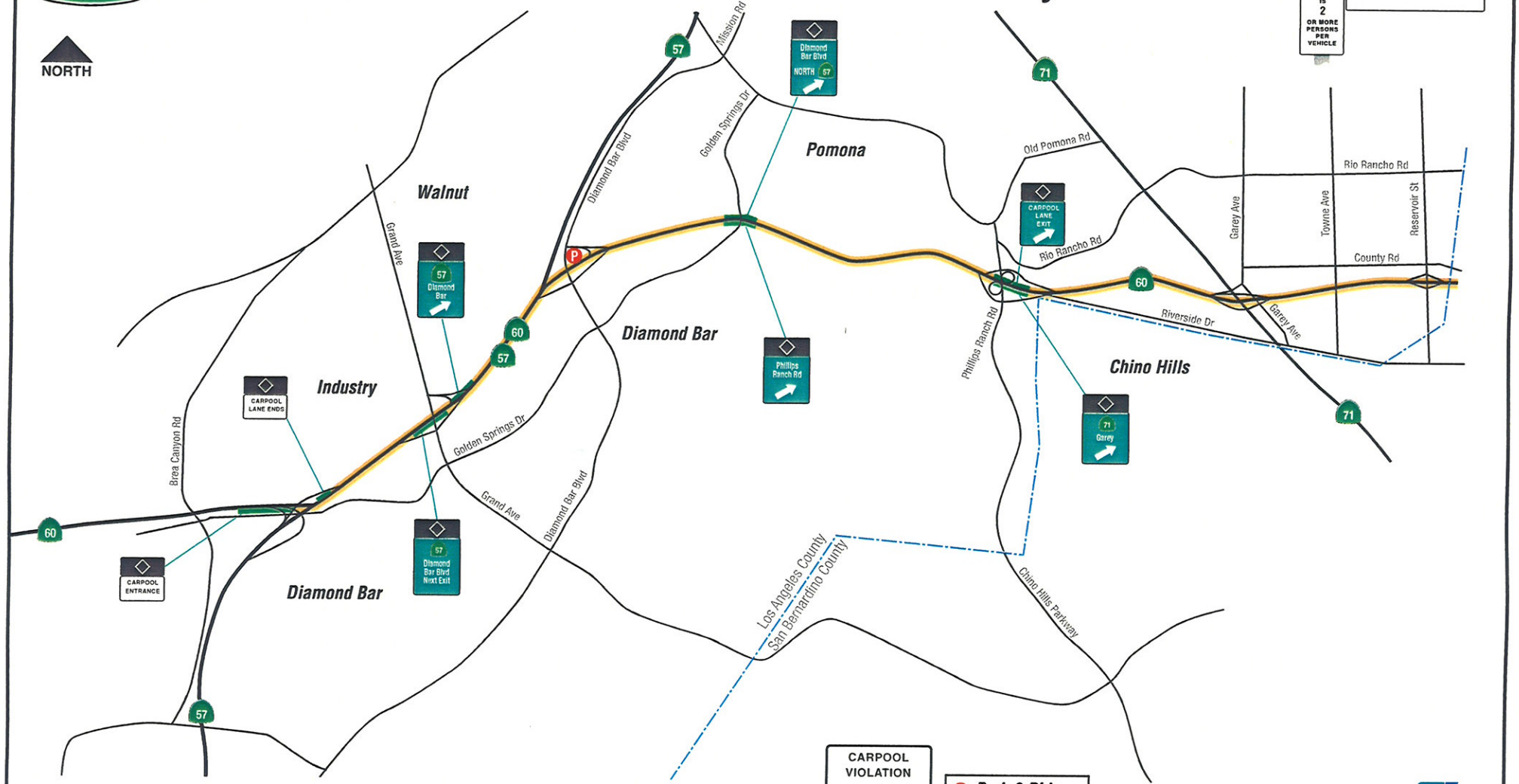
POMONA FREEWAY HOV LANE

Brea Canyon Road to San Bernardino County Line



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Rideshare Information (800) COMMUTE • Bike Lockers (213) 897-0235

District 7 Graphic Services • 60 HOV • 5/23/02

FACT SHEET

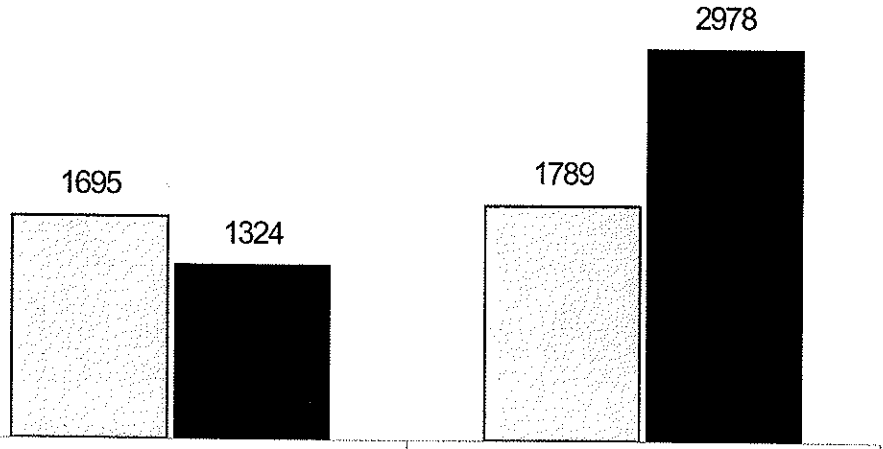
ROUTE 91
ARTESIA FREEWAY

Project Limits & Length:	FROM ROUTE 110 TO ROUTE 605 FROM ROUTE 605 TO ORANGE CO. LINE	10.3 MILES 4.0 MILES
Date of Opening:	FROM ROUTE 110 TO ROUTE 605 FROM ROUTE 110 TO ROUTE 605 FROM ROUTE 605 TO ORANGE CO. LINE	JUNE 10, 1985 (E/B) MARCH 11, 1993 (W/B) NOVEMBER 1994
Cost:	FROM ROUTE 110 TO ROUTE 605 FROM ROUTE 605 TO ORANGE CO. LINE	$ 1.8 MILLION $ 0.9 MILLION
Current Peak Hr Volume:	1324 VEHICLES @ WILMINGTON	
Park & Ride Facilities:	3 (VERMONT/182nd, ACACIA AVE and BUTLER AVE)	
Number of Ingress/Egress:	4 EASTBOUND & 6 WESTBOUND	

Unique Features:

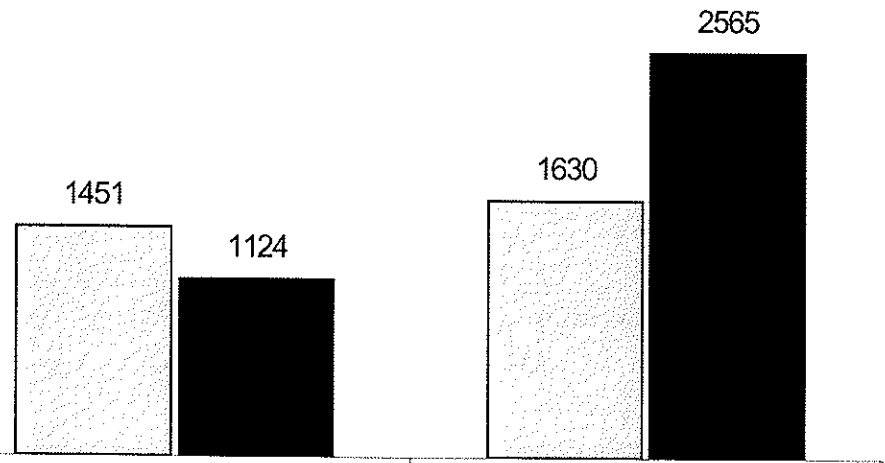
Eastbound 91 was originally a demonstration project of part time use of the median shoulder, no reconstruction or even resurfacing was done in 1985; just patches to bridge the approach slabs and placement of signs and markings.

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1695	1789
■ HOV Lane	1324	2978

Location: LA-91-W/B @ Wilmington
Date/Time: 04-12-05 / 6:30-7:30 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1451	1630
■ HOV Lane	1124	2565

Location: LA-91-E/B @ Wilmington
Date/Time: 04-13-05 / 3:45-4:45 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 91

Co. Rte. Dir.	LA - 91 - WB	LA - 91 - EB
Location	WILMINGTON	WILMINGTON
Post Mile	9.16	9.16
Date	04/12/05	04/13/05
HOV Peak Hour	6:30 - 7:30 AM	15:45 - 16:45 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1289	1053
Vanpools	13	34
Buses	5	5
Motorcycles	17	32
HOV lane Violators	19	1
Total Vehicles in HOV Lane	1343	1125
Carpools Using Mainline	315	580
HOV People Summary		
People in Carpool & Vanpools	2781	2413
People in Buses	180	120
People on Motorcycles	17	32
Violators	19	1
Total HOV People	2997	2566
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	6780	5805
Mixed-Flow People	7155	6520
Mixed-Flow People/Lane	1789	1630
Trucks on Mainlines	231	169
Freeway Summary		
Total Mixed-Flow People	7155	6520
Total HOV People	2997	2566
Total Freeway People	10152	9086
Percent Carried in HOV Lane	29.52%	28.24%
Percent Carried per Mixed-Flow Lane	17.62%	17.94%
Occupancy		
HOV Occupancy	2.23	2.28
Mainline Occupancy	1.06	1.12
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.68	1.57

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

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91

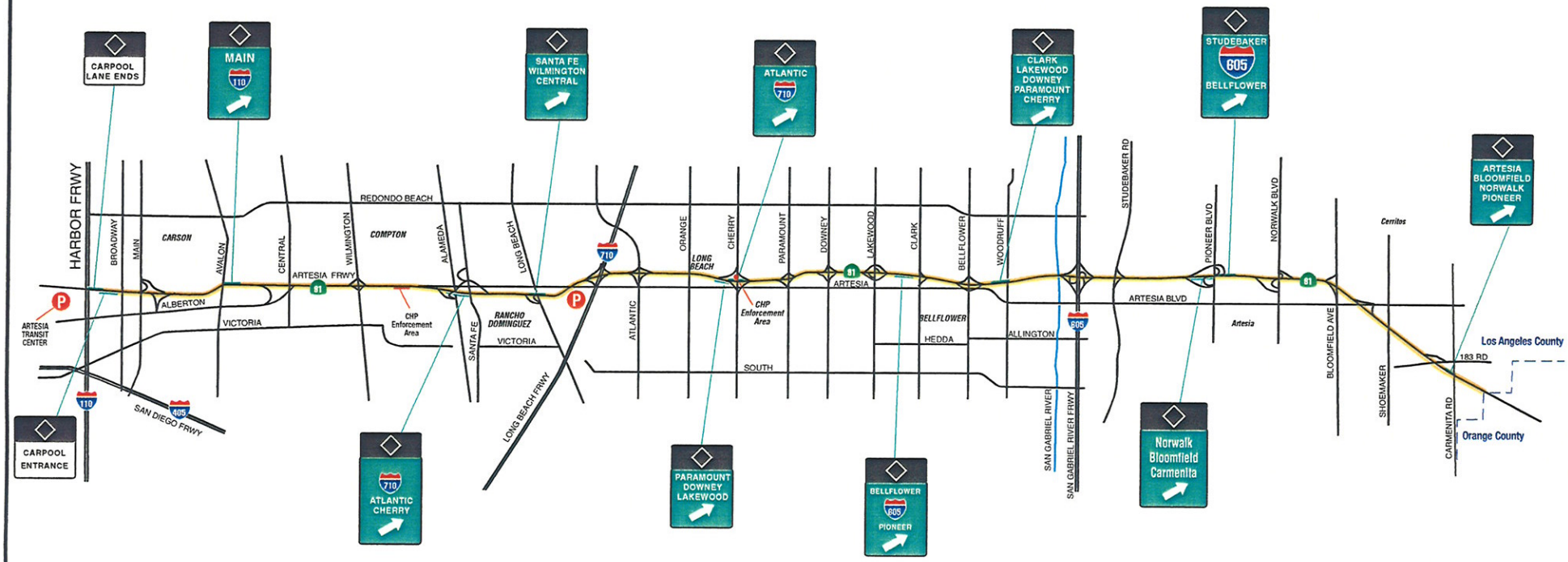
ARTESIA FREEWAY HOV LANE
Route 110 to Orange County Line

