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**Draft**  
**Environmental Impact Report**  
State Clearinghouse Number 2000011101

for

**City in the Hills**



**Volume II**



Michael Brandman Associates

**July 25, 2000**

02160011

**DRAFT  
ENVIRONMENTAL IMPACT REPORT  
CITY IN THE HILLS  
State Clearinghouse No. 2000011101**

**VOLUME II**

Prepared for:

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July 25, 2000

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- A. Traffic Impact Study Appendix (includes exhibits illustrating peak hour traffic volumes by turning movement, traffic counts, and worksheets).

**APPENDIX A**

**Traffic Impact Study Appendix**

(includes exhibits illustrating peak hour traffic volumes by turning movement, traffic counts, and worksheets).

Site Code : 09137008  
 N / S : Fairfax Rd  
 E / W : SR 178  
 OPERATOR : DB

TURN MOVEMENT COUNTS

PAGE: 1  
 FILE: temp2

Movements by: Primary

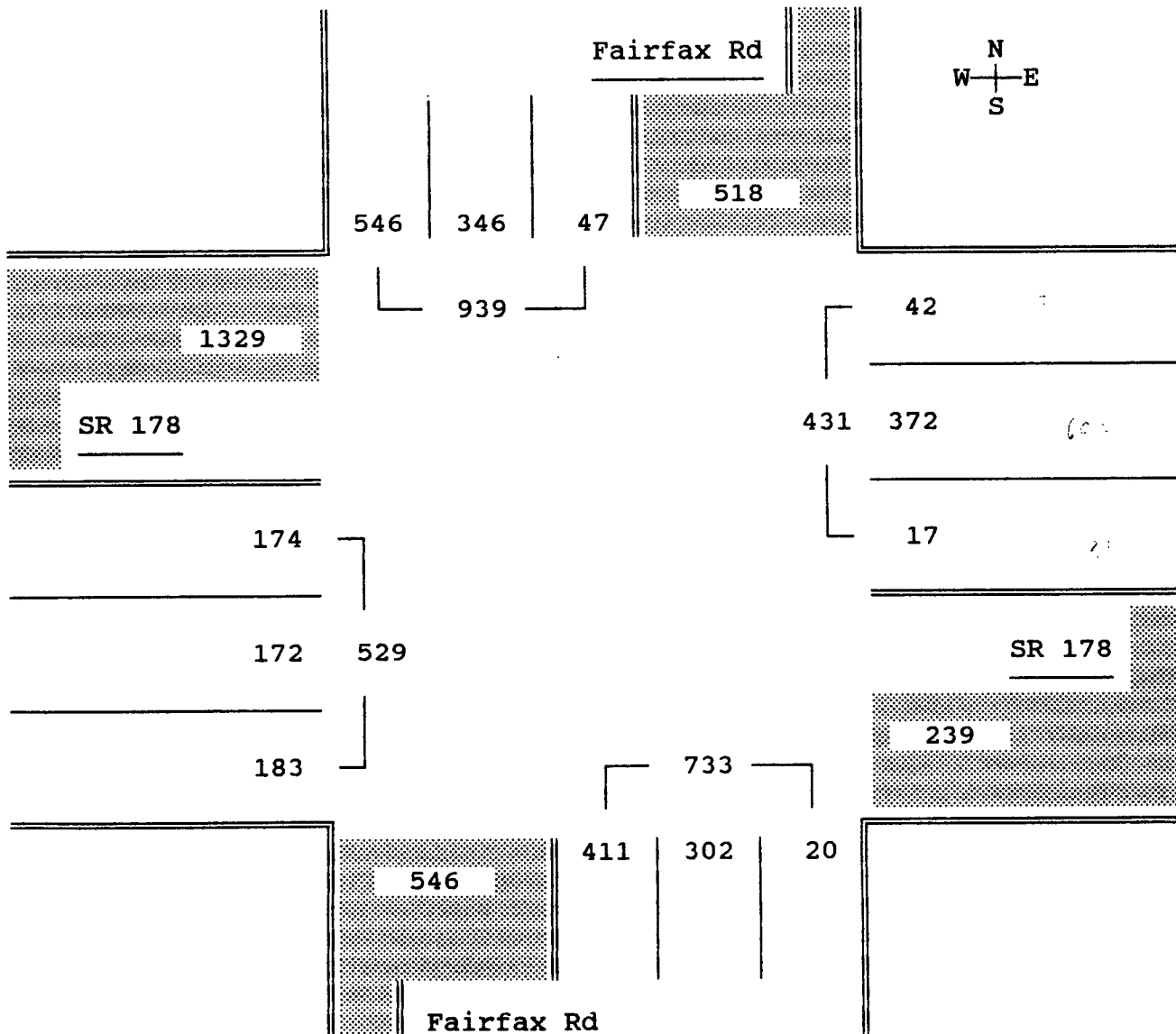
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PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.65	546	346	47	939	58	37	5
East	7:00 AM	0.71	42	372	17	431	10	86	4
South	7:00 AM	0.61	20	302	411	733	3	41	56
West	7:00 AM	0.84	183	172	174	529	35	33	33

