Appendix P

System Screenline Analysis
Future Baseline

Appendix P
System Screenline Analysis
Future Baseline

Southbound AM Peak

Roadway	AM Peak Period	AM Peak Hour	Peak Period Capacity	Peak Hour Capacity	Peak V/C	Peak Hour Speed (mph)	Segment Length (mi)	V/C*L	Δ from 1997
I-5 (S/o SR 138) Gorman	4,904	1,962	12,600	4,200	0.47	69.5	31	14.5	(0.5)
I-5 (N/o SR 14) Santa Clarita	37,089	14,836	25,200	8,400	1.77	28.5	11	19.4	(38.3)
I-5 (N/o I-405) San Fernando	61,433	24,573	37,800	12,600	1.95	22.1	4	7.8	(32.2)
I-5 (Sun Valley)	53,175	21,270	25,200	8,400	2.53	9.8	8	20.3	(28.4)
I-5 (Burbank)	68,000	27,200	25,200	8,400	3.24	4.0	5	16.2	(17.6)
I-5 (S/o SR 134) Glendale	38,924	15,570	31,500	10,500	1.48	40.6	4	5.9	(10.8)
I-5 (S/o SR 110) Los Angeles	37,224	14,890	25,200	8,400	1.77	28.2	8	14.2	(17.7)
SR 14 (N/o E. Avenue P) N. Palmdale	14,290	5,716	18,900	6,300	0.91	63.5	6	5.4	(6.4)
SR 14 (S/o SR 138) Palmdale	9,230	3,692	18,900	6,300	0.59	68.8	25	14.7	(1.0)
SR 14 (N/o I-5) Santa Clarita	50,832	20,333	31,500	10,500	1.94	22.5	15	29.0	(43.0)
							117	147.4	

Speed = S_o / (1 + Constant * (V/C)^4)
S_o = Free Flow Speed = 65 mph
Constant = 0.15

Aggregate V/C = 1.26
Aggregate Speed = 50.8

Appendix Q

Future Baseline/No-Project Level of Service (LOS) Analysis

Appendix Q
Future Baseline/No-Project
Level of Service (LOS) Analysis

Roadway Class	Capacity (vphpl)
Freeway	2100
6-Lane Divided Arterial	975
4-Lane Divided Arterial	930
4-Lane Undivided Arterial	875
4-Lane Secondary Arterial	640
2-Lane Collector	580

	STATION	STREETS	Location 1	Loaction 2	Direction	2025						
						ADT	Peak Hour Traffic	# Lanes	Capacity/Lane	Capacity	V/C	LOS
	Palmdale	E Avenue P	SR 14	Sierra Highway	2-way	50000	5000	4	875	3500	1.43	F
		E Avenue P	Sierra Highway	15th	2-way	36000	3600	4	875	3500	1.03	F
		SR 138	SR 14	Sierra Highway	2-way	85160	8516	6	975	5850	1.46	F
		SR 138	Sierra Highway	15th	2-way	79230	7923	4	930	3720	2.13	F
		E Avenue R	SR 14	Sierra Highway	2-way	73250	7325	4	875	3500	2.09	F
		E Avenue R	Sierra Highway	15th	2-way	75910	7591	4	875	3500	2.17	F
		Sierra Highway	E Avenue P	SR 138	2-way	2250	225	4	875	3500	0.06	A
		Sierra Highway	SR 138	E Avenue R	2-way	4370	437	4	875	3500	0.12	A
		SR 14 *	E Avenue P	SR 138	2-way	100600	10060	6	2100	12600	0.80	C
		SR 14 *	SR 138	E Avenue R	2-way	92300	9230	6	2100	12600	0.73	C
											Agg V/C =	1.20

	STATION	STREETS	Location 1	Loaction 2	Direction	2025						
						ADT	Peak Hour Traffic	# Lanes	Capacity/Lane	Capacity	V/C	LOS
	Sylmar	Hubbard	Laural Canyon	Truman	2-way	53220	5322	4	640	2560	2.08	F
		Hubbard	Truman	Glenoaks	2-way	47760	4776	4	640	2560	1.87	F
		San Fernando Miss	Laural Canyon	Truman	2-way	7310	731	4	640	2560	0.29	A
		San Fernando Rd	Polk	Hubbard	2-way	76050	7605	4	875	3500	2.17	F
		San Fernando Rd	Hubbard	Maclay	2-way	48320	4832	4	875	3500	1.38	F
		Truman	Hubbard	Maclay	2-way	19490	1949	4	875	3500	0.56	A
		I-5 *	I-405	SF Mission	2-way	145100	14510	12	2100	25200	0.58	A
		I-405 *	(South of I-5)		2-way	174800	17480	10	2100	21000	0.83	D
											Agg V/C =	1.22