CARPOOLS ONLY

2 OR MORE PERSONS PER VEHICLE

CARPOOL IS 2 OR MORE PERSONS PER VEHICLE

NORTH



CARPOOL VIOLATION
$271
MINIMUM FINE

P Park & Ride

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FACT SHEET

ROUTE 105
GLENN ANDERSON/
CENTURY FREEWAY

Project Limits & Length:	FROM ROUTE 405 TO ROUTE 605; 16.0 MILES
Date of Opening:	OCTOBER 14, 1993
Cost:	$ 230.0 MILLIION
Current Peak Hr Volume:	1468 VEHICLES @ LONG BEACH BLVD
Park & Ride Facilities:	14 (AVIATION, HAWTHORNE (2), CRENSHAW/120th, VERMONT (2), FIGUEROA, AVALON, WILMINGTON, IMPERIAL, LONG BEACH (2), LAKEWOOD, and HOXIE)
Number of Ingress/Egress:	6 WESTBOUND & 7 EASTBOUND

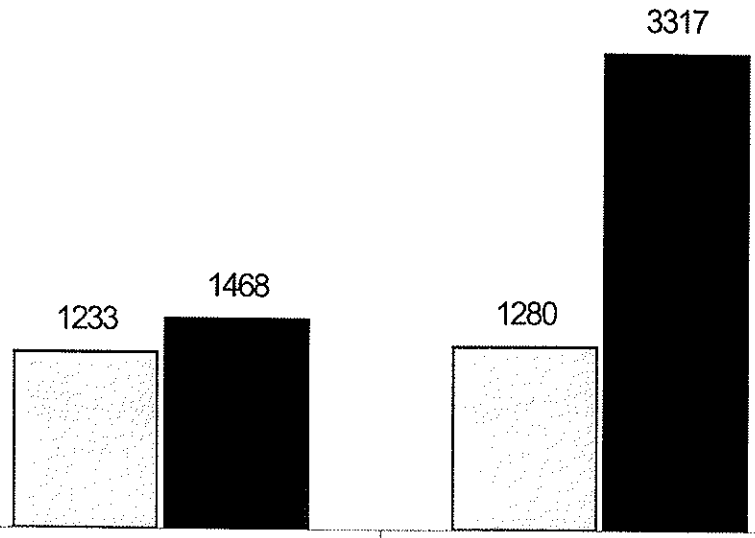
Unique Features:

The 105 freeway has a 10-ft left shoulder for the HOV lanes. The initial freeway construction was stopped for eight years due to environmental concerns. Court consent decree said to provide three mixed flow lanes, one HOV lane and one rail line in each direction.

Housing relocation and assistance program almost equal in value to freeway construction costs. The freeway has direct HOV connectors at Route 110/105 interchange. The Route 105/710 interchange used 6000 cubic yards of concrete, which would fill 18 soccer fields 3 ft deep. It used 6500 tons of steel-rebars which can make about 3500 cars.

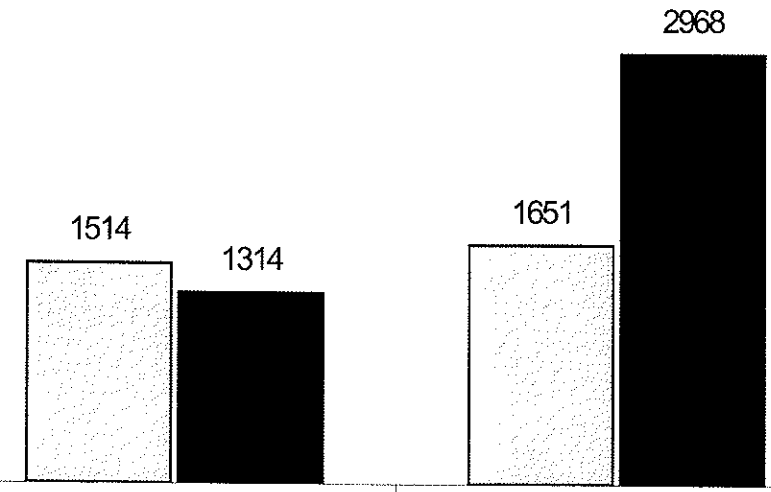
The most modern freeway has sensors built into the pavement linked to the Caltrans Traffic Operation Center.

PEAK HOUR COMPARISON



	Vehicles Per lane	People Per Lane
☐ Mixed Flow Lane	1233	1280
■ HOV Lane	1468	3317

Location: LA-105-W/B @ Long Beach Blvd
Date/Time: 03-09-05 / 7:30-8:30 AM



	Vehicles Per lane	People Per Lane
☐ Mixed Flow Lane	1514	1651
■ HOV Lane	1314	2968

Location: LA-105-E/B @ Long Beach Blvd
Date/Time: 03-08-05 / 3:45-4:45 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 105

Co. Rte. Dir.	LA - 105 - WB	LA - 105 - EB
Location	LONG BEACH	LONG BEACH
Post Mile	11.50	11.50
Date	03/09/05	03/08/05
HOV Peak Hour	7:30 - 8:30 AM	15:45 - 16:45 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1401	1237
Vanpools	18	27
Buses	12	3
Motorcycles	37	47
HOV lane Violators	22	16
Total Vehicles in HOV Lane	1490	1330
Carpools Using Mainline	105	371
HOV People Summary		
People in Carpool & Vanpools	3103	2821
People in Buses	177	100
People on Motorcycles	37	47
Violators	22	16
Total HOV People	3339	2984
Mainline Summary		
Mixed-Flow lanes	3	3
Mixed-flow Vehicles	3698	4541
Mixed-Flow People	3840	4954
Mixed-Flow People/Lane	1280	1651
Trucks on Mainlines	104	91
Freeway Summary		
Total Mixed-Flow People	3840	4954
Total HOV People	3339	2984
Total Freeway People	7179	7938
Percent Carried in HOV Lane	46.51%	37.59%
Percent Carried per Mixed-Flow Lane	17.83%	20.80%
Occupancy		
HOV Occupancy	2.24	2.24
Mainline Occupancy	1.04	1.09
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	2.61	1.81

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

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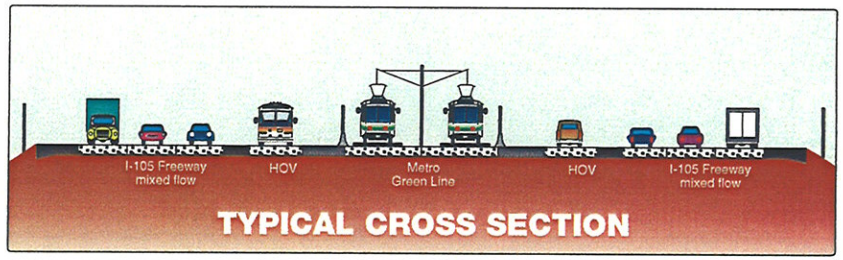
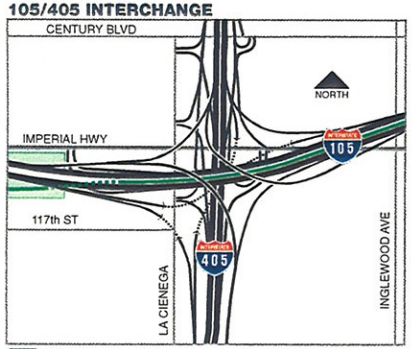
INTERSTATE 105
Glenn Anderson (Century) Freeway Transitway
Open - October 14, 1993



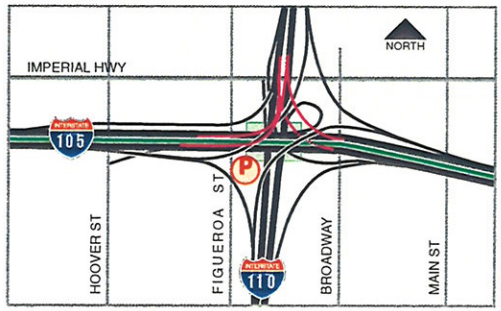
Not to Scale

105/405 INTERCHANGE



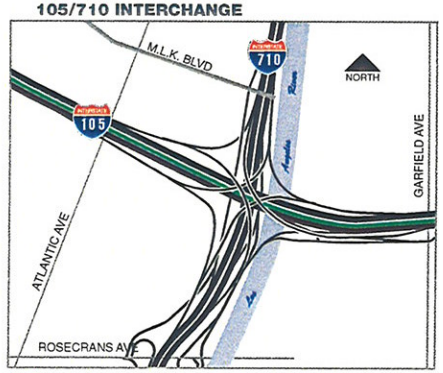
Transit Station (Open by June '95)
Metro Green Line (Open by June '95)

105/110 INTERCHANGE



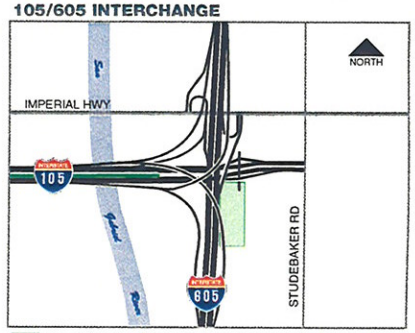
Freeway to Freeway HOV Connectors
Metro Green Line (Open by June '95)
Transit Station (Open by June '95)

105/710 INTERCHANGE



Metro Green Line (Open by June '95)

105/605 INTERCHANGE



Transit Station (Open by June '95)
Metro Green Line (Open by June '95)

HOV Ingress/Egress Locations

Transit Stations and Park & Ride Lot Locations

CALIFORNIA DEPARTMENT OF TRANSPORTATION • 105 HOV Map• 1/10/95

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FACT SHEET

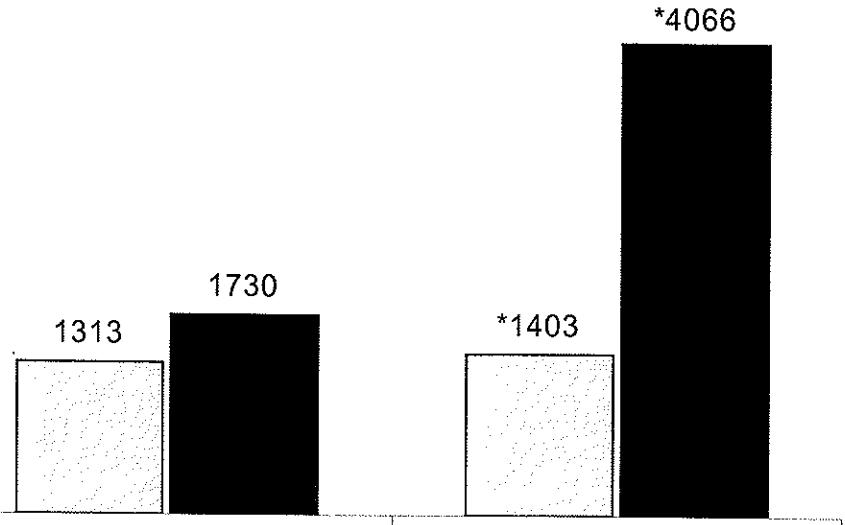
ROUTE 110
HARBOR FREEWAY

Project Limits & Length:	FROM ADAMS BLVD TO ROUTE 91; 10.7 MILES
Date of Opening:	JUNE 26, 1996
Cost:	$ 344.0 MILLION
Current Peak Hr Volume:	3460 VEHICLES ON 2 HOV LANES @ SLAUSON AVE
Park & Ride Facilities:	7 (SLAUSON (2), MANCHESTER (2), FIGUEROA, VERMONT/182nd, and CARSON/FIGUEROA)
Number of Ingress/Egress:	3 IN EACH DIRECTION

Unique Features:

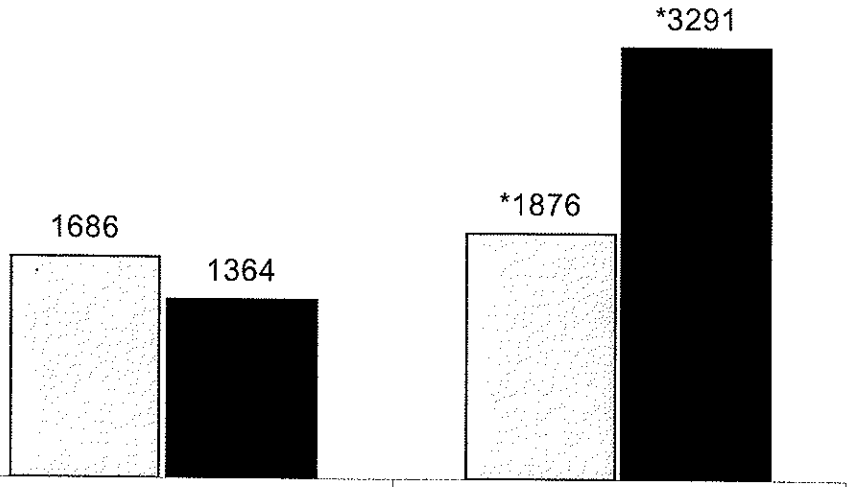
- 10.3 miles of exclusive transitway with 2.6 miles of elevated structures that are 67-ft wide.
- North of Route 105, the 110 Transitway has two HOV lanes in each direction.
- Direct HOV drop ramps at Adams Boulevard and 39th Street.

