TRACY HILLS SPECIFIC PLAN

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

VOLUME II

DECEMBER 2014

APPENDIX H-3b

HIGHWAY SEGMENT ANALYSIS (HSC) – LIVERMORE, DATED FALL 2014

Phone: E-mail:		Fax:		
	Operational Anal	ysis		
Analyst: Agency or Company:	Kimley-Horn & Ass	sc., Inc.		
Date Performed:	9/17/2014			
Analysis Time Period:				
	I-580 EB			
	I-205/Grant Line	Rd		
	Caltrans			
Analysis Year:	Existing			
Description: Tracy Hil	lls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		1250	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	5	340	V	
Trucks and buses		12	8	
Recreational vehicles		0	%	
Terrain type:		Rolling		
Grade		-	%	
Segment length		_	mi	
Trucks and buses PCE, E	ET	2.5		
Recreational vehicle PO	CE, ER	2.0		
Heavy vehicle adjustmer	nt, fHV	0.847		
Driver population factor	or, fp	1.00		
Flow rate, vp		401	pc/h/ln	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	1 ap 2 /1	
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,	fLW	_	mi/h	
Lateral clearance adjus		_	mi/h	
TRD adjustment		_	mi/h	
Free-flow speed, FFS		70.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		401	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car s	speed, S	70.0	mi/h	
Number of lanes, N		4		
Density, D		5.7	pc/mi/ln	
Level of service, LOS		A	<u>.</u>	

Phone: E-mail:		Fax:		
	Operational Anal	ysis		
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.		
Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:	I-580 WB I-205/Grant Line	Πď		
	Caltrans	Ru		
	Existing			
Description: Tracy Hil	_			
	Flow Inputs and	Adjustments		
Volume, V		6430	veh/h	
Peak-hour factor, PHF		0.92	veii/ii	
Peak 15-min volume, v15		1747	V	
Trucks and buses		12	v %	
Recreational vehicles		0	٥	
Terrain type:		Rolling	o de la companya de l	
Grade		-	00	
Segment length		_	mi	
Trucks and buses PCE, E	т	2.5		
Recreational vehicle PC		2.0		
Heavy vehicle adjustmen		0.847		
Driver population factor		1.00		
Flow rate, vp	-/ -F	1649	pc/h/ln	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea	rance	_	ft	
Total ramp density, TRD		_	ramps/mi	
Number of lanes, N		5	ramps, mr	
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,	fLW	_	mi/h	
Lateral clearance adjus		_	mi/h	
TRD adjustment		_	mi/h	
Free-flow speed, FFS		70.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		1649	pc/h/ln	
Free-flow speed, FFS		70.0	pc/11/111 mi/h	
Average passenger-car s	need S	67.7	mi/h	
Number of lanes, N	peca, b	5	1	
Density, D		24.4	pc/mi/ln	
Level of service, LOS		C	F 0, / 111	

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analysis Time Period: Freeway/Direction:	I-580 EB Grant Line Rd/FI Caltrans Existing		
	Flow Inputs and	d Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		1250 0.92 340	veh/h
Trucks and buses Recreational vehicles Terrain type:		8 0 Rolling	ે & &
Grade Segment length Trucks and buses PCE, E	Т	- - 2.5	% mi
Recreational vehicle PO Heavy vehicle adjustmer Driver population factor	t, fHV	2.0 0.893 1.00	
Flow rate, vp	Grand Transfer	380	pc/h/ln
	Speed Inputs ar	na Aajustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment,		70.0	mi/h mi/h
Lateral clearance adjus TRD adjustment Free-flow speed, FFS	tment, fLC	- - 70.0	mi/h mi/h mi/h
	LOS and Perform	mance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	380 70.0 70.0 4 5.4 A	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational Ar	nalysis	
Analyst:	Kimley-Horn & A	Assc., Inc.	
Agency or Company:	0 /1 5 / 0 0 1 4		
Date Performed: Analysis Time Period:	9/17/2014		
Analysis Time Period: Freeway/Direction:			
	Grant Line Rd/E	Flunn Dd	
	Caltrans	elyiii ku	
Analysis Year:			
Description: Tracy Hil		ı	
	Flow Inputs ar	nd Adjustments	
Volume, V		6430	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v1	5	1747	V
Trucks and buses		8	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		-	8
Segment length	3 m	- 0 F	mi
Trucks and buses PCE, I		2.5	
Recreational vehicle PO		2.0	
Heavy vehicle adjustment, fHV Driver population factor, fp		0.893 1.00	
Flow rate, vp		1957	pc/h/ln
TIOW TACCY VP	_		-
	Speed Inputs a	and Adjustments	
Lane width		-	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS	C	70.0	mi/h
Lane width adjustment,		=	mi/h
Lateral clearance adjus	stment, ILC	-	mi/h
TRD adjustment Free-flow speed, FFS		70.0	mi/h mi/h
riee-liow speed, rrs		70.0	1111
	LOS and Perfor	rmance Measures	
Flow rate, vp		1957	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car	speed, S	63.4	mi/h
Number of lanes, N		4	
Density, D		30.9	pc/mi/ln
I aval of carvida IOC		ת	

D

Level of service, LOS

Phone: E-mail:		Fax:		
	Operational An	alysis		
Analysis Time Period: Freeway/Direction:	I-580 EB Flynn Rd/Altamo: Caltrans Existing			
	Flow Inputs and	d Adjustments		
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15	;	1241 0.92 337	veh/h v	
Trucks and buses Recreational vehicles Terrain type:		10 0 Rolling	% %	
Grade Segment length Trucks and buses PCE, E Recreational vehicle PC		- 2.5 2.0	% mi	
Heavy vehicle adjustmer Driver population factor Flow rate, vp	it, fHV	0.870 1.00 388	pc/h/ln	
Speed Inputs and Adjustments				
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi	
FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment		70.0 - - -	mi/h mi/h mi/h mi/h	
Free-flow speed, FFS		70.0	mi/h	
	LOS and Perfor	mance Measures		
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D	speed, S	388 70.0 70.0 4 5.5	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>	
Level of service, LOS		А		

Phone: E-mail:		Fax:		
	Operational Ana	lysis		
Analyst:	Kimley-Horn & As	sc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:	I-580 WB			
	Flynn Rd/Altamon	t Pass Rd		
	Caltrans			
Analysis Year:	Existing			
Description: Tracy Hil	.ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		6385	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	5	1735	V	
Trucks and buses		10	%	
Recreational vehicles		0	%	
Terrain type:		Rolling	•	
Grade		_	8	
Segment length	ı.m	- 2 F	mi	
Trucks and buses PCE, E		2.5 2.0		
Recreational vehicle PO Heavy vehicle adjustmen		0.870		
Driver population factor		1.00		
Flow rate, vp	,	1995	pc/h/ln	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea		_	ft	
Total ramp density, TRI Number of lanes, N	,	4	ramps/mi	
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,	fLW	-	mi/h	
Lateral clearance adjus		_	mi/h	
TRD adjustment		_	mi/h	
Free-flow speed, FFS		70.0	mi/h	
	LOS and Perform	ance Measures		
Flow rate, vp		1995	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car s	speed. S	62.7	mi/h	
Number of lanes, N	-F-201 0	4		
Density, D		31.8	pc/mi/ln	
Level of service, LOS		D	-	

Phone: E-mail:		Fax:		
	Operational Anal	lysis		
Analyst:	Kimley-Horn & Ass	sc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
	I-580 EB			
From/To:	Altamont Pass Rd,	/Vasco Rd		
	Caltrans			
-	Existing			
Description: Tracy Hil	.ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		1379	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	5	375	v	
Trucks and buses		10	8	
Recreational vehicles		0	%	
Terrain type:		Level	•	
Grade		-	8	
Segment length	ım.	- 1 E	mi	
Trucks and buses PCE, E Recreational vehicle PC		1.5 1.2		
Heavy vehicle adjustmer		0.952		
Driver population factor		1.00		
Flow rate, vp	,	393	pc/h/ln	
Speed Inputs and Adjustments				
I and width			ft	
Lane width Right-side lateral clea	range	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	_ ap _ /	
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fLW	_	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		_	mi/h	
Free-flow speed, FFS		65.0	mi/h	
	LOS and Performa	ance Measures		
Flow rate, vp		393	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	65.0	mi/h	
Number of lanes, N		4		
Density, D		6.0	pc/mi/ln	
Level of service, LOS		А		

Phone: E-mail:		Fax:		
	Operational A	nalysis		
Analyst:	Kimley-Horn &	Assc., Inc.		
Agency or Company:	0 /15 /0014			
Date Performed: Analysis Time Period:	9/17/2014			
<pre>Freeway/Direction: From/To:</pre>	Altamont Pass	Dd/Wagaa Dd		
Jurisdiction:	Caltrans	Ru/Vasco Ru		
Analysis Year:				
Description: Tracy Hi		n		
	Flow Inputs a	nd Adjustments		
Volume, V		7464	veh/h	
Peak-hour factor, PHF		0.92	,	
Peak 15-min volume, v1	5	2028	V	
Trucks and buses		10	%	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		_	%	
Segment length		-	mi	
Trucks and buses PCE,	ET	1.5		
Recreational vehicle P		1.2		
Heavy vehicle adjustment, fHV		0.952		
Driver population factor, fp		1.00	(1 (7	
Flow rate, vp		2130	pc/h/ln	
	Speed Inputs	and Adjustments		
Lane width		_	ft	
Right-side lateral clea		-	ft	
Total ramp density, TR	D	-	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS	6	65.0	mi/h	
Lane width adjustment,		_	mi/h	
Lateral clearance adjustment, fLC		_	mi/h	
TRD adjustment		- 65.0	mi/h	
Free-flow speed, FFS		05.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2130	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car	speed, S	57.4	mi/h	
Number of lanes, N		4		
Density, D		37.1	pc/mi/ln	
Level of service LOS		F.		

E

Level of service, LOS

Operational Analysis	Phone: E-mail:		Fax:		
Agency or Company: Date Performed: 9/17/2014 Analysis Time Period: AM Peak Hour Freeway/Direction: I-580 EB From/To: Vasco Rd/First St Jurisdiction: Caltrans Analysis Year: Existing Description: Tracy Hills Specific Plan Flow Inputs and Adjustments Flow Inputs and Adjustments Volume, V Peak 15-min volume, v15 372 v Trucks and buses 12 % Recreational vehicles 0 % Terrain type: Level Grade - % Segment length - mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 Flow rate, vp 395 pc/h/ln Free-flow speed: Measured FFS or BFFS 65.0 mi/h TRD adjustment, fLW - mi/h Lateral clearance adjustment, fLW - mi/h TRD adjustment Free-flow speed, FFS 65.0 mi/h Free-flow speed, FFS 65.0 mi/h Pree-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Density, D 6.1 pc/mi/ln		Operational Analy	sis		
Analysis Time Period: AM Peak Hour I-580 EB Freeway/Direction:	_	Kimley-Horn & Assc	., Inc.		
Freeway/Direction: I -580 EB					
Prom/To:					
Jurisdiction: Caltrans Existing Description: Tracy Hills Specific Plan					
Analysis Year: Existing Description: Tracy Hills Specific Plan	•				
Plow Inputs and Adjustments					
Flow Inputs and Adjustments	_	_			
Volume, V 1370 veh/h Peak-hour factor, PHF 0.92 veh/h Peak 15-min volume, v15 372 v Trucks and buses 12 % Recreational vehicles 0 % Terrain type: Level Grade - % Segment length - mi mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 Flow rate, vp 395 pc/h/ln pc/h/ln Lane width - ft ft ft ft ft ft ft mi/h	Description: Tracy hir	is specific rian			
Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 372 v Trucks and buses 12 % Recreational vehicles 0 % Terrain type: Level % Grade - mi Segment length - mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER Reavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 Plow rate, vp 395 pc/h/ln Lane width Speed Inputs and Adjustments Lane width		Flow Inputs and A	djustments		
Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 372 v Trucks and buses 12 % Recreational vehicles 0 % Terrain type: Level Grade - % Segment length - mi mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Near and Performance - mi Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 Pc/h/ln Flow rate, vp 395 pc/h/ln pc/h/ln Lane width - ft ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Pree-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h Lateral clearance adjustment, fLC - mi/h Los and Performance Measures - mi/h Los and Perfo	Volume, V		1370	veh/h	
Trucks and buses 12			0.92		
Recreational vehicles	Peak 15-min volume, v15		372	V	
Terrain type: Grade	Trucks and buses		12	%	
Segment length	Recreational vehicles		0	%	
Segment length	Terrain type:		Level		
Trucks and buses PCE, ET Recreational vehicle PCE, ER Reavy vehicle adjustment, fHV O.943 Driver population factor, fp Flow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance Total ramp density, TRD Trucks and Adjustments Lane width Free-flow speed: FFS or BFFS FFS	Grade		_	8	
Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV O.943 Driver population factor, fp 1.00 Flow rate, vp 395 pc/h/ln Speed Inputs and Adjustments Lane width Right-side lateral clearance Total ramp density, TRD Total ramp density, TRD Heavy vehicle adjustment Number of lanes, N Free-flow speed: FFS or BFFS	Segment length		_	mi	
Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 Flow rate, vp 395 pc/h/ln Speed Inputs and Adjustments	Trucks and buses PCE, E	IT .	1.5		
Driver population factor, fp Flow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS FFS FFS FFS FFS FFS FFS FFS FFS FFS			1.2		
Flow rate, vp 395 pc/h/ln Speed Inputs and Adjustments Lane width Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h TRD adjustment - mi/h Free-flow speed, FFS 65.0 mi/h			0.943		
Speed Inputs and Adjustments Lane width Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h TRD adjustment - mi/h Free-flow speed, FFS 65.0 mi/h		or, fp			
Lane width Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h TRD adjustment - mi/h Free-flow speed, FFS 65.0 mi/h LOS and Performance Measures Flow rate, vp Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	Flow rate, vp		395	pc/h/ln	
Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h TRD adjustment - mi/h Free-flow speed, FFS 65.0 mi/h LOS and Performance Measures Flow rate, vp 395 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	Speed Inputs and Adjustments				
Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h TRD adjustment - mi/h Free-flow speed, FFS 65.0 mi/h LOS and Performance Measures Flow rate, vp 395 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	Lane width		_	ft	
Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h TRD adjustment - mi/h Free-flow speed, FFS 65.0 mi/h LOS and Performance Measures Flow rate, vp 395 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln		arance	_		
Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h TRD adjustment - mi/h Free-flow speed, FFS 65.0 mi/h LOS and Performance Measures Flow rate, vp 395 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln			_		
Free-flow speed: FFS or BFFS 65.0 mi/h Lane width adjustment, fLW Lateral clearance adjustment, fLC TRD adjustment Free-flow speed, FFS 65.0 mi/h LOS and Performance Measures Flow rate, vp Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S Number of lanes, N Density, D Measured mi/h mi/h Free/flow mi/h ffC Mi/h ffC Measures Pc/h/ln mi/h ffC Measures Flow rate, vp ffS 65.0 mi/h ffS 65.0 mi/h ffS Abjustment ffS Abjustment ffS 65.0 mi/h ffS Abjustment	-		4	,	
FFS or BFFS Lane width adjustment, fLW Lateral clearance adjustment, fLC TRD adjustment Free-flow speed, FFS LOS and Performance Measures LOS and Performance Measures Flow rate, vp Free-flow speed, FFS Flow speed, FFS Flow rate, vp Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS			Measured		
Lateral clearance adjustment, fLC - mi/h TRD adjustment - mi/h Free-flow speed, FFS 65.0 mi/h LOS and Performance Measures Flow rate, vp 395 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	-			mi/h	
TRD adjustment - mi/h Free-flow speed, FFS 65.0 mi/h LOS and Performance Measures Flow rate, vp 395 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	Lane width adjustment,	fLW	_	mi/h	
Free-flow speed, FFS 65.0 mi/h LOS and Performance Measures Flow rate, vp 395 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	Lateral clearance adjus	stment, fLC	-	mi/h	
LOS and Performance Measures Flow rate, vp 395 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	TRD adjustment		_	mi/h	
Flow rate, vp 395 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	Free-flow speed, FFS		65.0	mi/h	
Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	LOS and Performance Measures				
Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln	Flow rate, vp		395	pc/h/ln	
Average passenger-car speed, S 65.0 mi/h Number of lanes, N 4 Density, D 6.1 pc/mi/ln				-	
Number of lanes, N 4 Density, D 6.1 pc/mi/ln	_	speed, S			
Density, D 6.1 pc/mi/ln				 , 	
				pc/mi/ln	
	_			-	

Phone: E-mail:		Fax:		
	Operational Analy	ysis		
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.		
Date Performed:	9/17/2014			
Analysis Time Period:				
	I-580 WB			
From/To:	Vasco Rd/First St			
	Caltrans			
-	Existing			
Description: Tracy Hil	is Specific Plan			
	Flow Inputs and I	Adjustments		
Volume, V		7419	veh/h	
Peak-hour factor, PHF		0.92	,	
Peak 15-min volume, v15		2016	V	
Trucks and buses		12	%	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		-	90	
Segment length		-	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PO		1.2		
Heavy vehicle adjustmer		0.943		
Driver population factor	or, ip	1.00	/1- /1	
Flow rate, vp		2137	pc/h/ln	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	-	
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fLW	_	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		_	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2137	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	57.3	mi/h	
Number of lanes, N	÷ ,	4	·	
Density, D		37.3	pc/mi/ln	
Level of service, LOS		E		

Phone: E-mail:		Fax:			
	Operational Anal	ysis			
Analyst:	Kimley-Horn & Ass	c., Inc.			
Agency or Company: Date Performed:	9/17/2014				
Analysis Time Period:					
	I-580 EB				
	First St/Livermor	e Ave			
	Caltrans				
-	Existing				
Description: Tracy Hil	ls Specific Plan				
	Flow Inputs and	Adjustments			
Volume, V		1437	veh/h		
Peak-hour factor, PHF		0.92	·		
Peak 15-min volume, v15		390	V		
Trucks and buses		12	%		
Recreational vehicles		0	%		
Terrain type:		Level			
Grade		_	ે		
Segment length		-	mi		
Trucks and buses PCE, E	IT .	1.5			
Recreational vehicle PO		1.2			
Heavy vehicle adjustmer		0.943			
Driver population factor	or, fp	1.00			
Flow rate, vp		414	pc/h/ln		
	Speed Inputs and Adjustments				
Lane width		_	ft		
Right-side lateral clea	arance	_	ft		
Total ramp density, TRI		_	ramps/mi		
Number of lanes, N		4	<u>-</u>		
Free-flow speed:		Measured			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	_	mi/h		
Lateral clearance adjus	stment, fLC	-	mi/h		
TRD adjustment		-	mi/h		
Free-flow speed, FFS		65.0	mi/h		
LOS and Performance Measures					
Flow rate, vp		414	pc/h/ln		
Free-flow speed, FFS		65.0	mi/h		
Average passenger-car s	speed, S	65.0	mi/h		
Number of lanes, N		4			
Density, D		6.4	pc/mi/ln		
Level of service, LOS		A			

