

Appendix H Traffic and Transportation/ Pedestrian and Bicycle Facilities

Table H-1 - Existing LOS Conditions on Highway 101 between Petaluma Boulevard South and Rohnert Park Expressway—Morning Peak Hour

From Centerline	To Centerline	Approx. Distance (mi)	Existing Traffic Volume	CORSIM Served Volume	CORSIM Served %	Density (pc/mi/ln)	Speed (MPH)	Level-of-Service (HCM 2000 Criteria)	
Northbound									
Petaluma Blvd South off-ramp	Petaluma Blvd South on-ramp	0.39	1,162	1,163	100%	9.0	65	A	
Petaluma Blvd South on-ramp	SR 116 (East) off-ramp	0.97	1,387	1,389	100%	10.7	62	A	
SR 116 (East) off-ramp	SR 116 (East) on-ramp	0.22	1,107	1,084	98%	8.7	62	A	
SR 116 (East) on-ramp	East Washington St off-ramp	0.69	1,949	1,925	99%	14.8	61	B	
East Washington St off-ramp	East Washington St on-ramp	0.15	1,697	1,666	98%	13.5	62	B	
East Washington St on-ramp	Petaluma Blvd North off-ramp	2.67	2,211	2,185	99%	17.3	62	B	
Petaluma Blvd North off-ramp	Petaluma Blvd North EB on-ramp	0.14	1,914	1,921	100%	16.0	60	B	
Petaluma Blvd North EB on-ramp	Petaluma Blvd North WB on-ramp	0.12	2,234	2,243	100%	18.1	53	C	
Petaluma Blvd North WB on-ramp	W. Railroad Rd off-ramp	2.70	2,579	2,586	100%	23.0	56	C	
W. Railroad Ave off-ramp	W. Sierra Ave off ramp	1.32	2,538	2,523	99%	21.4	59	C	
W. Sierra Ave off ramp	SR 116 (West) off ramp	0.71	2,454	2,419	99%	19.7	62	C	
SR 116 (West) off ramp	SR 116 (West) on ramp	0.35	2,178	2,133	98%	18.2	59	C	
SR 116 (West) on ramp	Rohnert Exp off ramp	0.75	3,091	3,023	98%	25.0	59	C	
Rohnert Park Exp off ramp	Rohnert Park Exp EB on ramp	0.23	2,676	2,619	98%	22.0	60	C	
Rohnert Park Exp EB on ramp	Rohnert Park Exp WB on ramp	0.29	2,993	2,928	98%	24.9	54	C	
Rohnert Exp WB on ramp	Golf Course Dr off ramp	0.56	3,164	3,079	97%	24.9	60	C	
Southbound									
Golf Course Drive on ramp	Rohnert Park Exp off ramp	0.52	3,639	3,553	98%	26.6	60	D	
Rohnert Park Exp off ramp	Rohnert Park Exp on ramp	0.62	2,891	2,810	97%	22.9	61	C	
Rohnert Park Exp on ramp	SR 116 (West) off ramp	0.67	3,304	3,203	97%	25.6	60	C	
SR 116 (West) off ramp	SR 116 (West) on ramp	0.45	2,761	2,671	97%	22.7	59	C	
SR 116 (West) on ramp	W Sierra Ave on ramp	0.73	3,369	3,260	97%	27.5	58	D	
W Sierra Ave on ramp	Pepper Rd on ramp	2.49	3,658	3,489	95%	29.4	59	D	
Pepper Rd on ramp	Petaluma Blvd North off ramp	1.07	3,903	3,652	94%	30.3	59	D	
Petaluma Blvd North off ramp	Petaluma Blvd North WB on ramp	0.12	2,631	2,454	93%	22.3	55	C	
Petaluma Blvd North WB on ramp	Petaluma Blvd North EB on ramp	0.14	2,901	2,715	94%	22.5	53	C	
Petaluma Blvd North EB on ramp	East Washington St off-ramp	2.60	2,991	2,681	90%	58.9	39	F	
East Washington St off-ramp	East Washington St on-ramp	0.22	2,603	2,055	79%	128.0	8	F	
East Washington St on-ramp	SR 116 (East) off-ramp	0.72	3,381	2,783	82%	51.7	26	F	
SR 116 (East) off-ramp	SR 116 (East) on-ramp	0.17	2,542	2,111	83%	66.4	16	F	
SR 116 (East) on-ramp	Petaluma Blvd South off-ramp	0.84	3,212	2,737	85%	48.3	27	F	
Petaluma Blvd South off-ramp	Petaluma Blvd South on-ramp	0.33	3,103	2,566	83%	82.4	16	F	