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1313	1403
■ HOV Lane	1730	4066

Location: LA-110-N/B @ Slauson Ave
Date/Time: 05-25-05 / 7:00-8:00 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1686	1876
■ HOV Lane	1364	3291

Location: LA-110-S/B @ Slauson Ave
Date/Time: 05-25-05 / 4:15-5:15 PM
* Two (2) HOV lanes at this location. Data shown represents volume on one (1) HOV lane

NOTE:
Data shown represents volume on two (2) HOV lanes in each direction.

CALTRANS - DISTRICT 7

HOV Operation on Route 110

Co. Rte. Dir.	LA - 110 - NB	LA - 110 - SB
Location	SLAUSON	SLAUSON
Post Mile	17.98	17.98
Date	05/25/05	05/25/05
HOV Peak Hour	7:00 - 8:00 AM	16:15 - 17:15 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	3357	2596
Vanpools	19	43
Buses	38	32
Motorcycles	46	57
HOV lane Violators	13	1
Total Vehicles in HOV Lane	3473	2729
Carpools Using Mainline	305	635
HOV People Summary		
People in Carpool & Vanpools	7119	5661
People in Buses	967	863
People on Motorcycles	46	57
Violators	13	1
Total HOV People	8145	6582
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	5250	6745
Mixed-Flow People	5610	7505
Mixed-Flow People/Lane	1403	1876
Trucks on Mainlines	134	108
Freeway Summary		
Total Mixed-Flow People	5610	7505
Total HOV People	8145	6582
Total Freeway People	13755	14087
Percent Carried in HOV Lane	59.21%	46.72%
Percent Carried per Mixed-Flow Lane	10.20%	13.32%
Occupancy		
HOV Occupancy	2.35	2.41
Mainline Occupancy	1.07	1.11
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	5.81	3.51

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

5/31/2005 9:30 AM C:\CountData\LA 110 SLAUSON 5-25-05

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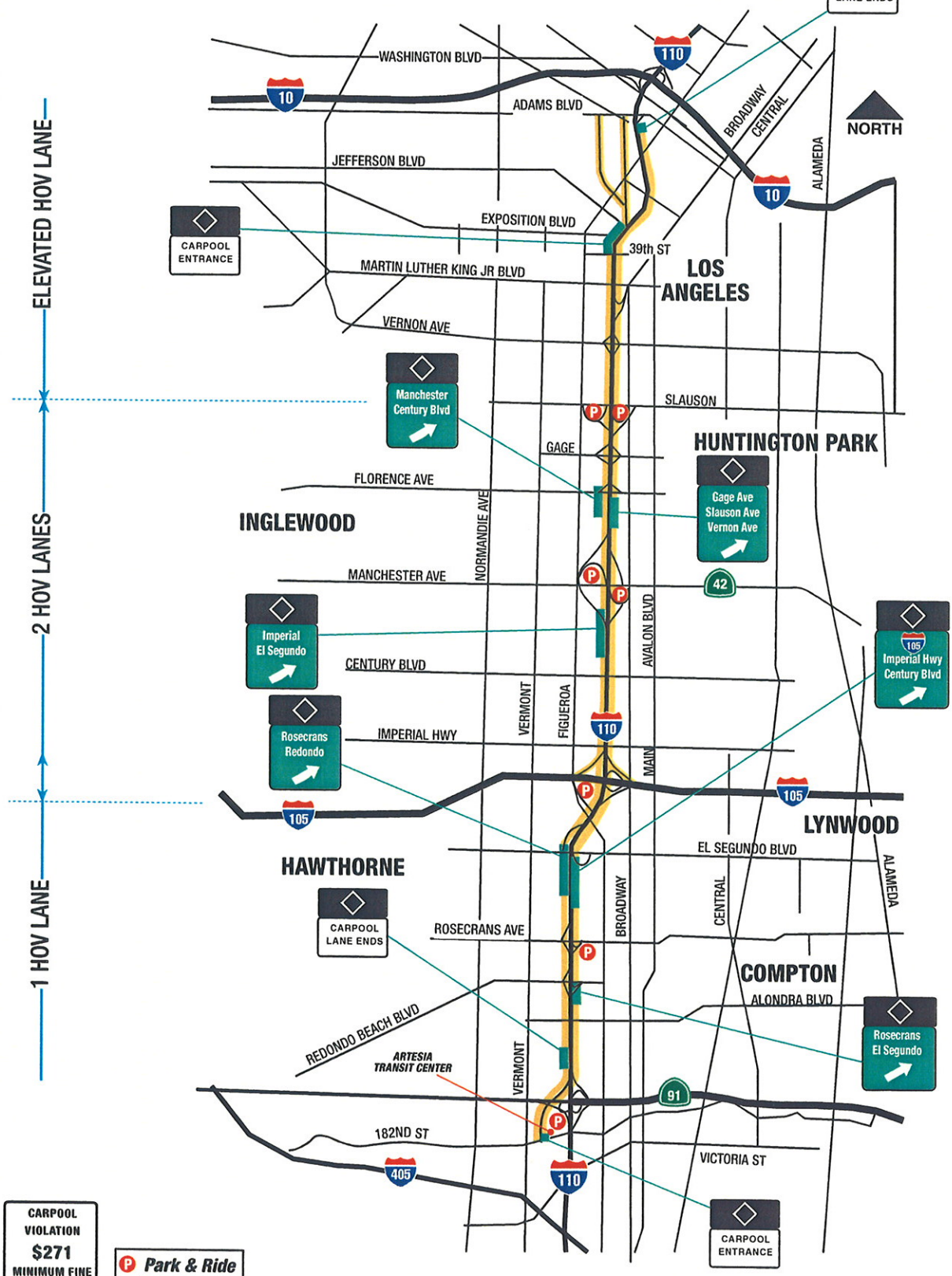
Harbor Freeway HOV Lane
Adams Blvd to Route 91



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110 HOV Egress/ing • 12/20/01

FACT SHEET

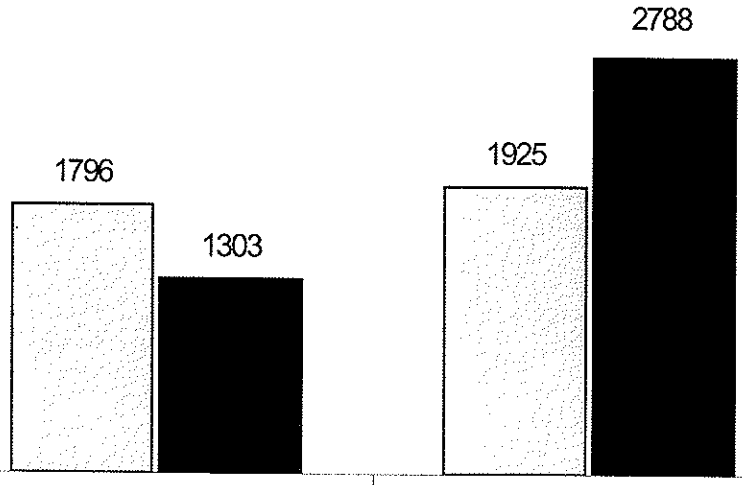
ROUTE 118
RONALD REAGAN FREEWAY

Project Limits & Length:	FROM VENTURA CO. LINE TO RTE 5; 11.4 MILES
Date of Opening:	MARCH 7, 1997
Cost:	$23.2 MILLION
Current Peak Hr Volume:	1303 VEHICLES @ RESEDA BLVD
Park & Ride Facilities:	3 (PORTER RANCH and CHATSWORTH (2))
Number of Ingress/Egress:	4 EASTBOUND & 5 WESTBOUND

Unique Features:

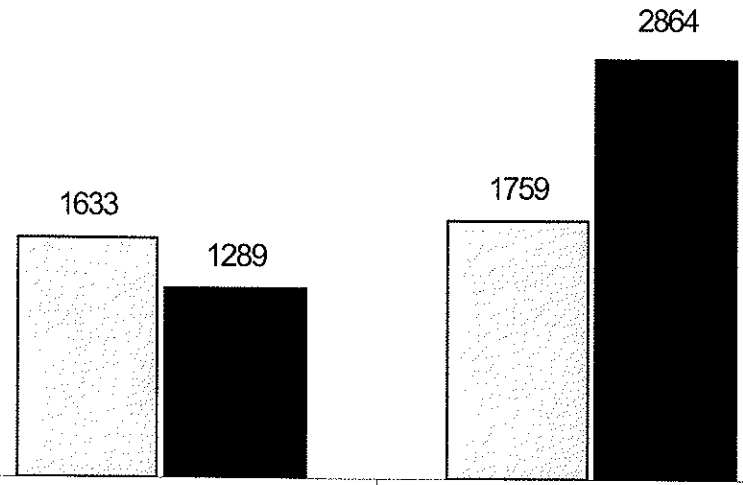
The construction of this HOV facility included the addition of another regular freeway lane as well. This facility has been open for 7 years, and the growth and change in traffic patterns has filled the additional regular lane and is accommodating over 1300 vehicles in the HOV lane.

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1796	1925
■ HOV Lane	1303	2788

Location: LA-118-W/B @ Reseda Blvd
Date/Time: 10-26-04 / 7:00-8:00 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1633	1759
■ HOV Lane	1289	2864

Location: LA-118-E/B @ Reseda Blvd
Date/Time: 12-01-04 / 4:15-5:15 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 118

Co. Rte. Dir.	LA - 118 - WB	LA - 118 - EB
Location	RESEDA	RESEDA
Post Mile	5.81	5.81
Date	10/26/04	12/01/04
HOV Peak Hour	7:00 - 8:00 AM	16:15 - 17:15 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1278	1245
Vanpools	13	25
Buses	3	4
Motorcycles	9	15
HOV lane Violators	0	3
Total Vehicles in HOV Lane	1303	1292
Carpools Using Mainline	460	450
HOV People Summary		
People in Carpool & Vanpools	2758	2749
People in Buses	21	100
People on Motorcycles	9	15
Violators	0	3
Total HOV People	2788	2867
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	7185	6530
Mixed-Flow People	7700	7035
Mixed-Flow People/Lane	1925	1759
Trucks on Mainlines	220	256
Freeway Summary		
Total Mixed-Flow People	7700	7035
Total HOV People	2788	2867
Total Freeway People	10488	9902
Percent Carried in HOV Lane	26.58%	28.95%
Percent Carried per Mixed-Flow Lane	18.35%	17.76%
Occupancy		
HOV Occupancy	2.14	2.22
Mainline Occupancy	1.07	1.08
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.45	1.63

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

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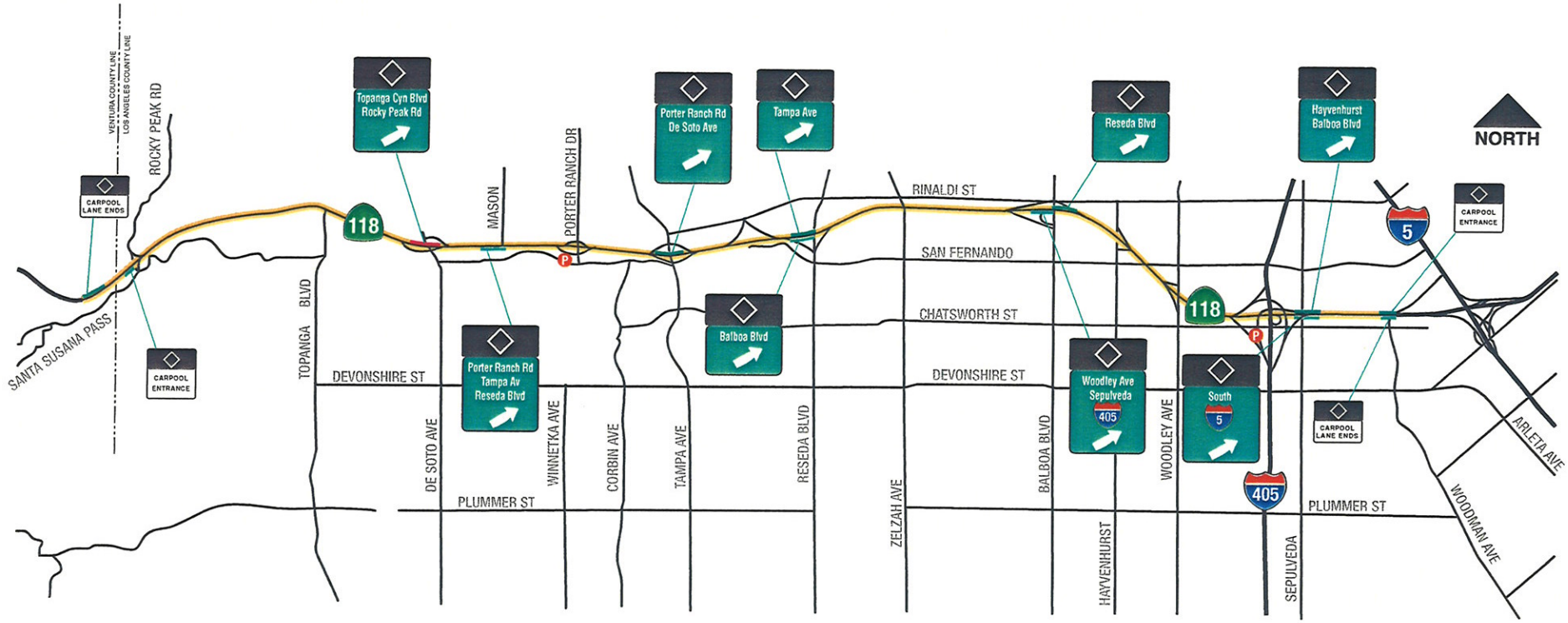
RONALD REAGAN FREEWAY HOV LANE