Phone: E-mail:		Fax:			
	Operational Ana	alysis			
Analysis Time Period: Freeway/Direction:	I-580 WB First St/Livermon Caltrans Existing ls Specific Plan	ore Ave			
	Flow Inputs and	d Adjustments			
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		7779 0.92 2114	veh/h v		
Trucks and buses Recreational vehicles Terrain type:		12 0 Level	8 8		
Grade Segment length	_	-	% mi		
Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustmen Driver population facto	E, ER t, fHV	1.5 1.2 0.943 1.00			
Flow rate, vp		2241	pc/h/ln		
Speed Inputs and Adjustments					
Lane width Right-side lateral clea Total ramp density, TRD Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi		
FFS or BFFS Lane width adjustment,	fLW	65.0	mi/h mi/h		
Lateral clearance adjus TRD adjustment Free-flow speed, FFS	tment, fLC	- - 65.0	mi/h mi/h mi/h		
LOS and Performance Measures					
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	2241 65.0 55.0 4 40.8 E	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>		

Phone: E-mail:		Fax:	
	Operational Analy	rsis	
Analyst: Agency or Company:	Kimley-Horn & Asso	e., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
From/To:	Livermore Ave/SR-8	34 (Isabel)	
	Caltrans		
-	Existing		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and $ ilde{P}$	djustments	
Volume, V		1520	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	;	413	V
Trucks and buses		12	8
Recreational vehicles		0	०
Terrain type:		Level	
Grade		_	8
Segment length		_	mi
Trucks and buses PCE, ET		1.5	
Recreational vehicle PCE, ER		1.2	
Heavy vehicle adjustment, fHV		0.943	
Driver population factor, fp		1.00	
Flow rate, vp		438	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clearance		_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	_
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjustment, fLC		_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
LOS and Performance Measures			
Flow rate, vp		438	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	65.0	mi/h
Number of lanes, N		4	
Density, D		6.7	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 WB		
From/To:	Livermore Ave/SR-84 (Isabel)		
	Caltrans		
-	Existing		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and I	Adjustments	
Volume, V		8229	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	•	2236	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		-	8
Segment length		_	mi
Trucks and buses PCE, ET		1.5	
Recreational vehicle PCE, ER		1.2	
Heavy vehicle adjustment, fHV Driver population factor, fp		0.943 1.00	
Flow rate, vp		2370	pc/h/ln
_	Consider the condition of		_
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clearance		-	ft
Total ramp density, TRD		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS	C	65.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjustment, fLC		-	mi/h
TRD adjustment Free-flow speed, FFS		- 65.0	mi/h mi/h
riee-liow speed, rrs		03.0	1111/11
LOS and Performance Measures			
Flow rate, vp		2370	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	51.7	mi/h
Number of lanes, N		4	
Density, D		45.9	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Analy	ysis	
Analyst: Agency or Company: Date Performed:	Kimley-Horn & Ass	c., Inc.	
Analysis Time Period:			
	I-580 EB		
From/To:	I-205/Grant Line Rd		
	Caltrans		
Analysis Year:	Existing		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and A	Adjustments	
Volume, V		8302	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		2256	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Rolling	•
Grade		_	8
Segment length		- 0 F	mi
Trucks and buses PCE, ET		2.5	
Recreational vehicle PCE, ER		2.0 0.847	
Heavy vehicle adjustment, fHV Driver population factor, fp		1.00	
Flow rate, vp		2662	pc/h/ln
_	Speed Inputs and	Adiustments	_
	speed inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clearance		-	ft
Total ramp density, TRD		-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment, fLW		-	mi/h
Lateral clearance adjustment, fLC		_	mi/h
TRD adjustment Free-flow speed, FFS		70.0	mi/h mi/h
riee-liow speed, rrs		70.0	1111/11
LOS and Performance Measures			
Flow rate, vp		2662	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	45.2	mi/h
Number of lanes, N		4	
Density, D		58.9	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Ar	alysis	
Analyst:	Kimley-Horn & A	assc., Inc.	
Agency or Company:			
	9/17/2014		
Analysis Time Period:			
<pre>Freeway/Direction: From/To:</pre>	I-580 WB	a Dd	
From/To: Jurisdiction:	I-205/Grant Line Rd Caltrans		
Analysis Year:			
Description: Tracy Hil		1	
	_		
	Flow inputs an	d Adjustments	
Volume, V		3540	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		962	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, ET		2.5	
Recreational vehicle PCE, ER		2.0	
Heavy vehicle adjustment, fHV		0.847	
Driver population factor, fp		1.00	/1- /1
Flow rate, vp		908	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width		_	ft
Right-side lateral clearance		_	ft
Total ramp density, TRD		-	ramps/mi
Number of lanes, N		5	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment, fLW		-	mi/h
Lateral clearance adjustment, fLC		_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp		908	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	70.0	mi/h
Number of lanes, N	1 /	5	,
Density, D		13.0	pc/mi/ln
level of ceruice IOC		D	- · · · · ·

В

Level of service, LOS

Phone: E-mail:		Fax:		
	Operational Ar	nalysis		
Analysis Time Period: Freeway/Direction:	I-580 EB Grant Line Rd/F Caltrans Existing	Flynn Rd		
	Flow Inputs ar	nd Adjustments		
Volume, V Peak-hour factor, PHF Peak 15-min volume, v1! Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, Recreational vehicle PCE Heavy vehicle adjustment Driver population factor Flow rate, vp	ET CE, ER nt, fhV	8302 0.92 2256 8 0 Rolling - - 2.5 2.0 0.893 1.00 2527	<pre>veh/h v % % % mi pc/h/ln</pre>	
	Speed Inputs a	and Adjustments		
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjustment TRD adjustment Free-flow speed, FFS) flw	- - 4 Measured 70.0 - - - 70.0	<pre>ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h mi/h</pre>	
LOS and Performance Measures				
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS		2527 70.0 49.6 4 51.0	pc/h/ln mi/h mi/h pc/mi/ln	

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analysis Time Period: Freeway/Direction:	I-580 WB Grant Line Rd/Fl Caltrans Existing ls Specific Plan	ynn Rd	
	Flow Inputs and	Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		3540 0.92 962	veh/h v
Trucks and buses Recreational vehicles Terrain type:		8 0 Rolling	% %
Grade Segment length Trucks and buses PCE, E	T	- - 2.5	% mi
Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp		2.0 0.893 1.00	
Flow rate, vp		1077	pc/h/ln
Speed Inputs and Adjustments			
Lane width Right-side lateral clea Total ramp density, TRD Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment,	fLW	70.0	mi/h mi/h
Lateral clearance adjus TRD adjustment Free-flow speed, FFS	tment, fLC	- - 70.0	mi/h mi/h mi/h
LOS and Performance Measures			
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	1077 70.0 70.0 4 15.4 B	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:			
	Operational Anal	lysis			
Analyst:	Kimley-Horn & Ass	sc., Inc.			
Agency or Company: Date Performed:	9/17/2014				
Analysis Time Period:					
Freeway/Direction:	I-580 EB				
	Flynn Rd/Altamont	Pass Rd			
	Caltrans				
Analysis Year:	Existing				
Description: Tracy Hil	ls Specific Plan				
	Flow Inputs and	Adjustments			
Volume, V		8244	veh/h		
Peak-hour factor, PHF		0.92			
Peak 15-min volume, v15	5	2240	v		
Trucks and buses		10	%		
Recreational vehicles		0	%		
Terrain type:		Rolling	•		
Grade		-	8		
Segment length		- 2 F	mi		
Trucks and buses PCE, E		2.5 2.0			
Recreational vehicle PO Heavy vehicle adjustmen		0.870			
Driver population factor		1.00			
Flow rate, vp)I, IP	2576	pc/h/ln		
	Speed Inputs and Adjustments				
Lane width		_	ft		
Right-side lateral clea		_	ft		
Total ramp density, TRI Number of lanes, N)	- 4	ramps/mi		
Free-flow speed:		Measured			
FFS or BFFS		70.0	mi/h		
Lane width adjustment,	fLW	_	mi/h		
Lateral clearance adjus		_	mi/h		
TRD adjustment		_	mi/h		
Free-flow speed, FFS		70.0	mi/h		
	LOS and Performa	ance Measures			
Flow rate, vp		2576	pc/h/ln		
Free-flow speed, FFS		70.0	mi/h		
Average passenger-car s	speed, S	48.0	mi/h		
Number of lanes, N	<u> </u>	4	•		
Density, D		53.6	pc/mi/ln		
Level of service, LOS		F			

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Kimley-Horn & As	ssc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 WB		
	Flynn Rd/Altamon	it Pass Rd	
	Caltrans		
Analysis Year:	Existing		
Description: Tracy Hil	lls Specific Plan		
	Flow Inputs and	l Adjustments	
Volume, V		3515	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	5	955	V
Trucks and buses		10	8
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		-	8
Segment length	a.m.	- 2 F	mi
Trucks and buses PCE, E Recreational vehicle PC		2.5 2.0	
Heavy vehicle adjustmer		0.870	
Driver population factor		1.00	
Flow rate, vp	71 / 12	1098	pc/h/ln
	Speed Inputs an	d Adjustments	
I and width			ft
Lane width Right-side lateral clea	range	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	ramps/mr
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	-	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Perform	ance Measures	
Flow rate, vp		1098	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	70.0	mi/h
Number of lanes, N		4	
Density, D		15.7	pc/mi/ln
Level of service, LOS		В	

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Kimley-Horn & As	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
From/To:	Altamont Pass Rd	/Vasco Rd	
	Caltrans		
-	Existing		
Description: Tracy Hil	.ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8192	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	5	2226	V
Trucks and buses		10	%
Recreational vehicles		0 _	%
Terrain type:		Level	•
Grade		_	%
Segment length Trucks and buses PCE, F	ım	- 1.5	mi
Recreational vehicle PO		1.2	
Heavy vehicle adjustmer		0.952	
Driver population factor		1.00	
Flow rate, vp	,	2337	pc/h/ln
	Speed Inputs and	d Adjustments	
Lane width			ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	1 amp 2 / m1
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	-	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perform	ance Measures	
Flow rate, vp		2337	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	52.6	mi/h
Number of lanes, N		4	
Density, D		44.5	pc/mi/ln
Level of service, LOS		E	

Phone: E-mail:		Fax:	
	Operational An	alysis	
Analysis Time Period: Freeway/Direction: From/To:	I-580 WB Altamont Pass R Caltrans Existing	d/Vasco Rd	
	Flow Inputs an	d Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, Recreational vehicle PCE Heavy vehicle adjustment Driver population factor Flow rate, vp	CT CE, ER ht, fHV	4109 0.92 1117 10 0 Level - 1.5 1.2 0.952 1.00	<pre>veh/h v % % % mi pc/h/ln</pre>
	Speed Inputs a	nd Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS	fLW	- - 4 Measured 65.0 - - - 65.0	<pre>ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h</pre>
	LOS and Perfor	mance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	speed, S	1172 65.0 65.0 4 18.0+	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:		
	Operational Ar	nalysis		
Analyst:	Kimley-Horn & A	Assc., Inc.		
Agency or Company:				
	9/17/2014			
Analysis Time Period:				
Freeway/Direction:				
From/To:	Vasco Rd/First	St		
Jurisdiction:	Caltrans			
Analysis Year:				
Description: Tracy Hi	ils Specific Plan	1		
	Flow Inputs an	nd Adjustments		
Volume, V		8143	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v1	5	2213	V	
Trucks and buses		12	%	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		-	8	
Segment length		_	mi	
Trucks and buses PCE,		1.5		
Recreational vehicle Po		1.2		
Heavy vehicle adjustme		0.943		
Driver population fact	or, ip	1.00	/1- /1	
Flow rate, vp		2346	pc/h/ln	
	Speed Inputs a	and Adjustments		
Lane width		-	ft	
Right-side lateral cle	arance	-	ft	
Total ramp density, TR	D	-	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,		_	mi/h	
Lateral clearance adju	stment, fLC	-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
	LOS and Perfor	mance Measures		
Flow rate, vp		2346	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car	speed, S	52.3	mi/h	
Number of lanes, N		4		
Density, D		44.8	pc/mi/ln	
Torrol of gomerica TOC		D.		

Ε

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Analy	sis	
Analyst: Agency or Company:	Kimley-Horn & Assc	., Inc.	
	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 WB		
•	Vasco Rd/First St		
	Caltrans		
-	Existing		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and A	djustments	
Volume, V		4084	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		1110	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, E	Γ	1.5	
Recreational vehicle PC		1.2	
Heavy vehicle adjustmen		0.943	
Driver population factor	r, fp	1.00	
Flow rate, vp		1176	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea:	rance	_	ft
Total ramp density, TRD		_	ramps/mi
Number of lanes, N		4	-
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	tment, fLC	_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performan	ce Measures	
Flow rate, vp		1176	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car sp	oeed, S	65.0	mi/h
Number of lanes, N		4	•
Density, D		18.1	pc/mi/ln
Level of service, LOS		С	-

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Kimley-Horn & As	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
	First St/Livermo	re Ave	
Jurisdiction:	Caltrans		
Analysis Year:	Existing		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8537	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		2320	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		-	%
Segment length		-	mi
Trucks and buses PCE, E	T	1.5	
Recreational vehicle PC	E, ER	1.2	
Heavy vehicle adjustmer	ıt, fHV	0.943	
Driver population facto	or, fp	1.00	
Flow rate, vp		2459	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	1 d.m.p. 0 / m.1
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perform	ance Measures	
Flow rate, vp		2459	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed. S	49.1	mi/h
Number of lanes, N		4	
Density, D		50.1	pc/mi/ln
Level of service, LOS		F	<u>.</u> ,

Phone: E-mail:		Fax:	
	Operational An	alysis	
Analyst:	Kimley-Horn & A	assc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:	DM Deak Hour		
Freeway/Direction:	T-580 WR		
From/To:	First St/Liverm	ore Ave	
Jurisdiction:	Caltrans	.010 1110	
Analysis Year:			
Description: Tracy Hil	_	Į.	
	Flow Inputs an	d Adjustments	
Volume, V		4282	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		1164	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		-	96
Segment length		-	mi
Trucks and buses PCE, I		1.5	
Recreational vehicle Po		1.2	
Heavy vehicle adjustmen		0.943	
Driver population factor	or, ip	1.00	/1- /1
Flow rate, vp		1233	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS	_	65.0	mi/h
Lane width adjustment,		-	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		- 6 F O	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perfor	mance Measures	
Flow rate, vp		1233	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car	speed, S	65.0	mi/h
Number of lanes, N		4	
Density, D		19.0	pc/mi/ln

С

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
From/To:	Livermore Ave/SR-	84 (Isabel)	
	Caltrans		
-	Existing		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and I	Adjustments	
Volume, V		9031	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		2454	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		_	8
Segment length		_	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PO		1.2	
Heavy vehicle adjustmer		0.943	
Driver population factor	or, ip	1.00	- a /b /l -
Flow rate, vp		2601	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	_
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performan	nce Measures	
Flow rate, vp		2601	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	44.5	mi/h
Number of lanes, N		4	
Density, D		58.4	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 WB		
From/To:	Livermore Ave/SR-	84 (Isabel)	
	Caltrans		
-	Existing		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		4530	veh/h
Peak-hour factor, PHF		0.92	,
Peak 15-min volume, v15		1231	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		-	%
Segment length		-	mi
Trucks and buses PCE, E	T	1.5	
Recreational vehicle PC	CE, ER	1.2	
Heavy vehicle adjustmer	nt, fHV	0.943	
Driver population facto	or, fp	1.00	
Flow rate, vp		1305	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	1
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		1305	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed. S	65.0	mi/h
Number of lanes, N		4	,
Density, D		20.1	pc/mi/ln
Level of service, LOS		C	<u>.</u>

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
	I-205/Grant Line	Rd	
Jurisdiction:	Caltrans		
_	Existing + Buildo	ut	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		1408	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	,	383	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		-	%
Segment length		-	mi
Trucks and buses PCE, E	T	2.5	
Recreational vehicle PC	E, ER	2.0	
Heavy vehicle adjustmer	ıt, fHV	0.847	
Driver population factor	or, fp	1.00	
Flow rate, vp		451	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		451	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed. S	70.0	mi/h
Number of lanes, N		4	- ,
Density, D		6.4	pc/mi/ln
Level of service, LOS		A	<u>.</u>

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analysis Time Period: Freeway/Direction: From/To: Jurisdiction: Analysis Year: Description: Tracy Hil	I-580 WB I-205/Grant Line Caltrans Existing + Builde lls Specific Plan	Rd out	
	Flow Inputs and	Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses		6582 0.92 1789 12	veh/h v %
Recreational vehicles Terrain type: Grade		0 Rolling -	8
Segment length Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustment Driver population factor	E, ER Lt, fHV	- 2.5 2.0 0.847 1.00	mi
Flow rate, vp		1688	pc/h/ln
	Speed Inputs and	d Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 5 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS		70.0 - - - 70.0	<pre>mi/h mi/h mi/h mi/h mi/h</pre>
rice riow speed, ris	LOS and Perform		
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D		1688 70.0 67.2 5 25.1	pc/h/ln mi/h mi/h pc/mi/ln
Level of service, LOS		С	

Phone: E-mail:		Fax:	
	Operational Analy	sis	
Analysis Time Period: Freeway/Direction: From/To: Jurisdiction: Analysis Year: Description: Tracy Hill	I-580 EB Grant Line Rd/Flyn Caltrans Existing + Buildou Ls Specific Plan	n Rd t	
	Flow Inputs and A	djustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		1408 0.92 383	veh/h v
Trucks and buses Recreational vehicles Terrain type:		8 0 Rolling	ું જ
Grade Segment length Trucks and buses PCE, ET		- - 2.5	% mi
Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp		2.0 0.893 1.00	42. 42
Flow rate, vp	Speed Inputs and	429 Adjustments	pc/h/ln
Lane width Right-side lateral clear Total ramp density, TRD Number of lanes, N Free-flow speed:	rance	- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, the Lateral clearance adjust		70.0	mi/h mi/h mi/h
TRD adjustment Free-flow speed, FFS		70.0	mi/h mi/h mi/h
LOS and Performance Measures			
Flow rate, vp Free-flow speed, FFS Average passenger-car sp Number of lanes, N Density, D Level of service, LOS	peed, S	429 70.0 70.0 4 6.1 A	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational An	alysis	
Analyst:	Kimley-Horn & A	ssc., Inc.	
Agency or Company: Date Performed:	0/17/2014		
Analysis Time Period:	9/17/2014		
Freeway/Direction:			
	Grant Line Rd/Flynn Rd		
	Caltrans		
Analysis Year:	Existing + Buil	dout	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs an	d Adjustments	
Volume, V		6584	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		1789	V
Trucks and buses		8	8
Recreational vehicles		0	%
Terrain type:		Rolling	96
Grade		-	mi
Segment length Trucks and buses PCE, ET		2.5	шт
Recreational vehicle PCE, ER		2.0	
Heavy vehicle adjustment, fHV		0.893	
Driver population factor, fp		1.00	
Flow rate, vp	-	2004	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width		-	ft
Right-side lateral clearance		-	ft
Total ramp density, TRD		-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	1.73
FFS or BFFS		70.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjustment, fLC TRD adjustment		_	mi/h mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp		2004	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	62.5	mi/h
Number of lanes, N		4	
Density, D		32.1	pc/mi/ln
Level of service LOS		D	

