

Memorandum

TO: Nick Brand

FROM: Michael Snavely, Rachel Copperman, Yushaung Zhou and George Mazur

DATE: August 17, 2010

RE: Split SF Terminal Operations Scenario and New Caltrain Operating Plan - FINAL

The Cambridge Systematics (CS) project team modeled a *Split San Francisco (SF) Terminal Operations Scenario* for Year 2030 Phase I and Full System. This scenario included the same overall level of high speed rail operations featured in the May 2009 operating plan, but with service split between two potential terminal locations in San Francisco – the Transbay Terminal and 4th Street & King Street. North of the Millbrae station, it was assumed that high speed trains will serve only one of these two stations. The *Split SF Operations Scenario* includes the higher station parking rates assumed under the *Increased Parking Cost Scenario*.

Operating Plans

Tables 1 and 2 show the *Split SF Operations Scenario* Phase I operating plans for the peak and off-peak periods, respectively. The Phase I operating plan is identical to the May 2009 operating plan with the exception that four peak period HST trains (patterns #1, #4, #6 and #7), and two off-peak HST trains (patterns #3 and #7) originate at the 4th & King station instead of Transbay Terminal.

Tables 3 and 4 show the Full System operating plans for the peak and off-peak periods, respectively. The *Split SF Operations Scenario* Full System operating plan is identical to the May 2009 operating plan with the exception that five peak hour trains (patterns #1, #2, #29, #4, and #14) and two off-peak trains (patterns #4 and #14) originate at the 4th & King station rather than the Transbay Terminal. Southbound trains leaving the 4th & King station save three to five minutes of travel time over identical patterns that depart from the Transbay Terminal. All other HST run times are identical to the May 2009 operating plan.

The *Split SF Operations Scenario* also included a revised Caltrain operating plan (see Table 5) that slightly increased overall service levels, extended some trains to the Transbay Terminal, and increased service levels to stations that serve both Caltrain and high speed rail. The original Caltrain operating plan in the high-speed rail ridership and revenue (HSR R&R) model, which is shown in Table 6, reflected a prior assumption that all Caltrain service would terminate at 4th & King. This assumption existed in the travel model files provided by the Metropolitan Transportation Commission (MTC) during model development activities in 2006.

Table 1 Phase I Operating Plan for the Split SF Operations Scenario, Peak-Period

Station Pattern #	Run Time from Start Station (minutes)									
	0	1k*	2	3	4	4k*	5	6k^	7k^	8
SF Transbay	0		0	0	0		0			
SF 4 th & King		0				0		0	0	
Millbrae				15	15	10			10	
Redwood City/Palo Alto		15		25			20	15	20	
San Jose		30	30	40	35	30	35	30	35	
Gilroy		46		56			51		51	
Merced									86	0
Fresno				97	87	82				22
Bakersfield				136	126	121				61
Palmdale							151	140		95
Sylmar					175	170		162		117
Burbank							179	171		126
Los Angeles Union Station	160	170	163	194	189	184	188	180		135
Norwalk		183		207				193		148
Anaheim		195	184	219				205		160
Frequency (trains per hour)	1	0.5*	1	0.5*	1	1	1	0.5*	1.5**	1.5**

Notes: “|” indicates no station stop for indicated pattern. ^ indicates trains originating at the SF 4th & King station. * indicates one train every two hours. ** indicates one train every forty minutes

Table 2 Phase I Operating Plan for the Split SF Operations Scenario, Off-Peak

Station Pattern #	Run Time from Start Station (minutes)						
	1	9	3	4k^	5	7k^	8
SF Transbay	0	0	0		0		
SF 4 th & King				0		0	
Millbrae		15	15	10		10	
Redwood City/Palo Alto	20	25	25	20	20	20	
San Jose	35	40	40	35	35	35	
Gilroy	51	56	56	51	51	51	
Merced						86	0
Fresno		97	97	92			22
Bakersfield		136	136	131			61
Palmdale		170			151		95
Sylmar		192					117
Burbank		201			179		126
Los Angeles Union Station	175	210	194	189	188		135
Norwalk	188	223	207	202			148
Anaheim	200	235	219	214			160
Frequency (trains per hour)	1	1	1	1	2	1	1

Notes: “|” indicates no station stop for indicated pattern. ^ indicates trains originating at the SF 4th & King station.