Ventura County line to Interstate 5



CARPOOLS ONLY

2 OR MORE PERSONS PER VEHICLE

CARPOOL IS 2 OR MORE PERSONS PER VEHICLE

CARPOOL VIOLATION $271 MINIMUM FINE

P Park & Ride

New ingress / egress

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FACT SHEET

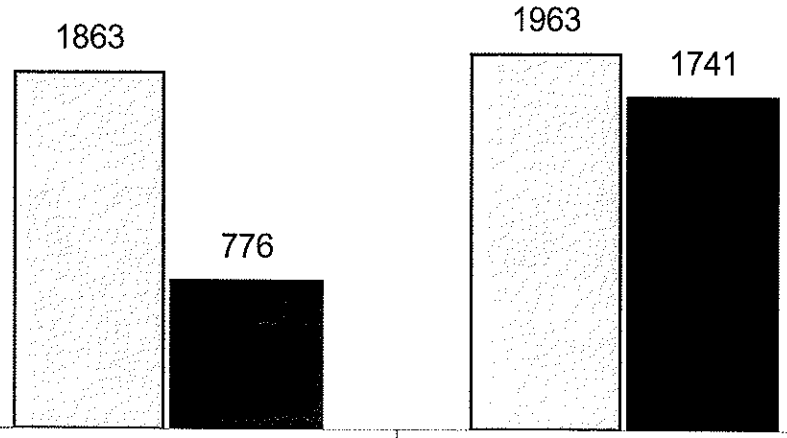
ROUTE 134
VENTURA FREEWAY

Project Limits & Length:	FROM ROUTE 101/170 TO ROUTE 5 FROM ROUTE 5 TO ROUTE 2 FROM ROUTE 2 TO ROUTE 210	5.1 MILES 4.2 MILES 3.6 MILES
Date of Opening:	ROUTE 101/170 TO ROUTE 5 ROUTE 5 TO ROUTE 2 ROUTE 2 TO ROUTE 210	OCTOBER 2, 1995 MARCH 12, 1996 AUGUST 30, 1996
Cost:	ROUTE 101/170 TO ROUTE 5 ROUTE 5 TO ROUTE 2 ROUTE 2 TO ROUTE 210	$6.6 MILLION $5.0 MILLION $7.8 MILLION
Current Peak Hr Volume:	998 VEHICLES @ JACKSON ST	
Park & Ride Facilities:	2 (HARVEY and VENTURA)	
Number of Ingress/Egress:	ROUTE 101/170 TO ROUTE 5 ROUTE 5 TO ROUTE 2 ROUTE 2 TO ROUTE 210	2 IN EACH DIRECITON 2 IN EACH DIRECTION 2 IN EACH DIRECTION

Unique Features:

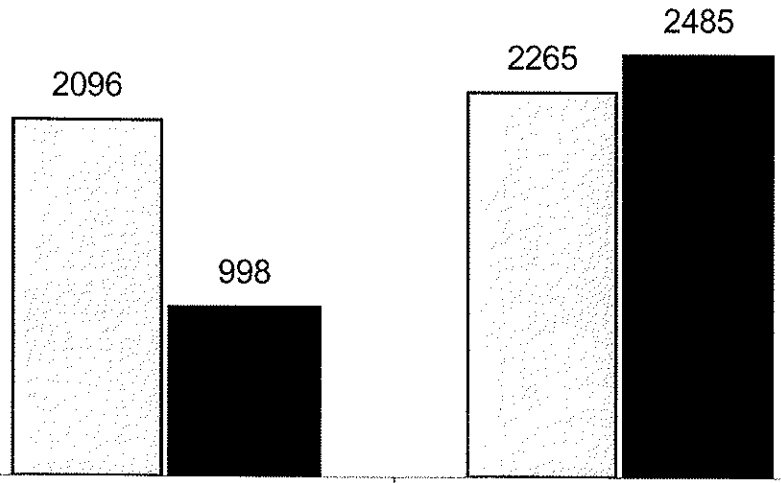
HOV discontinuity at Route 5 due to connectors of Route 5 to Route 134; HOV lane would have ended up in the #3 lane of the 134 freeway. Therefore, it ends and starts again in the median after 0.8 miles.

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1863	1963
■ HOV Lane	776	1741

Location: LA-134-W/B @ Jackson St.
Date/Time: 12-15-04 / 7:15-8:15 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	2096	2265
■ HOV Lane	998	2485

Location: LA-134-E/B @ Jackson St.
Date/Time: 12-14-04 / 3:00-4:00 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 134

Co. Rte. Dir.	LA - 134 - WB	LA - 134 - EB
Location	JACKSON	JACKSON
Post Mile	7.41	7.41
Date	12/15/04	12/14/04
HOV Peak Hour	7:15 - 8:15 AM	15:00 - 16:00 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	741	937
Vanpools	8	32
Buses	3	11
Motorcycles	24	18
HOV lane Violators	0	1
Total Vehicles in HOV Lane	776	999
Carpools Using Mainline	355	660
HOV People Summary		
People in Carpool & Vanpools	1636	2157
People in Buses	81	310
People on Motorcycles	24	18
Violators	0	1
Total HOV People	1741	2486
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	7450	8385
Mixed-Flow People	7850	9060
Mixed-Flow People/Lane	1963	2265
Trucks on Mainlines	91	61
Freeway Summary		
Total Mixed-Flow People	7850	9060
Total HOV People	1741	2486
Total Freeway People	9591	11546
Percent Carried in HOV Lane	18.15%	21.53%
Percent Carried per Mixed-Flow Lane	20.46%	19.62%
Occupancy		
HOV Occupancy	2.24	2.49
Mainline Occupancy	1.05	1.08
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	0.89	1.10

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

12/16/2004 10:14 AM

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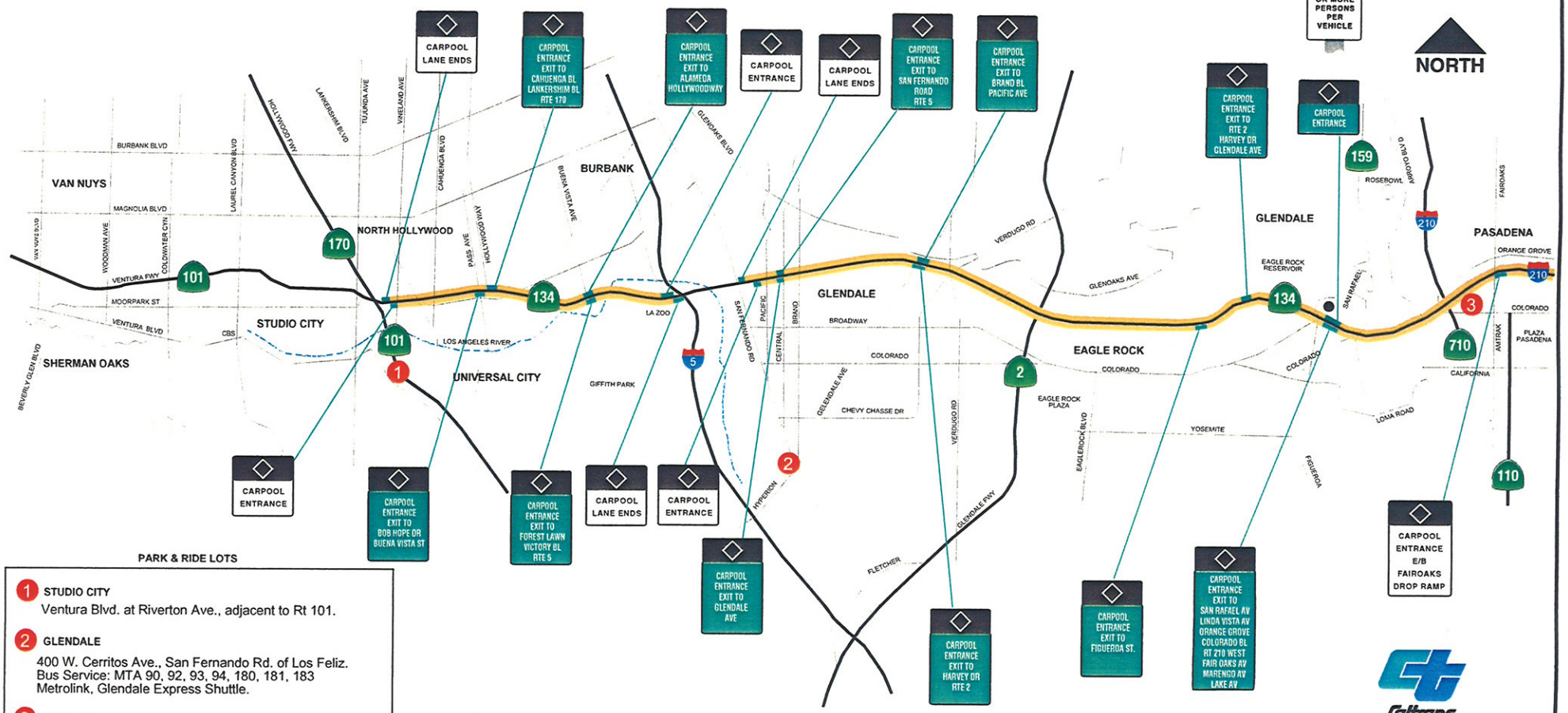
VENTURA FREEWAY CARPOOL LANE
North Hollywood to Pasadena



PARK & RIDE LOTS

1. **STUDIO CITY**
   Ventura Blvd. at Riverton Ave., adjacent to Rt 101.
2. **GLENDALE**
   400 W. Cerritos Ave., San Fernando Rd. of Los Feliz.
   Bus Service: MTA 90, 92, 93, 94, 180, 181, 183
   Metrolink, Glendale Express Shuttle.
3. **PASADENA**
   Ralph M. Parsons Co., Pasadena Ave. at Union, adjacent interchange Rtes 710, 134, 210.
   (MTA commuter parking only). Bus Service: MTA 402, 483.
   Rte 210 at Sierra Madre Blvd.
   Bus Service: MTA 487. 4 bike lockers.