	STATION	STREETS	Location 1	Loaction 2	Direction	2025						
						ADT	Peak Hour Traffic	# Lanes	Capacity/Lane	Capacity	V/C	LOS
	Burbank Airport	Glenoaks	Sunland	N Hollywood	2-way	47710	4771	4	930	3720	1.28	F
		Glenoaks	N Hollywood	Buena Vista	2-way	45780	4578	4	930	3720	1.23	F
		San Fernando	Vineland	N Hollywood	2-way	39220	3922	4	875	3500	1.12	F
		San Fernando	N Hollywood	Buena Vista	2-way	81570	8157	4	875	3500	2.33	F
		Vanowen	Vineland	N Hollywood	2-way	50900	5090	4	640	2560	1.99	F
		Vineland	San Fernando	Sherman	2-way	54410	5441	4	875	3500	1.55	F
		Vineland	Sherman	Vanowen	2-way	63170	6317	4	875	3500	1.80	F
		N Hollywood	Glenoaks	San Fernando	2-way	67840	6784	4	930	3720	1.82	F
		N Hollywood	San Fernando	Vanowen	2-way	61180	6118	6	975	5850	1.05	F
		I-5 *	Sunland	N Hollywood	2-way	212700	21270	8	2100	16800	1.27	F
		I-5 *	N Hollywood	Buena Vista	2-way	211000	21100	8	2100	16800	1.26	F
											Agg V/C =	1.52

* 1999 Caltrans Volume Growth Factored 2% per year for 25 years

Appendix Q
Future Baseline/No-Project
Level of Service (LOS) Analysis

	LOCATION	STREETS	Location 1	Loaction 2	Direction	2025						
						ADT	Peak Hour Traffic	# Lanes	Capacity/Lane	Capacity	V/C	LOS
	Burbank Airport	San Fernando	Vineland	N Hollywood	2-way	39220	3922	4	875	3500	1.12	F
	(Non-Station)	San Fernando	N Hollywood	Buena Vista	2-way	81570	8157	4	875	3500	2.33	F
		Vanowen	Vineland	N Hollywood	2-way	50900	5090	4	640	2560	1.99	F
		Vineland	Sherman	Vanowen	2-way	63170	6317	4	875	3500	1.80	F
		N Hollywood	Glenoaks	San Fernando	2-way	67840	6784	4	930	3720	1.82	F
		N Hollywood	San Fernando	Vanowen	2-way	61180	6118	6	975	5850	1.05	F
		N Hollywood	Vanowen	Victory	2-way	45796	4580	6	975	5850	0.78	C
		Victory	N Hollywood	Buena Vista	2-way	28412	2841	4	875	3500	0.81	D
		Victory	Vineland	N Hollywood	2-way	32255	3226	4	875	3500	0.92	E
		Buena Vista	Vanowen	Victory	2-way	42341	4234	4	875	3500	1.21	F
		Buena Vista	Vanowen	San Fernando	2-way	25061	2506	4	875	3500	0.72	C
		I-5 *	N Hollywood	Buena Vista	2-way	211000	21100	8	1940	15520	1.36	F
											Agg V/C =	1.33