Table 3 Full System Operating Plan for the Split SF Operations Scenario, Peak-Period

Station Pattern #	Run Time from Start Station (minutes)														
	0	1	1k^	2kY	29kY	28	4kY	20	41	42	14k^	39	25	15	35
SF Transbay	0	0				0		0	0	0		0			
SF 4 th & King			0	0	0		0				0				
Millbrae						15	10	15			10				
Redwood City/Palo Alto		20	15		15	25	20	25			25	20			
San Jose		35	30	26	30	40	35	40			40	35			
Gilroy		51	46		46	56	51				56				
Merced											91				
Modesto											108				
Stockton											124	104			
Sacramento											146	126	0	0	0
Stockton													22	22	22
Modesto														38	
Merced														55	
Fresno						97	92	93					68	78	68
Bakersfield							133	134						119	
Palmdale					146	164	167						135	153	
Sylmar					168		189	183					157	175	
Burbank							198						166	184	
Los Angeles Union Station	160	175	170	160	183	198	208	198	0	0			176	194	154
City of Industry					203	218			19						174
Ontario		203	198		215	230	236		31						186
Riverside		216	211		228	243	249		44	35					199
Murrieta					245	260			61						216
Escondido					263	278			79						234
University City		258	253		278	293	291		94						249
San Diego		270	265		290	305	303		106	85					261
Norwalk	173			173				211					189	207	
Anaheim	184			184				222					200	218	
Frequency (trains per hour)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Notes: “|” indicates no station stop for indicated pattern. ^ indicates trains originating at the SF 4th & King station.

Table 4 Full System Operating Plan for the Split SF Operations Scenario, Off-Peak

Station Pattern #	Run Time from Start Station (minutes)							
	1	27	26	15	17	4k^	16	14k^
SF Transbay	0	0	0		0		0	
SF 4 th & King						0		0
Millbrae			15			10	15	10
Redwood City/Palo Alto	20	20	25		20	20	25	20
San Jose	35	35	40		35	35	40	35
Gilroy	51	51	56		51	51	56	51
Merced								86
Modesto								103
Stockton								119
Sacramento				0				141
Stockton				22				
Modesto				38				
Merced				55				
Fresno			97	78		92	97	
Bakersfield			138	119		133	138	
Palmdale		151		153	151	167		
Sylmar		173		175	173	189		
Burbank		182		184	182	198		
Los Angeles Union Station	175	192	194	194	192	208	194	
City of Industry		212	214					
Ontario	203	224	226			236		
Riverside	216	237	239			249		
Murrieta		254	256					
Escondido		272	274					
University City	258	287	289			291		
San Diego	270	299	301			303		
Norwalk				207	205		207	
Anaheim				218	216		218	
Frequency (trains per hour)	1	1	1	1	1	1	1	1

Notes: “|” indicates no station stop for indicated pattern. ^ indicates trains originating at the SF 4th & King station.

Table 5 Caltrain Operating Plan for Split SF Terminal Scenario

Operating Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13
Period	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Off-Pk	Off-Pk
Headway (min)	60	60	60	60	60	60	60	60	60	60	45	60	60
Station	Run Time From Start Station (minutes)												
SF (Transbay Terminal)	0		0		0			0				0	0
SF (4 th St.)	5	0	5	0	5	0	0	5	0	0		5	5
SF (22 nd St.)			9										9
Bayshore		7											13
South SF			17					16		11			18
San Bruno	18					13			13			18	22
Millbrae	21	16	22	15	20	16	15	21	16	16		21	25
Burlingame			26					24		19		24	28
San Mateo	25	20				20	19		20			27	31
Hayward Park	29												33
Hillsdale		24	32	22	27	24	22	31	24	27		30	35
Belmont		26					25					32	38
San Carlos		28	35				27	34		30		35	40
Redwood City		33	40	28			31	38		34		39	44
Menlo Park	38		44			33		43	33	39		43	48
Palo Alto	40	38	46	34	37	35	37	45	35	40		46	51
California Ave.	43	41				38	40		38			49	54
San Antonio	45					40			40			52	57
Mountain View	49	47	54	40	44	44	45	52	44	47		55	61
Sunnyvale	53		58		48	48		57	48	52		60	65
Lawrence		53					52					63	68
Santa Clara	59					54			54			67	73
College Park												76	
San Jose Diridon	67	64	71	54	59	62	63	70	62	65	0	83	81
Tamien		70				68					6		
Capitol											13		
Blossom Hill											19		
Morgan Hill											32		
San Martin											38		
Gilroy											48		

Notes: “|” indicates no station stop for indicated pattern. Operating pattern 11 is the Gilroy Shuttle service. No trains scheduled to stop at Paul Avenue, Broadway, or Atherton.

