



## Appendix F – Synchro Model Outputs for Existing and Proposed Conditions

## Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	18.6	44.7	0.12	9.6	D
Dewing Ave.	IV	25	22.5	21.2	43.7	0.10	8.4	E
Lafayette Circles We	IV	25	16.4	20.0	36.4	0.06	6.1	F
Lafayette Circles Ea	IV	25	23.1	27.6	50.7	0.13	9.1	D
Moraga Rd.	IV	25	19.5	18.2	37.7	0.09	8.5	E
1st St.	IV	25	23.4	14.8	38.2	0.13	12.3	D
Total	IV		131.0	120.4	251.4	0.63	9.0	D

## Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Road	IV	25	23.4	32.5	55.9	0.13	8.4	E
Oak Hill Rd.	IV	25	19.5	5.5	25.0	0.09	12.8	D
Lafayette Circles We	IV	25	23.1	14.7	37.8	0.13	12.2	D
Blanche In	IV	25	16.4	19.6	36.0	0.06	6.2	F
Happy Valley Rd.	IV	25	22.5	30.5	53.0	0.10	6.9	F
Dolores Dr.	IV	25	26.1	20.5	46.6	0.12	9.2	D
Total	IV		131.0	123.3	254.3	0.63	8.9	E

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.66	0.66	0.66
Stops (#)	2184	2848	5032
Average Speed (mph)	9	9	9
Total Travel Time (hr)	41	48	89
Distance Traveled (mi)	355	459	814
Fuel Consumed (gal)	44	54	98
Fuel Economy (mpg)	8.1	8.6	8.3
CO Emissions (kg)	3.07	3.75	6.82
NOx Emissions (kg)	0.60	0.73	1.33
VOC Emissions (kg)	0.71	0.87	1.58
Unserved Vehicles (#)	0	0	0
Performance Index	32.8	38.0	70.8

Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Rd.	IV	25	19.5	26.5	46.0	0.09	7.0	F
1st St.	IV	25	23.4	13.0	36.4	0.13	12.9	D
Total	IV		42.9	39.5	82.4	0.22	9.6	D

Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Road	IV	25	23.4	30.9	54.3	0.13	8.6	E
Oak Hill Rd.	IV	25	19.5	10.2	29.7	0.09	10.8	D
Total	IV		42.9	41.1	84.0	0.22	9.4	D

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.72	0.63	0.68
Stops (#)	1499	1065	2564
Average Speed (mph)	9	9	9
Total Travel Time (hr)	27	20	47
Distance Traveled (mi)	231	190	422
Fuel Consumed (gal)	29	22	51
Fuel Economy (mpg)	7.9	8.7	8.3
CO Emissions (kg)	2.04	1.53	3.57
NOx Emissions (kg)	0.40	0.30	0.70
VOC Emissions (kg)	0.47	0.36	0.83
Unserved Vehicles (#)	0	0	0
Performance Index	21.9	15.7	37.6

## Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	22.3	48.4	0.12	8.8	E
Dewing Ave.	IV	25	22.5	24.6	47.1	0.10	7.8	E
Lafayette Circles We	IV	25	16.4	22.0	38.4	0.06	5.8	F
Lafayette Circles Ea	IV	25	23.1	35.4	58.5	0.13	7.9	E
Moraga Rd.	IV	25	19.5	30.2	49.7	0.09	6.4	F
1st St.	IV	25	23.4	11.7	35.1	0.13	13.3	C
2nd St.	IV	35	21.2	11.8	33.0	0.15	16.5	C
Almanor Ln.	IV	35	25.1	14.8	39.9	0.19	17.4	C
Total	IV		177.3	172.8	350.1	0.97	10.0	D

## Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
2nd St.	IV	35	25.1	11.4	36.5	0.19	19.1	B
1st St.	IV	25	27.2	33.9	61.1	0.15	8.9	E
Moraga Road	IV	25	23.4	33.7	57.1	0.13	8.2	E
Oak Hill Rd.	IV	25	19.5	10.5	30.0	0.09	10.7	D
Lafayette Circles We	IV	25	23.1	13.8	36.9	0.13	12.5	D
Blanche In	IV	25	16.4	18.0	34.4	0.06	6.5	F
Happy Valley Rd.	IV	25	22.5	32.4	54.9	0.10	6.7	F
Dolores Dr.	IV	25	26.1	21.9	48.0	0.12	8.9	E
Total	IV		183.3	175.6	358.9	0.97	9.8	D

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.70	0.65	0.68
Stops (#)	4719	3386	8105
Average Speed (mph)	10	10	10
Total Travel Time (hr)	81	60	141
Distance Traveled (mi)	821	623	1443
Fuel Consumed (gal)	94	68	162
Fuel Economy (mpg)	8.7	9.1	8.9
CO Emissions (kg)	6.57	4.77	11.34
NOx Emissions (kg)	1.28	0.93	2.21
VOC Emissions (kg)	1.52	1.10	2.63
Unserved Vehicles (#)	0	0	0
Performance Index	64.2	45.9	110.1

## Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	19.8	45.9	0.12	9.3	D
Dewing Ave.	IV	25	22.5	27.7	50.2	0.10	7.3	E
Lafayette Circles We	IV	25	16.4	26.5	42.9	0.06	5.2	F
Lafayette Circles Ea	IV	25	23.1	31.6	54.7	0.13	8.5	E
Moraga Rd.	IV	25	19.5	23.8	43.3	0.09	7.4	E
1st St.	IV	25	23.4	11.2	34.6	0.13	13.5	C
2nd St.	IV	35	21.2	10.1	31.3	0.15	17.4	C
Almanor Ln.	IV	35	25.1	15.7	40.8	0.19	17.0	C
Total	IV		177.3	166.4	343.7	0.97	10.2	D

## Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
2nd St.	IV	35	25.1	9.6	34.7	0.19	20.0	B
1st St.	IV	25	27.2	33.6	60.8	0.15	8.9	E
Moraga Road	IV	25	23.4	37.7	61.1	0.13	7.7	E
Oak Hill Rd.	IV	25	19.5	8.0	27.5	0.09	11.6	D
Lafayette Circles We	IV	25	23.1	15.8	38.9	0.13	11.9	D
Blanche In	IV	25	16.4	21.6	38.0	0.06	5.9	F
Happy Valley Rd.	IV	25	22.5	29.7	52.2	0.10	7.0	E
Dolores Dr.	IV	25	26.1	23.4	49.5	0.12	8.6	E
Total	IV		183.3	179.4	362.7	0.97	9.7	D



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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.69	0.68	0.69
Stops (#)	5151	3469	8620
Average Speed (mph)	10	10	10
Total Travel Time (hr)	88	62	150
Distance Traveled (mi)	903	623	1525
Fuel Consumed (gal)	103	69	172
Fuel Economy (mpg)	8.8	9.0	8.9
CO Emissions (kg)	7.18	4.85	12.03
NOx Emissions (kg)	1.40	0.94	2.34
VOC Emissions (kg)	1.66	1.12	2.79
Unserved Vehicles (#)	0	0	0
Performance Index	69.7	47.5	117.2

## Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	23.5	49.6	0.12	8.6	E
Dewing Ave.	IV	25	22.5	26.4	48.9	0.10	7.5	E
Lafayette Circles We	IV	25	16.4	22.9	39.3	0.06	5.7	F
Lafayette Circles Ea	IV	25	23.1	23.6	46.7	0.13	9.9	D
Moraga Rd.	IV	25	19.5	34.8	54.3	0.09	5.9	F
1st St.	IV	25	23.4	11.2	34.6	0.13	13.5	C
Total	IV		131.0	142.4	273.4	0.63	8.3	E

## Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Road	IV	25	23.4	31.4	54.8	0.13	8.5	E
Oak Hill Rd.	IV	25	19.5	14.9	34.4	0.09	9.3	D
Lafayette Circles We	IV	25	23.1	15.7	38.8	0.13	11.9	D
Blanche In	IV	25	16.4	21.9	38.3	0.06	5.8	F
Happy Valley Rd.	IV	25	22.5	25.3	47.8	0.10	7.7	E
Dolores Dr.	IV	25	26.1	15.1	41.2	0.12	10.4	D
Total	IV		131.0	124.3	255.3	0.63	8.9	E

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.69	0.68	0.69
Stops (#)	3357	2870	6227
Average Speed (mph)	9	10	9
Total Travel Time (hr)	60	47	108
Distance Traveled (mi)	523	453	976
Fuel Consumed (gal)	65	53	118
Fuel Economy (mpg)	8.0	8.6	8.3
CO Emissions (kg)	4.56	3.69	8.25
NOx Emissions (kg)	0.89	0.72	1.61
VOC Emissions (kg)	1.06	0.86	1.91
Unserved Vehicles (#)	0	0	0
Performance Index	48.7	37.3	86.0

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**Arterial Level of Service: EB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	15.5	41.6	0.12	10.3	D
Dewing Ave.	IV	25	22.5	2.8	25.3	0.10	14.5	C
Lafayette Circles We	IV	25	16.4	3.0	19.4	0.06	11.5	D
Lafayette Circles Ea	IV	25	23.1	19.3	42.4	0.13	10.9	D
Moraga Rd.	IV	25	19.5	36.5	56.0	0.09	5.7	F
1st St.	IV	25	23.4	6.1	29.5	0.13	15.9	C
<b>Total</b>	<b>IV</b>		<b>131.0</b>	<b>83.2</b>	<b>214.2</b>	<b>0.63</b>	<b>10.6</b>	<b>D</b>

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**Arterial Level of Service: WB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Road	IV	25	23.4	32.9	56.3	0.13	8.3	E
Oak Hill Rd.	IV	25	19.5	5.0	24.5	0.09	13.1	C
Lafayette Circles We	IV	25	23.1	6.5	29.6	0.13	15.6	C
Blanche In	IV	25	16.4	4.3	20.7	0.06	10.8	D
Happy Valley Rd.	IV	25	22.5	18.2	40.7	0.10	9.0	D
Dolores Dr.	IV	25	26.1	20.1	46.2	0.12	9.3	D
<b>Total</b>	<b>IV</b>		<b>131.0</b>	<b>87.0</b>	<b>218.0</b>	<b>0.63</b>	<b>10.4</b>	<b>D</b>

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.53	0.56	0.55
Stops (#)	1729	2435	4164
Average Speed (mph)	11	11	11
Total Travel Time (hr)	31	41	72
Distance Traveled (mi)	355	459	814
Fuel Consumed (gal)	35	47	82
Fuel Economy (mpg)	10.1	9.9	10.0
CO Emissions (kg)	2.45	3.25	5.70
NOx Emissions (kg)	0.48	0.63	1.11
VOC Emissions (kg)	0.57	0.75	1.32
Unserved Vehicles (#)	0	0	0
Performance Index	21.8	29.3	51.2

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**Arterial Level of Service: EB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Rd.	IV	25	19.5	26.2	45.7	0.09	7.0	F
1st St.	IV	25	23.4	11.8	35.2	0.13	13.3	C
Total	IV		42.9	38.0	80.9	0.22	9.7	D

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**Arterial Level of Service: WB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Road	IV	25	23.4	26.2	49.6	0.13	9.4	D
Oak Hill Rd.	IV	25	19.5	4.2	23.7	0.09	13.5	C
Total	IV		42.9	30.4	73.3	0.22	10.8	D