Note: Legend

HCM 2000 LOS CRITERIA	
LOS	DENSITY (pc/mi/ln)
A	0 - 11
B	11 - 18
C	18 - 26
D	26 - 35
E	35 - 45
F	>45

Color Code	Density (pc/mi/ln)
	> 45.01
	35.01 - 45
	0 - 35

Source: Parsons, June 2004

Table H-2 - Existing LOS Conditions on Highway 101 between Petaluma Boulevard South and Rohnert Park Expressway—Evening Peak Hour

From Centerline	To Centerline	Approx. Distance (mi)	Existing Traffic Volume	CORSIM Served Volume	CORSIM Served %	Density (pc/mi/ln)	Speed (MPH)	Level-of-Service (HCM 2000 Criteria)	
Northbound									
Petaluma Blvd South off-ramp	Petaluma Blvd South on-ramp	0.39	2,793	2,776	99%	22.2	63	C	
Petaluma Blvd South on-ramp	SR 116 (East) off-ramp	0.97	2,973	2,953	99%	24.0	59	C	
SR 116 (East) off-ramp	SR 116 (East) on-ramp	0.22	2,495	2,439	98%	21.1	58	C	
SR 116 (East) on-ramp	East Washington St off-ramp	0.69	3,384	3,333	99%	26.4	59	D	
East Washington St off-ramp	East Washington St on-ramp	0.15	2,672	2,664	100%	23.1	58	C	
East Washington St on-ramp	Petaluma Blvd North off-ramp	2.67	3,169	3,171	100%	25.5	60	C	
Petaluma Blvd North off-ramp	Petaluma Blvd North EB on-ramp	0.14	2,923	2,932	100%	30.1	49	D	
Petaluma Blvd North EB on-ramp	Petaluma Blvd North WB on-ramp	0.12	3,261	3,265	100%	38.0	37	E	
Petaluma Blvd North WB on-ramp	W. Railroad Rd off-ramp	2.70	3,845	3,855	100%	37.2	52	E	
W. Railroad Ave off-ramp	W. Sierra Ave off ramp	1.32	3,719	3,660	98%	34.2	54	D	
W. Sierra Ave off ramp	SR 116 (West) off ramp	0.71	3,419	3,317	97%	27.6	60	D	
SR 116 (West) off ramp	SR 116 (West) on ramp	0.35	2,737	2,664	97%	23.6	57	C	
SR 116 (West) on ramp	Rohnert Exp off ramp	0.75	3,277	3,180	97%	26.7	58	D	
Rohnert Park Exp off ramp	Rohnert Park Exp EB on ramp	0.23	2,717	2,627	97%	23.0	57	C	
Rohnert Park Exp EB on ramp	Rohnert Park Exp WB on ramp	0.29	2,991	2,893	97%	26.3	50	D	
Rohnert Exp WB on ramp	Golf Course Dr off ramp	0.56	3,138	3,021	96%	24.2	61	C	
Southbound									
Golf Course Drive on ramp	Rohnert Park Exp off ramp	0.52	3,184	3,065	96%	22.8	61	C	
Rohnert Park Exp off ramp	Rohnert Park Exp on ramp	0.62	2,276	2,207	97%	17.8	62	B	
Rohnert Park Exp on ramp	SR 116 (West) off ramp	0.67	2,735	2,653	97%	21.0	61	C	
SR 116 (West) off ramp	SR 116 (West) on ramp	0.45	1,912	1,852	97%	15.1	62	B	
SR 116 (West) on ramp	W Sierra Ave on ramp	0.73	2,332	2,266	97%	18.1	61	C	
W Sierra Ave on ramp	Pepper Rd on ramp	2.49	2,465	2,373	96%	19.2	61	C	
Pepper Rd on ramp	Petaluma Blvd North off ramp	1.07	2,625	2,502	95%	20.2	61	C	
Petaluma Blvd North off ramp	Petaluma Blvd North WB on ramp	0.12	1,767	1,685	95%	14.1	60	B	
Petaluma Blvd North WB on ramp	Petaluma Blvd North EB on ramp	0.14	2,165	2,077	96%	16.4	56	B	
Petaluma Blvd North EB on ramp	East Washington St off-ramp	2.60	2,302	2,197	95%	17.5	62	B	
East Washington St off-ramp	East Washington St on-ramp	0.22	1,729	1,690	98%	13.8	61	B	
East Washington St on-ramp	SR 116 (East) off-ramp	0.72	2,096	2,040	97%	15.8	61	B	
SR 116 (East) off-ramp	SR 116 (East) on-ramp	0.17	1,331	1,314	99%	10.6	62	A	
SR 116 (East) on-ramp	Petaluma Blvd South off-ramp	0.84	1,721	1,695	98%	12.9	62	B	
Petaluma Blvd South off-ramp	Petaluma Blvd South on-ramp	0.33	1,541	1,532	99%	12.3	63	B	