Table 6 Original Caltrain Operating Plan in HSR Intraregional Model

Operating Pattern	1	2	3	4	5	6	7	8	9	10
Period	Peak	Peak	Peak	Peak	Peak	Off-pk	Peak	Peak	Peak	Peak
Headway (min)	100	60	60	100	90	60	100	90	60	45
Station	Run Time From Start Station (minutes)									
SF (4 th St.)	0	0	0	0	0	0	0	0	0	0
SF (22 nd St.)	5		5	5	5	5	5		5	5
Bayshore	10		10			10				
South SF	16		16			16				
San Bruno	20	14	20			20		14		
Millbrae	24	18	24	17	17	24	18		18	18
Burlingame	28	22	28			28	22	19		
San Mateo	31	25	31	23	23	31	25	23		
Hayward Park	34		34			34				
Hillsdale	37	29	37			37	29	27	26	
Belmont	40	32	40			40				
San Carlos	43	35	43	29	29	43	33	31		
Redwood City	48	40	48	24	24	48	38			31
Menlo Park	53	45		39	39	53	43	39		36
Palo Alto	56	48	54	42	42	56	46	42	37	
California Ave.	60	52		46	46	60	50			
San Antonio	64	56		50	50	64				
Mountain View	68	60		54	54	68	56	50	44	45
Sunnyvale	74	65		59	59	74				
Lawrence	77	69		65	65	77	61	57		
Santa Clara	82	74	70	72	72	82				
College Park				75						
San Jose Diridon	91	83	79	82	81	91	73	69	59	59
Tamien	98	90	86	89	88					
Capitol										
Blossom Hill										
Morgan Hill										
San Martin										
Gilroy										

Notes: “|” indicates no station stop for indicated pattern. Operating patterns 9 and 10 are “Baby Bullet” services. No trains scheduled to stop at Paul Avenue, Broadway, or Atherton.

2030 Ridership and Revenue Results – Phase I

The year 2030 *Split SF Operations Scenario* has a Phase 1 forecast of 52.8 million annual HSR riders (see Table 7). This value represents a decrease of 1.4 million (2.6 percent) compared to the *Increased Parking Cost Scenario* runs. This decrease occurs in spite of no change in overall interregional HSR service between the *Increased Parking Cost Scenario* and the *Split SF Operations Scenario*.

Table 7 2030 Phase 1 Annual Region-to-Region Ridership and Revenue, Split SF Operations Scenario

Market	Increased Parking Cost Scenario				Split SF Operations Scenario			
	HSR Ridership (millions)	HSR Mode Share	HSR Avg. Fare (2008 \$\$)	Revenue (2008 \$\$ in millions)	HSR Ridership (millions)	HSR Mode Share	HSR Avg. Fare (2008 \$\$)	Revenue (2008 \$\$ in millions)
LA Basin – Sacramento	1.8	24%	\$68	\$124	1.8	24%	\$68	\$120
LA Basin – San Diego	0.2	0%	\$14	\$2	0.2	0%	\$14	\$2
LA Basin- Bay Area	11.7	56%	\$67	\$777	11.3	55%	\$67	\$755
Sacramento – Bay Area	0.0	0%	\$12	\$0	0.0	0%	\$10	\$0
San Diego- Sacramento	0.0	2%	\$69	\$2	0.0	2%	\$69	\$2
San Diego- Bay Area	3.2	35%	\$69	\$219	3.1	34%	\$69	\$211
Bay Area – San Joaquin Valley	7.4	10%	\$46	\$340	7.0	10%	\$46	\$321
San Joaquin Valley – LA Basin	8.3	12%	\$42	\$340	8.2	12%	\$42	\$343
Sacramento – San Joaquin Valley	0.6	3%	\$52	\$29	0.4	2%	\$50	\$21
San Diego – San Joaquin Valley	0.1	26%	\$46	\$3	0.1	25%	\$45	\$3
Within Bay Area Peninsula	6.4	0.1%	\$11	\$70	6.0	0.1%	\$11	\$66
Within North LA Basin	3.6	0.0%	\$12	\$43	3.6	0.0%	\$12	\$43
Within South LA Basin	1.2	0.0%	\$10	\$12	1.2	0.0%	\$10	\$12
North LA – South LA	3.0	0.1%	\$11	\$33	3.0	0.1%	\$11	\$33
Within San Diego region	-	-	-	-	-	-	-	-
Within San Joaquin Valley*	0.9	0.0%	\$31	\$29	0.9	0.0%	\$31	\$29
Other *	6.1	0.1%	\$47	\$288	5.9	0.1%	\$47	\$281
Total	54.4	0.1%	\$43	\$2,316	52.8	0.1%	\$43	\$2,243
Within San Diego region	-	-	-	-	-	-	-	-
Within entire LA Basin	7.7	0.0%	\$11	\$88	7.7	0.0%	\$11	\$88
Within entire MTC ¹	6.4	0.1%	\$11	\$70	6.0	0.1%	\$11	\$66
Total between regions	40.3	4.4%	\$54	\$2,158	39.0	4.3%	\$54	\$2,089