Entire Intersection

North	7:00 AM	0.65	546	346	47	939	58	37	5
East		0.71	42	372	17	431	10	86	4
South		0.61	20	302	411	733	3	41	56
West		0.84	183	172	174	529	35	33	33



Site Code : 09999992  
 N-S Street: Oswald St  
 E-W Street: SH 178 E/B On & Off Ramps  
 Weather : Tue JC

PAGE: 1  
 FILE: 99999992  
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 DATE: 12/21/99

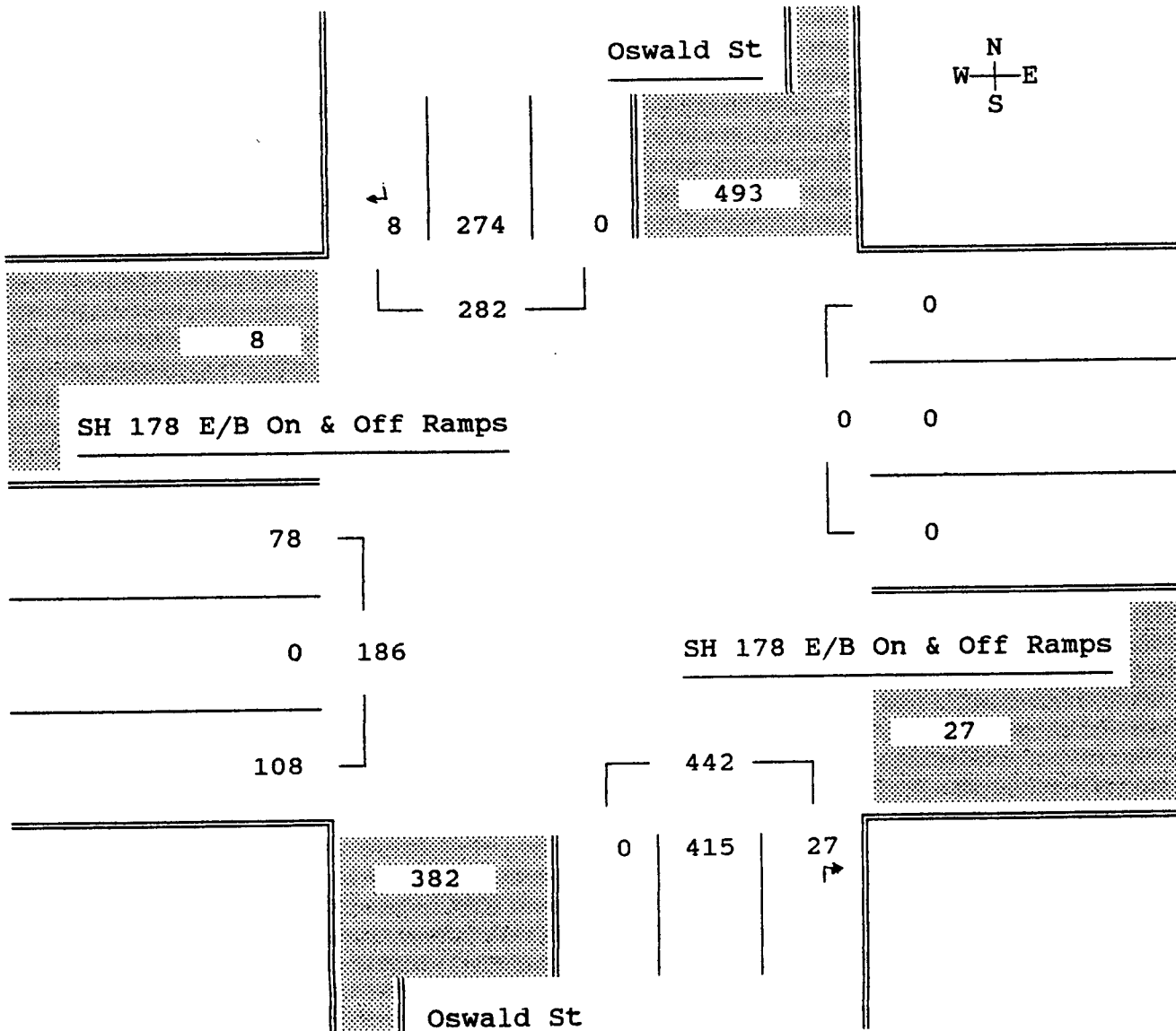
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.85	8	274	0	282	3	97	0
East	7:00 AM	0.00	0	0	0	0	0	0	0
South	7:00 AM	0.84	27	415	0	442	6	94	0
West	7:00 AM	0.80	108	0	78	186	58	0	42