Note: Legend

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A	0 - 11
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C	18 - 26
D	26 - 35
E	35 - 45
F	>45

Color Code	Density (pc/mi/ln)
	> 45.01
	35.01 - 45
	0 - 35

Source: Parsons, June 2004

Table H-3: Intersection Levels of Service–Existing Conditions

Intersection	Morning Peak Hour			Evening Peak Hour		
	LOS	Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C
1. Old Redwood Highway and 101 northbound	B	11.9	0.80	A	6.6	0.86
2. Petaluma Boulevard North and 101 southbound	B	19.7	0.94	B	15.7	0.83
3. Pepper Road and Stony Point Road	A	7.1	0.39	A	6.4	0.42
4. West Railroad Avenue and 101 northbound*— northbound approach	A	9.7		B	10.1	
5. West Sierra Avenue and 101 northbound*— northbound approach	B	9.8		B	10.4	
6. West Sierra Avenue and 101 southbound*— southbound approach	C	20.9		B	12.9	
7. SR 116 (West) and 101 northbound off-ramp	C	20.6	0.90	C	34.3	1.02
8. SR 116 (West) and 101 southbound	C	16.6	0.90	C	20.4	1.02
9. Commerce Boulevard and 101 northbound	A	8.3	0.48	B	10.3	0.69
10. Rohnert Park Expressway and 101 northbound	B	12.2	0.55	B	15.5	0.76
11. Rohnert Park Expressway and 101 southbound	B	15.7	0.82	D	39.7	1.24

*A V/C ratio is not calculated for unsignalized intersections. Instead, a level of service for each controlled movement is reported.

Source: Parsons, June 2004

Table H-4 - Year 2030 Mainline Operational Analysis - Measures of Effectiveness - Morning Peak Hour

HIGHWAY 101	Total Demand		% Served		Overall Speed		Density (pc/ln/mi)				Overall Travel Time		Overall Delay (sec)	
	No-Build	Build	No-Build	Build	No-Build	Build	Overall	LOS	Overall	LOS	No-Build	Build	No-Build	Build
<u>NORTHBOUND</u>	-		-		-		-				-		-	
Immediately south of Petaluma Blvd South to off-ramp	3,257	3,257	100%	100%	61.8	61.8	15.8	B	15.8	B	7	7	0.3	0.3
Petaluma Blvd South off-ramp to Petaluma Blvd South on-ramp	3,113	3,113	101%	101%	62.2	62.2	16.8	B	16.8	B	29	29	1.3	1.3
Petaluma Blvd South on-ramp to SR 116(East) off-ramp	3,338	3,338	100%	100%	59.0	59.0	18.4	C	18.4	C	89	89	6.9	6.9
SR 116(East) off-ramp to SR 116(East) on-ramp	2,963	2,963	101%	101%	57.9	57.9	17.3	B	17.3	B	103	103	8.4	8.4
SR 116(East) on-ramp to E. Washington St off-ramp	3,971	3,971	101%	101%	58.4	58.4	21.9	C	21.9	C	146	146	13.0	13.0
E. Washington St off-ramp to E. Washington St Loop on-ramp	3,575	3,575	100%	100%	61.0	61.0	19.5	C	19.5	C	154	154	13.5	13.5
E. Washington St Loop on-ramp to E. Washington St Direct on-ramp	4,089	4,089	100%	100%	55.1	55.1	21.3	C	21.3	C	161	161	14.5	14.5
E. Washington St on-ramp to Petaluma Blvd North off-ramp	4,657	4,657	93%	100%	27.2	59.1	54.6	F	26.0	C	588	318	296.7	28.9
Petaluma Blvd North off-ramp to Petaluma Blvd North EB on-ramp	3,853	3,853	84%	98%	13.9	59.4	117.3	F	21.3	C	624	327	325.0	29.6