D

Level of service, LOS

Phone: E-mail:		Fax:			
	Operational An	alysis			
Analyst: Kimley-Horn & Assc., Inc. Agency or Company:					
	9/17/2014 AM Peak Hour				
Freeway/Direction:					
Jurisdiction:	: Caltrans				
	Analysis Year: Existing +Buildout Description: Tracy Hills Specific Plan				
	Flow Inputs an	d Adjustments			
Volume, V		1399	veh/h		
Peak-hour factor, PHF Peak 15-min volume, v15		0.92 380	V		
Trucks and buses		10	8		
Recreational vehicles		0	%		
Terrain type:		Rolling			
Grade		-	8		
Segment length		-	mi		
Trucks and buses PCE, ET		2.5			
Recreational vehicle PCE, ER		2.0			
Heavy vehicle adjustment, fHV Driver population factor, fp		0.870 1.00			
Flow rate, vp	л, тр	437	pc/h/ln		
Speed Inputs and Adjustments					
Lane width		_	ft		
Right-side lateral clearance		_	ft		
Total ramp density, TRD		=	ramps/mi		
Number of lanes, N		4	<u>.</u> .		
Free-flow speed:		Measured	Measured		
FFS or BFFS		70.0	mi/h		
Lane width adjustment, fLW		_	mi/h		
Lateral clearance adjustment, fLC		_	mi/h		
TRD adjustment		-	mi/h		
Free-flow speed, FFS		70.0	mi/h		
LOS and Performance Measures					
Flow rate, vp		437	pc/h/ln		
Free-flow speed, FFS		70.0	mi/h		
Average passenger-car s	speed, S	70.0	mi/h		
Number of lanes, N		4			
Density, D		6.2	pc/mi/ln		
Level of service, LOS		A			

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Kimley-Horn & Assc., Inc.		
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 WB		
	Flynn Rd/Altamont Pass Rd		
Jurisdiction:	Caltrans		
Analysis Year:	Existing + Build	out	
Description: Tracy Hil	.ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		6539	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	; ;	1777	V
Trucks and buses		10	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		-	8
Segment length		-	mi
Trucks and buses PCE, ET		2.5	
Recreational vehicle PCE, ER		2.0	
Heavy vehicle adjustment, fHV		0.870	
Driver population factor, fp Flow rate, vp		1.00	pc/h/ln
riow race, vp		2013	pc/11/111
	Speed Inputs and	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRD		-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjustment, fLC		_	mi/h
TRD adjustment		70.0	mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp		2043	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	61.8	mi/h
Number of lanes, N		4	
Density, D		33.1	pc/mi/ln
Level of service, LOS		D	

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analysis Time Period: Freeway/Direction: From/To: Jurisdiction: Analysis Year:	Kimley-Horn & Assc., Inc. y: 9/17/2014 riod: AM Peak Hour n: I-580 EB Altamont Pass Rd/Vasco Rd		
	Flow Inputs and	d Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		1530 0.92 416	veh/h
Trucks and buses Recreational vehicles Terrain type:		10 0 Level	% %
Grade Segment length Trucks and buses PCE, ET		- - 1.5	% mi
Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp		1.2 0.952 1.00	/l- /l
Flow rate, vp	Speed Inputs a	437 nd Adjustments	pc/h/ln
Lane width Right-side lateral clea Total ramp density, TRE Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment		65.0	mi/h mi/h mi/h mi/h
Free-flow speed, FFS	LOS and Perfor	65.0	mi/h
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS		437 65.0 65.0 4 6.7	pc/h/ln mi/h mi/h pc/mi/ln

Phone: E-mail:		Fax:		
	Operational An	alysis		
Analysis Time Period: Freeway/Direction: From/To: Jurisdiction: Analysis Year:	9/17/2014 eriod: AM Peak Hour on: I-580 WB Altamont Pass Rd/Vasco Rd			
	Flow Inputs an	d Adjustments		
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		7623 0.92 2071	veh/h v	
Trucks and buses Recreational vehicles Terrain type:		10 0 Level	२ १ १	
Grade Segment length		-	% mi	
Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp		1.5 1.2 0.952 1.00		
Flow rate, vp		2175	pc/h/ln	
Speed Inputs and Adjustments				
Lane width Right-side lateral clea Total ramp density, TRE Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi	
FFS or BFFS Lane width adjustment,	fLW	65.0	mi/h mi/h	
Lateral clearance adjus TRD adjustment Free-flow speed, FFS	tment, fLC	- - 65.0	mi/h mi/h mi/h	
LOS and Performance Measures				
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	2175 65.0 56.5 4 38.5 E	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>	

Phone: Fax: E-mail: Operational Analysis Analyst: Kimley-Horn & Assc., Inc. Agency or Company: Date Performed: 9/17/2014 Analysis Time Period: AM Peak Hour Freeway/Direction: I-580 EB From/To: Vasco Rd/First St Caltrans Jurisdiction: Analysis Year: Description: Tracy Hills Specific Plan _____Flow Inputs and Adjustments_____ Volume, V 1510 veh/h Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 410 v Trucks and buses 12 응 Recreational vehicles Terrain type: Level Grade Segment length тi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 435 pc/h/ln Flow rate, vp ______Speed Inputs and Adjustments____ Lane width ft Right-side lateral clearance ft Total ramp density, TRD ramps/mi Number of lanes, N Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW mi/h Lateral clearance adjustment, fLC mi/h TRD adjustment mi/h Free-flow speed, FFS 65.0 mi/h _____LOS and Performance Measures_____ Flow rate, vp 435 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N Density, D 6.7 pc/mi/ln

Α

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 WB		
From/To:	Vasco Rd/First St		
	Caltrans	L	
_	Existing +Buildou	t	
Description: Tracy Hil	is Specific Plan		
	Flow Inputs and A	Adjustments	
Volume, V		7582	veh/h
Peak-hour factor, PHF		0.92	V C11/ 11
Peak 15-min volume, v15		2060	V
Trucks and buses		12	٥٥٥
Recreational vehicles		0	%
Terrain type:		Level	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, E	CT	1.5	
Recreational vehicle PC	E, ER	1.2	
Heavy vehicle adjustmer	ıt, fHV	0.943	
Driver population factor	or, fp	1.00	
Flow rate, vp		2184	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	I dimp 5 / mI
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus		-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		2184	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	56.3	mi/h
Number of lanes, N		4	/
Density, D		38.8	pc/mi/ln
Level of service, LOS		E	<u>-</u>

Phone: E-mail:		Fax:		
	Operational Ana	lysis		
Analyst:	Kimley-Horn & As	sc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
	I-580 EB			
	First St/Livermo	re Ave		
Jurisdiction:	Caltrans			
Analysis Year:	Existing + Build	out		
Description: Tracy Hil	ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		1560	veh/h	
Peak-hour factor, PHF		0.92	,	
Peak 15-min volume, v15		424	V	
Trucks and buses		12	%	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		_	%	
Segment length		_	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PO		1.2		
Heavy vehicle adjustmer		0.943		
Driver population factor	or, fp	1.00		
Flow rate, vp		449	pc/h/ln	
	Speed Inputs an	d Adjustments		
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	- L /	
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fLW	_	mi/h	
Lateral clearance adjus	stment, fLC	_	mi/h	
TRD adjustment		_	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		449	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	65.0	mi/h	
Number of lanes, N	- '	4	•	
Density, D		6.9	pc/mi/ln	
Level of service, LOS		A		

Phone: E-mail:		Fax:		
	Operational An	alysis		
Analysis Time Period: Freeway/Direction: From/To: Jurisdiction: Analysis Year: Description: Tracy Hil	I-580 WB First St/Liverm Caltrans Existing + Buile ls Specific Plan	ore Ave dout		
	Flow Inputs an	d Adjustments		
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		7917 0.92 2151	veh/h v	
Trucks and buses Recreational vehicles Terrain type:		12 0 Level	% %	
Grade Segment length	un.	- - 1.5	% mi	
Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustmer Driver population factor	E, ER t, fHV	1.5 1.2 0.943 1.00		
Flow rate, vp	· -	2280	pc/h/ln	
	Speed Inputs a	nd Adjustments		
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi	
FFS or BFFS Lane width adjustment,	flW	65.0 -	mi/h mi/h	
Lateral clearance adjusted TRD adjustment Free-flow speed, FFS		- - 65.0	mi/h mi/h mi/h	
LOS and Performance Measures				
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	2280 65.0 54.0 4 42.2 E	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>	

Phone: Fax: E-mail: Operational Analysis Analyst: Kimley-Horn & Assc., Inc. Agency or Company: Date Performed: 9/17/2014 Analysis Time Period: AM Peak Hour Freeway/Direction: I-580 EB From/To: Livermore Ave/SR-84 (Isabel) Jurisdiction: Caltrans Analysis Year: Description: Tracy Hills Specific Plan _____Flow Inputs and Adjustments_____ Volume, V 1642 veh/h Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 446 V Trucks and buses 12 응 Recreational vehicles Terrain type: Level Grade Segment length тi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 473 pc/h/ln Flow rate, vp ______Speed Inputs and Adjustments____ Lane width ft Right-side lateral clearance ft Total ramp density, TRD ramps/mi Number of lanes, N Free-flow speed: Measured 65.0 FFS or BFFS mi/h Lane width adjustment, fLW mi/h Lateral clearance adjustment, fLC mi/h TRD adjustment mi/h Free-flow speed, FFS 65.0 mi/h _____LOS and Performance Measures_____ Flow rate, vp 473 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N Density, D 7.3 pc/mi/ln

Α

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Analy	sis	
Analyst: Agency or Company:	Kimley-Horn & Assc	., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 WB	4 (= 1 1)	
	Livermore Ave/SR-8 Caltrans	4 (Isabel)	
	Existing +Buildout		
Description: Tracy Hil	_		
	Flow Inputs and A	djustments	
Welume W		8380	veh/h
Volume, V Peak-hour factor, PHF		0.92	veii/ii
Peak 15-min volume, v15		2277	V
Trucks and buses	•	12	00
Recreational vehicles		0	ତ୍ର ଚୁଚ
Terrain type:		Level	
Grade		_	9
Segment length		-	mi
Trucks and buses PCE, E	lT	1.5	
Recreational vehicle PC	E, ER	1.2	
Heavy vehicle adjustmer	it, fHV	0.943	
Driver population factor	or, fp	1.00	
Flow rate, vp		2414	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI)	-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		-	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performan	ce Measures	
Flow rate, vp		2414	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	50.4	mi/h
Number of lanes, N		4	
Density, D		47.9	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
	9/17/2014		
Analysis Time Period:			
	I-580 EB		
	I-205/Grant Line	Rd	
Jurisdiction:	Caltrans		
Analysis Year:	Existing + Buildo	ut	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8631	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		2345	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	8
Segment length		_	mi
Trucks and buses PCE, E	T	2.5	
Recreational vehicle PO	CE, ER	2.0	
Heavy vehicle adjustmer	nt, fHV	0.847	
Driver population factor	or, fp	1.00	
Flow rate, vp		2768	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	1
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		2768	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	41.5	mi/h
Number of lanes, N	<u> </u>	4	•
Density, D		66.7	pc/mi/ln
Level of service, LOS		F	-

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 WB	_	
	I-205/Grant Line	Rd	
	Caltrans	-	
_	Existing + Buildo	ut	
Description: Tracy Hil	is specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		3660	veh/h
Peak-hour factor, PHF		0.92	·
Peak 15-min volume, v15		995	V
Trucks and buses		12	%
Recreational vehicles		0	8
Terrain type:		Rolling	
Grade		_	8
Segment length		-	mi
Trucks and buses PCE, E	IT.	2.5	
Recreational vehicle PC	CE, ER	2.0	
Heavy vehicle adjustmer	nt, fHV	0.847	
Driver population facto	or, fp	1.00	
Flow rate, vp		939	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		5	ramps, mr
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	nce Measures	
Flow rate un		939	pc/h/ln
Flow rate, vp			_
Free-flow speed, FFS Average passenger-car s	rneed C	70.0 70.0	mi/h mi/h
Number of lanes, N	speed, b	70.0 5	шт / 11
Density, D		13.4	pc/mi/ln
Level of service, LOS		В	PC/ m1/ 111

Phone: E-mail:		Fax:		
	Operational Anal	ysis		
Analyst: Agency or Company:	Kimley-Horn & Ass	sc., Inc.		
Date Performed:	9/17/2014			
Analysis Time Period:	PM Peak Hour			
Freeway/Direction:	I-580 EB			
	Grant Line Rd/Fly	nn Rd		
	Caltrans			
	Existing + Buildo	out		
Description: Tracy Hil	.ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		8631	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	;	2345	V	
Trucks and buses		8	%	
Recreational vehicles		0	%	
Terrain type:		Rolling		
Grade		-	%	
Segment length		-	mi	
Trucks and buses PCE, E		2.5		
Recreational vehicle PO		2.0		
Heavy vehicle adjustmer		0.893		
Driver population factor	or, fp	1.00	43. 43	
Flow rate, vp		2627	pc/h/ln	
	Speed Inputs and	d Adjustments		
Lane width		_	ft	
Right-side lateral clea	rance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	-	
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,	fLW	-	mi/h	
Lateral clearance adjus	stment, fLC	_	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		70.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2627	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car s	speed. S	46.4	mi/h	
Number of lanes, N	1	4	,	
Density, D		56.6	pc/mi/ln	
Level of service, LOS		F	-	

Phone: E-mail:		Fax:		
	Operational An	alysis		
Analysis Time Period: Freeway/Direction:	I-580 WB Grant Line Rd/F Caltrans Existing + Buil	lynn Rd dout		
	Flow Inputs an	d Adjustments		
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		3660 0.92 995	veh/h v	
Trucks and buses Recreational vehicles Terrain type: Grade		8 0 Rolling	% %	
Segment length Trucks and buses PCE, Recreational vehicle PC Heavy vehicle adjustmen	CE, ER nt, fHV	- 2.5 2.0 0.893	mi	
Driver population factor Flow rate, vp	or, ip	1.00 1114	pc/h/ln	
	Speed Inputs a	nd Adjustments		
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi	
FFS or BFFS Lane width adjustment, Lateral clearance adjustment TRD adjustment Free-flow speed, FFS		70.0 - - - 70.0	mi/h mi/h mi/h mi/h mi/h	
LOS and Performance Measures				
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	speed, S	1114 70.0 70.0 4 15.9	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>	

Phone: E-mail:		Fax:	
	Operational Anal	lysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 EB		
	Flynn Rd/Altamont	t Pass Rd	
Jurisdiction:	Caltrans		
Analysis Year:	Existing + Buildo	out	
Description: Tracy Hil	.ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8571	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	; ;	2329	V
Trucks and buses		10	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	8
Segment length		-	mi
Trucks and buses PCE, E		2.5	
Recreational vehicle PO		2.0	
Heavy vehicle adjustmer		0.870	
Driver population factor Flow rate, vp	or, Ip	1.00 2678	pc/h/ln
riow race, vp		2070	pc/11/111
	Speed Inputs and	d Adjustments	
Lane width		-	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI)	-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	=	mi/h
TRD adjustment		70.0	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	ance Measures	
Flow rate, vp		2678	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	44.7	mi/h
Number of lanes, N		4	
Density, D		60.0	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Kimley-Horn & As	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 WB		
	Flynn Rd/Altamon	t Pass Rd	
Jurisdiction:	Caltrans		
Analysis Year:	Existing + Build	out	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		3635	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		988	V
Trucks and buses		10	8
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	8
Segment length		_	mi
Trucks and buses PCE, F		2.5	
Recreational vehicle PO		2.0	
Heavy vehicle adjustmer		0.870	
Driver population factor	or, ip	1.00	m a /b /l m
Flow rate, vp		1136	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		-	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Perform	ance Measures	
Flow rate, vp		1136	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	70.0	mi/h
Number of lanes, N		4	
Density, D		16.2	pc/mi/ln
Level of service, LOS		В	

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Kimley-Horn & As	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
	Altamont Pass Rd	/Vasco Rd	
	Caltrans		
Analysis Year:	Existing + Build	out	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8504	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15)	2311	V
Trucks and buses		10	०
Recreational vehicles		0	%
Terrain type:		Level	
Grade		-	8
Segment length		-	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PO		1.2	
Heavy vehicle adjustmer		0.952	
Driver population factor Flow rate, vp	or, Ip	1.00 2426	pc/h/ln
riow race, vp		2420	pe/11/111
	Speed Inputs and	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI)	-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		-	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perform	ance Measures	
Flow rate, vp		2426	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	50.1	mi/h
Number of lanes, N		4	
Density, D		48.4	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Ar	nalysis	
Analysis Time Period: Freeway/Direction:	I-580 WB Altamont Pass F Caltrans Existing + Buil	Rd/Vasco Rd .dout	
	Flow Inputs ar	nd Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, Recreational vehicle PC Heavy vehicle adjustment	ET CE, ER nt, fHV	4228 0.92 1149 10 0 Level - - 1.5 1.2 0.952 1.00	veh/h v % % % mi
Flow rate, vp	2- / -F	1206	pc/h/ln
	Speed Inputs a	and Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS) flw	- - 4 Measured 65.0 - - - 65.0	<pre>ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h mi/h</pre>
_	LOS and Perfor	rmance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS		1206 65.0 65.0 4 18.6	pc/h/ln mi/h mi/h pc/mi/ln

Phone: E-mail:		Fax:				
	Operational Ar	nalysis				
Analyst:	Kimley-Horn & A	Assc., Inc.				
Agency or Company:						
	9/17/2014					
Analysis Time Period:						
Freeway/Direction:		a.				
From/To:	Vasco Rd/First	St				
Jurisdiction:	Caltrans	I -1 L				
Analysis Year:						
Description: Tracy Hi	iis Specific Plar	1				
Flow Inputs and Adjustments						
Volume, V		8432	veh/h			
Peak-hour factor, PHF		0.92				
Peak 15-min volume, v1	5	2291	V			
Trucks and buses		12	%			
Recreational vehicles		0	%			
Terrain type:		Level				
Grade		-	%			
Segment length		- 1.5	mi			
	Trucks and buses PCE, ET					
Recreational vehicle P		1.2				
Heavy vehicle adjustment, fHV		0.943				
Driver population factor, fp		1.00	(1 (7			
Flow rate, vp		2429	pc/h/ln			
	Speed Inputs a	and Adjustments				
Lane width		-	ft			
Right-side lateral cle	arance	-	ft			
Total ramp density, TRD		-	ramps/mi			
Number of lanes, N		4				
Free-flow speed:		Measured				
FFS or BFFS		65.0	mi/h			
Lane width adjustment,		-	mi/h			
Lateral clearance adjustment, fLC		-	mi/h			
TRD adjustment		_	mi/h			
Free-flow speed, FFS		65.0	mi/h			
LOS and Performance Measures						
Flow rate, vp		2429	pc/h/ln			
Free-flow speed, FFS		65.0	mi/h			
Average passenger-car speed, S		50.0	mi/h			
Number of lanes, N		4				
Density, D		48.6	pc/mi/ln			
Torral of commiss IOC		П				

Level of service, LOS

Phone: E-mail:		Fax:			
	Operational Ar	nalysis			
Analysis Time Period: Freeway/Direction:	I-580 WB Vasco Rd/First Caltrans Existing + Buil lls Specific Plan	St dout			
	Flow Inputs an	d Adjustments			
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, Recreational vehicle PC Heavy vehicle adjustment Driver population factor Flow rate, vp	ET CE, ER nt, fhV	4200 0.92 1141 12 0 Level - - 1.5 1.2 0.943 1.00 1210	<pre>veh/h v % % mi pc/h/ln</pre>		
_	Crood Innuts		-		
	speed inputs a	ina Adjustments			
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment,)	- - 4 Measured 65.0	ft ft ramps/mi mi/h mi/h		
Lateral clearance adjustment, fLC TRD adjustment Free-flow speed, FFS		- - 65.0	mi/h mi/h mi/h		
LOS and Performance Measures					
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	speed, S	1210 65.0 65.0 4 18.6 C	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>		