* 1999 Caltrans Volume Growth Factored 2% per year for 25 years

	STATION	STREETS	Location 1	Loaction 2	Direction	2025						
						ADT	Peak Hour Traffic	# Lanes	Capacity/Lane	Capacity	V/C	LOS
	Burbank Downtown	Glenoaks	Magnolia	Olive	2-way	34280	3428	4	875	3500	0.98	E
		Glenoaks	Olive	Verdugo	2-way	43260	4326	4	875	3500	1.24	F
		Glenoaks	Verdugo	Alameda	2-way	43260	4326	6	975	5850	0.74	C
		San Fernando	Burbank	Olive	2-way	48080	4808	4	875	3500	1.37	F
		San Fernando	Olive	Alameda	2-way	24290	2429	4	875	3500	0.69	B
		Front	Magnolia	Verdugo	2-way	12400	1240	4	640	2560	0.48	A
		Magnolia	N Victory	1st	2-way	28700	2870	4	930	3720	0.77	C
		Magnolia	1st	Glenoaks	2-way	40640	4064	4	875	3500	1.16	F
		Olive	N Victory	Glenoaks	2-way	71470	7147	4	875	3500	2.04	F
		Verdugo	Front	Glenoaks	2-way	41420	4142	4	640	2560	1.62	F
		Alameda	S Victory	Glenoaks	2-way	48700	4870	4	875	3500	1.39	F
		Alameda	Glenoaks	Kenneth	2-way	16580	1658	4	875	3500	0.47	A
		I-5 *	Burbank	Olive	2-way	249000	24900	8	2100	16800	1.48	F
		I-5 *	Olive	Alameda	2-way	272000	27200	8	2100	16800	1.62	F
											Agg V/C =	1.16

	STATION	STREETS	Location 1	Loaction 2	Direction	2025						
						ADT	Peak Hour Traffic	# Lanes	Capacity/Lane	Capacity	V/C	LOS
	LA Union Station	S Broadway	1st	Temple	2-way	33670	3367	4	875	3500	0.96	E
		S Broadway	Temple	Cesar Chavez	2-way	24170	2417	4	875	3500	0.69	B
		Alameda	4th	1st	2-way	20500	2050	4	875	3500	0.59	A
		Alameda	1st	Cesar Chavez	2-way	74530	7453	4	875	3500	2.13	F
		Alameda	Cesar Chavez	N Main	2-way	74530	7453	6	975	5850	1.27	F
		Cesar Chavez	Figueroa	Mission	2-way	59480	5948	4	875	3500	1.70	F
		US 101 *	Broadway	Alameda	2-way	222400	22240	10	2100	21000	1.06	F
		US 101 *	Alameda	Mission	2-way	230800	23080	10	2100	21000	1.10	F
		US 101 *	Mission	1st	2-way	138500	13850	10	2100	21000	0.66	B
		I-5 *	Mission	I-10	2-way	278600	27860	10	2100	21000	1.33	F
		I-10 *	I-5	US 101	2-way	339600	33960	10	2100	21000	1.62	F
											Agg V/C =	1.19

* 1999 Caltrans Volume Growth Factored 2% per year for 25 years

Appendix R

System Screenline Analysis
Modal Alternative

Appendix R
System Screenline Analysis
Modal Alternative

Southbound AM Peak

Roadway	AM Peak Period	AM Peak Hour	Peak Period Capacity	Peak Hour Capacity	Peak V/C	Peak Hour Speed (mph)	Segment Length (mi)	V/C*L	Δ from F.B.
I-5 (S/o SR 138) Gorman	4,904	1,962	12,600	4,200	0.47	69.5	31	14.5	0.0
I-5 (N/o SR 14) Santa Clarita	37,089	14,836	25,200	8,400	1.77	28.5	11	19.4	0.0
I-5 (N/o I-405) San Fernando	61,433	26,992	50,400	16,800	1.61	35.0	4	6.4	12.9
I-5 (Sun Valley)	53,175	23,709	37,800	12,600	1.88	24.3	8	15.1	14.5
I-5 (Burbank)	68,000	29,639	37,800	12,600	2.35	12.5	5	11.8	8.5
I-5 (S/o SR 134) Glendale	38,924	18,306	44,100	14,700	1.25	51.4	4	5.0	10.9
I-5 (S/o SR 110) Los Angeles	37,224	17,626	37,800	12,600	1.40	44.5	8	11.2	16.2
SR 14 (N/o E. Avenue P) N. Palmdale	14,290	6,766	25,200	8,400	0.81	65.8	6	4.8	2.3
SR 14 (S/o SR 138) Palmdale	9,230	4,742	25,200	8,400	0.56	68.9	25	14.1	0.2
SR 14 (N/o I-5) Santa Clarita	50,832	21,383	37,800	12,600	1.70	31.2	15	25.5	8.7
							117	127.7	

Speed = S_o / (1 + Constant * (V/C)^4)
S_o = Free Flow Speed = 65 mph
Constant = 0.15

Aggregate V/C = 1.09
Aggregate Speed = 57.7