Table H-4 - Year 2030 Mainline Operational Analysis - Measures of Effectiveness - Morning Peak Hour

HIGHWAY 101	Total Demand		% Served		Overall Speed		Density (pc/ln/mi)				Overall Travel Time		Overall Delay (sec)	
	No-Build	Build	No-Build	Build	No-Build	Build	Overall	LOS	Overall	LOS	No-Build	Build	No-Build	Build
Petaluma Blvd North EB on-ramp to Petaluma Blvd North WB on-ramp	4,317	4,317	85%	99%	15.7	54.3	101.0	F	23.6	C	651	334	345.2	30.8
Petaluma Blvd North WB on-ramp to W. Railroad Rd off-ramp	4,952	4,952	84%	98%	35.0	47.0	63.1	F	35.1	E	982	537	524.2	81.0
W. Railroad Ave off-ramp to W. Sierra Ave off-ramp	4,705	4,705	82%	97%	53.4	48.1	36.8	E	31.8	D	1,079	637	547.0	108.2
W. Sierra Ave off ramp to SR 116 (West) off-ramp	4,621	4,621	80%	92%	50.1	25.6	38.5	E	55.8	F	1,130	736	558.7	167.8
SR 116 (West) off ramp to SR 116 (West) on ramp	4,196	4,196	77%	89%	20.0	17.1	80.9	F	72.6	F	1,191	808	601.1	220.8
SR 116 (West) on ramp to Rohnert Park Exp off ramp	5,435	5,435	79%	87%	45.9	35.0	47.1	F	44.4	E	1,252	886	619.2	256.2
Rohnert Park Exp off ramp to Rohnert Park Exp EB on ramp	5,019	5,019	75%	84%	36.6	31.1	41.8	E	45.4	F	1,275	913	628.8	269.9
Rohnert Park Exp EB on ramp to Rohnert Park Exp WB on ramp	5,714	5,714	79%	85%	34.0	29.4	41.5	E	51.4	F	1,305	948	643.2	288.8
<u>SOUTHBOUND</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rohnert Park Exp off to Rohnert Park Exp WB on ramp	3,389	3,389	89%	93%	27.5	60.9	45.4	F	21.3	C	1,416	1,387	777.5	468.5

Table H-4 - Year 2030 Mainline Operational Analysis - Measures of Effectiveness - Morning Peak Hour

HIGHWAY 101	Total Demand		% Served		Overall Speed		Density (pc/ln/mi)				Overall Travel Time		Overall Delay (sec)	
	No-Build	Build	No-Build	Build	No-Build	Build	Overall	LOS	Overall	LOS	No-Build	Build	No-Build	Build
Rohnert Park Exp WB on ramp to Rohnert Park Exp EB on ramp	3,423	3,423	86%	93%	24.7	60.2	67.7	F	20.6	C	1,446	1,399	796.3	469.3
Rohnert Park Exp EB on ramp to SR 116 (West) off ramp	3,823	3,823	84%	93%	22.7	59.8	83.7	F	23.7	C	1,550	1,439	863.9	472.2
SR 116 (West) off ramp to SR 116 (West) on ramp	3,250	3,250	81%	94%	13.9	60.8	113.6	F	20.0	C	1,664	1,466	954.1	473.8
SR 116 (West) on ramp to W Sierra Ave on ramp	4,072	4,072	82%	94%	17.7	58.2	107.2	F	25.3	C	1,812	1,511	1,061.8	478.4
W Sierra Ave on ramp to Pepper Rd on ramp	4,511	4,511	80%	93%	41.4	58.0	55.8	F	28.0	D	2,105	1,694	1,191.2	495.5
Pepper Rd on ramp to Petaluma Blvd off ramp	4,724	4,724	75%	92%	48.3	56.7	43.3	E	29.5	D	2,193	1,762	1,219.7	503.9
Petaluma Blvd North off ramp to Petaluma Blvd North WB on ramp	2,923	2,923	74%	93%	62.1	61.0	21.6	C	18.4	C	2,200	1,769	1,221.0	504.3
Petaluma Blvd North WB on ramp to Petaluma Blvd North EB on ramp	3,185	3,185	76%	93%	59.2	58.4	22.0	C	19.0	C	2,209	1,778	1,222.2	505.1
Petaluma Blvd North EB on ramp to Washington St off-ramp	3,271	3,271	76%	92%	61.9	60.7	16.2	B	20.0	C	2,360	1,932	1,229.5	514.9
Washington St off-ramp to Washington St on-ramp	2,850	2,850	76%	90%	62.0	61.2	13.8	B	16.6	B	2,373	1,945	1,230.0	515.6