Phone: E-mail:		Fax:			
	Operational Anal	lysis			
Analyst:	Kimley-Horn & Assc., Inc.				
Agency or Company: Date Performed:	9/17/2014				
Analysis Time Period:					
	I-580 EB				
	First St/Livermore Ave				
	Caltrans				
_	Existing + Buildo	out			
Description: Tracy Hil	Description: Tracy Hills Specific Plan				
	Flow Inputs and	Adjustments			
Volume, V		8803	veh/h		
Peak-hour factor, PHF		0.92			
Peak 15-min volume, v15	5	2392	V		
Trucks and buses		12	%		
Recreational vehicles		0	%		
Terrain type:		Level			
Grade		_	8		
Segment length		_	mi		
Trucks and buses PCE, F		1.5			
Recreational vehicle PO		1.2			
Heavy vehicle adjustment, fHV		0.943			
Driver population factor, fp		1.00	/1- /1		
Flow rate, vp		2536	pc/h/ln		
	Speed Inputs and	d Adjustments			
Lane width		_	ft		
Right-side lateral clearance		_	ft		
Total ramp density, TRI		_	ramps/mi		
Number of lanes, N		4	_		
Free-flow speed:		Measured			
FFS or BFFS		65.0	mi/h		
Lane width adjustment, fLW		_	mi/h		
Lateral clearance adjus	stment, fLC	_	mi/h		
TRD adjustment		_	mi/h		
Free-flow speed, FFS		65.0	mi/h		
LOS and Performance Measures					
Flow rate, vp		2536	pc/h/ln		
Free-flow speed, FFS		65.0	mi/h		
Average passenger-car s	speed, S	46.7	mi/h		
Number of lanes, N		4			
Density, D		54.3	pc/mi/ln		
Level of service, LOS		F			

Phone: E-mail:		Fax:			
	Operational Anal	ysis			
Analyst:	Kimley-Horn & Assc., Inc.				
Agency or Company: Date Performed:	9/17/2014				
Analysis Time Period:					
	I-580 WB				
	First St/Livermore Ave				
Jurisdiction:					
_	Existing + Buildo	out			
Description: Tracy Hil	ls Specific Plan				
	Flow Inputs and	Adjustments			
Volume, V		4378	veh/h		
Peak-hour factor, PHF		0.92			
Peak 15-min volume, v15		1190	V		
Trucks and buses		12	%		
Recreational vehicles		0	%		
Terrain type:		Level			
Grade		-	%		
Segment length		-	mi		
Trucks and buses PCE, E	IT .	1.5			
Recreational vehicle PO		1.2			
Heavy vehicle adjustment, fHV		0.943			
Driver population factor, fp		1.00			
Flow rate, vp		1261	pc/h/ln		
	Speed Inputs and	l Adjustments			
Lane width		_	ft		
Right-side lateral clearance		_	ft		
Total ramp density, TRI		_	ramps/mi		
Number of lanes, N		4	_		
Free-flow speed:		Measured			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	-	mi/h		
Lateral clearance adjus	stment, fLC	-	mi/h		
TRD adjustment		-	mi/h		
Free-flow speed, FFS		65.0	mi/h		
LOS and Performance Measures					
Flow rate, vp		1261	pc/h/ln		
Free-flow speed, FFS		65.0	mi/h		
Average passenger-car speed, S		65.0	mi/h		
Number of lanes, N		4			
Density, D		19.4	pc/mi/ln		
Level of service, LOS		С			

Phone: E-mail:		Fax:	
	Operational Ar	nalysis	
Analyst: Agency or Company:	Kimley-Horn & A	Assc., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 EB		
From/To:	Livermore Ave/S	SR-84 (Isabel)	
Jurisdiction:	Caltrans		
Analysis Year:	Existing + Buil	ldout	
Description: Tracy Hil	lls Specific Plar	ı	
	Flow Inputs ar	nd Adjustments	
Volume, V		9291	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		2525	V
Trucks and buses		12	%
Recreational vehicles		0	8
Terrain type:		Level	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, I	ET	1.5	
Recreational vehicle Po		1.2	
Heavy vehicle adjustmen	nt, fHV	0.943	
Driver population factor	or, fp	1.00	
Flow rate, vp		2676	pc/h/ln
	Speed Inputs a	and Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perfor	rmance Measures	
Flow rate, vp		2676	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car	speed, S	41.9	mi/h
Number of lanes, N		4	
Density, D		63.8	pc/mi/ln
Torrol of dominian TOC		177	

F

Level of service, LOS

Phone: E-mail:		Fax:		
	Operational Analy	ysis		
Analyst:	Kimley-Horn & Asso	c., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
	I-580 WB			
	Livermore Ave/SR-	84 (Isabel)		
Jurisdiction:	Caltrans			
Analysis Year:	Existing + Buildo	ıt		
Description: Tracy Hil	ls Specific Plan			
	Flow Inputs and A	Adjustments		
Volume, V		4626	veh/h	
Peak-hour factor, PHF		0.92	,	
Peak 15-min volume, v15		1257	V	
Trucks and buses		12	%	
Recreational vehicles		0	9	
Terrain type:		Level		
Grade		_	%	
Segment length		-	mi	
Trucks and buses PCE, E	T	1.5		
Recreational vehicle PO	E, ER	1.2		
Heavy vehicle adjustmer	it, fHV	0.943		
Driver population factor	or, fp	1.00		
Flow rate, vp		1332	pc/h/ln	
	Speed Inputs and	Adjustments		
Lane width		_	ft	
Right-side lateral clea	irance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	_	
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fLW	_	mi/h	
Lateral clearance adjus	stment, fLC	_	mi/h	
TRD adjustment		_	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		1332	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	65.0	mi/h	
Number of lanes, N	<u> </u>	4	•	
Density, D		20.5	pc/mi/ln	
Level of service, LOS		С	_	

Phone: E-mail:		Fax:	
	Operational Analy	zsis	
Analysis Time Period: Freeway/Direction: From/To: Jurisdiction: Analysis Year: Description: Tracy Hil	I-580 EB I-205/Grant Line F Caltrans Cumulative (2040) ls Specific Plan	2d	
	Flow Inputs and A	djustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		2066 0.92 561	veh/h v
Trucks and buses Recreational vehicles Terrain type:		12 0 Rolling	१ १
Grade Segment length Trucks and buses PCE, E		- - 2.5	% mi
Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp		2.0 0.847 1.00	
Flow rate, vp 662 pc/h/ln Speed Inputs and Adjustments			
Lane width Right-side lateral clea Total ramp density, TRD Number of lanes, N	rance	- - - 4	ft ft ramps/mi
Free-flow speed: FFS or BFFS Lane width adjustment,	fLW	Measured 70.0 -	mi/h mi/h
Lateral clearance adjus TRD adjustment Free-flow speed, FFS	tment, fLC	- - 70.0	mi/h mi/h mi/h
	LOS and Performar	ce Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	662 70.0 70.0 4 9.5 A	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 WB		
From/To:	I-205/Grant Line	Rd	
	Caltrans		
Analysis Year:	Cumulative (2040)		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		7707	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		2094	V
Trucks and buses		12	90
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		-	%
Segment length		-	mi
Trucks and buses PCE, E	lT	2.5	
Recreational vehicle PC	E, ER	2.0	
Heavy vehicle adjustmer	ıt, fHV	0.847	
Driver population factor, fp		1.00	
Flow rate, vp		1977	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		5	2 d
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		1977	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed. S	63.0	mi/h
Number of lanes, N		5	,
Density, D		31.4	pc/mi/ln
Level of service, LOS		D	<u>.</u>

E-mail:		Fax:	
	_Operational Analys	sis	
Agency or Company: Date Performed: Analysis Time Period: Freeway/Direction: From/To: Jurisdiction:	I-580 EB Grant Line Rd/Flynr Caltrans Cumulative (2040)		
	_Flow Inputs and Ad	ljustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses		2066 0.92 561 8	veh/h v %
Recreational vehicles Terrain type: Grade		0 Rolling -	% % mi
Segment length Trucks and buses PCE, ET Recreational vehicle PCE Heavy vehicle adjustment Driver population factor	, fHV	2.5 2.0 0.893 1.00	ш
Flow rate, vp		629	pc/h/ln
	_Speed Inputs and A	Adjustments	
Lane width Right-side lateral clears Total ramp density, TRD Number of lanes, N Free-flow speed:	ance	- - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, fill Lateral clearance adjustment TRD adjustment		70.0 - - -	mi/h mi/h mi/h mi/h
Free-flow speed, FFS		70.0	mi/h
	_LOS and Performand	ce Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car spends Number of lanes, N Density, D Level of service, LOS	eed, S	629 70.0 70.0 4 9.0 A	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	sc., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period: Freeway/Direction:	AM Peak Hour I-580 WB		
From/To:	Grant Line Rd/Fly	nn Rd	
•	Caltrans	iiii ita	
Analysis Year:	Cumulative (2040)		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		7707	veh/h
Peak-hour factor, PHF		0.92	V 011, 11
Peak 15-min volume, v15		2094	V
Trucks and buses		8	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		-	%
Segment length		-	mi
Trucks and buses PCE, E		2.5	
Recreational vehicle PC		2.0	
Heavy vehicle adjustmer		0.893	
Driver population factor	or, ip	1.00	(1 (7
Flow rate, vp		2346	pc/h/ln
	Speed Inputs and	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	ance Measures	
Flow rate, vp		2346	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	54.8	mi/h
Number of lanes, N		4	
Density, D		42.8	pc/mi/ln
Level of service, LOS		E	

Phone: E-mail:		Fax:	
	Operational Anal	lysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 EB		
From/To:	Flynn Rd/Altamont	Pass Rd	
Jurisdiction:	Caltrans		
Analysis Year:	Cumulative (2040)		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		2057	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	; ;	559	V
Trucks and buses		10	०
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	8
Segment length		-	mi
Trucks and buses PCE, E		2.5	
Recreational vehicle PO		2.0	
Heavy vehicle adjustmer		0.870	
Driver population factor Flow rate, vp	or, Ip	1.00 643	pc/h/ln
riow race, vp		043	pc/11/111
	Speed Inputs and	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI)	_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		- 70 0	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	ance Measures	
Flow rate, vp		643	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	70.0	mi/h
Number of lanes, N		4	
Density, D		9.2	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analysis Time Period: Freeway/Direction:	I-580 WB Flynn Rd/Altamon Caltrans Cumulative (2040 lls Specific Plan	nt Pass Rd 0)	
	Flow Inputs and	d Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15	;	7671 0.92 2085	veh/h v
Trucks and buses Recreational vehicles Terrain type: Grade		10 0 Rolling	% %
Segment length Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustmen	E, ER t, fHV	- 2.5 2.0 0.870	mi
Driver population factor Flow rate, vp	or, ip	1.00 2397	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjus		70.0	mi/h mi/h mi/h
TRD adjustment Free-flow speed, FFS	,	- 70.0	mi/h mi/h
	LOS and Perform	mance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	speed, S	2397 70.0 53.4 4 44.9	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>
Level of Service, LOS		E.	

Phone: Fax: E-mail: Operational Analysis Analyst: Kimley-Horn & Assc., Inc. Agency or Company: Date Performed: 9/17/2014 Analysis Time Period: AM Peak Hour Freeway/Direction: I-580 EB From/To: Altamont Pass Rd/Vasco Rd Jurisdiction: Caltrans Analysis Year: Cumulative (2040) Description: Tracy Hills Specific Plan _____Flow Inputs and Adjustments_____ Volume, V 2135 veh/h Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 580 V Trucks and buses 10 응 Recreational vehicles Terrain type: Level Grade Segment length тi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.952 Driver population factor, fp 1.00 609 pc/h/ln Flow rate, vp ______Speed Inputs and Adjustments____ Lane width ft Right-side lateral clearance ft Total ramp density, TRD ramps/mi Number of lanes, N Free-flow speed: Measured 65.0 FFS or BFFS mi/h Lane width adjustment, fLW mi/h Lateral clearance adjustment, fLC mi/h TRD adjustment mi/h Free-flow speed, FFS 65.0 mi/h _____LOS and Performance Measures_____ 609 Flow rate, vp pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 65.0 mi/h Number of lanes, N Density, D 9.4 pc/mi/ln

Α

Level of service, LOS

Phone: E-mail:		Fax:		
	Operational Anal	lysis		
Analyst:	Kimley-Horn & Ass	sc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:				
From/To:	Altamont Pass Rd	/Vasco Rd		
Jurisdiction:	Caltrans			
Analysis Year:	Cumulative (2040))		
Description: Tracy Hil	ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		8967	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	·	2437	v	
Trucks and buses		10	%	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		_	8	
Segment length		-	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PO		1.2		
Heavy vehicle adjustmer		0.952		
Driver population factor Flow rate, vp	or, Ip	1.00 2559	pc/h/ln	
riow race, vp		2339	pe/11/111	
	Speed Inputs and	d Adjustments		
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	_	
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,		-	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		_	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2559	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	46.0	mi/h	
Number of lanes, N		4		
Density, D		55.7	pc/mi/ln	
Level of service, LOS		F		

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analyst: Agency or Company:	Kimley-Horn & As	_	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:		~ .	
	Vasco Rd/First S	St	
Analysis Year:	Caltrans	١١	
Description: Tracy Hil		<i>,</i>	
	_	a Adiustments	
	Flow inputs and	a Adjustments	
Volume, V		1903	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	5	517	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type: Grade		Level	0.
		-	%
Segment length Trucks and buses PCE, I	7.T	- 1.5	mi
Recreational vehicle Po		1.2	
Heavy vehicle adjustmen		0.943	
Driver population factor, fp		1.00	
Flow rate, vp		548	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	-
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perform	mance Measures	
Flow rate, vp		548	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	65.0	mi/h
Number of lanes, N		4	
Density, D		8.4	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:		
	Operational Analy	/sis		
Analyst: Agency or Company:	Kimley-Horn & Asso	c., Inc.		
Date Performed: Analysis Time Period:	9/17/2014			
Freeway/Direction:	I-580 WB			
From/To:	Vasco Rd/First St			
Jurisdiction:	Caltrans			
Analysis Year:	Cumulative (2040)			
Description: Tracy Hil	ls Specific Plan			
	Flow Inputs and A	Adjustments		
Volume, V		8491	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15		2307	v	
Trucks and buses		12	%	
Recreational vehicles		0	%	
Terrain type:		Level	_	
Grade		_	8	
Segment length	ı.m	- 1 F	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PC		1.2		
Heavy vehicle adjustmer		0.943 1.00		
Driver population factor, fp Flow rate, vp		2446	pc/h/ln	
Flow race, vp		2110	pc/11/111	
	Speed Inputs and	Adjustments		
Lane width		_	ft	
Right-side lateral clea	rance	_	ft	
Total ramp density, TRI)	_	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,		_	mi/h	
Lateral clearance adjus	stment, fLC	_	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2446	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	49.5	mi/h	
Number of lanes, N		4		
Density, D		49.4	pc/mi/ln	
Level of service, LOS		F		

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analysis Time Period: Freeway/Direction:	I-580 EB First St/Livermo Caltrans Cumulative (2040	re Ave	
	Flow Inputs and	Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		2421 0.92 658	veh/h v
Trucks and buses Recreational vehicles Terrain type: Grade		12 0 Level	% %
Segment length Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustment	E, ER Lt, fHV	- 1.5 1.2 0.943 1.00	mi
Flow rate, vp	, .	697	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjust TRD adjustment		65.0	mi/h mi/h mi/h mi/h
Free-flow speed, FFS	TOG and Davis	65.0	mi/h
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N	LOS and Perform	697 65.0 65.0 4	pc/h/ln mi/h mi/h
Density, D Level of service, LOS		10.7 A	pc/mi/ln

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:	AM Peak Hour		
Freeway/Direction:	I-580 WB		
From/To:	First St/Livermor	e Ave	
Jurisdiction:	Caltrans		
Analysis Year:	Cumulative (2040)		
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8831	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		2400	V
Trucks and buses		12	%
Recreational vehicles		0	8
Terrain type:		Level	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PO		1.2	
Heavy vehicle adjustmer		0.943	
Driver population factor, fp		1.00	
Flow rate, vp		2544	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRD		_	ramps/mi
Number of lanes, N		4	-
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
LOS and Performance Measures			
Flow rate, vp		2544	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	46.4	mi/h
Number of lanes, N		4	
Density, D		54.8	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
	Livermore Ave/SR-	84 (Isabel)	
	Caltrans		
Analysis Year:	Cumulative (2040)		
Description: Tracy Hil	is Specific Plan		
	Flow Inputs and I	Adjustments	
Volume, V		2290	veh/h
Peak-hour factor, PHF		0.92	,
Peak 15-min volume, v15		622	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		_	%
Segment length		-	mi
Trucks and buses PCE, E	T	1.5	
Recreational vehicle PC	E, ER	1.2	
Heavy vehicle adjustmen	it, fHV	0.943	
Driver population facto	or, fp	1.00	
Flow rate, vp		660	pc/h/ln
Speed Inputs and Adjustments			
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	I dilips / lil
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,			mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
LOS and Performance Measures			
Flow rate, vp 660 pc/h/ln			
Flow rate, vp Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed S	65.0	mi/h
Number of lanes, N	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4	m1/11
Density, D		10.2	pc/mi/ln
Level of service, LOS		A	F 0, 111

Phone: E-mail:		Fax:	
	Operational Ar	nalysis	
Analyst: Agency or Company:	Kimley-Horn & A	Assc., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:	AM Peak Hour		
Freeway/Direction:	I-580 WB		
From/To:	Livermore Ave/S	SR-84 (Isabel)	
	Caltrans		
Analysis Year:	Cumulative (204		
Description: Tracy Hil	ls Specific Plar	1	
	Flow Inputs ar	nd Adjustments	
Volume, V		8919	veh/h
Peak-hour factor, PHF		0.92	·
Peak 15-min volume, v15)	2424	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, E	CT	1.5	
Recreational vehicle PO	CE, ER	1.2	
Heavy vehicle adjustment, fHV		0.943	
Driver population factor, fp		1.00	
Flow rate, vp		2569	pc/h/ln
	Speed Inputs a	and Adjustments	
Lane width		_	ft
Right-side lateral clearance		_	ft
Total ramp density, TRD		_	ramps/mi
Number of lanes, N		4	-
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjustment, fLC		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
LOS and Performance Measures			
Flow rate, vp		2569	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	45.6	mi/h
Number of lanes, N	- ,	4	·
Density, D		56.3	pc/mi/ln
Torrol of governing TOC		T.	= '

F

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
	I-205/Grant Line	Rd	
	Caltrans		
Analysis Year:	Cumulative (2040)		
Description: Tracy Hil	is Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8510	veh/h
Peak-hour factor, PHF		0.92	V 311, 11
Peak 15-min volume, v15		2312	V
Trucks and buses		12	90
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, E	IT.	2.5	
Recreational vehicle PC	CE, ER	2.0	
Heavy vehicle adjustmer	nt, fHV	0.847	
Driver population factor, fp		1.00	
Flow rate, vp		2729	pc/h/ln
Speed Inputs and Adjustments			
Lane width			ft
	rance	_	ft
Total ramp density, TRI	Right-side lateral clearance		ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjustment, fLC		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp		2729	pc/h/ln
Free-flow speed, FFS	D boom	70.0	mi/h
Average passenger-car s Number of lanes, N	speed, s	42.9 4	mi/h
Density, D		63.6	pc/mi/ln
Level of service, LOS		63.0 F	PC/ m1/ 111
2.22.22.200, 200		_	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 WB		
	I-205/Grant Line	Rd	
	Caltrans		
Analysis Year:	Cumulative (2040)		
Description: Tracy Hil	is specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		5104	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	; ;	1387	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	8
Segment length		_	mi
Trucks and buses PCE, E	T	2.5	
Recreational vehicle PC	E, ER	2.0	
Heavy vehicle adjustmen	it, fHV	0.847	
Driver population factor, fp		1.00	
Flow rate, vp		1309	pc/h/ln
Speed Inputs and Adjustments			
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		5	ramps, mr
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment, fLW		=	mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp		1309	_
Free-flow speed, FFS Average passenger-car s	rneed c	70.0 69.9	mi/h mi/h
	peed, b	5	шт / 11
Number of lanes, N Density, D		18.7	pc/mi/ln
Level of service, LOS		C C	PO/ m1/ 111