* "W/in San Joaquin Valley" and "Other" markets include interregional and intraregional travel.

¹ Reflects results from February 2010 revised MTC Intraregional model.

Interregional ridership decreases at a slightly greater rate (1.3 million, or 3.2 percent) than does overall intraregional ridership. The three individual markets with the largest decrease are LA Basin – Bay Area, Bay Area – San Joaquin Valley, and intra-regional Bay Area trips; each of these markets decrease by 0.4 million riders compared to the *Increased Parking Cost Scenario*.

Reductions in market-to-market ridership translate to a \$73 million (3.2 percent) overall drop in system revenue. Interregional total revenue decreases by \$69 million (2.0 percent), while intraregional revenue decreases by \$4 million (2.1 percent). The individual market with the largest reduction in revenues is Bay Area – San Joaquin Valley, which decreases by \$19 million (5.6 percent) compared to the *Increased Parking Cost Scenario*.

Table 8 presents the average daily boardings at each HSR station. Overall, average daily boardings decrease by 4,700 (2.9 percent) for the *Split SF Operations Scenario*. The San Francisco termini experience the highest reduction in daily boardings at 2,300, or 6.0 percent. Outside the Bay Area, Sylmar experiences the largest boarding decrease at 4.4 percent. This outcome is reasonable since the majority of peak trains between the Bay Area and Sylmar terminate at 4th & King (the highest percentage for any station in the system).

Table 8 Year 2030 Phase 1 Daily HSR Station Boardings, Split SF Operations Scenario

Origin Station	Increased Parking Cost Scenario	Split SF Operations Scenario
San Francisco (Transbay)	38,500	31,400
4 th & King		4,800
Millbrae	5,300	5,000
Redwood City	6,200	5,900
San Jose	10,200	10,200
Gilroy	6,000	5,800
Merced	7,300	7,300
Fresno	6,400	6,200
Bakersfield	7,300	7,100
Palmdale	14,500	14,200
Sylmar	6,800	6,500
Burbank	3,300	3,400
Los Angeles (Union)	14,500	14,400
Norwalk	5,400	5,300
Anaheim	29,300	28,900
TOTAL DAILY	161,000	156,300

Daily line loadings are presented in Table 9. The decrease in line loads is greatest (on average 4 to 6 percent) in the Bay Area. This result is consistent with the change in stations boardings presented in Table 8.

2030 Ridership and Revenue Results - Full System

The Year 2030 *Split SF Operations Scenario* full system forecast is 92.6 million annual riders (see Table 10), which represents a decrease of 1.1 million (1.2 percent) compared to the *Increased Parking Cost Scenario*. This reduction is smaller than projected for Phase I, and can be explained by the fact that many of the major HSR travel markets added in the full system (for instance, Sacramento - San Diego, Sacramento - LA Basin, and LA - San Diego) are completely unaffected by the San Francisco terminal split.