Entire Intersection

North	7:00 AM	0.85	8	274	0	282	3	97	0
East		0.00	0	0	0	0	0	0	0
South		0.84	27	415	0	442	6	94	0
West		0.80	108	0	78	186	58	0	42



Site Code : 09999991  
 S Street: Oswald St  
 E-W Street: SH 178 W/B On & Off Ramps  
 Weather : Tue DB

PAGE: 1  
 FILE: 99999991  
 7-137  
 DATE: 12/21/99

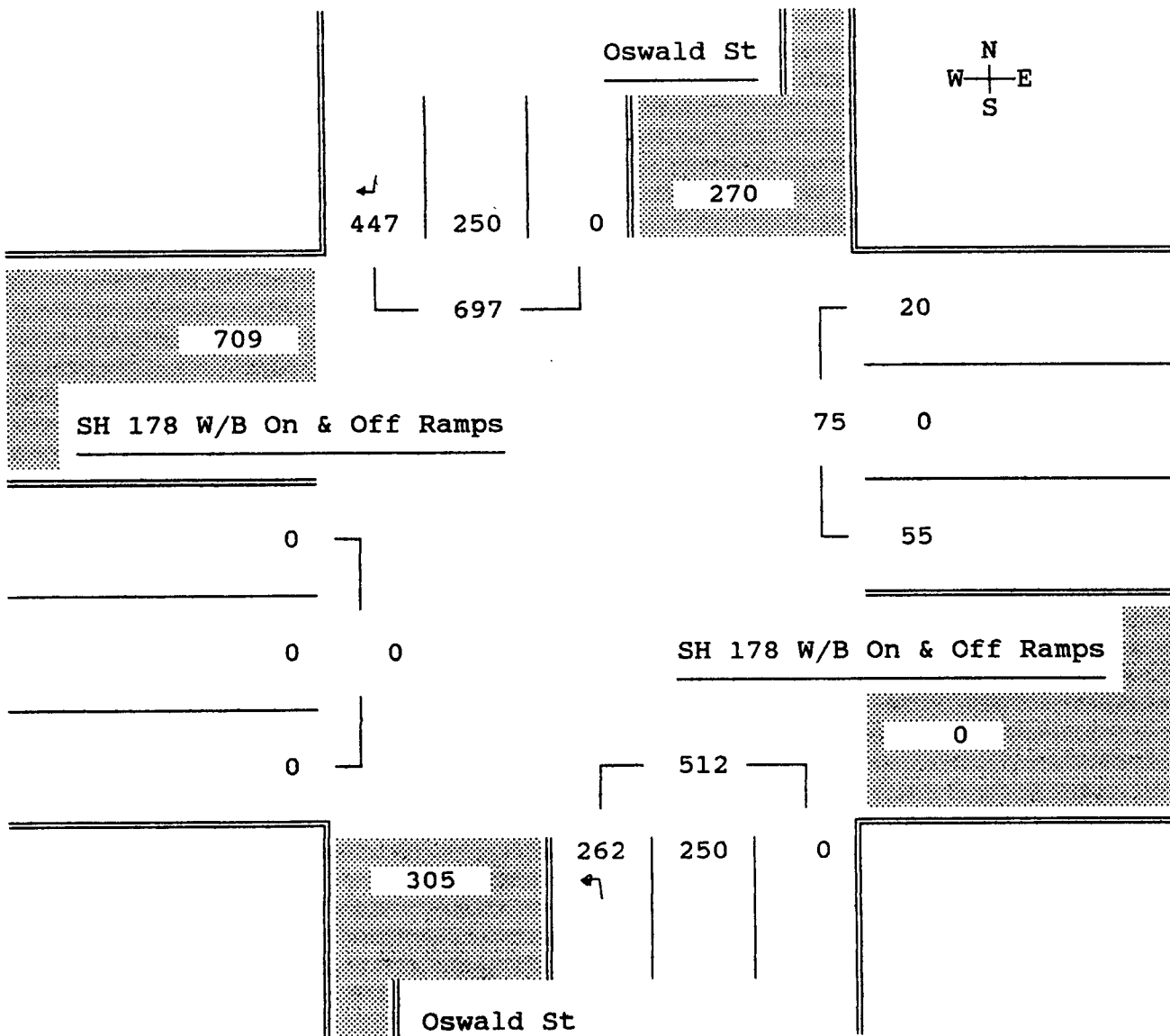
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.68	447	250	0	697	64	36	0
East	7:00 AM	0.75	20	0	55	75	27	0	73
South	7:00 AM	0.86	0	250	262	512	0	49	51
West	7:00 AM	0.00	0	0	0	0	0	0	0