CARPOOL VIOLATION
$271
MINIMUM FINE

California Department of Transportation District 7, Los Angeles and Ventura Counties 100 Main St., Los Angeles, CA 90012
Rideshare Information (800) COMMUTE Bike Lockers (213) 897-0235

Caltrans

District 7 Graphic Services • 134 HOVegres/ing • 6/29/05

FACT SHEET

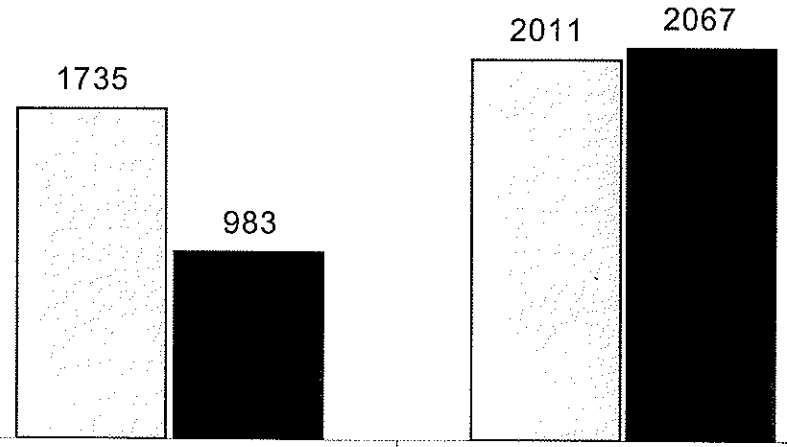
ROUTE 170
HOLLYWOOD FREEWAY
EXTENSION

Project Limits & Length:	FROM ROUTE 101/134 TO ROUTE 5; 6.1 MILES
Date of Opening:	FEBUARY 11, 1996
Cost:	$7.3 MILLION
Current Peak Hr Volume:	983 VEHICLES @ SHERMAN WAY
Park & Ride Facilities:	2 (OXNARD and VENTURA)
Number of Ingress/Egress:	2 IN EACH DIRECTION

Unique Features:

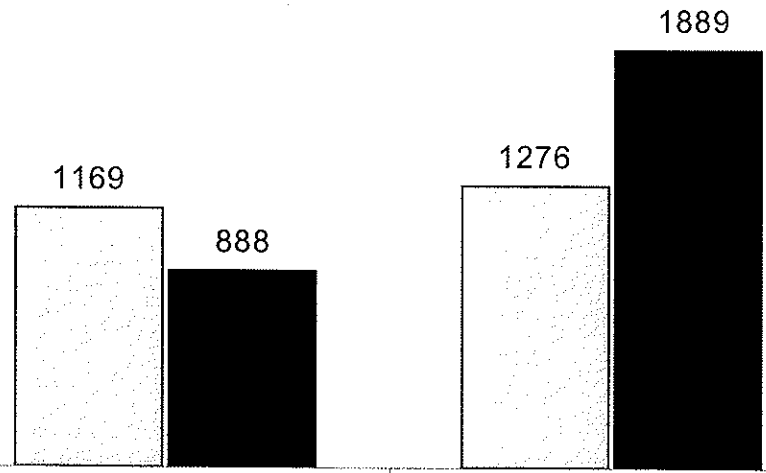
Fast track HOV project.

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1735	2011
■ HOV Lane	983	2067

Location: LA-170-S/B @ Sherman Way
Date/Time: 12-14-04 / 6:45-7:45 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1169	1276
■ HOV Lane	888	1889

Location: LA-170-N/B @ Sherman Way
Date/Time: 02-01-05 / 3:45-4:45 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 170

Co. Rte. Dir.	LA - 170 - SB	LA - 170 - NB
Location	SHERMAN WAY	SHERMAN WAY
Post Mile	18.27	18.27
Date	12/14/04	02/01/05
HOV Peak Hour	6:45 - 7:45 AM	15:45 - 16:45 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	960	849
Vanpools	8	19
Buses	0	1
Motorcycles	15	19
HOV lane Violators	44	1
Total Vehicles in HOV Lane	1027	889
Carpools Using Mainline	975	390
HOV People Summary		
People in Carpool & Vanpools	2052	1860
People in Buses	0	10
People on Motorcycles	15	19
Violators	44	1
Total HOV People	2111	1890
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	6940	4675
Mixed-Flow People	8045	5105
Mixed-Flow People/Lane	2011	1276
Freeway Summary		
Total Mixed-Flow People	8045	5105
Total HOV People	2111	1890
Total Freeway People	10156	6995
Percent Carried in HOV Lane	20.79%	27.02%
Percent Carried per Mixed-Flow Lane	19.80%	18.25%
Occupancy		
HOV Occupancy	2.06	2.13
Mainline Occupancy	1.16	1.09
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.05	1.48

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

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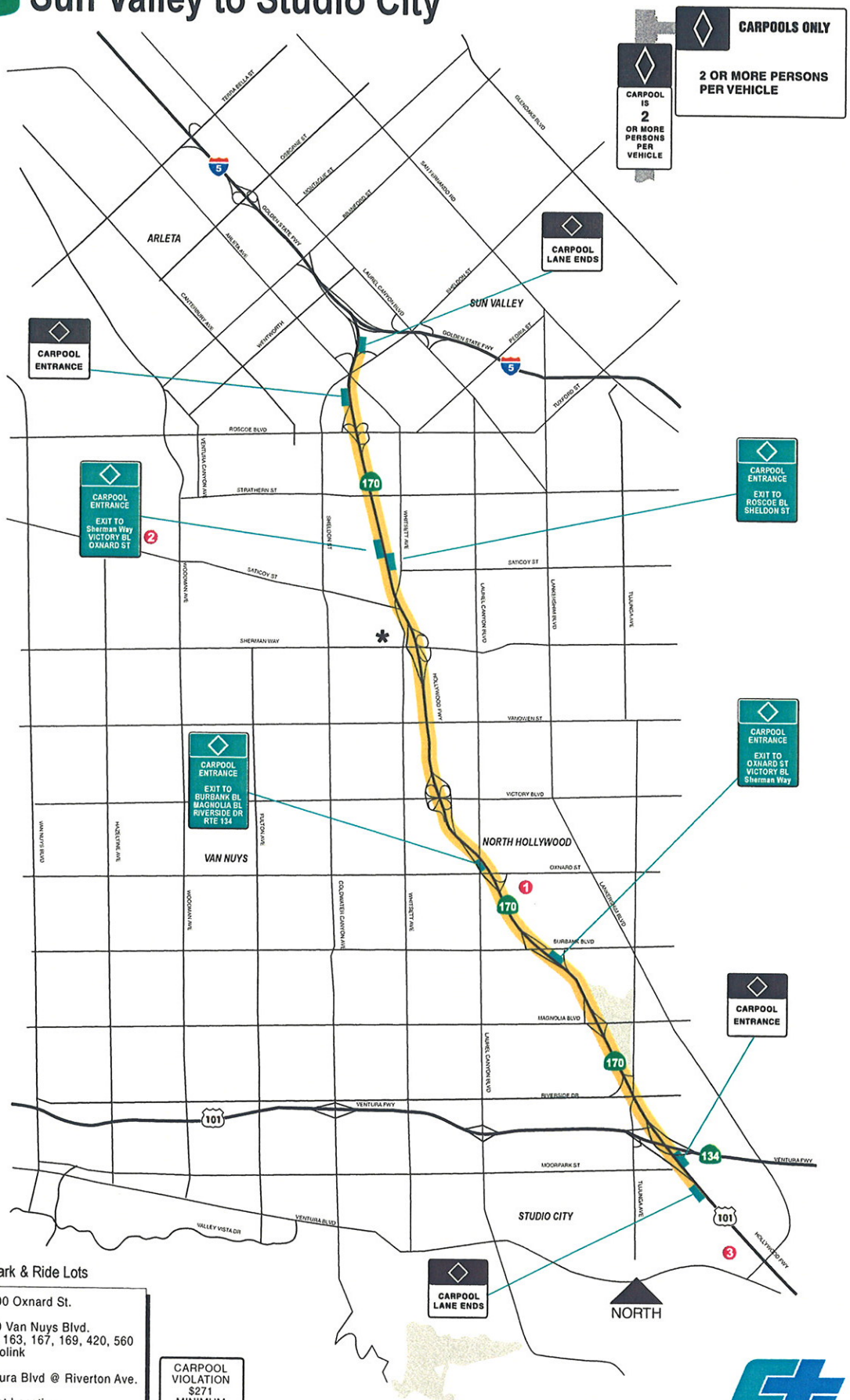
170 HOLLYWOOD FREEWAY CARPOOL LANE
Sun Valley to Studio City



Park & Ride Lots

1. 12000 Oxnard St.
2. 7720 Van Nuys Blvd. MTA 163, 167, 169, 420, 560 Metrolink
3. Ventura Blvd @ Riverton Ave.

✱ Count Location

CARPOOL VIOLATION $271 MINIMUM FINE

California Department of Transportation * District 7, Los Angeles and Ventura Counties * 120 S. Spring St., Los Angeles, CA 90012
Rideshare Information (800) COMMUTE * Bike Lockers (213) 897-0235

Caltrans

District 7 Graphic Services •170 Ingress.fh10 •5/11/02

FACT SHEET

ROUTE 210
FOOTHILL FREEWAY

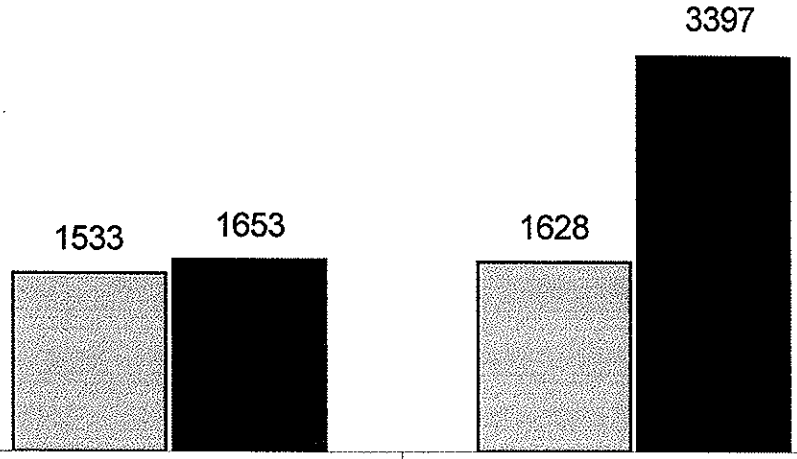
PROJECT LIMITS & LENGTH:	FROM ROUTE 134 TO SUNFLOWER AVE	18.5 MILES
	FROM SUNFLOWER AVE TO FOOTHILL BLVD	2.3 MILES
	FROM FOOTHILL BLVD TO SBD COUNTY LINE	6.0 MILES
Date of Opening:	FROM ROUTE 134 TO SUNFLOWER AVE	DEC 16, 1993
	FROM SUNFLOWER AVE TO FOOTHILL BLVD	SEP 08, 1997
	FROM FOOTHILL BLVD TO SBD COUNTY LINE	NOV 24, 2002
Cost:	FROM ROUTE 134 TO SUNFLOWER AVE	$8.9 MILLION
	FROM SUNFLOWER AVE TO FOOTHILL BLVD	$7.0 MILLION
	FROM FOOTHILL BLVD TO SBD COUNTY LINE	$91.0 MILLION
Current Peak Hr Volume:	1655 VEHICLES @ SECOND ST	
Park & Ride Facilities:	5 (SAN GABRIEL/SIERRA MADRE, FOOTHILL/SANTA ANITA, MYRTLE, BASELINE RD, AND LONE HILL)	
Number of Ingress/Egress:	14 IN EACH DIRECTION	

Unique Features:

The 210 Freeway was built within the last two decades. The HOV project was built in 1994. Construction of HOV started as use of the existing median shoulder, but project required removal of shoulder and construction of structural section in the median. Several design features were tested as to start and end of the HOV's, and a direct drop ramp from a city street in Pasadena. The HOV drop ramp at Fair Oaks Avenue was opened on May 30, 1996.

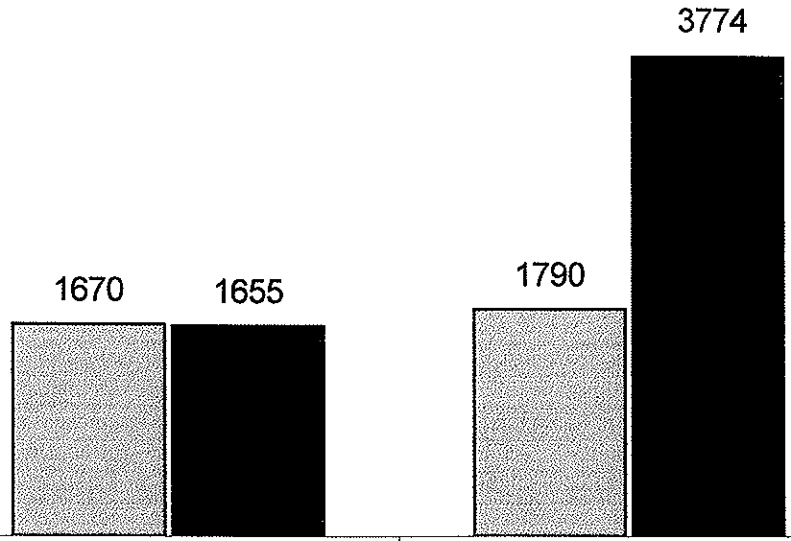
Completion and opening of 14 miles of the new Foothill Freeway (SR-210) between Foothill Boulevard (County of Los Angeles) and Day Creek Boulevard (County of San Bernardino) to connect with six-mile section of the freeway that opened in August 2001 from Day Creek Boulevard to Sierra Avenue. The new freeway segment provides additional freeway capacity and an alternate east/west route for commuters. The project constructed eight lanes of freeway (three mixed-flow lanes and one High Occupancy Vehicle (HOV) lane in each direction) with space for future widening in the median. This new freeway segment connects with I-15, the direct route to Las Vegas.