Phone: E-mail:		Fax:		
	Operational Anal	ysis		
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.		
Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:	I-580 EB	- 1		
From/To: Jurisdiction:	Grant Line Rd/Fly	nn Ra		
Analysis Year:	Caltrans Cumulative (2040)			
Description: Tracy Hil				
Descripcion: Tracy min	is specific rian			
	Flow Inputs and	Adjustments		
Volume, V		8582	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	·	2332	V	
Trucks and buses		8	%	
Recreational vehicles		0	%	
Terrain type:		Rolling		
Grade		-	%	
Segment length		-	mi	
Trucks and buses PCE, E		2.5		
Recreational vehicle PO		2.0		
Heavy vehicle adjustmer		0.893		
Driver population factor Flow rate, vp	or, ip	1.00 2612	pc/h/ln	
riow race, vp		2012	pe/11/111	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	_	
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,		-	mi/h	
Lateral clearance adjus	stment, fLC	_	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		70.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2612	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car s	speed, S	46.9	mi/h	
Number of lanes, N		4		
Density, D		55.7	pc/mi/ln	
Level of service, LOS		F		

Phone: E-mail:		Fax:		
	Operational Anal	ysis		
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.		
Date Performed:	9/17/2014			
Analysis Time Period:				
<pre>Freeway/Direction: From/To:</pre>	I-580 WB Grant Line Rd/Fly	nn Dd		
- ' -	Caltrans	IIII KU		
Analysis Year:	Cumulative (2040)			
Description: Tracy Hil				
	Flow Inputs and	Adjustments		
Volume, V		5104	veh/h	
Peak-hour factor, PHF		0.92	V CII / II	
Peak 15-min volume, v15		1387	V	
Trucks and buses	•	8	%	
Recreational vehicles		0	8	
Terrain type:		Rolling		
Grade		_	%	
Segment length		_	mi	
Trucks and buses PCE, E	T	2.5		
Recreational vehicle PO	CE, ER	2.0		
Heavy vehicle adjustmer	nt, fHV	0.893		
Driver population factor	or, fp	1.00		
Flow rate, vp		1553	pc/h/ln	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI)	_	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,		_	mi/h	
Lateral clearance adjus	stment, fLC	_	mi/h	
TRD adjustment		_	mi/h	
Free-flow speed, FFS		70.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		1553	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car s	speed, S	68.6	mi/h	
Number of lanes, N		4		
Density, D		22.7	pc/mi/ln	
Level of service, LOS		С		

Phone: E-mail:		Fax:		
	Operational Ana	lysis		
Analyst:	Kimley-Horn & Ass	sc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:	I-580 EB			
From/To:	Flynn Rd/Altamon	t Pass Rd		
Jurisdiction:	Caltrans			
Analysis Year:	Cumulative (2040)		
Description: Tracy Hil	.ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		8492	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	; ;	2308	V	
Trucks and buses		10	%	
Recreational vehicles		0	%	
Terrain type:		Rolling		
Grade		-	8	
Segment length		-	mi	
Trucks and buses PCE, E		2.5		
Recreational vehicle PO		2.0		
Heavy vehicle adjustmer		0.870		
Driver population factor Flow rate, vp	or, Ip	1.00 2654	pc/h/ln	
riow race, vp		2034	pc/11/111	
Speed Inputs and Adjustments				
Lane width		-	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI)	-	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,		_	mi/h	
Lateral clearance adjus	stment, fLC	_	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		70.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2654	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car s	speed, S	45.5	mi/h	
Number of lanes, N		4		
Density, D		58.4	pc/mi/ln	
Level of service, LOS		F		

Phone: E-mail:		Fax:		
	Operational Ana	lysis		
Analyst:	Kimley-Horn & As	sc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
	I-580 WB			
From/To:	Flynn Rd/Altamon	t Pass Rd		
Jurisdiction:	Caltrans			
Analysis Year:	Cumulative (2040)		
Description: Tracy Hil	ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		5083	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	·	1381	V	
Trucks and buses		10	%	
Recreational vehicles		0	%	
Terrain type:		Rolling		
Grade		-	8	
Segment length		-	mi	
Trucks and buses PCE, E		2.5		
Recreational vehicle PO		2.0		
Heavy vehicle adjustmer		0.870		
Driver population factor Flow rate, vp	or, ip	1.00 1588	pc/h/ln	
riow race, vp		1300	pc/11/111	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea	irance	_	ft	
Total ramp density, TRI)	-	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,		-	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		70.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		1588	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car s	speed, S	68.3	mi/h	
Number of lanes, N		4		
Density, D		23.3	pc/mi/ln	
Level of service, LOS		С		

Phone: E-mail:		Fax:		
	Operational An	alysis		
Analysis Time Period: Freeway/Direction: From/To: Jurisdiction:	I-580 EB Altamont Pass R Caltrans Cumulative (204	d/Vasco Rd 0)		
	Flow Inputs an	d Adjustments		
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustment Driver population factor Flow rate, vp	T E, ER t, fHV	8192 0.92 2226 10 0 Level - 1.5 1.2 0.952 1.00 2337	<pre>veh/h v % % % mi pc/h/ln</pre>	
	Speed Inputs a	nd Adjustments		
Lane width Right-side lateral clea Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS	fLW	- - 4 Measured 65.0 - - - 65.0	<pre>ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h</pre>	
LOS and Performance Measures				
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	2337 65.0 52.6 4 44.5	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>	

Phone: E-mail:		Fax:		
	Operational Anal	lysis		
Analyst:	Kimley-Horn & Ass	sc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:				
From/To:	Altamont Pass Rd	/Vasco Rd		
Jurisdiction:	Caltrans			
Analysis Year:	Cumulative (2040))		
Description: Tracy Hil	ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		5509	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	·	1497	V	
Trucks and buses		10	8	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		_	%	
Segment length		-	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PO		1.2		
Heavy vehicle adjustmer		0.952		
Driver population factor Flow rate, vp	or, Ip	1.00 1572	pc/h/ln	
riow face, vp		1572	pC/11/111	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	_	
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,		_	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		1572	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	64.6	mi/h	
Number of lanes, N		4		
Density, D		24.3	pc/mi/ln	
Level of service, LOS		С		

Phone: E-mail:		Fax:		
	Operational Anal	ysis		
Analysis Time Period: Freeway/Direction: From/To:	I-580 EB Vasco Rd/First St Caltrans Cumulative (2040)			
	Flow Inputs and	Adjustments		
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustment Driver population factor	E, ER t, fHV	8903 0.92 2419 12 0 Level - 1.5 1.2 0.943 1.00	veh/h v % % mi	
Flow rate, vp		2564	pc/h/ln	
	Speed Inputs and	. Adjustments		
Lane width Right-side lateral clea Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS	fLW	- - 4 Measured 65.0 - - - 65.0	<pre>ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h</pre>	
LOS and Performance Measures				
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	2564 65.0 45.8 4 56.0	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>	

Phone: E-mail:		Fax:		
	Operational Ana	alvsis		
	OPCIACIONAI /MIC	217515		
Analyst:	Kimley-Horn & As	ssc., Inc.		
Agency or Company:				
	9/17/2014			
Analysis Time Period:	PM Peak Hour			
Freeway/Direction:				
	Vasco Rd/First S	St		
	Caltrans			
Analysis Year:))		
Description: Tracy Hil	ls Specific Plan			
	Flow Inputs and	d Adjustments		
Volume, V		5779	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	5	1570	V	
Trucks and buses		12	8	
Recreational vehicles		0	०	
Terrain type:		Level		
Grade		-	%	
Segment length		-	mi	
Trucks and buses PCE, ET		1.5		
Recreational vehicle PCE, ER		1.2		
Heavy vehicle adjustmen		0.943		
Driver population factor	or, fp	1.00	43. 43	
Flow rate, vp		1665	pc/h/ln	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fLW	_	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		1665	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed. S	64.0	mi/h	
Number of lanes, N	F = 5 4 / 5	4		
Density, D		26.0+	pc/mi/ln	
Level of service, LOS		D	<u>.</u>	

Phone: E-mail:		Fax:		
	Operational Anal	ysis		
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.		
Date Performed:	9/17/2014			
Analysis Time Period:				
	I-580 EB			
	First St/Livermor	e Ave		
Jurisdiction:	Caltrans			
Analysis Year:	Cumulative (2040)			
Description: Tracy Hil	ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		8537	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15		2320	V	
Trucks and buses		12	%	
Recreational vehicles		0	8	
Terrain type:		Level		
Grade		-	%	
Segment length		-	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PO		1.2		
Heavy vehicle adjustmer		0.943		
Driver population factor	or, fp	1.00		
Flow rate, vp		2459	pc/h/ln	
Speed Inputs and Adjustments				
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	_	
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fLW	_	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2459	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	49.1	mi/h	
Number of lanes, N		4		
Density, D		50.1	pc/mi/ln	
Level of service, LOS		F		

Phone: E-mail:		Fax:		
	Operational Anal	ysis		
Analyst:	Kimley-Horn & Ass	sc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
	I-580 WB			
	First St/Livermor	e Ave		
Jurisdiction:	Caltrans			
Analysis Year:	Cumulative (2040)			
Description: Tracy Hil	ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		5362	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15		1457	V	
Trucks and buses		12	%	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		-	%	
Segment length		-	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PO		1.2		
Heavy vehicle adjustmer		0.943		
Driver population factor	or, fp	1.00		
Flow rate, vp		1544	pc/h/ln	
Speed Inputs and Adjustments				
Lane width		=	ft	
Right-side lateral clea	rance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4	1,	
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fLW	-	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		1544	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	64.7	mi/h	
Number of lanes, N		4		
Density, D		23.9	pc/mi/ln	
Level of service, LOS		C		

Analyst: Kimley-Horn & Assc., Inc. Agency or Company: Date Performed: 9/17/2014 Analysis Time Period: PM Peak Hour Freeway/Direction: I-580 EB From/To: Livermore Ave/SR-84 (Isabel) Jurisdiction: Caltrans Analysis Year: Cumulative (2040) Description: Tracy Hills Specific Plan Flow Inputs and Adjustments Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses 12 Recreational vehicles 0 % Terrain type: Level Grade - % Segment length Trucks and buses PCE, ET Recreational vehicle PCE, ER 1.5 Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp 1.00 Flow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N Y Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW Lateral clearance adjustment, fLC - mi/h	Phone: E-mail:		Fax:		
Agency or Company: Date Performed: 9/17/2014 Analysis Time Period: PM Peak Hour Freeway/Direction: I-580 EB From/To: Livermore Ave/SR-84 (Isabel) Jurisdiction: Caltrans Analysis Year: Cumulative (2040) Description: Tracy Hills Specific Plan Flow Inputs and Adjustments Volume, V 9053 veh/h Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 2460 v Trucks and buses 12 % Recreational vehicles 0 % Terrain type: Level Grade - % Segment length - mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 Flow rate, vp 2608 pc/h/ln Speed Inputs and Adjustments Lane width - ft Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h		Operational Analys	sis		
Date Performed: 9/17/2014 Analysis Time Period: PM Peak Hour Freeway/Direction: I -580 EB From/To: Livermore Ave/SR-84 (Isabel) Jurisdiction: Caltrans Analysis Year: Cumulative (2040) Description: Tracy Hills Specific Plan Flow Inputs and Adjustments Plow Inputs and Adjustment Plow Inputs and	_	Kimley-Horn & Assc	., Inc.		
Freeway/Direction:		9/17/2014			
From/To: Livermore Ave/SR-84 (Isabel) Jurisdiction: Caltrans Analysis Year: Cumulative (2040) Description: Tracy Hills Specific Plan Flow Inputs and Adjustments Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses 12 Recreational vehicles 0 Recreational vehicles 0 Regment length - Trucks and buses PCE, ET Recreational vehicle PCE, ER 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV Driver population factor, fp 1.00 Flow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance FFS or BFFS An evidth Adjustment, fLW Lateral clearance adjustment, fLW Lateral clearance adjustment, fLW Lateral clearance adjustment, fLW Lateral clearance adjustment, fLC - mi/h	Analysis Time Period:	PM Peak Hour			
Jurisdiction: Caltrans Analysis Year: Cumulative (2040)					
Analysis Year: Cumulative (2040) Description: Tracy Hills Specific Plan			4 (Isabel)		
Description: Tracy Hills Specific Plan Flow Inputs and Adjustments Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses 12 Recreational vehicles Grade Segment length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fLV Flow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance FFS or BFFS Lane width adjustment, fLW Lateral clearance adjustment, fLW Lateral clearance adjustment, fLW Lateral clearance adjustment, fLC Flow rate, cp Flow Inputs and Adjustments Veh/h Peak-hour factor, PHF Poly 2460 V V V Veh/h Poly 3 Veh/h Poly 4 Veh/h Poly 3 Veh/h Poly 3 Veh/h Poly 4 Veh/h Poly 3 Veh/h Poly 4 Veh/l Poly 4 Veh					
Flow Inputs and Adjustments Volume, V 9053 veh/h					
Volume, V 9053 veh/h Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 2460 v Trucks and buses 12 % Recreational vehicles 0 % Terrain type: Level % Grade - % Segment length - mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 Flow rate, vp 2608 pc/h/ln	Description: Tracy Hil	ls Specific Plan			
Peak-hour factor, PHF Peak 15-min volume, v15 Peak 12		Flow Inputs and Ad	djustments		
Peak-hour factor, PHF Peak 15-min volume, v15 Peak 12	Volume, V		9053	veh/h	
Peak 15-min volume, v15 2460 v Trucks and buses 12 % Recreational vehicles 0 % Terrain type: Level * Grade - % Segment length - mi Trucks and buses PCE, ET 1.5 * Recreational vehicle PCE, ER 1.2 * Heavy vehicle adjustment, fHV 0.943 * Driver population factor, fp 1.00 pc/h/ln Flow rate, vp 2608 pc/h/ln Lane width Right-side lateral clearance					
Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp Flow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS FFS OR BFFS FFS OR BFFS Lane width adjustment, fLW Lateral clearance adjustment, fLC Total ramce adjustment, fLC Revel * * Level * * * * * * * * * * * * *			2460	V	
Terrain type: Grade Segment length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV O.943 Driver population factor, fp Tlow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS FFS G BFFS FFS G BFFS Lane width adjustment, fLW Lateral clearance adjustment, fLC Level % % % % % % % % % % % % % % % % % % %	Trucks and buses		12	%	
Grade Segment length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp Flow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS FFS or BFFS FS or BFFS FA contact of the second	Recreational vehicles		0	%	
Segment length - mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 Flow rate, vp 2608 pc/h/ln Speed Inputs and Adjustments Lane width - ft Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h	Terrain type:		Level		
Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp Flow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, fLW Lateral clearance adjustment, fLC 1.2 1.2 1.00 pc/h/ln ft ft ft ramps/mi A Free-flow speed: Measured FFS or BFFS 65.0 mi/h mi/h Lateral clearance adjustment, fLC - mi/h	Grade		-	9	
Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fp Flow rate, vp Speed Inputs and Adjustments Lane width Right-side lateral clearance Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, fLW Lateral clearance adjustment, fLC 1.2 0.943 1.00 pc/h/ln ft ft ramps/mi A Free-flow speed: Measured FFS or BFFS 65.0 mi/h mi/h Lateral clearance adjustment, fLC - mi/h	Segment length		_	mi	
Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 Flow rate, vp 2608 pc/h/ln Speed Inputs and Adjustments Lane width - ft Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h	Trucks and buses PCE, E	Г	1.5		
Driver population factor, fp Flow rate, vp 2608 pc/h/ln Speed Inputs and Adjustments Lane width Right-side lateral clearance Total ramp density, TRD - ramps/mi Number of lanes, N Free-flow speed: FFS or BFFS 65.0 mi/h Lane width adjustment, fLW Lateral clearance adjustment, fLC - mi/h			1.2		
Flow rate, vp 2608 pc/h/ln Speed Inputs and Adjustments Lane width - ft Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h					
Speed Inputs and Adjustments		r, fp			
Lane width Right-side lateral clearance Total ramp density, TRD - ramps/mi Number of lanes, N Free-flow speed: FFS or BFFS 65.0 Lane width adjustment, fLW Lateral clearance adjustment, fLC ft ramps/mi A mi/h	Flow rate, vp		2608	pc/h/ln	
Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h	Speed Inputs and Adjustments				
Right-side lateral clearance - ft Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h	Lane width		_	ft	
Total ramp density, TRD - ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h		rance	_		
Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h	_		_	ramps/mi	
Free-flow speed: Measured FFS or BFFS 65.0 mi/h Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h			4		
Lane width adjustment, fLW - mi/h Lateral clearance adjustment, fLC - mi/h	Free-flow speed:		Measured		
Lateral clearance adjustment, fLC - mi/h	FFS or BFFS		65.0	mi/h	
	Lane width adjustment,	fLW	_	mi/h	
	Lateral clearance adjus	tment, fLC	-	mi/h	
· · · · · · · · · · · · · · · · · · ·	TRD adjustment		-		
Free-flow speed, FFS 65.0 mi/h	Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures					
Flow rate, vp 2608 pc/h/ln	Flow rate. vp		2608	pc/h/ln	
Free-flow speed, FFS 65.0 mi/h	_			_	
Average passenger-car speed, S 44.3 mi/h	_	peed, S			
Number of lanes, N 4				-,	
Density, D 58.9 pc/mi/ln				pc/mi/ln	
Level of service, LOS F	_			_	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analysis Time Period: Freeway/Direction: From/To:	I-580 WB Livermore Ave/SR- Caltrans Cumulative (2040)		
	Flow Inputs and .	Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, E Recreational vehicle PC		5293 0.92 1438 12 0 Level - 1.5	veh/h v % % % mi
Heavy vehicle adjustmen Driver population facto Flow rate, vp		0.943 1.00 1525	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width Right-side lateral clea Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS	rance	- - 4 Measured 65.0 - - - 65.0	<pre>ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h mi/h</pre>
	LOS and Performa	nce Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	1525 65.0 64.8 4 23.5	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational Analy	sis	
Analysis Time Period: Freeway/Direction:	I-580 EB I-205/Grant Line R Caltrans Cumulative (2040) ls Specific Plan	d + Buildout	
	Flow Inputs and A	djustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses		2224 0.92 604 12	veh/h v %
Recreational vehicles Terrain type: Grade		0 Rolling	8 8
Segment length Trucks and buses PCE, E' Recreational vehicle PC Heavy vehicle adjustment Driver population factor	E, ER E, fhV	- 2.5 2.0 0.847 1.00	mi
Flow rate, vp		713	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width Right-side lateral clea: Total ramp density, TRD Number of lanes, N Free-flow speed:	rance	- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjustment TRD adjustment		70.0 - - -	mi/h mi/h mi/h mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp Free-flow speed, FFS Average passenger-car sy Number of lanes, N Density, D Level of service, LOS	peed, S	713 70.0 70.0 4 10.2	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analyst: Agency or Company:	Kimley-Horn & As	ssc., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:	AM Peak Hour		
Freeway/Direction:			
From/To:	I-205/Grant Line	e Rd	
Jurisdiction:	Caltrans		
Analysis Year:	Cumulative (2040)) + Buildout	
Description: Tracy Hil	lls Specific Plan		
	Flow Inputs and	l Adjustments	
Volume, V		7859	veh/h
Peak-hour factor, PHF		0.92	·
Peak 15-min volume, v15	-)	2136	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, I	ET	2.5	
Recreational vehicle PCE, ER		2.0	
Heavy vehicle adjustment, fHV		0.847	
Driver population factor, fp		1.00	
Flow rate, vp	· •	2016	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		_	ft
	Right-side lateral clearance		ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		5	1 4 7
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjustment, fLC		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp		2016	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	62.3	mi/h
Number of lanes, N	, .	5	,
Density, D		32.4	pc/mi/ln
Level of service, LOS		D	<u>.</u>