Entire Intersection

North	7:00 AM	0.68	447	250	0	697	64	36	0
East		0.75	20	0	55	75	27	0	73
South		0.86	0	250	262	512	0	49	51
West		0.00	0	0	0	0	0	0	0



TURN MOVEMENT COUNTS

Site Code : 09137014  
 N-S STREET: Morning Dr  
 E-W STREET: Nile St  
 DAY : Wed

PAGE: 1  
 FILE: temp-3

Movements by: Primary

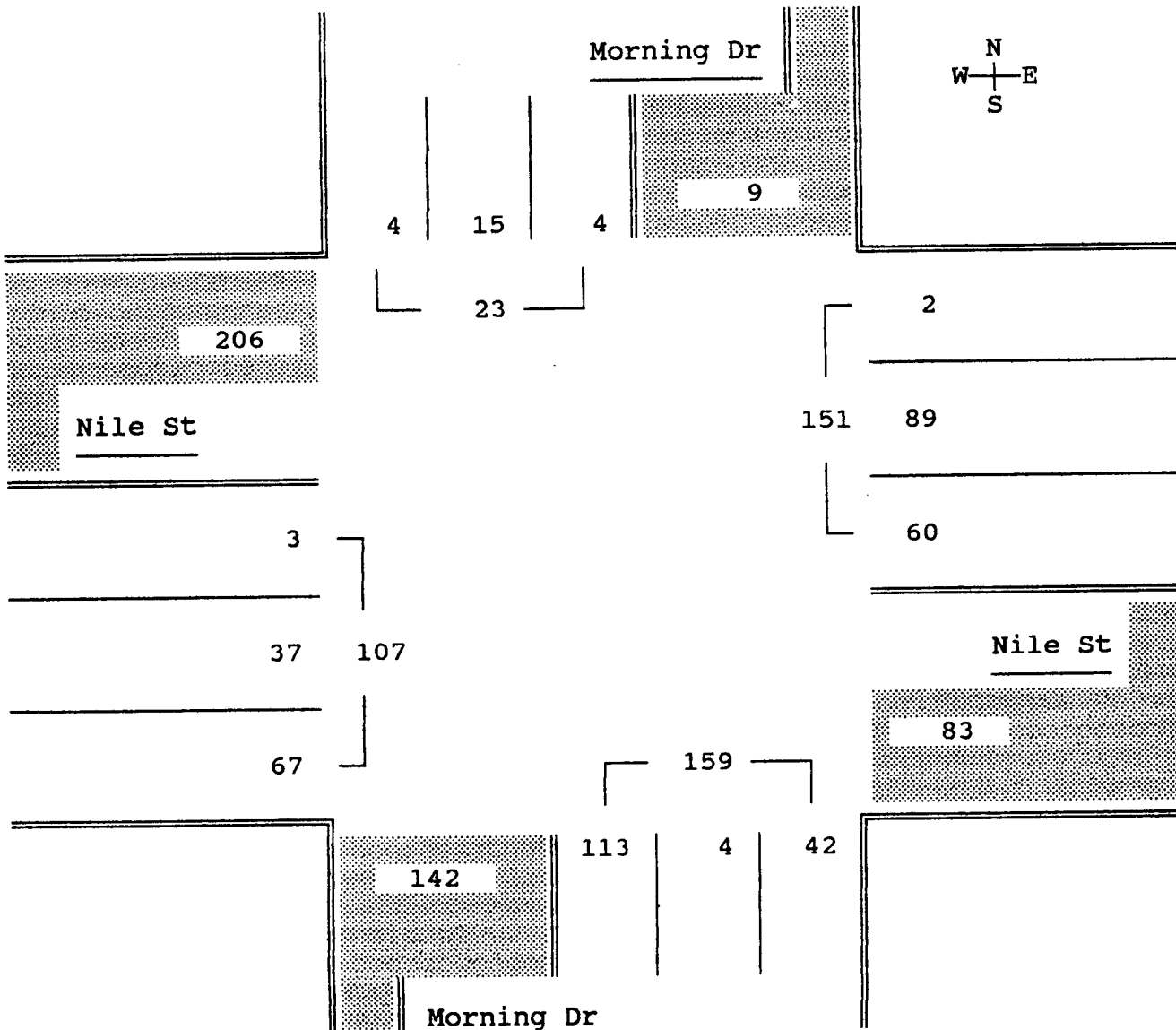
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PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.72	4	15	4	23	17	65	17
East	7:00 AM	0.86	2	89	60	151	1	59	40
South	7:00 AM	0.78	42	4	113	159	26	3	71
West	6:45 AM	0.87	68	37	3	108	63	34	3

Entire Intersection

North	7:00 AM	0.72	4	15	4	23	17	65	17
East		0.86	2	89	60	151	1	59	40
South		0.78	42	4	113	159	26	3	71
West		0.86	67	37	3	107	63	35	3





TURN MOVEMENT COUNTS

Site Code : 09137013  
 S STREET: Morning Dr  
 E-W STREET: Auburn Dr  
 DAY : Tue JC