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
Mixed Flow Lane	1533	1628
HOV Lane	1653	3397

Location: LA-210-W/B @ Second St.
Date/Time: 12-09-04 / 6:30-7:30 AM



	Vehicles Per Lane	People Per Lane
Mixed Flow Lane	1670	1790
HOV Lane	1655	3774

Location: LA-210-E/B @ Second St.
Date/Time: 02-23-05 / 3:45-4:45 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 210

Co. Rte. Dir.	LA - 210 - WB	LA - 210 - EB
Location	2nd ST.	2nd ST.
Post Mile	39.12	39.12
Date	12/09/04	02/23/05
HOV Peak Hour	6:30 - 7:30 AM	15:45 - 16:45 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1594	1606
Vanpools	13	33
Buses	1	5
Motorcycles	45	11
HOV lane Violators	10	7
Total Vehicles in HOV Lane	1663	1662
Carpools Using Mainline	335	385
HOV People Summary		
People in Carpool & Vanpools	3351	3583
People in Buses	1	180
People on Motorcycles	45	11
Violators	10	7
Total HOV People	3407	3781
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	6130	6680
Mixed-Flow People	6510	7160
Mixed-Flow People/Lane	1628	1790
Trucks on Mainlines	290	262
Freeway Summary		
Total Mixed-Flow People	6510	7160
Total HOV People	3407	3781
Total Freeway People	9917	10941
Percent Carried in HOV Lane	34.36%	34.56%
Percent Carried per Mixed-Flow Lane	16.41%	16.36%
Occupancy		
HOV Occupancy	2.05	2.27
Mainline Occupancy	1.06	1.07
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	2.09	2.11

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

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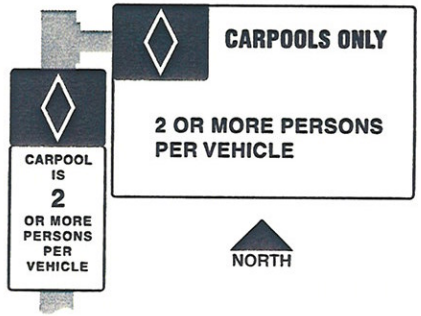
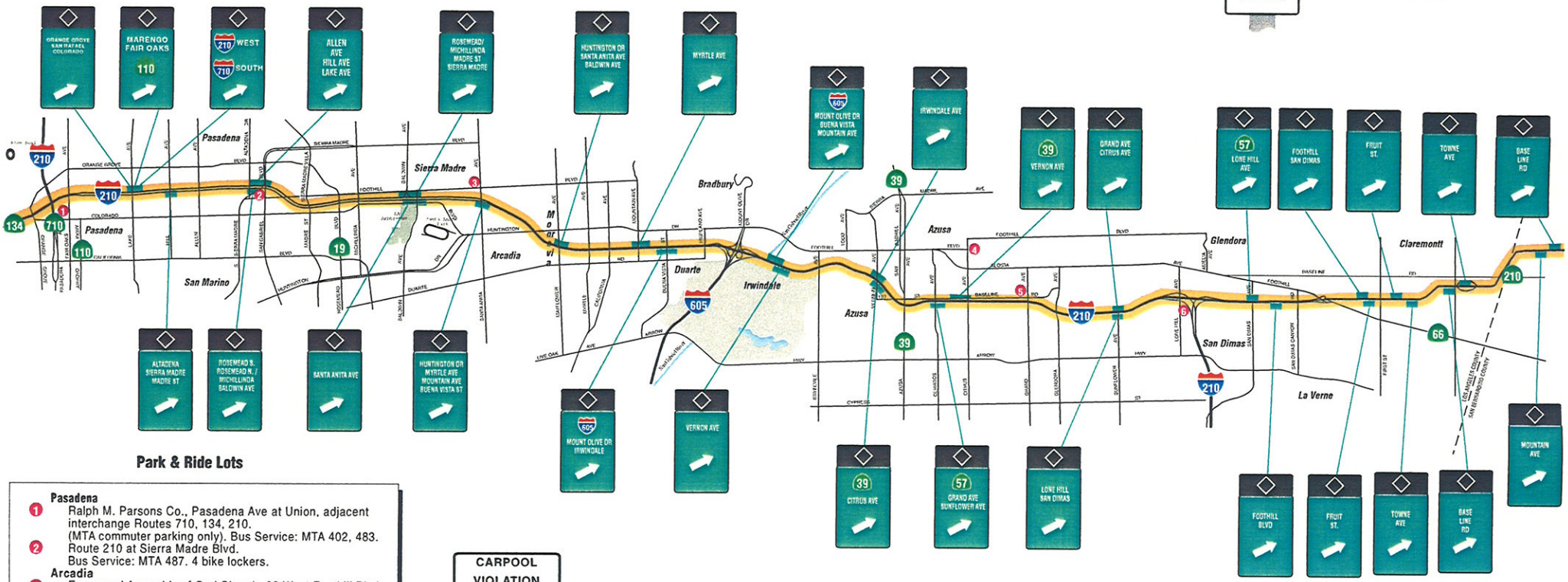
FOOTHILL FREEWAY HOV LANE

Pasadena to San Bernardino County





Park & Ride Lots

Pasadena

1. Ralph M. Parsons Co., Pasadena Ave at Union, adjacent interchange Routes 710, 134, 210. (MTA commuter parking only). Bus Service: MTA 402, 483.
2. Route 210 at Sierra Madre Blvd. Bus Service: MTA 487. 4 bike lockers.

Arcadia

3. Emmanuel Assembly of God Church, 23 West Foothill Blvd. Bus Service: MTA 491.

Glendora

4. Citrus College, Foothill Blvd. and Citrus Ave. Bus Service: MTA 187, 247; FT 488.
5. 628 West Baseline at Grand Ave adjacent I-210. Bus Service: FT 690. 8 bike lockers.
6. 1000 South Lone Hill Ave at I-210 Bus Service: FT 690.

CARPOOL VIOLATION
$271
MINIMUM FINE

California Department of Transportation District 7, Los Angeles and Ventura Counties 120 S. Spring St., Los Angeles, CA 90012

Caltrans

210 HOVegresing(NEW) 7/18/05

FACT SHEET

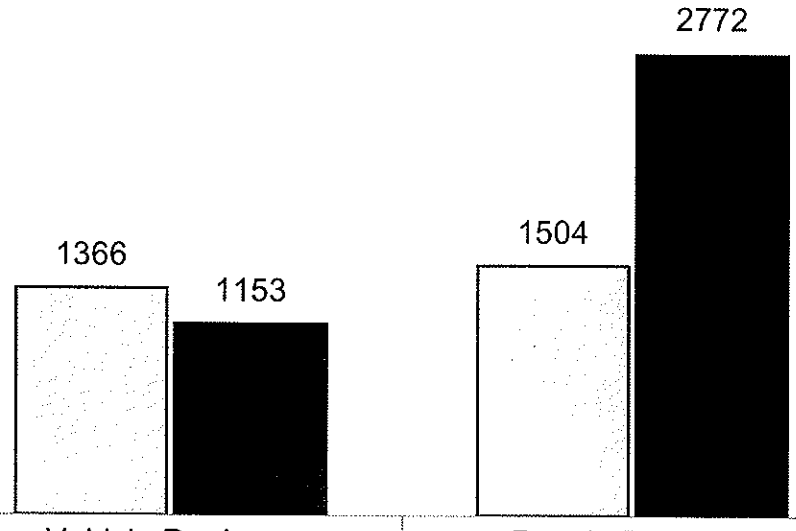
ROUTE 405
SAN DIEGO FREEWAY

Project Limits & Length:	FROM BELLFLOWER BLVD TO ROUTE 605	2.2 MILES
	FROM ROUTE 110 TO 120TH STREET	7.7 MILES
	FROM 120TH STREET TO CENTURY BLVD	2.0 MILES
	FROM ROUTE 101 TO ROUTE 5	10.1 MILES
	FROM ORA CO LINE TO ROUTE 710	7.6 MILES
	FROM ROUTE 710 TO ROUTE 110	6.1 MILES
	FROM WATERFORD TO RTE 101 S/B ONLY	7.8 MILES
Date of Opening:	FROM BELLFLOWER BLVD TO ROUTE 605	OCT 02, 1993
	FROM ROUTE 110 TO 120TH STREET	APR 08, 1993
	FROM 120TH STREET TO CENTURY BLVD	JAN 1994
	FROM ROUTE 101 TO ROUTE 5	OCT 22, 1996
	FROM ORA CO LINE TO ROUTE 710	FEB 12, 1998
	FROM ROUTE 710 TO ROUTE 110	OCT 08, 1998
	FROM WATERFORD TO RTE 101 S/B ONLY	JAN 08, 2002
Cost:	FROM BELLFLOWER BLVD TO ROUTE 605	$ 4.8 MILLION
	FROM ROUTE 110 TO 120TH STREET	$ 8.3 MILLION
	FROM ROUTE 101 TO ROUTE 5	$15.1 MILLION
	FROM ORA CO LINE TO ROUTE 710	$29.7 MILLION
	FROM ROUTE 710 TO ROUTE 110	$28.2 MILLION
	FROM WATERFORD TO RTE 101 S/B ONLY	$15.3 MILLION
Current Peak Hr Volume:	1564 VEHICLES @ TEMPLE	
Park & Ride Facilities:	12 (CHATSWORTH (2), SKIRBALL CENTER, NATIONAL, AVIATION, EL SEGUNDO, MARINE, KINGSDALE, VERMONT/182nd, WARDLOW, LONG BEACH, and BELLFLOWER)	
Number of Ingress/Egress:	FROM ROUTE 105 TO ROUTE 110	4 IN EACH DIRECTION
	FROM ROUTE 5 TO ROUTE 101	3 N/B, 4 S/B
	FROM ORA CO LINE TO RT 710	4 IN EACH DIRECTION
	FROM ROUTE 710 TO ROUTE 110	2 IN EACH DIRECTION
	FROM ROUTE 101 TO WATERFORD	4 S/B ONLY

Unique Features:
The HOV facility between 120th Street to Route 110 was opened initially with one ingress/egress location. Two more ingress/egress were approved and constructed in each direction later.

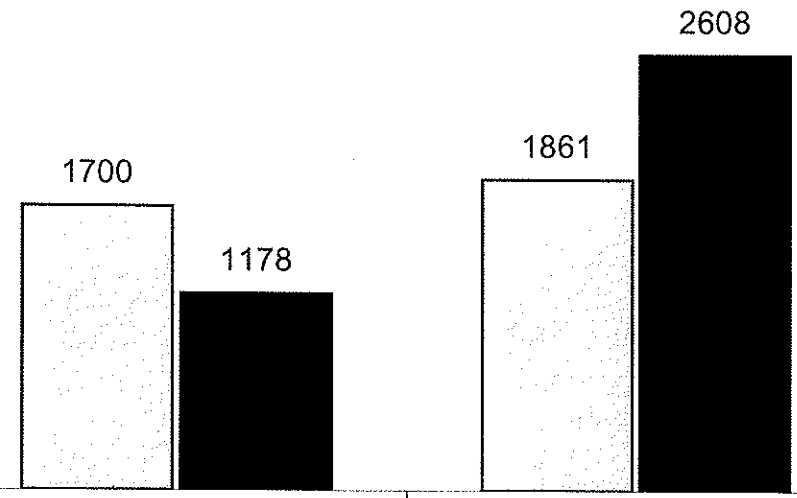
The HOV extension from Route 105 to 120th Street was accomplished by a signing and striping CCO to the Route 105 construction project.