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analysis Time Period: Freeway/Direction:	I-580 EB Grant Line Rd/Fl Caltrans Cumulative (2040	ynn Rd	
	Flow Inputs and	Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses	;	2224 0.92 604 8	veh/h v %
Recreational vehicles Terrain type: Grade		0 Rolling - -	% % mi
Segment length Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustment Driver population factor	E, ER Lt, fHV	2.5 2.0 0.893 1.00	шт
Flow rate, vp		677	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment		70.0 - - -	mi/h mi/h mi/h mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service LOS	speed, S	677 70.0 70.0 4 9.7	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>
Level of service, LOS		A	<u> </u>

Phone: E-mail:		Fax:	
	Operational An	alysis	
Analyst: Agency or Company:	Kimley-Horn & A	ssc., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:	AM Peak Hour		
Freeway/Direction:			
From/To:	Grant Line Rd/Flynn Rd		
	Caltrans		
Analysis Year:			
Description: Tracy Hil	lls Specific Plan		
	Flow Inputs an	d Adjustments	
Volume, V		7861	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	5	2136	V
Trucks and buses		8	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		-	%
Segment length		-	mi
Trucks and buses PCE, I	ET	2.5	
Recreational vehicle PCE, ER		2.0	
Heavy vehicle adjustment, fHV		0.893	
Driver population factor	or, fp	1.00	
Flow rate, vp		2392	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width		_	ft
Right-side lateral clearance		_	ft
Total ramp density, TRD		_	ramps/mi
Number of lanes, N		4	_
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	Lane width adjustment, fLW		mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp		2392	pc/h/ln
Free-flow speed, FFS			mi/h
Average passenger-car s	speed, S	70.0 53.5	mi/h
Number of lanes, N		4	
Density, D		44.7	pc/mi/ln
Level of service, LOS		E	-

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst:	Kimley-Horn & Ass	c., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 EB		
From/To:	Flynn Rd/Altamont Pass Rd		
Jurisdiction:	Caltrans		
Analysis Year:	Cumulative (2040)	+ Buildout	
Description: Tracy Hil	lls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		2215	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	5	602	V
Trucks and buses		10	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		-	%
Segment length			mi
Trucks and buses PCE, I		2.5	
Recreational vehicle PCE, ER		2.0	
Heavy vehicle adjustment, fHV		0.870	
Driver population factor	or, ip	1.00	/1- /1
Flow rate, vp		692	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clearance		_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	_
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment, fLW		-	mi/h
Lateral clearance adjustment, fLC		-	mi/h
	TRD adjustment		mi/h
Free-flow speed, FFS		70.0	mi/h
LOS and Performance Measures			
Flow rate, vp		692	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car	speed, S	70.0	mi/h
Number of lanes, N		4	
Density, D		9.9	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:		
	Operational A	nalysis		
Analyst: Agency or Company:	Kimley-Horn & A	Assc., Inc.		
Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:				
From/To:	Flynn Rd/Altamont Pass Rd			
Jurisdiction:				
Analysis Year:	Cumulative (20	40) + Buildout		
Description: Tracy Hil	lls Specific Plan	n		
	Flow Inputs an	nd Adjustments		
Volume, V		7825	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v1	5	2126	V	
Trucks and buses		10	8	
Recreational vehicles		0	%	
Terrain type:		Rolling		
Grade		_	8	
Segment length		-	mi	
Trucks and buses PCE, ET		2.5		
Recreational vehicle PCE, ER		2.0		
Heavy vehicle adjustment, fHV		0.870		
Driver population factor Flow rate, vp	or, ip	1.00 2445	pc/h/ln	
	Control Translation		_	
	Speed Inputs a	and Adjustments		
Lane width		_	ft	
Right-side lateral clearance		_	ft	
Total ramp density, TRD		-	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,		_	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		70.0	mi/h	
	LOS and Performance Measures			
Flow rate, vp		2445	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car	speed, S	52.0	mi/h	
Number of lanes, N		4		
Density, D		47.0	pc/mi/ln	
Level of service, LOS		F		

Phone: E-mail:		Fax:	
	Operational Anal	lysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:			
From/To:	Altamont Pass Rd/	/Vasco Rd	
	Caltrans		
Analysis Year:	Cumulative (2040)) + Buildout	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		2286	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	·	621	V
Trucks and buses		10	०
Recreational vehicles		0	%
Terrain type:		Level	
Grade		_	8
Segment length		-	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC		1.2	
Heavy vehicle adjustmer		0.952	
Driver population factor Flow rate, vp	or, Ip	1.00 652	pc/h/ln
riow race, vp		032	pe/11/111
	Speed Inputs and	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	ance Measures	
Flow rate, vp		652	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	65.0	mi/h
Number of lanes, N		4	
Density, D		10.0	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:		
	Operational A	nalysis		
Analyst:	Kimley-Horn &	Assc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:				
From/To:	Altamont Pass	Rd/Vasco Rd		
Jurisdiction:	Caltrans			
Analysis Year:	Cumulative (20	40) + Buildout		
Description: Tracy Hi	lls Specific Pla	n		
	Flow Inputs a	nd Adjustments		
Volume, V		9126	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v1	5	2480	v	
Trucks and buses		10	%	
Recreational vehicles		0	%	
Terrain type:		Level	•	
Grade		-	8	
Segment length	n.m.	- 1 F	mi	
Trucks and buses PCE,		1.5		
Recreational vehicle P		1.2 0.952		
Heavy vehicle adjustment Driver population fact		1.00		
Flow rate, vp	01, 15	2604	pc/h/ln	
· -	Speed Inputs	and Adjustments	-	
	bpeca inpacs	and Adjustments		
Lane width		_	ft	
Right-side lateral cle		_	ft	
Total ramp density, TR	D	_	ramps/mi	
Number of lanes, N		4		
Free-flow speed: FFS or BFFS		Measured 65.0	mi/h	
Lane width adjustment,	ft.W	-	mi/h	
Lateral clearance adju		_	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
	LOS and Perfo	rmance Measures		
Flow rate, vp		2604	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car	speed, S	44.4	mi/h	
Number of lanes, N		4		
Density, D		58.6	pc/mi/ln	
Torrol of dominian IOC		T7		

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analysis Time Period: Freeway/Direction:	I-580 EB Vasco Rd/First S Caltrans Cumulative (2040	\$t	
	Flow Inputs and	l Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type:	5	2043 0.92 555 12 0 Level	veh/h v % %
Grade Segment length Trucks and buses PCE, Recreational vehicle PC Heavy vehicle adjustment	CE, ER nt, fHV	1.5 1.2 0.943 1.00	% mi
Flow rate, vp	Speed Inputs an	588 nd Adiustments	pc/h/ln
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS	arance) fLW	- - 4 Measured 65.0 - - - 65.0	ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h
	LOS and Perform	nance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	speed, S	588 65.0 65.0 4 9.0 A	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:		
	Operational Ar	nalysis		
Analyst:	Kimley-Horn & A	Assc., Inc.		
Agency or Company:	0 /1 5 / 0 0 1 4			
Date Performed: Analysis Time Period:	9/17/2014			
Freeway/Direction:				
Freeway/Direction: From/To:	Vasco Rd/First	C+		
	Caltrans	St		
Analysis Year:		40) + Buildout		
Description: Tracy Hil				
	Flow Inputs ar	nd Adjustments		
Volume, V		8654	veh/h	
Peak-hour factor, PHF		0.92	V C11/ 11	
Peak 15-min volume, v1:	5	2352	V	
Trucks and buses		12	%	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		_	%	
Segment length		_	mi	
Trucks and buses PCE, I	ET	1.5		
Recreational vehicle Po	CE, ER	1.2		
Heavy vehicle adjustmen		0.943		
Driver population factor	or, fp	1.00		
Flow rate, vp		2493	pc/h/ln	
	Speed Inputs a	and Adjustments		
Lane width		_	ft	
Right-side lateral clea	arance	-	ft	
Total ramp density, TRI	D	-	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS	C	65.0	mi/h	
Lane width adjustment,		-	mi/h	
Lateral clearance adjus	stment, ILC	_	mi/h	
TRD adjustment Free-flow speed, FFS		- 65.0	mi/h mi/h	
rice flow speed, rrs		03.0	1117 11	
	LOS and Perfor	rmance Measures		
Flow rate, vp		2493	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car	speed, S	48.1	mi/h	
Number of lanes, N		4		
Density, D		51.9	pc/mi/ln	

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analyst: Agency or Company:	Kimley-Horn & As	ssc., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:	·		
Freeway/Direction:			
From/To:	First St/Livermo	ore Ave	
Jurisdiction:	· ·		
Analysis Year:)) + Buildout	
Description: Tracy Hi			
	Flow Inputs and	d Adjustments	
Volume, V		2544	veh/h
Peak-hour factor, PHF		0.92	,
Peak 15-min volume, v1	5	691	V
Trucks and buses		12	96
Recreational vehicles		0	8
Terrain type:		Level	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, I	ET	1.5	
Recreational vehicle Po	CE, ER	1.2	
Heavy vehicle adjustmen	nt, fHV	0.943	
Driver population factor	or, fp	1.00	
Flow rate, vp		733	pc/h/ln
	Speed Inputs an	nd Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	•
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	-	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perform	mance Measures	
Flow rate, vp		733	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car	speed, S	65.0	mi/h
Number of lanes, N	-	4	
Density, D		11.3	pc/mi/ln
Level of service, LOS		В	

Phone: Fax: E-mail: Operational Analysis Analyst: Kimley-Horn & Assc., Inc. Agency or Company: Date Performed: 9/17/2014 Analysis Time Period: AM Peak Hour Freeway/Direction: I-580 WB From/To: First St/Livermore Ave Jurisdiction: Caltrans Analysis Year: Cumulative (2040) + Buildout Description: Tracy Hills Specific Plan _____Flow Inputs and Adjustments_____ 8969 Volume, V veh/h Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 2437 V Trucks and buses 12 응 Recreational vehicles Terrain type: Level Grade Segment length тi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 2583 pc/h/ln Flow rate, vp _____Speed Inputs and Adjustments____ Lane width ft Right-side lateral clearance ft Total ramp density, TRD ramps/mi Number of lanes, N Free-flow speed: Measured 65.0 FFS or BFFS mi/h Lane width adjustment, fLW mi/h Lateral clearance adjustment, fLC mi/h TRD adjustment mi/h Free-flow speed, FFS 65.0 mi/h _____LOS and Performance Measures_____ Flow rate, vp 2583 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 45.2 mi/h Number of lanes, N Density, D 57.2 pc/mi/ln

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Analy	/sis	
Analyst: Agency or Company:	Kimley-Horn & Asso	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 EB		
From/To:	Livermore Ave/SR-8	34 (Isabel)	
	Caltrans		
Analysis Year:	Cumulative (2040)	+ Buildout	
Description: Tracy Hil	lls Specific Plan		
	Flow Inputs and A	Adjustments	
Volume, V		2412	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	5	655	V
Trucks and buses		12	%
Recreational vehicles		0	8
Terrain type:		Level	
Grade		-	%
Segment length		-	mi
Trucks and buses PCE, I		1.5	
Recreational vehicle PO		1.2	
Heavy vehicle adjustmen		0.943	
Driver population factor	or, ip	1.00	/l- /l
Flow rate, vp		695	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	-
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	-	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performar	nce Measures	
Flow rate, vp		695	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	65.0	mi/h
Number of lanes, N		4	
Density, D		10.7	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:	
	Operational Analy	vsis	
Analyst: Agency or Company:	Kimley-Horn & Asso	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 WB		
	Livermore Ave/SR-8	34 (Isabel)	
	Caltrans		
Analysis Year:	Cumulative (2040)	+ Buildout	
Description: Tracy Hil	is Specific Plan		
	Flow Inputs and $ ilde{P}$	Adjustments	
Volume, V		9070	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	,	2465	V
Trucks and buses		12	%
Recreational vehicles		0	8
Terrain type:		Level	
Grade		_	8
Segment length		_	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC		1.2	
Heavy vehicle adjustmer		0.943	
Driver population factor Flow rate, vp	or, ip	1.00 2613	pc/h/ln
riow race, vp		2013	pe/11/111
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	=	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performan	nce Measures	
Flow rate, vp		2613	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	44.1	mi/h
Number of lanes, N		4	
Density, D		59.2	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:		
	Operational A	nalysis		
Analyst:	Kimley-Horn & .	Assc., Inc.		
Agency or Company:				
Date Performed:	9/17/2014			
Analysis Time Period:	PM Peak Hour			
Freeway/Direction: From/To:	1-580 EB	no Dd		
Jurisdiction:	I-205/Grant Li: Caltrans	ne ka		
Analysis Year:		40) + Puildout		
Description: Tracy Hi				
Description: Itacy mi	iis specific ria	11		
	Flow Inputs a	nd Adjustments		
Volume, V		8839	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v1	5	2402	V	
Trucks and buses		12	%	
Recreational vehicles		0	%	
Terrain type:		Rolling	_	
Grade		-	%	
Segment length		-	mi	
Trucks and buses PCE,		2.5		
Recreational vehicle P		2.0		
Heavy vehicle adjustme		0.847		
Driver population fact Flow rate, vp	or, ip	1.00 2834	pc/h/ln	
riow race, vp		2034	pc/11/111	
	Speed Inputs	and Adjustments		
Lane width		-	ft	
Right-side lateral cle	arance	_	ft	
Total ramp density, TR	D	-	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS	_	70.0	mi/h	
Lane width adjustment,		-	mi/h	
Lateral clearance adju	stment, ILC	-	mi/h	
TRD adjustment		70.0	mi/h	
Free-flow speed, FFS		70.0	mi/h	
	LOS and Perfo	rmance Measures		
Flow rate, vp		2834	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car	speed, S	39.0	mi/h	
Number of lanes, N		4		
Density, D		72.6	pc/mi/ln	
Torrol of governing TOC		77		

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst: Agency or Company: Date Performed: Analysis Time Period: Freeway/Direction: From/To: Jurisdiction:	I-580 WB I-205/Grant Line Caltrans	Rd	
Analysis Year: Description: Tracy Hil) + Bulldout	
	Flow Inputs and	Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v1	5	5224 0.92 1420	veh/h v
Trucks and buses Recreational vehicles Terrain type: Grade		12 0 Rolling	96 96 9
Segment length Trucks and buses PCE, I Recreational vehicle PC Heavy vehicle adjustment Driver population factor	CE, ER nt, fHV	- 2.5 2.0 0.847 1.00	mi
Flow rate, vp	Cheed Inputs an	1340	pc/h/ln
	speed inputs an	a Aujustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:)	- - - 5 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjustment		70.0	mi/h mi/h mi/h mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Perform	ance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D	speed, S	1340 70.0 69.8 5	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>
Level of service, LOS		С	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:		_	
	Grant Line Rd/Fly:	nn Rd	
	Caltrans	. p 411.	
Analysis Year:	Cumulative (2040)	+ Bulldout	
Description: Tracy Hil	is Specific Plan		
	Flow Inputs and .	Adjustments	
Volume, V		8911	veh/h
Peak-hour factor, PHF		0.92	·
Peak 15-min volume, v15		2421	V
Trucks and buses		8	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		-	%
Segment length		-	mi
Trucks and buses PCE, E		2.5	
Recreational vehicle PC		2.0	
Heavy vehicle adjustmer		0.893	
Driver population factor	or, fp	1.00	
Flow rate, vp		2712	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	1 0 m. p. 2 / m. p.
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	nce Measures	
Flow rate un		2712	pc/h/ln
Flow rate, vp Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed S	43.5	mi/h
Number of lanes, N	,pcca, b	4	1 / 11
Density, D		62.4	pc/mi/ln
Level of service, LOS		F	F 0,

Phone: E-mail:		Fax:	
	Operational Ar	alysis	
Analysis Time Period: Freeway/Direction:	I-580 WB Grant Line Rd/F Caltrans Cumulative (204	'lynn Rd :0) + Buildout	
	Flow Inputs an	d Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, Recreational vehicle PCE Heavy vehicle adjustment Driver population factor Flow rate, vp	ET CE, ER nt, fhV	5224 0.92 1420 8 0 Rolling - - 2.5 2.0 0.893 1.00 1590	<pre>veh/h v % % % mi pc/h/ln</pre>
	Speed Inputs a	and Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS	arance) fLW	- - 4 Measured 70.0 - - - 70.0	<pre>ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h</pre>
	LOS and Perfor	mance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	speed, S	1590 70.0 68.2 4 23.3	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational Ar	nalysis	
Analyst: Agency or Company:	Kimley-Horn & A	Assc., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:			
From/To:	Flynn Rd/Altamo	ont Pass Rd	
Jurisdiction:			
Analysis Year:	Cumulative (204	40) + Buildout	
Description: Tracy Hi	lls Specific Plar	ı	
	Flow Inputs ar	nd Adjustments	
Volume, V		8905	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v1	5	2420	V
Trucks and buses		10	8
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	8
Segment length		_	mi
Trucks and buses PCE, I		2.5	
Recreational vehicle PCE, ER		2.0	
Heavy vehicle adjustment, fHV		0.870	
Driver population factor	or, ip	1.00	/1- /1
Flow rate, vp		2783	pc/h/ln
	Speed Inputs a	and Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		-	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Perfor	cmance Measures	
Flow rate, vp		2783	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car	speed, S	40.9	mi/h
Number of lanes, N		4	
Density, D		68.0	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Ar	nalysis	
Analysis Time Period: Freeway/Direction:	I-580 WB Flynn Rd/Altamo Caltrans Cumulative (204	ont Pass Rd 40) + Buildout	
	Flow Inputs ar	nd Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, Recreational vehicle PCE Heavy vehicle adjustment Driver population factors Flow rate, vp	T E, ER t, fhV	5203 0.92 1414 10 0 Rolling - - 2.5 2.0 0.870 1.00 1626	<pre>veh/h v % % % mi</pre>
	Speed Inputs a	and Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjustment TRD adjustment Free-flow speed, FFS	fLW	- - 4 Measured 70.0 - - - 70.0	<pre>ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h mi/h</pre>
	LOS and Perfor	rmance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	speed, S	1626 70.0 67.9 4 23.9	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational An	alysis	
Analyst:	Kimley-Horn & A	ssc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:			
From/To:	Altamont Pass Rd/Vasco Rd		
Jurisdiction:	·		
Analysis Year:			
Description: Tracy Hi			
	Flow Inputs an	d Adjustments	
Volume, V		8504	veh/h
Peak-hour factor, PHF		0.92	veii/ii
Peak 15-min volume, v1	5	2311	V
Trucks and buses	5	10	v %
Recreational vehicles		0	%
Terrain type:		Level	·
Grade		-	ફ
Segment length		_	mi
Trucks and buses PCE, 1	ET	1.5	
Recreational vehicle Po		1.2	
Heavy vehicle adjustment, fHV		0.952	
Driver population factor	or, fp	1.00	
Flow rate, vp		2426	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	<u>-</u>
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perfor	mance Measures	
Flow rate, vp		2426	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car	speed, S	50.1	mi/h
Number of lanes, N		4	
Density, D		48.4	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational An	alysis	
Analyst:	Kimley-Horn & A	ssc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:			
From/To:	Altamont Pass Rd/Vasco Rd		
Jurisdiction:	·		
Analysis Year:			
Description: Tracy Hi			
	Flow Inputs an	d Adjustments	
Volume, V		5628	veh/h
Peak-hour factor, PHF		0.92	V C11/ 11
Peak 15-min volume, v1	5	1529	V
Trucks and buses		10	90
Recreational vehicles		0	્
Terrain type:		Level	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, 1	ET	1.5	
Recreational vehicle PCE, ER		1.2	
Heavy vehicle adjustmen	nt, fHV	0.952	
Driver population factor	or, fp	1.00	
Flow rate, vp		1606	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width		=	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRD		_	ramps/mi
Number of lanes, N		4	<u>-</u>
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perfor	mance Measures	
Flow rate, vp		1606	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car	speed, S	64.4	mi/h
Number of lanes, N		4	
Density, D		24.9	pc/mi/ln
Level of service, LOS		C	