PAGE: 1  
 FILE: temp-1

Movements by: Primary

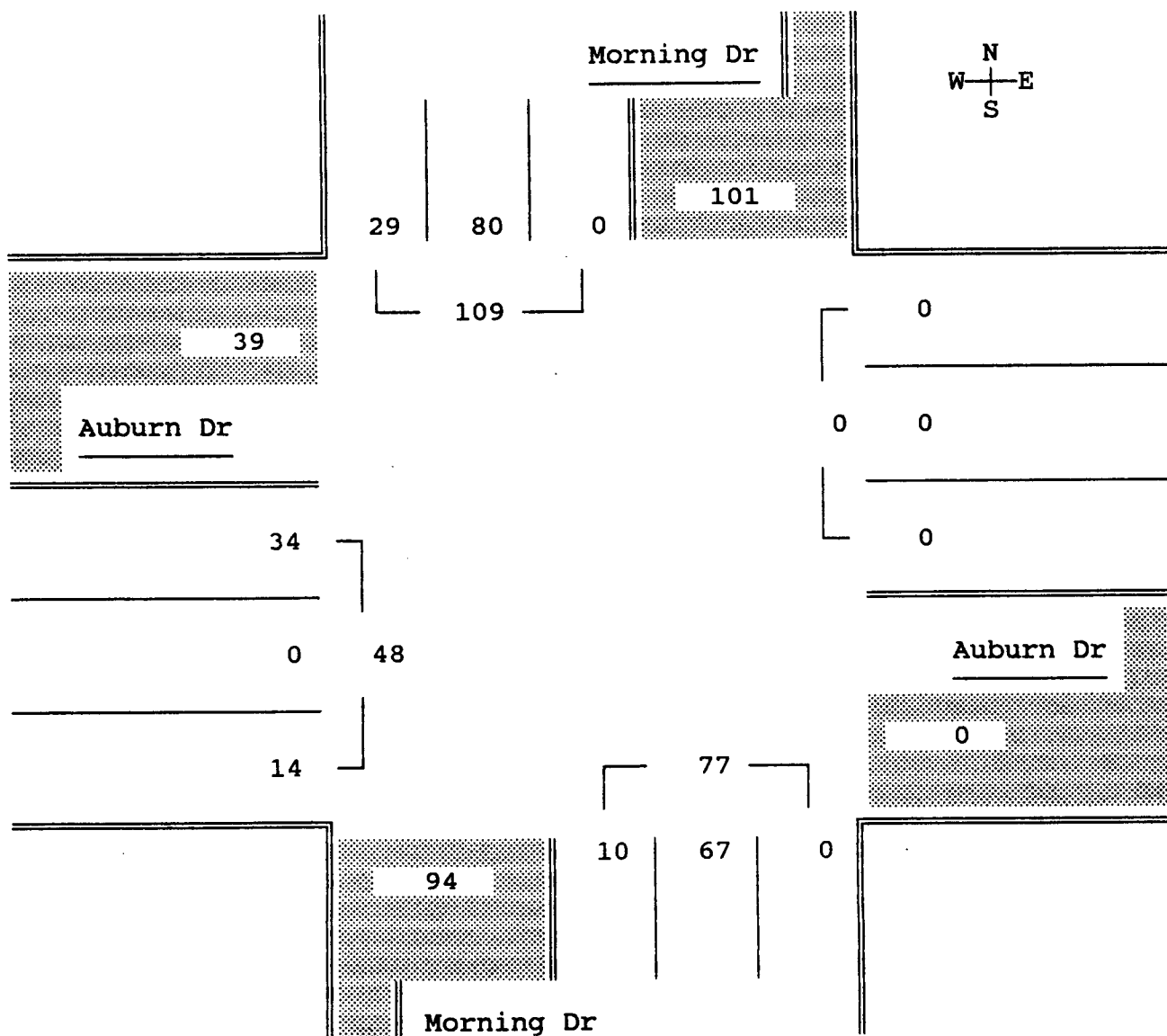
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PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.50	29	80	0	109	27	73	0
East	7:00 AM	0.00	0	0	0	0	0	0	0
South	7:00 AM	0.60	0	67	10	77	0	87	13
West	7:00 AM	0.46	14	0	34	48	29	0	71

Entire Intersection

North	7:00 AM	0.50	29	80	0	109	27	73	0
East		0.00	0	0	0	0	0	0	0
South		0.60	0	67	10	77	0	87	13
West		0.46	14	0	34	48	29	0	71



TURN MOVEMENT COUNTS

Site Code : 09137009  
 N-S STREET: Fairfax Dr  
 E-W STREET: Pamorama Dr  
 DAY : Tue DB