Table H-4 - Year 2030 Mainline Operational Analysis - Measures of Effectiveness - Morning Peak Hour

HIGHWAY 101	Total Demand		% Served		Overall Speed		Density (pc/ln/mi)				Overall Travel Time		Overall Delay (sec)	
	No-Build	Build	No-Build	Build	No-Build	Build	Overall	LOS	Overall	LOS	No-Build	Build	No-Build	Build
Washington St on-ramp to SR 116 (East) off-ramp	3,811	3,811	82%	92%	61.9	61.2	14.8	B	16.9	B	2,415	1,987	1,231.7	517.8
SR 116 (East) off-ramp to SR 116 (East) on-ramp	2,890	2,890	84%	92%	62.2	61.8	14.9	B	16.4	B	2,425	1,997	1,232.1	518.3
SR 116 (East) on-ramp to Petaluma Blvd South off-ramp	3,703	3,703	87%	93%	61.0	60.7	19.9	C	21.4	C	2,474	2,047	1,235.2	521.5
Petaluma Blvd South off-ramp to Petaluma Blvd South on-ramp	3,597	3,597	87%	93%	61.2	61.0	19.9	C	21.4	C	2,494	2,067	1,236.3	522.7
Petaluma Blvd South on-ramp to 101 SB	4,194	4,194	88%	94%	57.1	56.8	23.7	C	25.4	C	2,521	2,094	1,239.5	526.0

Source: Parsons and Dowling Inc., December 2004

Table H-5 - Year 2030 Mainline Operational Analysis - Measures of Effectiveness - Evening Peak

HIGHWAY 101	Total Demand		% Served		Overall Speed		Density (pc/ln/mi)				Overall Travel Time		Overall Delay (sec)	
	No-Build	Build	No-Build	Build	No-Build	Build	Overall	LOS	Overall	LOS	No-Build	Build	No-Build	Build
NORTHBOUND														
Immediately south of Petaluma Blvd South to off-ramp	5,025	5,025	100%	100%	61.0	61.0	24.7	C	24.7	C	7	7	0.4	0.4
Petaluma Blvd South off-ramp to Petaluma Blvd South on-ramp	4,418	4,418	100%	100%	61.4	61.4	24.0	C	24.0	C	30	30	1.6	1.6
Petaluma Blvd South on-ramp to SR 116(East) off-ramp	4,598	4,598	100%	100%	55.3	55.3	27.1	D	27.1	D	94	94	12.6	12.6
SR 116(East) off-ramp to SR 116(East) on-ramp	3,684	3,684	100%	100%	57.4	57.4	21.3	C	21.3	C	108	108	14.2	14.2
SR 116(East) on-ramp to E. Washington St off-ramp	4,573	4,573	100%	100%	57.9	57.9	25.2	C	25.2	C	152	152	19.0	19.0
E. Washington St off-ramp to E. Washington St Loop on-ramp	3,515	3,515	96%	102%	37.1	61.2	30.3	D	19.6	C	166	160	25.1	19.5
E. Washington St Loop on-ramp to E. Washington St Direct on-ramp	4,012	4,012	95%	102%	30.5	55.8	35.8	E	21.0	C	177	166	31.0	20.4
E. Washington St on-ramp to Petaluma Blvd North off-ramp	4,497	4,497	88%	101%	20.6	59.8	67.1	F	25.2	C	777	322	482.6	32.5
Petaluma Blvd North off-ramp to Petaluma Blvd North EB on-ramp	4,143	4,143	76%	102%	10.3	60.1	152.7	F	23.4	C	825	330	523.3	33.1

Table H-5 - Year 2030 Mainline Operational Analysis - Measures of Effectiveness - Evening Peak