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.66	0.63	0.65
Stops (#)	1367	1060	2427
Average Speed (mph)	11	10	11
Total Travel Time (hr)	22	19	40
Distance Traveled (mi)	231	190	422
Fuel Consumed (gal)	25	21	45
Fuel Economy (mpg)	9.4	9.2	9.3
CO Emissions (kg)	1.72	1.44	3.17
NOx Emissions (kg)	0.34	0.28	0.62
VOC Emissions (kg)	0.40	0.33	0.73
Unserved Vehicles (#)	0	0	0
Performance Index	16.1	13.9	30.0

## Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	20.8	46.9	0.12	9.1	D
Dewing Ave.	IV	25	22.5	3.7	26.2	0.10	14.0	C
Lafayette Circles We	IV	25	16.4	4.1	20.5	0.06	10.9	D
Lafayette Circles Ea	IV	25	23.1	23.9	47.0	0.13	9.9	D
Moraga Rd.	IV	25	19.5	30.0	49.5	0.09	6.5	F
1st St.	IV	25	23.4	13.6	37.0	0.13	12.7	D
2nd St.	IV	35	21.2	7.9	29.1	0.15	18.7	C
Almanor Ln.	IV	35	25.1	40.6	65.7	0.19	10.6	D
Total	IV		177.3	144.6	321.9	0.97	10.9	D

## Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
2nd St.	IV	35	25.1	10.4	35.5	0.19	19.6	B
1st St.	IV	25	27.2	46.7	73.9	0.15	7.4	E
Moraga Road	IV	25	23.4	21.9	45.3	0.13	10.3	D
Oak Hill Rd.	IV	25	19.5	5.3	24.8	0.09	12.9	D
Lafayette Circles We	IV	25	23.1	6.9	30.0	0.13	15.4	C
Blanche In	IV	25	16.4	5.5	21.9	0.06	10.2	D
Happy Valley Rd.	IV	25	22.5	22.1	44.6	0.10	8.2	E
Dolores Dr.	IV	25	26.1	24.3	50.4	0.12	8.5	E
Total	IV		183.3	143.1	326.4	0.97	10.7	D



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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.60	0.60	0.60
Stops (#)	4057	3146	7203
Average Speed (mph)	11	11	11
Total Travel Time (hr)	73	59	132
Distance Traveled (mi)	821	623	1443
Fuel Consumed (gal)	86	66	152
Fuel Economy (mpg)	9.5	9.4	9.5
CO Emissions (kg)	6.02	4.61	10.63
NOx Emissions (kg)	1.17	0.90	2.07
VOC Emissions (kg)	1.40	1.07	2.46
Unserved Vehicles (#)	0	0	0
Performance Index	54.5	43.6	98.2

## Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	16.8	42.9	0.12	10.0	D
Dewing Ave.	IV	25	22.5	2.9	25.4	0.10	14.5	C
Lafayette Circles We	IV	25	16.4	5.8	22.2	0.06	10.0	D
Lafayette Circles Ea	IV	25	23.1	32.9	56.0	0.13	8.3	E
Moraga Rd.	IV	25	19.5	21.3	40.8	0.09	7.8	E
1st St.	IV	25	23.4	9.7	33.1	0.13	14.2	C
2nd St.	IV	35	21.2	3.7	24.9	0.15	21.9	B
Almanor Ln.	IV	35	25.1	64.1	89.2	0.19	7.8	E
Total	IV		177.3	157.2	334.5	0.97	10.5	D

## Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
2nd St.	IV	35	25.1	12.4	37.5	0.19	18.5	C
1st St.	IV	25	27.2	15.0	42.2	0.15	12.9	D
Moraga Road	IV	25	23.4	25.4	48.8	0.13	9.6	D
Oak Hill Rd.	IV	25	19.5	7.4	26.9	0.09	11.9	D
Lafayette Circles We	IV	25	23.1	7.2	30.3	0.13	15.3	C
Blanche In	IV	25	16.4	6.6	23.0	0.06	9.7	D
Happy Valley Rd.	IV	25	22.5	20.9	43.4	0.10	8.5	E
Dolores Dr.	IV	25	26.1	32.2	58.3	0.12	7.3	E
Total	IV		183.3	127.1	310.4	0.97	11.3	D

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.58	0.63	0.60
Stops (#)	4315	3213	7528
Average Speed (mph)	11	11	11
Total Travel Time (hr)	82	55	137
Distance Traveled (mi)	903	623	1525
Fuel Consumed (gal)	95	64	159
Fuel Economy (mpg)	9.5	9.8	9.6
CO Emissions (kg)	6.67	4.44	11.11
NOx Emissions (kg)	1.30	0.86	2.16
VOC Emissions (kg)	1.54	1.03	2.57
Unserved Vehicles (#)	0	0	0
Performance Index	61.5	39.7	101.2

## Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	24.9	51.0	0.12	8.4	E
Dewing Ave.	IV	25	22.5	4.4	26.9	0.10	13.7	C
Lafayette Circles We	IV	25	16.4	4.7	21.1	0.06	10.6	D
Lafayette Circles Ea	IV	25	23.1	19.8	42.9	0.13	10.8	D
Moraga Rd.	IV	25	19.5	26.1	45.6	0.09	7.0	E
1st St.	IV	25	23.4	12.8	36.2	0.13	12.9	D
Total	IV		131.0	92.7	223.7	0.63	10.1	D

## Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Road	IV	25	23.4	22.1	45.5	0.13	10.3	D
Oak Hill Rd.	IV	25	19.5	2.2	21.7	0.09	14.7	C
Lafayette Circles We	IV	25	23.1	9.2	32.3	0.13	14.3	C
Blanche In	IV	25	16.4	7.5	23.9	0.06	9.3	D
Happy Valley Rd.	IV	25	22.5	13.5	36.0	0.10	10.2	D
Dolores Dr.	IV	25	26.1	20.6	46.7	0.12	9.2	D
Total	IV		131.0	75.1	206.1	0.63	11.0	D

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.54	0.54	0.54
Stops (#)	2659	2263	4922
Average Speed (mph)	10	11	11
Total Travel Time (hr)	50	42	92
Distance Traveled (mi)	523	453	976
Fuel Consumed (gal)	55	47	102
Fuel Economy (mpg)	9.5	9.7	9.6
CO Emissions (kg)	3.85	3.27	7.11
NOx Emissions (kg)	0.75	0.64	1.38
VOC Emissions (kg)	0.89	0.76	1.65
Unserved Vehicles (#)	0	0	0
Performance Index	36.5	30.4	66.9

Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	18.6	44.7	0.12	9.6	D
Dewing Ave.	IV	25	22.5	21.2	43.7	0.10	8.4	E
Lafayette Circles We	IV	25	16.4	20.0	36.4	0.06	6.1	F
Total	IV		65.0	59.8	124.8	0.28	8.2	E

Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche In	IV	25	16.4	19.6	36.0	0.06	6.2	F
Happy Valley Rd.	IV	25	22.5	30.5	53.0	0.10	6.9	F
Dolores Dr.	IV	25	26.1	20.5	46.6	0.12	9.2	D
Total	IV		65.0	70.6	135.6	0.28	7.5	E

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.65	0.69	0.67
Stops (#)	864	1441	2305
Average Speed (mph)	9	9	9
Total Travel Time (hr)	15	23	38
Distance Traveled (mi)	130	200	329
Fuel Consumed (gal)	16	25	42
Fuel Economy (mpg)	7.9	7.9	7.9
CO Emissions (kg)	1.15	1.77	2.92
NOx Emissions (kg)	0.22	0.34	0.57
VOC Emissions (kg)	0.27	0.41	0.68
Unserved Vehicles (#)	0	0	0
Performance Index	12.4	18.7	31.1

Arterial Level of Service

Existing Conditions

Timing Plan: Midday Peak

Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	22.4	48.5	0.12	8.8	E
Dewing Ave.	IV	25	22.5	28.7	51.2	0.10	7.2	E
Lafayette Circles We	IV	25	16.4	21.9	38.3	0.06	5.8	F
Total	IV		65.0	73.0	138.0	0.28	7.4	E

Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche In	IV	25	16.4	24.4	40.8	0.06	5.5	F
Happy Valley Rd.	IV	25	22.5	27.5	50.0	0.10	7.3	E
Dolores Dr.	IV	25	26.1	22.8	48.9	0.12	8.7	E
Total	IV		65.0	74.7	139.7	0.28	7.3	E



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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.72	0.72	0.72
Stops (#)	1426	1269	2695
Average Speed (mph)	8	8	8
Total Travel Time (hr)	23	20	43
Distance Traveled (mi)	191	164	355
Fuel Consumed (gal)	25	22	47
Fuel Economy (mpg)	7.6	7.4	7.5
CO Emissions (kg)	1.75	1.55	3.30
NOx Emissions (kg)	0.34	0.30	0.64
VOC Emissions (kg)	0.41	0.36	0.76
Unserved Vehicles (#)	0	0	0
Performance Index	19.0	17.1	36.0

Arterial Level of Service

Existing Conditions

Timing Plan: School Peak

Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	22.3	48.4	0.12	8.8	E
Dewing Ave.	IV	25	22.5	24.6	47.1	0.10	7.8	E
Lafayette Circles We	IV	25	16.4	22.0	38.4	0.06	5.8	F
Total	IV		65.0	68.9	133.9	0.28	7.6	E

Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche In	IV	25	16.4	18.0	34.4	0.06	6.5	F
Happy Valley Rd.	IV	25	22.5	32.4	54.9	0.10	6.7	F
Dolores Dr.	IV	25	26.1	21.9	48.0	0.12	8.9	E
Total	IV		65.0	72.3	137.3	0.28	7.4	E

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.69	0.70	0.70
Stops (#)	1422	1248	2670
Average Speed (mph)	8	8	8
Total Travel Time (hr)	23	20	43
Distance Traveled (mi)	196	167	363
Fuel Consumed (gal)	25	22	47
Fuel Economy (mpg)	7.7	7.6	7.6
CO Emissions (kg)	1.77	1.54	3.32
NOx Emissions (kg)	0.35	0.30	0.65
VOC Emissions (kg)	0.41	0.36	0.77
Unserved Vehicles (#)	0	0	0
Performance Index	19.1	16.8	35.9

Arterial Level of Service

Existing Conditions

Timing Plan: P.M. Peak

Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	19.8	45.9	0.12	9.3	D
Dewing Ave.	IV	25	22.5	27.7	50.2	0.10	7.3	E
Lafayette Circles We	IV	25	16.4	26.5	42.9	0.06	5.2	F
Total	IV		65.0	74.0	139.0	0.28	7.3	E

Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche In	IV	25	16.4	21.6	38.0	0.06	5.9	F
Happy Valley Rd.	IV	25	22.5	29.7	52.2	0.10	7.0	E
Dolores Dr.	IV	25	26.1	23.4	49.5	0.12	8.6	E
Total	IV		65.0	74.7	139.7	0.28	7.3	E