Table 9 Phase I Daily Line Loads, Split SF Operations Scenario

Origin Station	Destination Station	Increased Parking Cost Scenario	Split SF Operations Scenario
SF Transbay	4 th & King	38,500	31,400
4 th & King	Millbrae	38,500	36,100
Millbrae	Redwood City	36,000	34,000
Redwood City	San Jose	36,800	35,100
San Jose	Gilroy	39,900	38,200
Gilroy	Merced	2,300	2,400
Gilroy	Fresno	42,700	41,200
Merced	Fresno	5,000	5,000
Fresno	Bakersfield	43,600	42,300
Bakersfield	Palmdale	40,600	39,500
Palmdale	Sylmar	46,200	45,400
Sylmar	Burbank	41,000	40,400
Burbank	Los Angeles	37,700	37,100
Los Angeles	Norwalk	33,200	32,700
Norwalk	Anaheim	29,300	28,900

Table 10 2030 Full System Annual Region-to-Region Ridership and Revenue, Split SF Operations Scenario

Market	Increased Parking Cost Scenario				Split SF Operations Scenario			
	HSR Ridership (millions)	HSR Mode Share	HSR Avg. Fare (2008\$\$)	Revenue (2008\$\$ in millions)	HSR Ridership (millions)	HSR Mode Share	HSR Avg. Fare (2008\$\$)	Revenue (2008\$\$ in millions)
LA Basin – Sacramento	3.8	50%	\$66	\$249	3.8	50%	\$66	\$249
LA Basin – San Diego	20.8	15%	\$31	\$637	20.8	15%	\$31	\$637
LA Basin- Bay Area	12.2	59%	\$68	\$827	11.9	57%	\$68	\$806
Sacramento – Bay Area	2.8	4%	\$45	\$127	2.9	4%	\$45	\$131
San Diego- Sacramento	0.1	4%	\$77	\$7	0.1	4%	\$78	\$7
San Diego- Bay Area	3.4	38%	\$81	\$274	3.3	37%	\$81	\$265
Bay Area – San Joaquin Valley	7.8	11%	\$45	\$354	7.5	11%	\$45	\$340
San Joaquin Valley – LA Basin	8.2	11%	\$44	\$360	8.1	11%	\$44	\$360
Sacramento – San Joaquin Valley	2.0	9%	\$43	\$86	2.0	9%	\$42	\$86
San Diego – San Joaquin Valley	0.1	27%	\$56	\$5	0.1	27%	\$57	\$5
Within Bay Area Peninsula	6.5	0.1%	\$11	\$71	6.1	0.1%	\$11	\$67
Within North LA Basin	5.0	0.1%	\$12	\$61	5.0	0.1%	\$12	\$61
Within South LA Basin	2.9	0.0%	\$10	\$30	2.9	0.0%	\$10	\$30
North LA – South LA	5.5	0.2%	\$11	\$61	5.5	0.2%	\$11	\$61
Within San Diego region	0.3	0.0%	\$11	\$3	0.3	0.0%	\$11	\$3
Within San Joaquin Valley*	2.1	0.0%	\$29	\$62	2.1	0.0%	\$29	\$62
Other*	10.3	0.1%	\$53	\$547	10.2	0.1%	\$53	\$543
Total	93.7	0.2%	\$40	\$3,763	92.6	0.2%	\$40	\$3,713
Within San Diego region	0.3	0.0%	\$11	\$3	0.3	0.0%	\$11	\$3
Within entire LA Basin	13.3	0.0%	\$11	\$153	13.3	0.0%	\$11	\$153
Within entire MTC ²	6.5	0.0%	\$11	\$71	6.1	0.0%	\$11	\$67
Total between regions	73.6	8.1%	\$48	\$3,536	72.9	8.0%	\$48	\$3,490

* "W/in San Joaquin Valley" and "Other" markets include interregional and intraregional travel.

² Reflects results from February 2010 revised MTC Intraregional model.

Interregional ridership decreases at a slightly lower rate (0.7 million, or 1.0 percent) than does overall intraregional ridership (0.4 million or 2.0 percent). Intraregional Bay Area travel features the largest decrease in net ridership at 0.4 million riders, followed by Basin – Bay Area and Bay Area – San Joaquin Valley trips, which decrease by 0.3 million riders each.

Reductions in market-to-market ridership translate to a \$50 million (1.3 percent) overall drop in system revenue. Interregional total revenue decreases by \$46 million (1.3 percent), while intraregional revenue decreases by \$4 million (1.6 percent). The individual interregional market with the largest *percentage* reduction in revenues is Bay Area – San Joaquin Valley, which decreases by \$14 million (4.0 percent) compared to the *Increased Parking Cost Scenario*.