HIGHWAY 101	Total Demand		% Served		Overall Speed		Density (pc/ln/mi)				Overall Travel Time		Overall Delay (sec)	
	No-Build	Build	No-Build	Build	No-Build	Build	Overall	LOS	Overall	LOS	No-Build	Build	No-Build	Build
	Petaluma Blvd North EB on-ramp to Petaluma Blvd North WB on-ramp	4,668	4,668	77%	101%	13.2	51.0	117.5	F	27.9	D	857	338	548.3
Petaluma Blvd North WB on-ramp to W. Railroad Rd off-ramp	5,465	5,465	78%	98%	35.7	39.9	62.8	F	45.0	E	1,177	595	715.6	139.2
W. Railroad Ave off-ramp to W. Sierra Ave off-ramp	5,157	5,157	74%	95%	54.5	53.6	35.6	E	30.9	D	1,269	689	734.0	160.6
W. Sierra Ave off-ramp to SR 116 (West) off-ramp	4,837	4,837	72%	94%	60.1	60.0	29.1	D	25.2	C	1,312	732	736.9	163.7
SR 116 (West) off-ramp to SR 116 (West) on ramp	3,987	3,987	71%	94%	60.8	60.6	23.4	C	20.6	C	1,332	752	738.1	165.0
SR 116 (West) on ramp to Rohnert Park Exp off ramp	4,776	4,776	74%	95%	57.9	57.9	30.0	D	25.6	C	1,379	799	743.0	170.0
Rohnert Park Exp off ramp to Rohnert Park Exp EB on ramp	4,216	4,216	76%	95%	60.9	60.5	21.1	C	22.1	C	1,393	813	743.8	170.9
Rohnert Park Exp EB on ramp to Rohnert Park Exp WB on ramp	4,902	4,902	78%	96%	59.2	56.7	20.1	C	25.7	C	1,410	831	745.2	173.1
SOUTHBOUND														
Rohnert Park Exp off to Rohnert Park Exp WB on ramp	4,380	4,380	87%	91%	41.7	60.8	30.4	D	21.8	C	1,481	1,470	577.5	566.2
Rohnert Park Exp WB on ramp to Rohnert Park Exp EB on ramp	4,520	4,520	85%	91%	30.8	59.3	56.9	F	21.8	C	1,505	1,483	590.3	567.3
Rohnert Park Exp EB on ramp to SR 116	4,979	4,979	83%	92%	26.3	59.3	75.7	F	25.0	C	1,595	1,523	642.9	570.6

Table H-5 - Year 2030 Mainline Operational Analysis - Measures of Effectiveness - Evening Peak

HIGHWAY 101	Total Demand		% Served		Overall Speed		Density (pc/ln/mi)				Overall Travel Time		Overall Delay (sec)	
	No-Build	Build	No-Build	Build	No-Build	Build	Overall	LOS	Overall	LOS	No-Build	Build	No-Build	Build
	(West) off ramp													
SR 116 (West) off ramp to SR 116 (West) on ramp	3,826	3,826	80%	91%	13.9	61.3	110.6	F	18.8	C	1,709	1,550	731.9	572.1
SR 116 (West) on ramp to W Sierra Ave on ramp	4,693	4,693	79%	92%	16.0	58.0	113.9	F	24.4	C	1,872	1,595	855.2	576.9
W Sierra Ave on ramp to Pepper Rd on ramp	5,201	5,201	79%	92%	55.3	58.1	37.9	E	27.2	D	2,069	1,778	887.7	593.9
Pepper Rd on ramp to Petaluma Blvd off ramp	5,416	5,416	78%	90%	58.2	59.0	35.8	E	27.3	D	2,137	1,844	896.2	599.9
Petaluma Blvd North off ramp to Petaluma Blvd North WB on ramp	4,160	4,160	79%	91%	60.8	60.3	27.0	D	20.9	C	2,144	1,851	897.2	600.4
Petaluma Blvd North WB on ramp to Petaluma Blvd North EB on ramp	4,558	4,558	81%	92%	54.7	56.4	29.6	D	22.6	C	2,153	1,860	898.9	601.5
Petaluma Blvd North EB on ramp to Washington St off-ramp	4,825	4,825	81%	91%	60.9	60.0	21.2	C	24.2	C	2,308	2,016	909.1	613.2
Washington St off-ramp to Washington St on-ramp	4,006	4,006	79%	90%	61.5	60.8	17.1	B	19.7	C	2,321	2,029	909.7	614.0
Washington St on-ramp to SR 116 (East) off-ramp	4,663	4,663	81%	91%	61.6	61.2	15.4	B	17.3	B	2,363	2,071	911.6	616.2
SR 116 (East) off-ramp to SR 116 (East)	3,545	3,545	81%	88%	61.8	61.6	15.6	B	17.0	B	2,373	2,081	912.1	616.7