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.71	0.71	0.71
Stops (#)	1779	1325	3104
Average Speed (mph)	8	9	8
Total Travel Time (hr)	30	22	52
Distance Traveled (mi)	241	188	428
Fuel Consumed (gal)	33	24	57
Fuel Economy (mpg)	7.3	7.9	7.5
CO Emissions (kg)	2.30	1.67	3.97
NOx Emissions (kg)	0.45	0.33	0.77
VOC Emissions (kg)	0.53	0.39	0.92
Unserved Vehicles (#)	0	0	0
Performance Index	25.7	17.8	43.5

Arterial Level of Service

Existing Conditions  
Timing Plan: Weekend MD Peak

Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	23.5	49.6	0.12	8.6	E
Dewing Ave.	IV	25	22.5	26.4	48.9	0.10	7.5	E
Lafayette Circles We	IV	25	16.4	22.9	39.3	0.06	5.7	F
Total	IV		65.0	72.8	137.8	0.28	7.4	E

Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche Ln	IV	25	16.4	21.9	38.3	0.06	5.8	F
Happy Valley Rd.	IV	25	22.5	25.3	47.8	0.10	7.7	E
Dolores Dr.	IV	25	26.1	15.1	41.2	0.12	10.4	D
Total	IV		65.0	62.3	127.3	0.28	8.0	E

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.71	0.67	0.70
Stops (#)	1514	1105	2619
Average Speed (mph)	8	9	9
Total Travel Time (hr)	24	17	41
Distance Traveled (mi)	199	151	351
Fuel Consumed (gal)	26	19	46
Fuel Economy (mpg)	7.6	7.8	7.7
CO Emissions (kg)	1.84	1.35	3.19
NOx Emissions (kg)	0.36	0.26	0.62
VOC Emissions (kg)	0.43	0.31	0.74
Unserviced Vehicles (#)	0	0	0
Performance Index	19.9	14.4	34.3

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**Arterial Level of Service: EB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	15.5	41.6	0.12	10.3	D
Dewing Ave.	IV	25	22.5	2.8	25.3	0.10	14.5	C
Lafayette Circles We	IV	25	16.4	3.0	19.4	0.06	11.5	D
Total	IV		65.0	21.3	86.3	0.28	11.8	D

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**Arterial Level of Service: WB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche In.	IV	25	16.4	4.3	20.7	0.06	10.8	D
Happy Valley Rd.	IV	25	22.5	18.2	40.7	0.10	9.0	D
Dolores Dr.	IV	25	26.1	20.1	46.2	0.12	9.3	D
Total	IV		65.0	42.6	107.6	0.28	9.5	D



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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.44	0.58	0.52
Stops (#)	583	1210	1793
Average Speed (mph)	12	11	11
Total Travel Time (hr)	11	19	30
Distance Traveled (mi)	130	200	329
Fuel Consumed (gal)	12	21	34
Fuel Economy (mpg)	10.5	9.3	9.7
CO Emissions (kg)	0.86	1.50	2.37
NOx Emissions (kg)	0.17	0.29	0.46
VOC Emissions (kg)	0.20	0.35	0.55
Unserved Vehicles (#)	0	0	0
Performance Index	7.5	14.1	21.6

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**Arterial Level of Service: EB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	22.1	48.2	0.12	8.9	E
Dewing Ave.	IV	25	22.5	18.6	41.1	0.10	8.9	E
Lafayette Circles We	IV	25	16.4	21.8	38.2	0.06	5.8	F
Total	IV		65.0	62.5	127.5	0.28	8.0	E

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**Arterial Level of Service: WB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche In	IV	25	16.4	15.0	31.4	0.06	7.1	E
Happy Valley Rd.	IV	25	22.5	28.6	51.1	0.10	7.2	E
Dolores Dr.	IV	25	26.1	26.3	52.4	0.12	8.2	E
Total	IV		65.0	69.9	134.9	0.28	7.5	E

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.70	0.72	0.71
Stops (#)	1399	1262	2661
Average Speed (mph)	9	9	9
Total Travel Time (hr)	21	19	40
Distance Traveled (mi)	191	164	355
Fuel Consumed (gal)	23	21	45
Fuel Economy (mpg)	8.1	7.7	7.9
CO Emissions (kg)	1.64	1.49	3.13
NOx Emissions (kg)	0.32	0.29	0.61
VOC Emissions (kg)	0.38	0.35	0.72
Unserved Vehicles (#)	0	0	0
Performance Index	16.8	16.0	32.7

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**Arterial Level of Service: EB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	20.8	46.9	0.12	9.1	D
Dewing Ave.	IV	25	22.5	3.7	26.2	0.10	14.0	C
Lafayette Circles We	IV	25	16.4	4.1	20.5	0.06	10.9	D
Total	IV		65.0	28.6	93.6	0.28	10.9	D

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**Arterial Level of Service: WB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche In	IV	25	16.4	5.5	21.9	0.06	10.2	D
Happy Valley Rd.	IV	25	22.5	22.1	44.6	0.10	8.2	E
Dolores Dr.	IV	25	26.1	24.3	50.4	0.12	8.5	E
Total	IV		65.0	51.9	116.9	0.28	8.7	E

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.39	0.61	0.49
Stops (#)	797	1088	1885
Average Speed (mph)	12	10	11
Total Travel Time (hr)	16	17	34
Distance Traveled (mi)	196	167	363
Fuel Consumed (gal)	18	19	38
Fuel Economy (mpg)	10.8	8.6	9.7
CO Emissions (kg)	1.27	1.36	2.63
NOx Emissions (kg)	0.25	0.26	0.51
VOC Emissions (kg)	0.29	0.31	0.61
Unserved Vehicles (#)	0	0	0
Performance Index	10.9	13.5	24.4

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**Arterial Level of Service: EB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	16.8	42.9	0.12	10.0	D
Dewing Ave.	IV	25	22.5	2.9	25.4	0.10	14.5	C
Lafayette Circles We	IV	25	16.4	5.8	22.2	0.06	10.0	D
Total	IV		65.0	25.5	90.5	0.28	11.2	D