Phone: E-mail:		Fax:	
	Operational Analy	ysis	
Analyst: Agency or Company:	Kimley-Horn & Asso	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period: Freeway/Direction:			
From/To:	I-580 EB Vasco Rd/First St		
Jurisdiction:	Caltrans		
Analysis Year:	Cumulative (2040)	+ Buildout	
Description: Tracy Hil		Darradae	
	Flow Inputs and A	Adjustments	
77.2		0100	ab/b
Volume, V Peak-hour factor, PHF		9192 0.92	veh/h
Peak 15-min volume, v15		2498	V
Trucks and buses	,	12	00
Recreational vehicles		0	00
Terrain type:		Level	Ç
Grade		-	%
Segment length		_	mi
Trucks and buses PCE, E	T.	1.5	
Recreational vehicle PO	E, ER	1.2	
Heavy vehicle adjustmer	nt, fHV	0.943	
Driver population factor	or, fp	1.00	
Flow rate, vp		2648	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	-
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		2648	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	42.9	mi/h
Number of lanes, N	-	4	
Density, D		61.7	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:		
	Operational A	nalysis		
Analyst:	Kimley-Horn & .	Assc., Inc.		
Agency or Company:				
Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:				
From/To:	Vasco Rd/First	St		
Jurisdiction:	Caltrans	40) · D		
Analysis Year:				
Description: Tracy Hi	iis Specific Pla	n		
	Flow Inputs a	nd Adjustments		
Volume, V		5895	veh/h	
Peak-hour factor, PHF	Peak-hour factor, PHF			
Peak 15-min volume, v1	5	1602	V	
Trucks and buses		12	%	
Recreational vehicles		0	%	
Terrain type:		Level	_	
Grade		-	%	
Segment length		-	mi	
Trucks and buses PCE,		1.5		
Recreational vehicle P		1.2		
Heavy vehicle adjustme		0.943		
Driver population fact Flow rate, vp	or, ip	1.00 1698	pc/h/ln	
riow face, vp		1090	pc/11/111	
	Speed Inputs	and Adjustments		
Lane width		_	ft	
Right-side lateral cle	arance	-	ft	
Total ramp density, TR	D	-	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,		-	mi/h	
Lateral clearance adjustment, fLC		-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
	LOS and Perfo	rmance Measures		
Flow rate, vp		1698	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car	speed, S	63.7	mi/h	
Number of lanes, N		4		
Density, D		26.6	pc/mi/ln	
Torrol of governing TOC		D		

D

Level of service, LOS

Phone: Fax: E-mail: Operational Analysis Analyst: Kimley-Horn & Assc., Inc. Agency or Company: Date Performed: 9/17/2014 Analysis Time Period: PM Peak Hour Freeway/Direction: I-580 EB From/To: First St/Livermore Ave Jurisdiction: Caltrans Analysis Year: Cumulative (2040) + Buildout Description: Tracy Hills Specific Plan _____Flow Inputs and Adjustments_____ Volume, V 8803 veh/h Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 2392 V Trucks and buses 12 용 Recreational vehicles Terrain type: Level Grade Segment length тi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.943 Driver population factor, fp 1.00 pc/h/ln 2536 Flow rate, vp ______Speed Inputs and Adjustments____ Lane width ft Right-side lateral clearance ft Total ramp density, TRD ramps/mi Number of lanes, N Free-flow speed: Measured 65.0 FFS or BFFS mi/h Lane width adjustment, fLW mi/h Lateral clearance adjustment, fLC mi/h TRD adjustment mi/h Free-flow speed, FFS 65.0 mi/h _____LOS and Performance Measures_____ Flow rate, vp 2536 pc/h/ln Free-flow speed, FFS 65.0 mi/h Average passenger-car speed, S 46.7 mi/h Number of lanes, N Density, D 54.3 pc/mi/ln

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company: Date Performed: Analysis Time Period: Freeway/Direction: From/To:	Kimley-Horn & Ass 9/17/2014 PM Peak Hour I-580 WB First St/Livermon Caltrans Cumulative (2040)	sc., Inc.	
	Flow Inputs and	Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses	5	5458 0.92 1483 12	veh/h v %
Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, F	· T	0 Level - - 1.5	% mi
Recreational vehicle PO Heavy vehicle adjustmer Driver population factor	CE, ER nt, fHV	1.2 0.943 1.00 1572	pc/h/ln
Flow rate, vp	Speed Inputs and		
	speed inputs and	r Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed: FFS or BFFS		- - 4 Measured 65.0	ft ft ramps/mi mi/h
Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS		- - - 65.0	mi/h mi/h mi/h mi/h
	LOS and Performa	ance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	speed, S	1572 65.0 64.6 4 24.3	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:		
	Operational A	nalysis		
Analyst:	Kimley-Horn & A	Assc., Inc.		
Agency or Company:				
	9/17/2014			
Analysis Time Period:				
Freeway/Direction:		TD 04 / T == l== 1 \		
From/To: Jurisdiction:	Livermore Ave/S	SR-84 (ISADEI)		
Analysis Year:		10) + Buildout		
Description: Tracy Hi				
	Flow Inputs an	nd Adjustments		
Volume, V		9313	veh/h	
Peak-hour factor, PHF		0.92	. 222, 22	
Peak 15-min volume, v1	5	2531	V	
Trucks and buses		12	8	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		_	%	
Segment length		_	mi	
Trucks and buses PCE,		1.5		
Recreational vehicle Po		1.2		
Heavy vehicle adjustme:		0.943		
Driver population factor Flow rate, vp	or, ip	1.00 2683	pc/h/ln	
riow race, vp		2003	pe/11/111	
	Speed Inputs a	and Adjustments		
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TR	D	_	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS	_	65.0	mi/h	
Lane width adjustment,		_	mi/h	
Lateral clearance adju	stment, ILC	_	mi/h	
TRD adjustment		- 65.0	mi/h	
Free-flow speed, FFS		05.0	mi/h	
	LOS and Perfo	rmance Measures		
Flow rate, vp		2683	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car	speed, S	41.7	mi/h	
Number of lanes, N		4		
Density, D		64.4	pc/mi/ln	

F

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Analy	sis	
Analysis Time Period: Freeway/Direction: From/To:	I-580 WB Livermore Ave/SR-8 Caltrans Cumulative (2040)	4 (Isabel)	
	Flow Inputs and A	djustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Segment length Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustmen Driver population facto Flow rate, vp	E, ER t, fHV	5389 0.92 1464 12 0 Level - 1.5 1.2 0.943 1.00 1552	<pre>veh/h v % % % mi pc/h/ln</pre>
_	Speed Inputs and		_
	Speed Inputs and	Adjustments	
Lane width Right-side lateral clea Total ramp density, TRD Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS	fLW	- - 4 Measured 65.0 - - - 65.0	<pre>ft ft ramps/mi mi/h mi/h mi/h mi/h mi/h mi/h mi/h</pre>
	LOS and Performan	ce Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	1552 65.0 64.7 4 24.0	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analyst: Agency or Company:	Kimley-Horn & As	ssc., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:			
From/To:	I-205/Grant Line	rd	
Jurisdiction:		. 110	
Analysis Year:		2 1A	
Description: Tracy Hil	_		
	Flow Inputs and	l Adjustments	
Volume, V		1281	veh/h
Peak-hour factor, PHF		0.92	V C11/ 11
Peak 15-min volume, v15	- -	348	V
Trucks and buses		12	ે જ
Recreational vehicles		0	%
Terrain type:		Rolling	•
Grade		-	%
Segment length		_	mi
Trucks and buses PCE, H	CT	2.5	
Recreational vehicle PCE, ER		2.0	
Heavy vehicle adjustment, fHV		0.847	
Driver population factor, fp		1.00	
Flow rate, vp	. ,	411	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	1 amp 2 / m1
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	=	mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment	•	_	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Perform	nance Measures	
Flow rate, vp		411	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed. S	70.0	mi/h
Number of lanes, N		4	
Density, D		5.9	pc/mi/ln
Level of service, LOS		A	F - / /

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 WB	הא	
	I-205/Grant Line Caltrans	RU	
Analysis Year:	Existing + Phase	1 Δ	
Description: Tracy Hil	_	111	
	Flow Inputs and	Adjustments	
77.2		6460	ah /h
Volume, V Peak-hour factor, PHF		6460 0.92	veh/h
Peak 15-min volume, v15		1755	V
Trucks and buses	,	12	8
Recreational vehicles		0	%
Terrain type:		Rolling	0
Grade		-	00
Segment length		_	mi
Trucks and buses PCE, E	<u>'</u> T	2.5	
Recreational vehicle PC		2.0	
Heavy vehicle adjustmen		0.847	
Driver population factor		1.00	
Flow rate, vp	71 / TP	1657	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width			ft
Right-side lateral clea	rango	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N	,	5	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	f T.W	_	mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	nce Measures	
Flow rate wa		1657	ng/h/ln
Flow rate, vp		1657	pc/h/ln
Free-flow speed, FFS	rneed C	70.0	mi/h mi/h
Average passenger-car s Number of lanes, N	ppeed, s	67.6 5	mi/h
Density, D		24.5	pc/mi/ln
Level of service, LOS		C C	PC/ III.

Phone: E-mail:		Fax:	
	Operational Analy	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period: Freeway/Direction:	AM Peak Hour I-580 EB		
_	Grant Line Rd/Fly	nn Rd	
	Caltrans	iii ka	
Analysis Year:	Existing + Phase	1A	
Description: Tracy Hil			
	Flow Inputs and A	Adjustments	
Volume, V		1281	veh/h
Peak-hour factor, PHF		0.92	,
Peak 15-min volume, v15		348	V
Trucks and buses		8	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	%
Segment length			mi
Trucks and buses PCE, E		2.5	
Recreational vehicle PC		2.0	
Heavy vehicle adjustmer		0.893	
Driver population factor Flow rate, vp	or, ip	1.00 390	pc/h/ln
riow race, vp		390	pe/ 11/ 111
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI)	_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		- 70.0	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performan	nce Measures	
Flow rate, vp		390	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	70.0	mi/h
Number of lanes, N		4	
Density, D		5.6	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analysis Time Period: Freeway/Direction:	I-580 WB Grant Line Rd/Fl Caltrans Existing + Phase ls Specific Plan	ynn Rd : 1A	
	Flow Inputs and	Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		6460 0.92 1755	veh/h v
Trucks and buses Recreational vehicles Terrain type: Grade		8 0 Rolling	% % %
Segment length Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustment Driver population factor	E, ER t, fhV	- 2.5 2.0 0.893 1.00	mi
Flow rate, vp	,, , , , , , , , , , , , , , , , , , ,	1966	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjus TRD adjustment Free-flow speed, FFS		70.0 - - - 70.0	<pre>mi/h mi/h mi/h mi/h mi/h</pre>
_	LOS and Perform	nance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS		1966 70.0 63.2 4 31.1	pc/h/ln mi/h mi/h pc/mi/ln

Phone: E-mail:		Fax:	
	Operational An	alysis	
Analysis Time Period: Freeway/Direction:	I-580 EB Flynn Rd/Altamo Caltrans Existing + Phas	nt Pass Rd e 1A	
	Flow Inputs an	d Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15	j	1272 0.92 346	veh/h v
Trucks and buses Recreational vehicles Terrain type: Grade		10 0 Rolling	२ २
Segment length Trucks and buses PCE, E Recreational vehicle PC	CE, ER	2.5 2.0	mi
Heavy vehicle adjustmer Driver population factor Flow rate, vp		0.870 1.00 397	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjus		70.0 - -	mi/h mi/h mi/h
TRD adjustment Free-flow speed, FFS		70.0	mi/h mi/h
	LOS and Perfor	mance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D	speed, S	397 70.0 70.0 4 5.7	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>
Level of service, LOS		A	<u>.</u> -, ,

Phone: E-mail:		Fax:	
	Operational And	alysis	
Analysis Time Period: Freeway/Direction:	I-580 WB Flynn Rd/Altamor Caltrans Existing + Phase ls Specific Plan	nt Pass Rd e 1A	
	Flow Inputs and	d Adjustments	
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15		6415 0.92 1743	veh/h v
Trucks and buses Recreational vehicles Terrain type: Grade		10 0 Rolling	% %
Segment length Trucks and buses PCE, E Recreational vehicle PC Heavy vehicle adjustmen	E, ER	2.5 2.0 0.870	mi
Driver population factor Flow rate, vp	r, fp	1.00 2005	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width Right-side lateral clea Total ramp density, TRI Number of lanes, N Free-flow speed:		- - - 4 Measured	ft ft ramps/mi
FFS or BFFS Lane width adjustment, Lateral clearance adjus		70.0	mi/h mi/h mi/h
TRD adjustment Free-flow speed, FFS	emene, rie	- 70.0	mi/h mi/h
	LOS and Perfor	mance Measures	
Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N Density, D Level of service, LOS	peed, S	2005 70.0 62.5 4 32.1	<pre>pc/h/ln mi/h mi/h pc/mi/ln</pre>

Phone: E-mail:		Fax:	
	Operational Anal	lysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:			
	Altamont Pass Rd/	'Vasco Rd	
	Caltrans		
Analysis Year:	Existing + Phase	1A	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		1409	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	; ;	383	v
Trucks and buses		10	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		-	8
Segment length		-	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC		1.2	
Heavy vehicle adjustmer		0.952	
Driver population factor Flow rate, vp	or, Ip	1.00 402	pc/h/ln
riow race, vp		402	pe/11/111
	Speed Inputs and	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	ance Measures	
Flow rate, vp		402	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	65.0	mi/h
Number of lanes, N		4	
Density, D		6.2	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:		
	Operational Ana	lysis		
Analyst:	Kimley-Horn & As	sc., Inc.		
Agency or Company: Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:	I-580 WB			
From/To:	Altamont Pass Rd	/Vasco Rd		
Jurisdiction:	Caltrans			
	Existing + Phase	1A		
Description: Tracy Hil	lls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		7495	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15	5	2037	V	
Trucks and buses		10	%	
Recreational vehicles		0	8	
Terrain type:		Level		
Grade		-	%	
Segment length		-	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PO		1.2		
Heavy vehicle adjustmer		0.952		
Driver population factor	or, fp	1.00		
Flow rate, vp		2139	pc/h/ln	
	Speed Inputs and	d Adjustments		
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		-	ramps/mi	
Number of lanes, N		4	<u>.</u>	
Free-flow speed:		Measured		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fLW	-	mi/h	
Lateral clearance adjus	stment, fLC	-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2139	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	57.3	mi/h	
Number of lanes, N	-	4		
Density, D		37.4	pc/mi/ln	
Level of service, LOS		E		

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 EB		
From/To: Jurisdiction:	Vasco Rd/First St Caltrans		
	Existing + Phase	1 7\	
Description: Tracy Hil	_	IN	
	Flow Inputs and	Adjustments	
Welling W		1398	veh/h
Volume, V Peak-hour factor, PHF		0.92	Vell/II
Peak 15-min volume, v15		380	V
Trucks and buses	,	12	%
Recreational vehicles		0	90
Terrain type:		Level	Š
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, E	T.	1.5	
Recreational vehicle PO		1.2	
Heavy vehicle adjustmer		0.943	
Driver population factor		1.00	
Flow rate, vp		403	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	L ,
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		403	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	65.0	mi/h
Number of lanes, N	÷ ,	4	·
Density, D		6.2	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 WB		
From/To:	Vasco Rd/First St		
Jurisdiction:	Caltrans		
Analysis Year:	Existing + Phase	1A	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		7451	veh/h
Peak-hour factor, PHF		0.92	,
Peak 15-min volume, v15		2025	V
Trucks and buses		12	%
Recreational vehicles		0	9
Terrain type:		Level	
Grade		-	%
Segment length		-	mi
Trucks and buses PCE, E	T	1.5	
Recreational vehicle PC	E, ER	1.2	
Heavy vehicle adjustmen	t, fHV	0.943	
Driver population factor, fp		1.00	
Flow rate, vp		2146	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clearance		_	ft
Total ramp density, TRD		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjus	Lateral clearance adjustment, fLC		mi/h
TRD adjustment			mi/h
Free-flow speed, FFS		65.0	mi/h
LOS and Performance Measures			
Flow rate, vp		2146	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	peed. S	57.1	mi/h
Number of lanes, N		4	/
Density, D		37.6	pc/mi/ln
		E	<u>-</u>

Phone: E-mail:		Fax:	
	Operational Anal	lysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
From/To:	First St/Livermon	re Ave	
	Caltrans		
	Existing + Phase	1A	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		1461	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	5	397	V
Trucks and buses		12	%
Recreational vehicles		0	90
Terrain type:		Level	
Grade		_	8
Segment length	1 m	- 1 F	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PO		1.2	
Heavy vehicle adjustment, fHV		0.943 1.00	
Driver population factor, fp Flow rate, vp		421	pc/h/ln
_	Speed Inputs and		_
	speed inputs and	a Adjustments	
Lane width		-	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRD		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	1.72
FFS or BFFS		65.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjus	stment, ILC	_	mi/h
TRD adjustment Free-flow speed, FFS		- 65.0	mi/h mi/h
riee-liow speed, rrs		03.0	1117 11
LOS and Performance Measures			
Flow rate, vp		421	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car speed, S		65.0	mi/h
Number of lanes, N		4	
Density, D		6.5	pc/mi/ln
Level of service, LOS A			