PEAK HOUR COMPARISON



	Vehicle Per Lane	People Per Lane
☐ Mixed Flow Lane	1366	1504
■ HOV Lane	1153	2772

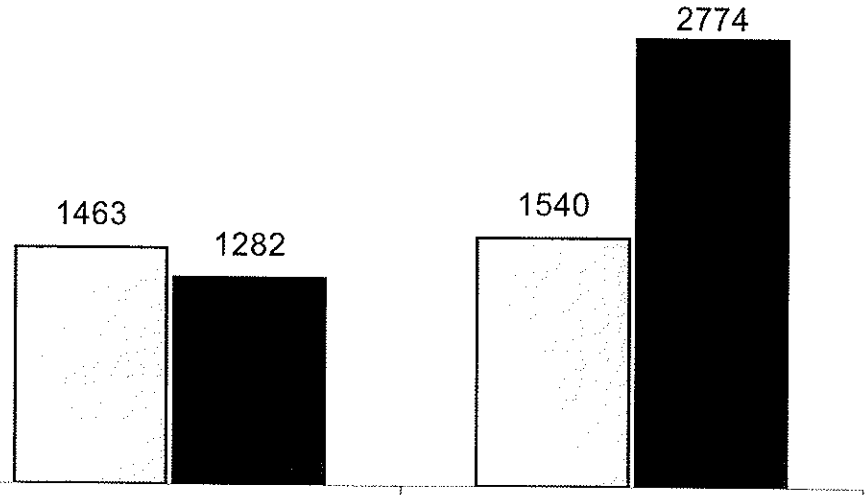
Location: LA-405-S/B @ Burbank Blvd
Date/Time: 02-15-05 / 6:30-7:30 AM



	Vehicle Per Lane	People Per Lane
☐ Mixed Flow Lane	1700	1861
■ HOV Lane	1178	2608

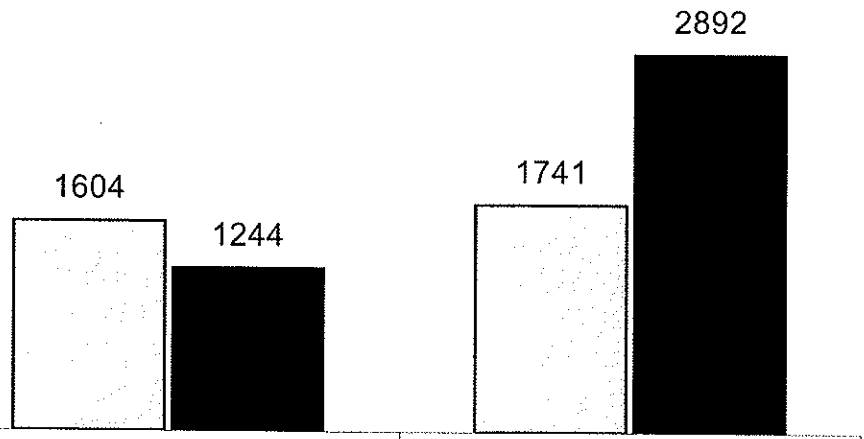
Location: LA-405-N/B @ Burbank Blvd
Date/Time: 02-16-05 / 4:15-5:15 PM

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1463	1540
■ HOV Lane	1282	2774

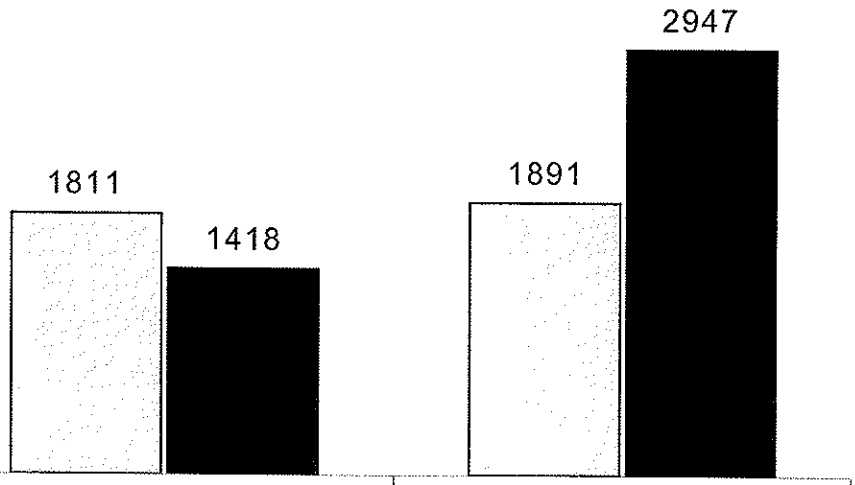
Location: LA-405-N/B @ Normandie
Date/Time: 03-17-05 / 7:00-8:00 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1604	1741
■ HOV Lane	1244	2892

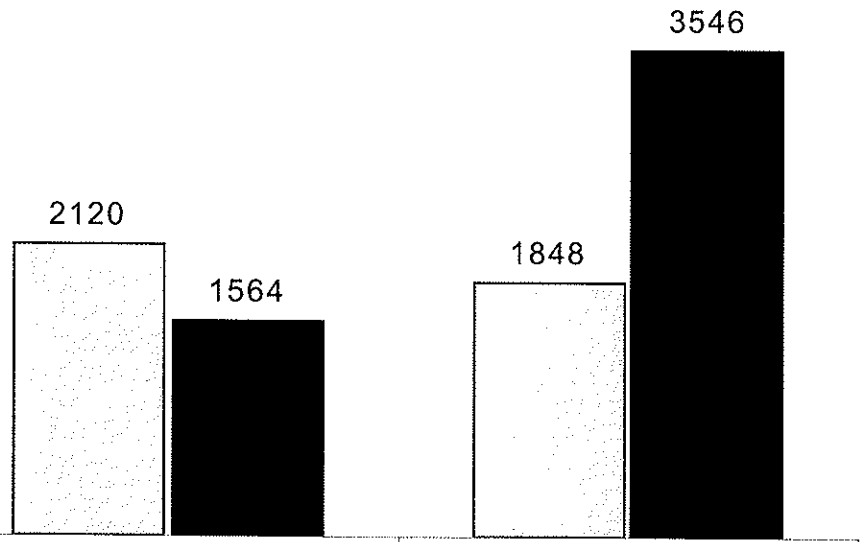
Location: LA-405-S/B @ Normandie
Date/Time: 03-16-05 / 4:00-5:00 PM

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	1811	1891
■ HOV Lane	1418	2947

Location: LA-405-N/B @ Temple Ave.
Date/Time: 03-22-05 / 6:45-7:45 AM



	Vehicles Per Lane	People Per Lane
☐ Mixed Flow Lane	2120	1848
■ HOV Lane	1564	3546

Location: LA-405-S/B @ Temple Ave.
Date/Time: 03-09-05 / 4:15-5:15 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 405

Co. Rte. Dir.	LA - 405 - SB	LA - 405 - NB
Location	BURBANK	BURBANK
Post Mile	40.28	40.27
Date	02/15/05	02/16/05
HOV Peak Hour	6:30 - 7:30 AM	16:15 - 17:15 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1093	1119
Vanpools	33	41
Buses	7	1
Motorcycles	20	17
HOV lane Violators	2	6
Total Vehicles in HOV Lane	1155	1184
Carpools Using Mainline	470	570
HOV People Summary		
People in Carpool & Vanpools	2492	2581
People in Buses	260	10
People on Motorcycles	20	17
Violators	2	6
Total HOV People	2774	2614
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	5465	6800
Mixed-Flow People	6015	7445
Mixed-Flow People/Lane	1504	1861
Trucks on Mainlines	125	139
Freeway Summary		
Total Mixed-Flow People	6015	7445
Total HOV People	2774	2614
Total Freeway People	8789	10059
Percent Carried in HOV Lane	31.56%	25.99%
Percent Carried per Mixed-Flow Lane	17.11%	18.50%
Occupancy		
HOV Occupancy	2.40	2.21
Mainline Occupancy	1.10	1.09
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.84	1.40

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

CALTRANS - DISTRICT 7

HOV Operation on Route 405

Co. Rte. Dir.	LA - 405 - NB	LA - 405 - SB
Location	NORMANDIE	NORMANDIE
Post Mile	13.81	13.81
Date	03/17/05	03/16/05
HOV Peak Hour	7:00 - 8:00 AM	16:00 - 17:00 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1207	1127
Vanpools	34	75
Buses	1	3
Motorcycles	40	39
HOV lane Violators	1	6
Total Vehicles in HOV Lane	1283	1250
Carpools Using Mainline	280	465
HOV People Summary		
People in Carpool & Vanpools	2694	2832
People in Buses	40	21
People on Motorcycles	40	39
Violators	1	6
Total HOV People	2775	2898
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	5850	6415
Mixed-Flow People	6160	6965
Mixed-Flow People/Lane	1540	1741
Trucks on Mainlines	174	112
Freeway Summary		
Total Mixed-Flow People	6160	6965
Total HOV People	2775	2898
Total Freeway People	8935	9863
Percent Carried in HOV Lane	31.06%	29.38%
Percent Carried per Mixed-Flow Lane	17.24%	17.65%
Occupancy		
HOV Occupancy	2.16	2.32
Mainline Occupancy	1.05	1.09
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.80	1.66

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

3/21/2005 10:28 AM C:\CountData\LA 405 NORMANDIE 3-16-05

CALTRANS - DISTRICT 7

HOV Operation on Route 405

Co. Rte. Dir.	LA - 405 - NB	LA - 405 - SB
Location	TEMPLE	TEMPLE
Post Mile	4.33	4.33
Date	03/22/05	03/09/05
HOV Peak Hour	6:45 - 7:45 AM	16:15 - 17:15 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1374	1450
Vanpools	22	56
Buses	0	5
Motorcycles	22	53
HOV lane Violators	8	6
Total Vehicles in HOV Lane	1426	1570
Carpools Using Mainline	275	582
HOV People Summary		
People in Carpool & Vanpools	2925	3362
People in Buses	0	131
People on Motorcycles	22	53
Violators	8	6
Total HOV People	2955	3552
Mainline Summary		
Mixed-Flow lanes	4	5
Mixed-flow Vehicles	7245	8478
Mixed-Flow People	7565	9240
Mixed-Flow People/Lane	1891	1848
Trucks on Mainlines	122	141
Freeway Summary		
Total Mixed-Flow People	7565	9240
Total HOV People	2955	3552
Total Freeway People	10520	12792
Percent Carried in HOV Lane	28.09%	27.77%
Percent Carried per Mixed-Flow Lane	17.98%	14.45%
Occupancy		
HOV Occupancy	2.07	2.26
Mainline Occupancy	1.04	1.09
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.56	1.92

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

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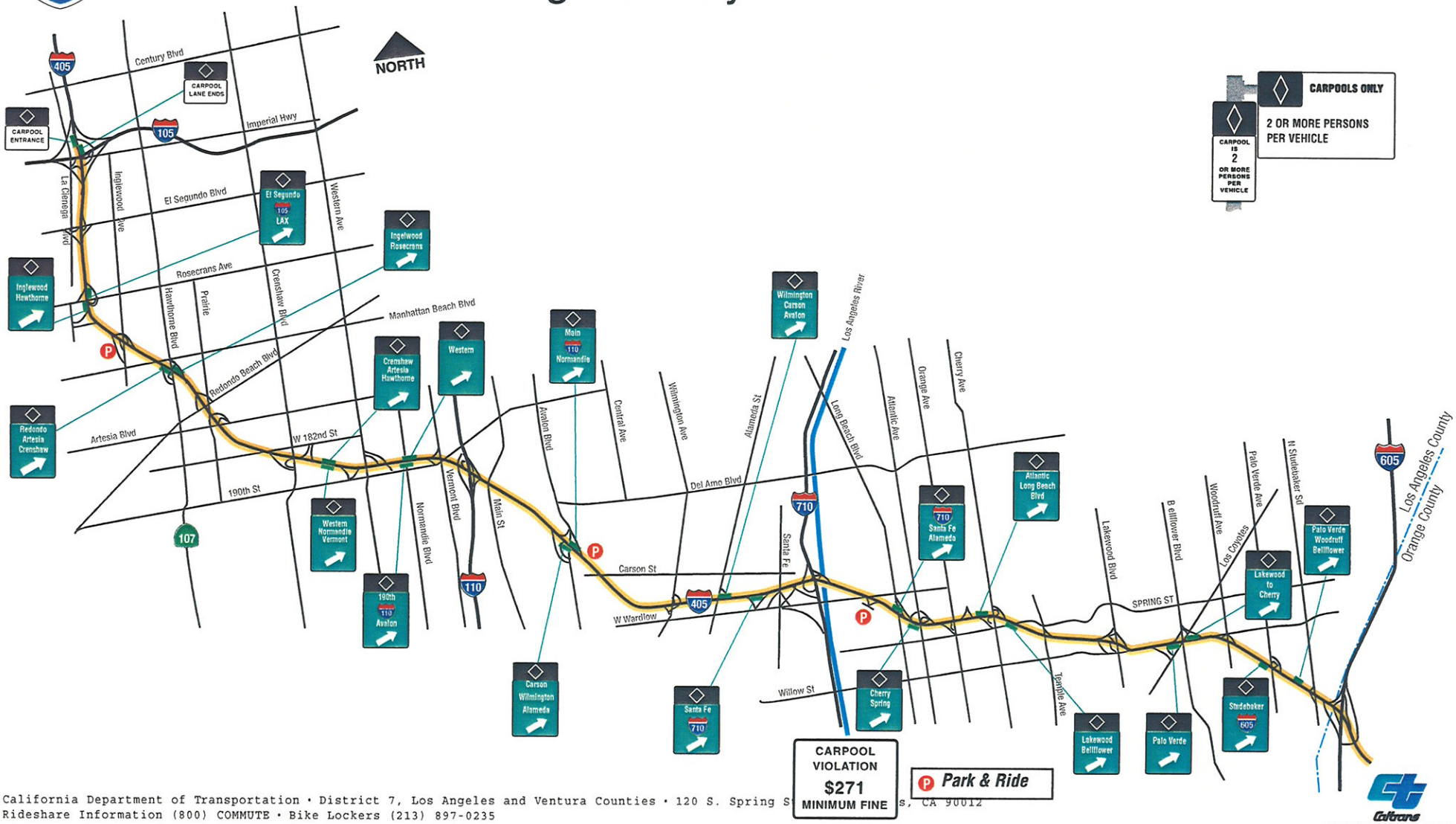
405
SAN DIEGO FREEWAY HOV LANE
Route 101 to Waterford St.
CARPOOLS ONLY
2 OR MORE PERSONS PER VEHICLE
NORTH
RINALDI
NORDHOFF
ROSCOE SHERMAN WAY
DEVONSHIRE
VICTORY
ROSCOE NORDHOFF
BURBANK
VALLEY VISTA
SKIRBALL CTR. DR.
SEPULVEDA BLVD.
SUNSET BLVD
Encino
Sherman Oaks
Beverly Glen
Bel Air Estates
Brentwood Heights
Brentwood
Santa Monica
LIMITS OF CARPOOL LANE OPENED JANUARY 2002
CARPOOL VIOLATION
$271
MINIMUM FINE
Park & Ride
California Department of Transportation District 7, Los Angeles and Ventura Counties 120 S. Spring St. Los Angeles, CA 90012
Rideshare Information (800) COMMUTE Bike Lockers (213) 897-0235
Caltrans