Table 11 presents the average daily boardings at each HSR station. Overall, average daily boardings decrease by 3,300 (1.2 percent) for the *Split SF Operations Scenario*. The San Francisco termini experience the highest reduction in daily boardings at 1,700 (4.8 percent). Outside the Bay Area, Bakersfield experiences the largest boarding decrease at 3.4 percent. No other station outside the Bay Area experiences an interregional boarding decrease in excess of 2 percent in the Full System. This outcome is notable since six stations outside the Bay Area experienced boarding decreases in excess of 2 percent in the Phase I system.

Daily line loads are presented in Table 12. As in the Phase I configuration, the decrease in line loading trips is greatest in the Bay Area, albeit at a slightly smaller rate (2 to 5 percent).

Analysis

Overall, these results suggest that a 4th & King terminus is not completely interchangeable with a Transbay terminus. Of the two San Francisco termini, split operations between more than one San Francisco terminal may have a larger negative effect on ridership and revenue than use of 4th & King as the sole San Francisco terminus. The ridership and revenue effects of split operations are comparable to results obtained during the Bay Area-Central Valley EIR/S, which consistently showed that split operation scenarios would produce lower ridership compared to operations to a single terminal. Based on these forecasts, it would appear that travelers do not perceive 4th & King and the Transbay Terminal as equally desirable access/egress points, particularly when operations are staggered between both stations. However, the slightly improved results for the Full System suggest that a more even split of operations between the two termini might result in higher inter-regional ridership and revenue.

Additional Note

The information and results presented in this memorandum are estimates and projections that involve subjective judgments, and may differ materially from the actual future ridership and revenue. This memorandum is not intended nor shall it be construed to constitute a guarantee, promise or representation of any particular outcome(s) or result(s). Further, the material presented in this memorandum is provided for purposes of supporting high speed rail planning-level analyses, and is intended to assist in identifying relative differences between potential alignment and station alternatives.

Table 11 Full System Average Daily HSR Stations Boardings, Split SF Operations Scenario

Origin Station	Increased Parking Cost Scenario	Split SF Operations Scenario
San Francisco (Transbay)	34,500	27,000
4 th & King		5,800
Millbrae	5,700	5,400
Redwood City	7,500	7,200
San Jose	12,100	12,100
Gilroy	6,500	6,300
Sacramento	18,100	18,200
Stockton	6,300	6,400
Modesto/SP Downtown	4,400	4,400
Merced	2,500	2,500
Fresno	8,000	7,900
Bakersfield	8,100	7,800
Palmdale	16,400	16,300
Sylmar	12,900	12,700
Burbank	4,100	4,100
Los Angeles (Union)	28,100	28,000
Norwalk	6,800	6,700
Anaheim	21,700	21,600
City of Industry	6,400	6,400
Ontario	10,600	10,500
Riverside	13,700	13,700
Temecula / Murrieta	7,100	7,000
Escondido	7,800	7,700
University City	5,900	5,800
San Diego	19,200	19,100
Daily	274,100	270,700

Table 12 Year 2030 Full System Daily Line Loads, Split SF Operations Scenario

Origin Station	Destination Station	Increased Parking Cost Scenario	Split SF Operations Scenario
San Francisco (Transbay)	4 th & King	34,500	27,000
4 th & King	Millbrae	34,500	32,800
Millbrae	Redwood City	32,400	31,000
Redwood City	San Jose	34,400	33,300
San Jose	Gilroy	39,200	38,200
Gilroy	Merced	6,100	6,200
Gilroy	Fresno	33,700	32,600
Sacramento	Stockton	18,100	18,200
Stockton	Modesto/SP Downtown	23,700	23,800
Modesto/SP Downtown	Merced	26,700	26,800
Merced	Fresno	22,200	22,200
Fresno	Bakersfield	53,000	52,000
Bakersfield	Palmdale	49,100	48,400
Palmdale	Sylmar	55,900	55,300
Sylmar	Burbank	53,300	52,800
Burbank	Los Angeles (Union)	51,900	51,300
Los Angeles (Union)	Norwalk	25,100	25,000
Norwalk	Anaheim	21,700	21,600
Los Angeles (Union)	City of Industry	37,500	37,200
City of Industry	Ontario	39,800	39,500
Ontario	Riverside	39,700	39,400
Riverside	Temecula / Murrieta	36,200	36,000
Temecula / Murrieta	Escondido	32,000	31,800
Escondido	University City	24,700	24,700
University City	San Diego	19,200	19,200