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**Arterial Level of Service: WB Mt. Diablo Blvd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche In	IV	25	16.4	6.6	23.0	0.06	9.7	D
Happy Valley Rd.	IV	25	22.5	20.9	43.4	0.10	8.5	E
Dolores Dr.	IV	25	26.1	32.2	58.3	0.12	7.3	E
Total	IV		65.0	59.7	124.7	0.28	8.2	E

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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.40	0.66	0.51
Stops (#)	1011	1233	2244
Average Speed (mph)	12	9	11
Total Travel Time (hr)	20	21	40
Distance Traveled (mi)	241	188	428
Fuel Consumed (gal)	22	23	45
Fuel Economy (mpg)	11.0	8.2	9.5
CO Emissions (kg)	1.54	1.60	3.14
NOx Emissions (kg)	0.30	0.31	0.61
VOC Emissions (kg)	0.36	0.37	0.73
Unserved Vehicles (#)	0	0	0
Performance Index	12.7	16.7	29.5

Arterial Level of Service: EB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Happy Valley Rd.	IV	25	26.1	24.9	51.0	0.12	8.4	E
Dewing Ave.	IV	25	22.5	4.4	26.9	0.10	13.7	C
Lafayette Circles We	IV	25	16.4	4.7	21.1	0.06	10.6	D
Total	IV		65.0	34.0	99.0	0.28	10.3	D

Arterial Level of Service: WB Mt. Diablo Blvd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Blanche In	IV	25	16.4	7.5	23.9	0.06	9.3	D
Happy Valley Rd.	IV	25	22.5	13.5	36.0	0.10	10.2	D
Dolores Dr.	IV	25	26.1	20.6	46.7	0.12	9.2	D
Total	IV		65.0	41.6	106.6	0.28	9.5	D



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**Mt. Diablo Blvd.**

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Direction	EB	WB	All
Stops / Veh	0.38	0.52	0.44
Stops (#)	811	860	1671
Average Speed (mph)	11	10	11
Total Travel Time (hr)	18	15	32
Distance Traveled (mi)	199	151	351
Fuel Consumed (gal)	19	17	36
Fuel Economy (mpg)	10.4	9.1	9.8
CO Emissions (kg)	1.34	1.16	2.50
NOx Emissions (kg)	0.26	0.23	0.49
VOC Emissions (kg)	0.31	0.27	0.58
Unserved Vehicles (#)	0	0	0
Performance Index	11.9	11.2	23.1

## Arterial Level of Service: NB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	30.6	60.2	0.16	9.8	D
Brook St.	IV	20	8.9	5.8	14.7	0.03	8.2	E
Moraga Blvd.	IV	20	25.1	8.4	33.5	0.11	12.3	D
Mt. Diablo Bl.	IV	30	20.3	59.3	79.6	0.14	6.1	F
Total	IV		83.9	104.1	188.0	0.45	8.6	E

## Arterial Level of Service: SB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	30	20.3	2.1	22.4	0.14	21.8	B
Brook St.	IV	30	20.6	17.7	38.3	0.11	10.7	D
School St.	IV	30	7.6	6.9	14.5	0.03	8.3	E
Herman Dr.	IV	30	24.6	16.6	41.2	0.16	14.3	C
Total	IV		73.1	43.3	116.4	0.45	13.8	C

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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.56	0.45	0.51
Stops (#)	2618	1437	4055
Average Speed (mph)	10	15	12
Total Travel Time (hr)	50	22	73
Distance Traveled (mi)	515	341	856
Fuel Consumed (gal)	53	30	83
Fuel Economy (mpg)	9.6	11.3	10.3
CO Emissions (kg)	3.73	2.10	5.83
NOx Emissions (kg)	0.73	0.41	1.13
VOC Emissions (kg)	0.87	0.49	1.35
Unserved Vehicles (#)	0	0	0
Performance Index	34.3	15.0	49.3

## Arterial Level of Service: NB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	22.1	51.7	0.16	11.4	D
Brook St.	IV	20	8.9	3.1	12.0	0.03	10.1	D
Moraga Blvd.	IV	20	25.1	2.6	27.7	0.11	14.8	C
Mt. Diablo Bl.	IV	30	20.3	70.2	90.5	0.14	5.4	F
Total	IV		83.9	98.0	181.9	0.45	8.9	E

## Arterial Level of Service: SB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	30	20.3	1.1	21.4	0.14	22.8	B
Brook St.	IV	30	20.6	17.9	38.5	0.11	10.7	D
School St.	IV	30	7.6	8.3	15.9	0.03	7.6	E
Herman Dr.	IV	30	24.6	14.0	38.6	0.16	15.3	C
Total	IV		73.1	41.3	114.4	0.45	14.1	C

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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.41	0.44	0.42
Stops (#)	1566	1479	3045
Average Speed (mph)	11	15	13
Total Travel Time (hr)	39	24	63
Distance Traveled (mi)	427	365	792
Fuel Consumed (gal)	41	32	72
Fuel Economy (mpg)	10.5	11.5	11.0
CO Emissions (kg)	2.83	2.21	5.04
NOx Emissions (kg)	0.55	0.43	0.98
VOC Emissions (kg)	0.66	0.51	1.17
Unserved Vehicles (#)	0	0	0
Performance Index	24.0	15.6	39.6

## Arterial Level of Service: NB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	35.3	64.9	0.16	9.1	D
Brook St.	IV	20	8.9	4.7	13.6	0.03	8.9	E
Moraga Blvd.	IV	20	25.1	4.2	29.3	0.11	14.0	C
Mt. Diablo Bl.	IV	30	20.3	57.1	77.4	0.14	6.3	F
Total	IV		83.9	101.3	185.2	0.45	8.7	E