SAN DIEGO FREEWAY HOV LANE

Interstate105 to Orange County Line



California Department of Transportation • District 7, Los Angeles and Ventura Counties • 120 S. Spring S[illegible]s, CA 90012
Rideshare Information (800) COMMUTE • Bike Lockers (213) 897-0235

405 HOV(105-Orange) • 4/16/02

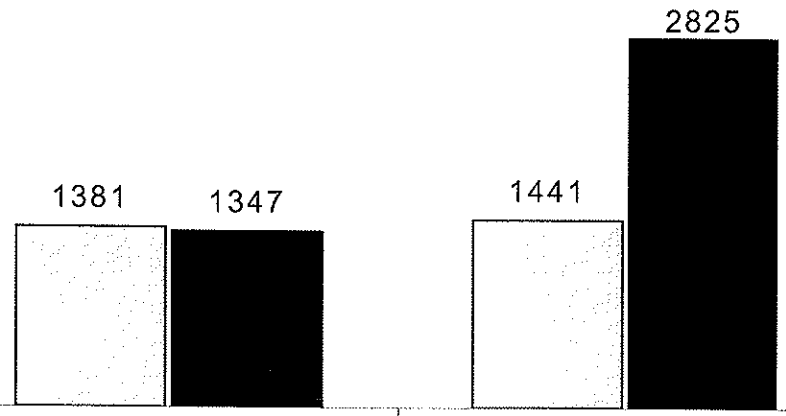
FACT SHEET

ROUTE 605
SAN GABRIEL RIVER FREEWAY

Project Limits & Length:	FROM SOUTH ST. TO TELEGRAPH RD	7.0 MILES
	FROM TELEGRAPH RD TO ROUTE 10	9.9 MILES
	FROM ORA. CO. LINE TO SOUTH ST.	3.8 MILES
Date of Opening:	FROM SOUTH ST. TO TELEGRAPH RD	APR 2, 1997
	FROM TELEGRAPH RD TO ROUTE 10	APR 3, 1998
	FROM ORA. CO. LINE TO SOUTH ST.	MARCH 2001
Cost:	FROM SOUTH ST. TO TELEGRAPH RD	$14.1 MILLION
	FROM TELEGRAPH RD TO ROUTE 10	$17.3 MILLION
	FROM ORA. CO. LINE TO SOUTH ST.	$12.4 MILLION
Current Peak Hr Volume:	1883 VEHICLES @ BEVERLY BLVD	
Park & Ride Facilities:	2 (HOXIE and DURFEE)	
Number of Ingress/Egress:	FROM ORA. CO. LINE TO TELEGRAPH RD	4 S/B, 4 N/B
	FROM TELEGRAPH RD TO ROUTE 10	6 S/B, 5 N/B

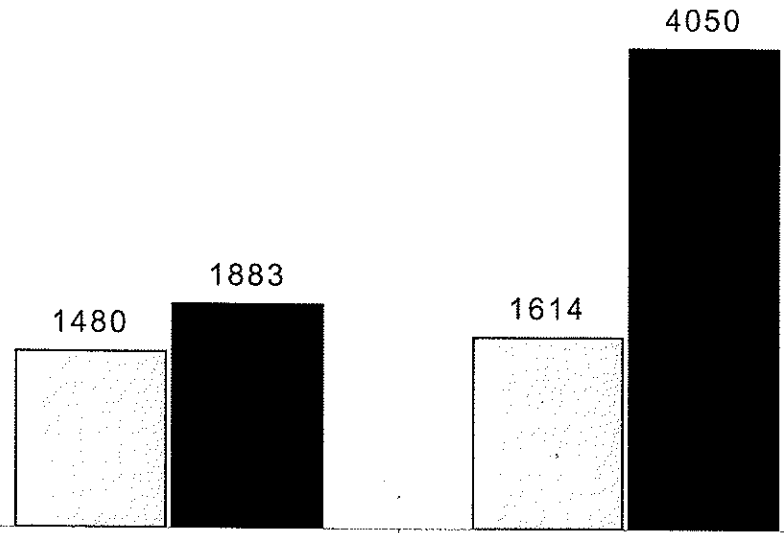
Unique Features:

PEAK HOUR COMPARISON



	Vehicles Per Lane	People Per Lane
□ Mixed Flow Lane	1381	1441
■ HOV Lane	1347	2825

Location: LA-605-S/B @ Beverly Blvd.
Date/Time: 03-29-05 / 6:30-7:30 AM



	Vehicles Per Lane	People Per Lane
□ Mixed Flow Lane	1480	1614
■ HOV Lane	1883	4050

Location: LA-605-N/B @ Beverly Blvd.
Date/Time: 04-07-05 / 4:30-5:30 PM

CALTRANS - DISTRICT 7

HOV Operation on Route 605

Co. Rte. Dir.	LA - 605 - SB	LA - 605 - NB
Location	BEVERLY	BEVERLY
Post Mile	14.41	14.41
Date	03/29/05	04/07/05
HOV Peak Hour	6:30 - 7:30 AM	16:30 - 17:30 PM
Occupancy Requirement	2 +	2 +
HOV VEHICLE SUMMARY		
Carpools	1311	1812
Vanpools	4	24
Buses	5	4
Motorcycles	27	43
HOV lane Violators	13	1
Total Vehicles in HOV Lane	1360	1884
Carpools Using Mainline	220	460
HOV People Summary		
People in Carpool & Vanpools	2736	3927
People in Buses	62	80
People on Motorcycles	27	43
Violators	13	1
Total HOV People	2838	4051
Mainline Summary		
Mixed-Flow lanes	4	4
Mixed-flow Vehicles	5525	5920
Mixed-Flow People	5765	6455
Mixed-Flow People/Lane	1441	1614
Trucks on Mainlines	485	341
Freeway Summary		
Total Mixed-Flow People	5765	6455
Total HOV People	2838	4051
Total Freeway People	8603	10506
Percent Carried in HOV Lane	32.99%	38.56%
Percent Carried per Mixed-Flow Lane	16.75%	15.36%
Occupancy		
HOV Occupancy	2.09	2.15
Mainline Occupancy	1.04	1.09
Equivalent Number Mixed-flow Lanes Needed to carry HOV People	1.97	2.51

*Peak hours are based on the following peak period counts: AM 6:30-8:30 PM 3:00-5:30.

4/8/2005 11:08 AM C:\CountData\LA 605 BEVERLY 3-29-05

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SAN GABRIEL RIVER FREEWAY HOV LANE

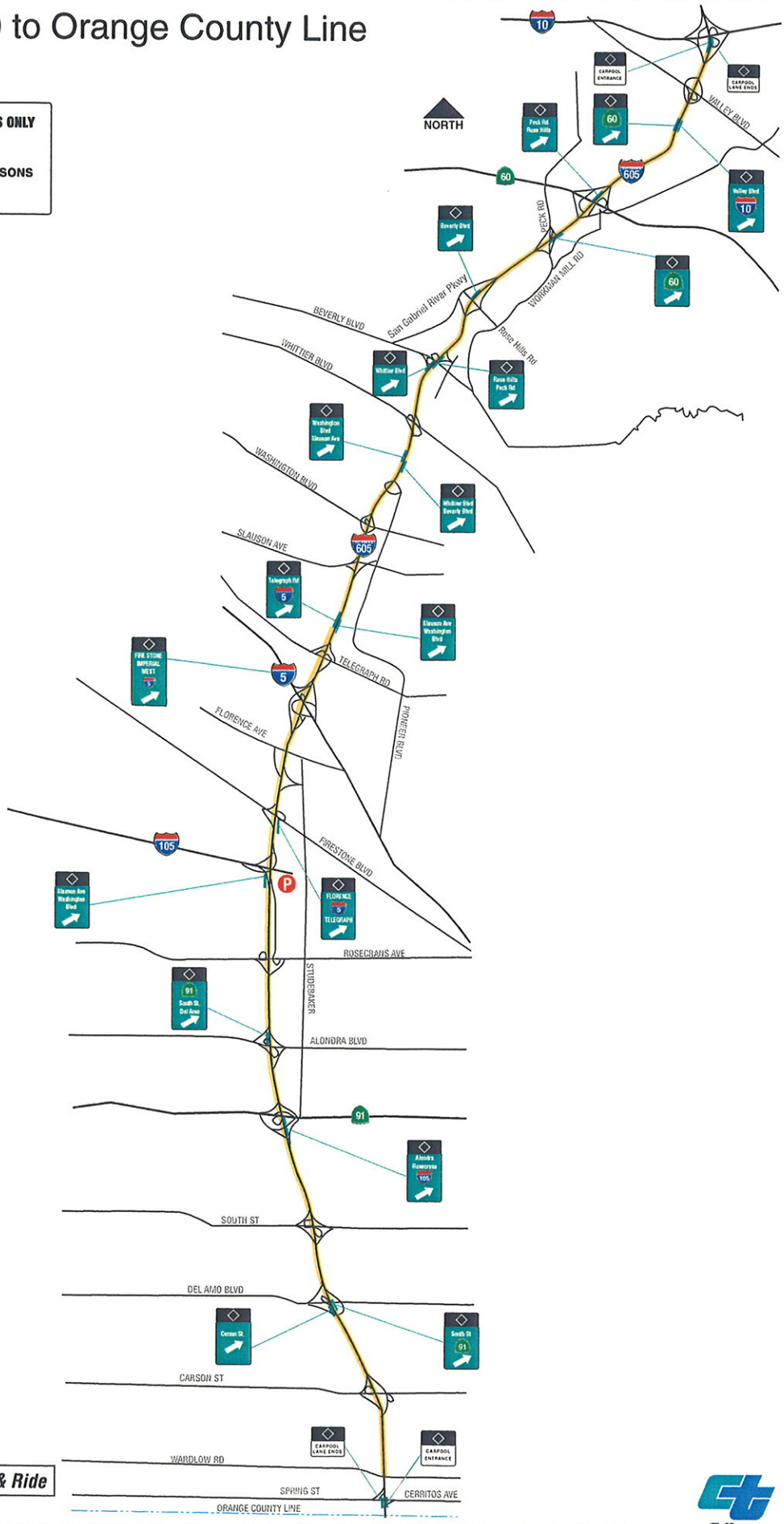
I-10 to Orange County Line

CALIFORNIA 605

CARPOOLS ONLY

2 OR MORE PERSONS PER VEHICLE

CARPOOL IS 2 OR MORE PERSONS PER VEHICLE



CARPOOL VIOLATION
$271
MINIMUM FINE

P Park & Ride

Caltrans

California Department of Transportation District 7, Los Angeles and Ventura Counties 120 S. Spring St., Los Angeles, CA 90012
Rideshare Information (800) COMMUTE Bike Lockers (213) 897-0235

District 7 Graphic Services • 605 HOVegres/ing update • 4/20/02