Phone: E-mail:		Fax:		
	Operational Anal	ysis		
Analyst: Agency or Company:	Kimley-Horn & Ass	sc., Inc.		
Date Performed:	9/17/2014			
Analysis Time Period:				
Freeway/Direction:	I-580 WB			
•	First St/Livermor	e Ave		
	Caltrans	. -		
_	Existing + Phase	1A		
Description: Tracy Hil	.ls Specific Plan			
	Flow Inputs and	Adjustments		
Volume, V		7806	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v15		2121	V	
Trucks and buses		12	%	
Recreational vehicles		0	%	
Terrain type:		Level		
Grade		_	8	
Segment length		_	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PC		1.2		
Heavy vehicle adjustmer		0.943		
Driver population factor, fp		1.00 2248		
Flow rate, vp		2240	pc/h/ln	
	Speed Inputs and	Adjustments		
Lane width		_	ft	
Right-side lateral clea	arance	_	ft	
Total ramp density, TRI		_	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured	Measured	
FFS or BFFS		65.0	mi/h	
Lane width adjustment, fLW		-	mi/h	
Lateral clearance adjustment, fLC		_	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		65.0	mi/h	
LOS and Performance Measures				
Flow rate, vp		2248	pc/h/ln	
Free-flow speed, FFS		65.0	mi/h	
Average passenger-car s	speed, S	54.8	mi/h	
Number of lanes, N		4		
Density, D		41.0	pc/mi/ln	
Level of service, LOS		E		

Phone: E-mail:		Fax:	
	Operational Analy	sis	
Analyst:	Kimley-Horn & Assc	., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
	Livermore Ave/SR-8	4 (Isabel)	
	Caltrans		
_	Existing + Phase 1.	A	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and A	djustments	
Volume, V		1544	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15)	420	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC		1.2	
Heavy vehicle adjustmer		0.943	
Driver population factor, fp		1.00 445	pc/h/ln
Flow rate, vp		445	pe/11/111
	Speed Inputs and .	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRD		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment, fLW		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
LOS and Performance Measures			
Flow rate, vp		445	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	65.0	mi/h
Number of lanes, N		4	
Density, D		6.8	pc/mi/ln
Level of service, LOS		A	

Phone: E-mail:		Fax:	
	Operational Analy	sis	
Analyst: Agency or Company:	Kimley-Horn & Asso	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 WB		
	Livermore Ave/SR-84 (Isabel)		
	Caltrans		
_	Existing + Phase 1	.A	
Description: Tracy Hil	.ls Specific Plan		
	Flow Inputs and A	Adjustments	
Volume, V		8259	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		2244	V
Trucks and buses		12	%
Recreational vehicles		0	०
Terrain type:		Level	
Grade		_	%
Segment length		_	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC		1.2 0.943	
	Heavy vehicle adjustment, fHV		
Driver population factor, fp		1.00 2379	a /b /l
Flow rate, vp		2319	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	_
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment, fLW		-	mi/h
Lateral clearance adjustment, fLC		_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
LOS and Performance Measures			
Flow rate, vp		2379	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	51.4	mi/h
Number of lanes, N		4	
Density, D		46.3	pc/mi/ln
Level of service, LOS	F		

Phone: E-mail:		Fax:		
	Operational A	nalysis		
Analyst:	Kimley-Horn & A	Assc., Inc.		
Agency or Company:				
	9/17/2014			
Analysis Time Period:				
Freeway/Direction:		n 1		
	I-205/Grant Li	ne Rd		
Jurisdiction:		- 17		
Analysis Year:	_			
Description: Tracy Hi	iis Specific Plai	Ω		
	Flow Inputs an	nd Adjustments		
Volume, V		8356	veh/h	
Peak-hour factor, PHF		0.92		
Peak 15-min volume, v1	5	2271	V	
Trucks and buses		12	8	
Recreational vehicles		0	%	
Terrain type:		Rolling		
Grade		-	90	
Segment length		-	mi	
Trucks and buses PCE,		2.5		
Recreational vehicle P		2.0		
Heavy vehicle adjustme		0.847		
Driver population fact	or, ip	1.00	/1- /1	
Flow rate, vp		2679	pc/h/ln	
	Speed Inputs a	and Adjustments		
Lane width		-	ft	
Right-side lateral cle	arance	-	ft	
Total ramp density, TR	D	_	ramps/mi	
Number of lanes, N		4		
Free-flow speed:		Measured		
FFS or BFFS		70.0	mi/h	
Lane width adjustment,		-	mi/h	
Lateral clearance adju	stment, fLC	-	mi/h	
TRD adjustment		-	mi/h	
Free-flow speed, FFS		70.0	mi/h	
	LOS and Perfo	rmance Measures		
Flow rate, vp		2679	pc/h/ln	
Free-flow speed, FFS		70.0	mi/h	
Average passenger-car	speed, S	44.6	mi/h	
Number of lanes, N		4		
Density, D		60.0	pc/mi/ln	
Torrol of dominian IOC				

Level of service, LOS

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 WB		
	I-205/Grant Line	Rd	
Jurisdiction:	Caltrans		
Analysis Year:	Existing + Phase	1A	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		3560	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	5	967	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	96
Segment length		-	mi
Trucks and buses PCE, E	T	2.5	
Recreational vehicle PO		2.0	
Heavy vehicle adjustmer		0.847	
Driver population factor	or, fp	1.00	
Flow rate, vp		913	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		5	1 d.m.p. 2 / m.1
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		913	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	70.0	mi/h
Number of lanes, N	•	5	•
Density, D		13.0	pc/mi/ln
Level of service, LOS		В	

Phone: E-mail:		Fax:	
	Operational Analy	ysis	
Analyst: Agency or Company:	Kimley-Horn & Asso	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 EB	D 1	
	Grant Line Rd/Flym	nn Ra	
Analysis Year:	Caltrans Existing + Phase 1	1 7\	
Description: Tracy Hil		LA	
	_	Nd dinat mont a	
	Flow Inputs and A	Adjustments	
Volume, V		8356	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		2271	V
Trucks and buses		8	%
Recreational vehicles		0	8
Terrain type:		Rolling	0
Grade		-	8
Segment length	ım	- 2.5	mi
Trucks and buses PCE, E Recreational vehicle PC		2.0	
Heavy vehicle adjustmer		0.893	
Driver population factor		1.00	
Flow rate, vp	,, , , , , , , , , , , , , , , , , , ,	2543	pc/h/ln
Speed Inputs and Adjustments			-
	speed inputs and	Adjustments	
Lane width		-	ft
Right-side lateral clea		-	ft
Total ramp density, TRI)	_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	m; /h
FFS or BFFS Lane width adjustment,	f t M	70.0	mi/h mi/h
Lateral clearance adjus		_	mi/h
TRD adjustment	cilient, The	_	mi/h
Free-flow speed, FFS		70.0	mi/h
<u>-</u> ,			
	LOS and Performan	nce Measures	
Flow rate, vp		2543	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	49.1	mi/h
Number of lanes, N		4	
Density, D		51.8	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Ana	alysis	
Analyst:	Kimley-Horn & As	ssc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 WB		
	Grant Line Rd/F	lynn Rd	
	Caltrans	1 -	
Analysis Year:		e IA	
Description: Tracy Hil	is specific Plan		
	Flow Inputs and	d Adjustments	
Volume, V		3560	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		967	V
Trucks and buses Recreational vehicles		8 0	90
Terrain type:		Rolling	6
Grade		-	%
Segment length		_	mi
Trucks and buses PCE, ET		2.5	
Recreational vehicle PCE, ER		2.0	
Heavy vehicle adjustment, fHV		0.893	
Driver population factor, fp		1.00	
Flow rate, vp		1083	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI)	-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	1.73
FFS or BFFS	CTT	70.0	mi/h
Lane width adjustment, Lateral clearance adjus		_	mi/h mi/h
TRD adjustment	culenc, inc	_	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Perform	mance Measures	
			/1- /1
Flow rate, vp		1083	pc/h/ln
Free-flow speed, FFS Average passenger-car s	rneed S	70.0 70.0	mi/h mi/h
Number of lanes, N	ppeed, b	4	111 / 11
Density, D		15.5	pc/mi/ln
Level of service, LOS		В	<u>.</u> / /

Phone: E-mail:		Fax:	
	Operational Anal	lysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
From/To:	Flynn Rd/Altamont	Pass Rd	
Jurisdiction:	Caltrans		
Analysis Year:	Existing + Phase	1A	
Description: Tracy Hil	lls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8297	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	5	2255	V
Trucks and buses		10	8
Recreational vehicles		0	%
Terrain type:		Rolling	
Grade		_	90
Segment length		_	mi
Trucks and buses PCE, I		2.5	
Recreational vehicle PO		2.0	
Heavy vehicle adjustmen		0.870	
Driver population factor	or, ip	1.00	~ ~ /b /l ~
Flow rate, vp		2593	pc/h/ln
	Speed Inputs and	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	_
Free-flow speed:		Measured	
FFS or BFFS		70.0	mi/h
Lane width adjustment,		-	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		70.0	mi/h
	LOS and Performa	ance Measures	
Flow rate, vp		2593	pc/h/ln
Free-flow speed, FFS		70.0	mi/h
Average passenger-car s	speed, S	47.5	mi/h
Number of lanes, N		4	
Density, D		54.6	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:			
	Operational Ana	alysis			
Analyst: Agency or Company:	Kimley-Horn & As	ssc., Inc.			
	9/17/2014 PM Peak Hour				
Freeway/Direction:					
	Flynn Rd/Altamor	nt Pass Rd			
	Caltrans	. 17			
Analysis Year: Description: Tracy Hil		: IA			
	Flow Inputs and	d Adjustments			
Volume, V		3535	veh/h		
Peak-hour factor, PHF		0.92	,		
Peak 15-min volume, v15	5	961	V		
Trucks and buses		10	%		
Recreational vehicles		0	9		
Terrain type:		Rolling			
Grade		-	8		
Segment length	7.m	- 2 F	mi		
Trucks and buses PCE, ET		2.5			
Recreational vehicle PCE, ER		2.0 0.870			
Heavy vehicle adjustment, fHV Driver population factor, fp		1.00			
Flow rate, vp)I, IP	1105	pc/h/ln		
	Speed Inputs and Adjustments				
I and width			£ +		
Lane width Right-side lateral clea	rance	_	ft ft		
Total ramp density, TRI		_	ramps/mi		
Number of lanes, N		4	ramps, mr		
Free-flow speed:		Measured			
FFS or BFFS		70.0	mi/h		
Lane width adjustment,	fLW	-	mi/h		
Lateral clearance adjus	stment, fLC	_	mi/h		
TRD adjustment		-	mi/h		
Free-flow speed, FFS		70.0	mi/h		
	LOS and Perform	nance Measures			
Flow rate, vp		1105	pc/h/ln		
Free-flow speed, FFS		70.0	mi/h		
Average passenger-car s	speed, S	70.0	mi/h		
Number of lanes, N		4			
Density, D		15.8	pc/mi/ln		
Level of service, LOS		В			

Phone: E-mail:		Fax:	
	Operational Anal	lysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
	Altamont Pass Rd,	/Vasco Rd	
	Caltrans		
Analysis Year:	Existing + Phase	1A	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8243	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	; ;	2240	V
Trucks and buses		10	%
Recreational vehicles		0	96
Terrain type:		Level	
Grade		_	8
Segment length		_	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC		1.2	
Heavy vehicle adjustmer		0.952	
Driver population factor Flow rate, vp	or, Ip	1.00 2352	pc/h/ln
riow race, vp		2332	pe/11/111
	Speed Inputs and	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	ance Measures	
Flow rate, vp		2352	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	52.1	mi/h
Number of lanes, N		4	
Density, D		45.1	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Ana	lysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:			
	Altamont Pass Rd	/Vasco Rd	
	Caltrans		
Analysis Year:	Existing + Phase	1A	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		4128	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	; ;	1122	V
Trucks and buses		10	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		-	8
Segment length		_	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC		1.2	
Heavy vehicle adjustmer		0.952	
Driver population factor Flow rate, vp	л, гр	1.00 1178	pc/h/ln
Flow race, vp		1170	pc/11/111
	Speed Inputs and	d Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	ance Measures	
Flow rate, vp		1178	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	65.0	mi/h
Number of lanes, N		4	
Density, D		18.1	pc/mi/ln
Level of service, LOS		С	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 EB		
From/To: Jurisdiction:	Vasco Rd/First St Caltrans		
	Existing + Phase	1 λ	
Description: Tracy Hil	_	IA	
	Flow Inputs and	Adjustments	
77.2		0100	ah /h
Volume, V Peak-hour factor, PHF		8190 0.92	veh/h
Peak 15-min volume, v15		2226	V
Trucks and buses	,	12	v %
Recreational vehicles		0	%
Terrain type:		Level	ū
Grade		-	%
Segment length		_	mi
Trucks and buses PCE, E	T.	1.5	
Recreational vehicle PO		1.2	
Heavy vehicle adjustmer		0.943	
Driver population factor		1.00	
Flow rate, vp		2359	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	_ · · ·
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		2359	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	52.0	mi/h
Number of lanes, N		4	
Density, D		45.4	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst: Agency or Company:	Kimley-Horn & Ass	c., Inc.	
Date Performed:	9/17/2014		
Analysis Time Period:			
Freeway/Direction:	I-580 WB		
From/To:	Vasco Rd/First St		
	Caltrans	1 7	
Analysis Year: Description: Tracy Hil	Existing + Phase	IA	
Description: Itacy iii	is specific rian		
	Flow Inputs and	Adjustments	
Volume, V		4103	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	,	1115	V
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		_	ર્જ
Segment length		_	mi
Trucks and buses PCE, E	T	1.5	
Recreational vehicle PC		1.2	
Heavy vehicle adjustmer		0.943	
Driver population factor	or, fp	1.00	
Flow rate, vp		1182	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI		_	ramps/mi
Number of lanes, N		4	1 0 m. p. 2 / m. p.
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	_	mi/h
Lateral clearance adjus	stment, fLC	_	mi/h
TRD adjustment		_	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	nce Measures	
Flow rate, vp		1182	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	65.0	mi/h
Number of lanes, N		4	- ,
Density, D		18.2	pc/mi/ln
Level of service, LOS		С	-

Phone: E-mail:		Fax:	
	Operational Anal	ysis	
Analyst:	Kimley-Horn & Ass	sc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:			
	I-580 EB		
	First St/Livermor	e Ave	
Jurisdiction:	Caltrans		
_	Existing + Phase	1A	
Description: Tracy Hil	ls Specific Plan		
	Flow Inputs and	Adjustments	
Volume, V		8580	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15	·	2332	v
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		-	8
Segment length		-	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PO		1.2	
Heavy vehicle adjustmer		0.943	
Driver population factor Flow rate, vp	or, ip	1.00 2471	pc/h/ln
riow race, vp		24/1	pe/11/111
	Speed Inputs and	l Adjustments	
Lane width		_	ft
Right-side lateral clea	arance	_	ft
Total ramp density, TRI)	-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		-	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Performa	ance Measures	
Flow rate, vp		2471	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	speed, S	48.7	mi/h
Number of lanes, N		4	
Density, D		50.7	pc/mi/ln
Level of service, LOS		F	

Phone: E-mail:		Fax:	
	Operational A	nalysis	
Analyst:	Kimley-Horn & A	Assc., Inc.	
Agency or Company: Date Performed:	9/17/2014		
Analysis Time Period:	DM Deak Hour		
Freeway/Direction:	T-580 WB		
From/To:	First St/Liver	more Ave	
Jurisdiction:	Caltrans		
Analysis Year:		se 1A	
Description: Tracy Hil	_		
	Flow Inputs an	nd Adjustments	
Volume, V		4298	veh/h
Peak-hour factor, PHF		0.92	
Peak 15-min volume, v15		1168	v
Trucks and buses		12	%
Recreational vehicles		0	%
Terrain type:		Level	
Grade		-	8
Segment length			mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC		1.2	
Heavy vehicle adjustmen		0.943	
Driver population facto	or, ip	1.00 1238	ng/h/ln
Flow rate, vp		1236	pc/h/ln
	Speed Inputs a	and Adjustments	
Lane width		_	ft
Right-side lateral clea	rance	_	ft
Total ramp density, TRI)	-	ramps/mi
Number of lanes, N		4	
Free-flow speed:		Measured	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		-	mi/h
Lateral clearance adjus	stment, fLC	-	mi/h
TRD adjustment		-	mi/h
Free-flow speed, FFS		65.0	mi/h
	LOS and Perfo	rmance Measures	
Flow rate, vp		1238	pc/h/ln
Free-flow speed, FFS		65.0	mi/h
Average passenger-car s	peed, S	65.0	mi/h
Number of lanes, N		4	
Density, D		19.0	pc/mi/ln

C

Level of service, LOS

Phone: E-mail:		Fax:			
Operational Analysis					
Analyst: Agency or Company:					
Date Performed:	9/17/2014				
Analysis Time Period:					
	I-580 EB				
	Livermore Ave/SR-84 (Isabel)				
Jurisdiction:	Caltrans				
Analysis Year: Existing + Phase 1A					
Description: Tracy Hills Specific Plan					
Flow Inputs and Adjustments					
Volume, V		9074	veh/h		
Peak-hour factor, PHF		0.92			
Peak 15-min volume, v15		2466	V		
Trucks and buses		12	%		
Recreational vehicles		0	%		
Terrain type:		Level			
Grade		_	%		
Segment length		_	mi		
Trucks and buses PCE, E	T	1.5			
Recreational vehicle PCE, ER		1.2			
Heavy vehicle adjustment, fHV		0.943			
Driver population factor, fp		1.00			
Flow rate, vp		2614	pc/h/ln		
Speed Inputs and Adjustments					
Lane width		_	ft		
Right-side lateral clea	arance	_	ft		
Total ramp density, TRD		_	ramps/mi		
Number of lanes, N		4	-		
Free-flow speed:		Measured			
FFS or BFFS		65.0	mi/h		
Lane width adjustment, fLW		_	mi/h		
Lateral clearance adjustment, fLC		_	mi/h		
TRD adjustment		-	mi/h		
Free-flow speed, FFS		65.0	mi/h		
LOS and Performance Measures					
Flow rate, vp		2614	pc/h/ln		
Free-flow speed, FFS		65.0	mi/h		
Average passenger-car speed, S		44.1	mi/h		
Number of lanes, N		4			
Density, D		59.3	pc/mi/ln		
Level of service, LOS		F			

Phone: E-mail:		Fax:			
	Operational A	nalysis			
Analyst: Agency or Company:	Kimley-Horn &	Assc., Inc.			
Date Performed:	9/17/2014				
Analysis Time Period:	PM Peak Hour				
Freeway/Direction:	I-580 WB				
From/To:	Livermore Ave/				
	Caltrans				
Analysis Year:					
Description: Tracy Hil	ls Specific Pla	n			
Flow Inputs and Adjustments					
Volume, V		4546	veh/h		
Peak-hour factor, PHF		0.92			
Peak 15-min volume, v15		1235	V		
Trucks and buses		12	%		
Recreational vehicles		0	%		
Terrain type:		Level			
Grade		_	%		
Segment length		-	mi		
Trucks and buses PCE, ET		1.5			
Recreational vehicle PCE, ER		1.2			
Heavy vehicle adjustment, fHV		0.943			
Driver population factor, fp		1.00	43. 43		
Flow rate, vp		1309	pc/h/ln		
	Speed Inputs	and Adjustments			
Lane width		-	ft		
Right-side lateral clea	arance	-	ft		
Total ramp density, TRD		_	ramps/mi		
Number of lanes, N		4			
Free-flow speed:		Measured			
FFS or BFFS		65.0	mi/h		
Lane width adjustment, fLW		-	mi/h		
Lateral clearance adjustment, fLC		_	mi/h		
TRD adjustment		-	mi/h		
Free-flow speed, FFS		65.0	mi/h		
LOS and Performance Measures					
Flow rate, vp		1309	pc/h/ln		
Free-flow speed, FFS		65.0	mi/h		
Average passenger-car speed, S		65.0	mi/h		
Number of lanes, N		4			
Density, D		20.1	pc/mi/ln		
Torrol of governing TOC					

C

Level of service, LOS