Table H-5 - Year 2030 Mainline Operational Analysis - Measures of Effectiveness - Evening Peak

HIGHWAY 101	Total Demand		% Served		Overall Speed		Density (pc/ln/mi)				Overall Travel Time		Overall Delay (sec)	
	No-Build	Build	No-Build	Build	No-Build	Build	Overall	LOS	Overall	LOS	No-Build	Build	No-Build	Build
	on-ramp													
SR 116 (East) on-ramp to Petaluma Blvd South off-ramp	4,108	4,108	83%	89%	61.3	60.9	18.0	C	19.4	C	2,423	2,131	914.9	619.8
Petaluma Blvd South off-ramp to Petaluma Blvd South on-ramp	3,928	3,928	83%	88%	61.5	61.0	17.7	B	19.0	C	2,442	2,150	915.9	620.8
Petaluma Blvd South on-ramp to 101 SB	4,289	4,289	84%	89%	59.8	59.0	19.3	C	20.6	C	2,468	2,177	917.8	623.0

Source: Parsons and Dowling Inc., December 2004

**Table H-6 - Year 2030 Ramp Terminals and Adjacent Intersection Analysis –
No-Build Alternative**

Intersection	Morning Peak		Evening Peak	
	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)
Petaluma Blvd North and 101 NB Off Ramp	C	23.3	B	11.1
Petaluma Blvd North and 101 SB Off Ramp	E	57.9	C	26.2
Pepper Rd and Stony Point	B	16.3	C	25.3
Railroad Ave and 101 NB Off Ramp (SC - Northbound)	B	14.4	C	15.7
W Sierra Ave and 101 NB Off Ramp (SC - Northbound)	B	10.1	B	12.3
W Sierra Ave and 101 SB On Ramp (SC - Southbound)	F	52.8	F	93.6
SR 116 West and 101 NB Off Ramp	B	10.8	C	30.7
SR 116 West and Old Redwood Highway	N/A	N/A	N/A	N/A
SR 116 West and 101 SB Ramps	C	30.7	F	83.5
SR 116 West and Redwood Dr	N/A	N/A	N/A	N/A
Old Redwood Highway and Commerce Blvd	F	N/A *	F	741.2
Rohnert Park Expressway and 101 NB Ramps	B	17.6	B	14.4
Rohnert Park Expressway and 101 SB Ramps	C	33.3	C	25.5

* Delay computations exceeded limit.
SC: Stop-Controlled

Source: Parsons and Dowling Inc., December 2004

**Table H-7 - Year 2030 Ramp Terminals and Adjacent Intersection Analysis –
Build Alternative**

Intersection	Morning Peak		Evening Peak	
	LOS	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)
Petaluma Blvd North and 101 NB Off Ramp	B	16.7	A	4.3
Petaluma Blvd North and 101 SB Off Ramp	C	22.8	B	19.3
Pepper Rd and Stony Point	B	16.3	C	25.3
Railroad Ave and 101 NB Off Ramp (SC - Northbound)	B	14.2	C	16.8
W Sierra Ave and 101 NB Off Ramp (SC - Northbound)	C	15.6	B	12.9
W Sierra Ave and 101 SB On Ramp	B	13.1	B	12.3
SR 116 West and 101 NB Off Ramp *	B	13.1	B	13.9
SR 116 West and Old Redwood Highway *	D	36.1	D	37.2
SR 116 West and 101 SB Ramps *	C	27.3	C	26.6
SR 116 West and Redwood Dr *	C	20.0	C	26.1
Old Redwood Highway and Commerce Blvd *	C	21.5	B	18.4
Rohnert Park Expressway and 101 NB Ramps	B	14.9	B	11.8
Rohnert Park Expressway and 101 SB Ramps	C	27.8	C	26.3
* Results from CORSIM analysis. SC: Stop-Controlled				
Source: Parsons and Dowling Inc., December 2004				