## Arterial Level of Service: SB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	25	24.4	2.0	26.4	0.14	18.5	C
Brook St.	IV	20	25.1	26.2	51.3	0.11	8.0	E
School St.	IV	20	8.9	11.1	20.0	0.03	6.0	F
Herman Dr.	IV	25	29.6	22.9	52.5	0.16	11.3	D
Total	IV		88.0	62.2	150.2	0.45	10.7	D

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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.48	0.53	0.50
Stops (#)	2109	2023	4132
Average Speed (mph)	11	11	11
Total Travel Time (hr)	45	37	82
Distance Traveled (mi)	476	417	892
Fuel Consumed (gal)	47	39	87
Fuel Economy (mpg)	10.0	10.6	10.3
CO Emissions (kg)	3.32	2.75	6.07
NOx Emissions (kg)	0.65	0.53	1.18
VOC Emissions (kg)	0.77	0.64	1.41
Unserved Vehicles (#)	0	0	0
Performance Index	29.2	24.4	53.6

Arterial Level of Service: NB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	22.1	51.7	0.16	11.4	D
Brook St.	IV	20	8.9	6.0	14.9	0.03	8.1	E
Moraga Blvd.	IV	20	25.1	1.8	26.9	0.11	15.3	C
Mt. Diablo Bl.	IV	30	20.3	64.6	84.9	0.14	5.8	F
Total	IV		83.9	94.5	178.4	0.45	9.0	D

Arterial Level of Service: SB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	30	20.3	1.5	21.8	0.14	22.4	B
Brook St.	IV	30	20.6	22.6	43.2	0.11	9.5	D
School St.	IV	30	7.6	11.0	18.6	0.03	6.5	F
Herman Dr.	IV	30	24.6	18.3	42.9	0.16	13.8	C
Total	IV		73.1	53.4	126.5	0.45	12.7	D



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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.46	0.49	0.48
Stops (#)	1889	2154	4043
Average Speed (mph)	11	13	12
Total Travel Time (hr)	40	38	78
Distance Traveled (mi)	449	484	932
Fuel Consumed (gal)	43	48	90
Fuel Economy (mpg)	10.5	10.2	10.3
CO Emissions (kg)	2.99	3.33	6.32
NOx Emissions (kg)	0.58	0.65	1.23
VOC Emissions (kg)	0.69	0.77	1.46
Unserved Vehicles (#)	0	0	0
Performance Index	25.0	27.6	52.5

Arterial Level of Service: NB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	26.5	56.1	0.16	10.5	D
Brook St.	IV	20	8.9	8.6	17.5	0.03	6.9	F
Moraga Blvd.	IV	20	25.1	2.4	27.5	0.11	15.0	C
Mt. Diablo Bl.	IV	30	20.3	53.0	73.3	0.14	6.7	F
Total	IV		83.9	90.5	174.4	0.45	9.2	D

Arterial Level of Service: SB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	30	20.3	1.2	21.5	0.14	22.7	B
Brook St.	IV	30	20.6	23.7	44.3	0.11	9.3	D
School St.	IV	30	7.6	5.5	13.1	0.03	9.2	D
Herman Dr.	IV	30	24.6	15.6	40.2	0.16	14.7	C
Total	IV		73.1	46.0	119.1	0.45	13.5	C

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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.48	0.39	0.44
Stops (#)	1961	1401	3362
Average Speed (mph)	11	15	13
Total Travel Time (hr)	40	28	68
Distance Traveled (mi)	451	401	851
Fuel Consumed (gal)	43	35	78
Fuel Economy (mpg)	10.4	11.6	10.9
CO Emissions (kg)	3.04	2.42	5.46
NOx Emissions (kg)	0.59	0.47	1.06
VOC Emissions (kg)	0.70	0.56	1.26
Unserved Vehicles (#)	0	0	0
Performance Index	25.4	18.1	43.5

## Arterial Level of Service: NB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	28.1	57.7	0.16	10.2	D
Brook St.	IV	20	8.9	4.2	13.1	0.03	9.2	D
Moraga Blvd.	IV	20	25.1	6.3	31.4	0.11	13.1	C
Mt. Diablo Bl.	IV	30	20.3	46.8	67.1	0.14	7.3	E
Total	IV		83.9	85.4	169.3	0.45	9.5	D

## Arterial Level of Service: SB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	30	20.3	4.8	25.1	0.14	19.4	B
Brook St.	IV	30	20.6	14.8	35.4	0.11	11.6	D
School St.	IV	30	7.6	7.9	15.5	0.03	7.8	E
Herman Dr.	IV	30	24.6	16.6	41.2	0.16	14.3	C
Total	IV		73.1	44.1	117.2	0.45	13.7	C

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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.48	0.46	0.47
Stops (#)	2256	1464	3720
Average Speed (mph)	11	15	13
Total Travel Time (hr)	45	23	68
Distance Traveled (mi)	515	341	856
Fuel Consumed (gal)	48	30	78
Fuel Economy (mpg)	10.7	11.2	10.9
CO Emissions (kg)	3.37	2.12	5.49
NOx Emissions (kg)	0.66	0.41	1.07
VOC Emissions (kg)	0.78	0.49	1.27
Unserved Vehicles (#)	0	0	0
Performance Index	28.4	15.3	43.7

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**Arterial Level of Service: NB Moraga Rd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	20.4	50.0	0.16	11.8	D
Brook St.	IV	20	8.9	2.2	11.1	0.03	10.9	D
Moraga Blvd.	IV	20	25.1	4.9	30.0	0.11	13.7	C
Mt. Diablo Bl.	IV	30	20.3	73.5	93.8	0.14	5.2	F
Total	IV		83.9	101.0	184.9	0.45	8.7	E

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**Arterial Level of Service: SB Moraga Rd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	30	20.3	1.5	21.8	0.14	22.4	B
Brook St.	IV	30	20.6	10.9	31.5	0.11	13.1	C
School St.	IV	30	7.6	8.6	16.2	0.03	7.4	E
Herman Dr.	IV	30	24.6	14.0	38.6	0.16	15.3	C
Total	IV		73.1	35.0	108.1	0.45	14.9	C

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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.45	0.42	0.44
Stops (#)	1725	1410	3135
Average Speed (mph)	11	16	13
Total Travel Time (hr)	39	22	61
Distance Traveled (mi)	427	365	792
Fuel Consumed (gal)	41	30	71
Fuel Economy (mpg)	10.5	12.1	11.2
CO Emissions (kg)	2.84	2.11	4.95
NOx Emissions (kg)	0.55	0.41	0.96
VOC Emissions (kg)	0.66	0.49	1.15
Unserved Vehicles (#)	0	0	0
Performance Index	24.3	14.0	38.3

## Arterial Level of Service: NB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	32.2	61.8	0.16	9.6	D
Brook St.	IV	20	8.9	4.2	13.1	0.03	9.2	D
Moraga Blvd.	IV	20	25.1	8.3	33.4	0.11	12.3	D
Mt. Diablo Bl.	IV	30	20.3	62.1	82.4	0.14	5.9	F
Total	IV		83.9	106.8	190.7	0.45	8.4	E

## Arterial Level of Service: SB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	25	24.4	1.9	26.3	0.14	18.6	C
Brook St.	IV	20	25.1	19.3	44.4	0.11	9.3	D
School St.	IV	20	8.9	9.6	18.5	0.03	6.5	F
Herman Dr.	IV	25	29.6	22.9	52.5	0.16	11.3	D
Total	IV		88.0	53.7	141.7	0.45	11.4	D



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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.53	0.53	0.53
Stops (#)	2347	2021	4368
Average Speed (mph)	11	12	11
Total Travel Time (hr)	45	35	79
Distance Traveled (mi)	476	417	892
Fuel Consumed (gal)	47	38	85
Fuel Economy (mpg)	10.1	11.0	10.5
CO Emissions (kg)	3.30	2.64	5.94
NOx Emissions (kg)	0.64	0.51	1.16
VOC Emissions (kg)	0.77	0.61	1.38
Unserved Vehicles (#)	0	0	0
Performance Index	29.4	22.3	51.7

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**Arterial Level of Service: NB Moraga Rd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	21.2	50.8	0.16	11.6	D
Brook St.	IV	20	8.9	6.3	15.2	0.03	7.9	E
Moraga Blvd.	IV	20	25.1	0.7	25.8	0.11	15.9	C
Mt. Diablo Bl.	IV	30	20.3	59.9	80.2	0.14	6.1	F
Total	IV		83.9	88.1	172.0	0.45	9.4	D

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**Arterial Level of Service: SB Moraga Rd.**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	30	20.3	1.8	22.1	0.14	22.1	B
Brook St.	IV	30	20.6	20.2	40.8	0.11	10.1	D
School St.	IV	30	7.6	10.5	18.1	0.03	6.7	F
Herman Dr.	IV	30	24.6	18.3	42.9	0.16	13.8	C
Total	IV		73.1	50.8	123.9	0.45	13.0	C

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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.41	0.47	0.44
Stops (#)	1660	2061	3721
Average Speed (mph)	12	13	13
Total Travel Time (hr)	37	37	74
Distance Traveled (mi)	449	484	932
Fuel Consumed (gal)	40	46	86
Fuel Economy (mpg)	11.3	10.4	10.8
CO Emissions (kg)	2.78	3.25	6.03
NOx Emissions (kg)	0.54	0.63	1.17
VOC Emissions (kg)	0.65	0.75	1.40
Unserved Vehicles (#)	0	0	0
Performance Index	21.6	26.4	48.1

## Arterial Level of Service: NB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
School St.	IV	20	29.6	22.3	51.9	0.16	11.4	D
Brook St.	IV	20	8.9	4.2	13.1	0.03	9.2	D
Moraga Blvd.	IV	20	25.1	7.7	32.8	0.11	12.5	D
Mt. Diablo Bl.	IV	30	20.3	70.5	90.8	0.14	5.4	F
Total	IV		83.9	104.7	188.6	0.45	8.5	E

## Arterial Level of Service: SB Moraga Rd.

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moraga Blvd.	IV	30	20.3	1.9	22.2	0.14	22.0	B
Brook St.	IV	30	20.6	15.8	36.4	0.11	11.3	D
School St.	IV	30	7.6	4.2	11.8	0.03	10.2	D
Herman Dr.	IV	30	24.6	12.3	36.9	0.16	16.0	C
Total	IV		73.1	34.2	107.3	0.45	15.0	C

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**Moraga Rd.**

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Direction	NB	SB	All
Stops / Veh	0.55	0.34	0.45
Stops (#)	2257	1226	3483
Average Speed (mph)	10	14	12
Total Travel Time (hr)	43	28	71
Distance Traveled (mi)	451	401	851
Fuel Consumed (gal)	46	34	80
Fuel Economy (mpg)	9.7	11.8	10.6
CO Emissions (kg)	3.23	2.38	5.61
NOx Emissions (kg)	0.63	0.46	1.09
VOC Emissions (kg)	0.75	0.55	1.30
Unserved Vehicles (#)	0	0	0
Performance Index	29.1	18.1	47.3