PAGE: 1  
 FILE: temp-1

Movements by: Primary

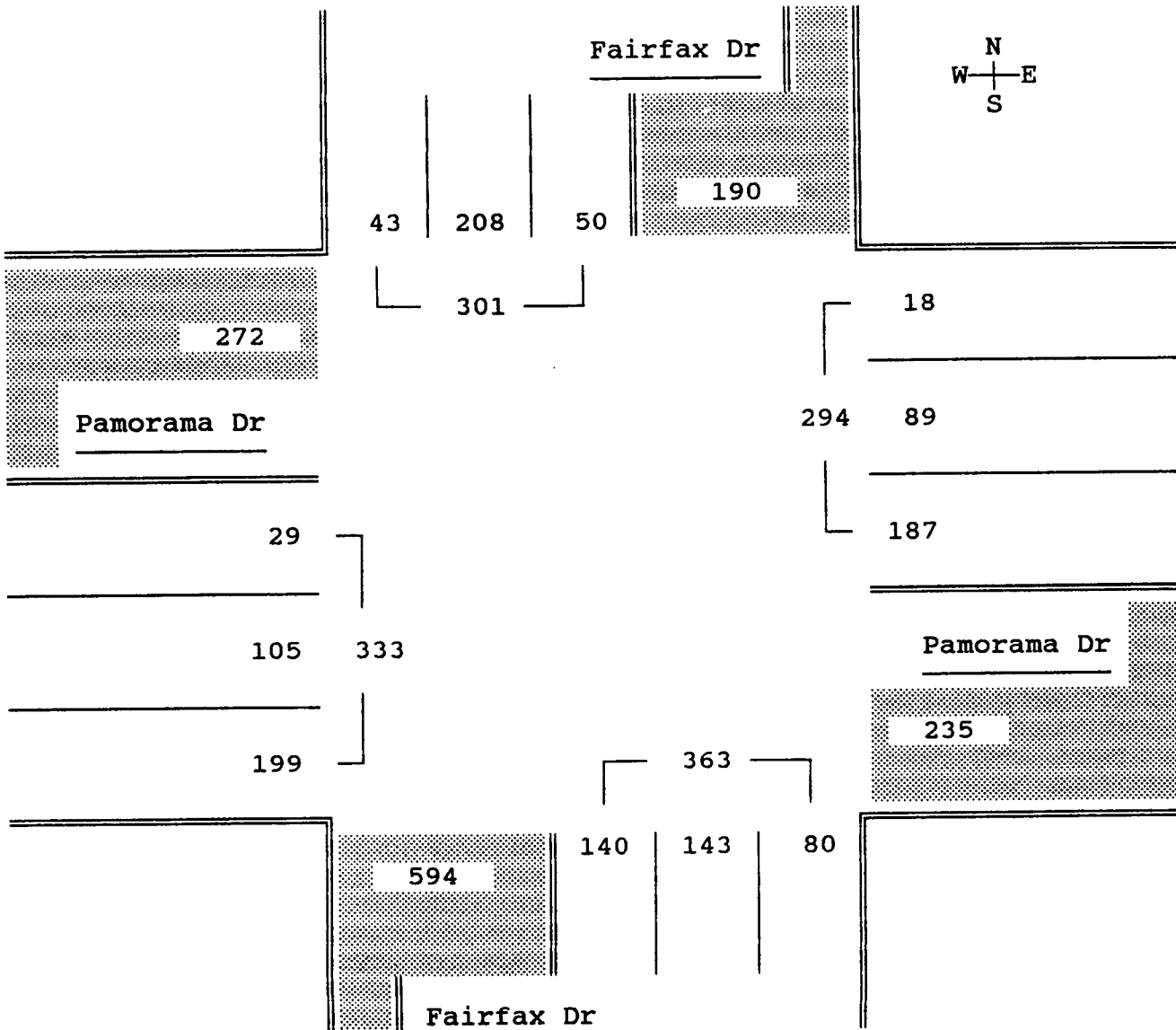
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PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.79	43	208	50	301	14	69	17
East	7:00 AM	0.62	18	89	187	294	6	30	64
South	7:00 AM	0.65	80	143	140	363	22	39	39
West	7:00 AM	0.73	199	105	29	333	60	32	9

Entire Intersection

North	7:00 AM	0.79	43	208	50	301	14	69	17
East		0.62	18	89	187	294	6	30	64
South		0.65	80	143	140	363	22	39	39
West		0.73	199	105	29	333	60	32	9



TURN MOVEMENT COUNTS

Site Code : 00913011  
 -S STREET: Fairfax Dr  
 E-W STREET: Auburn Dr  
 DAY : wed DB

PAGE: 1  
 FILE: TEMP-2

Movements by: Primary

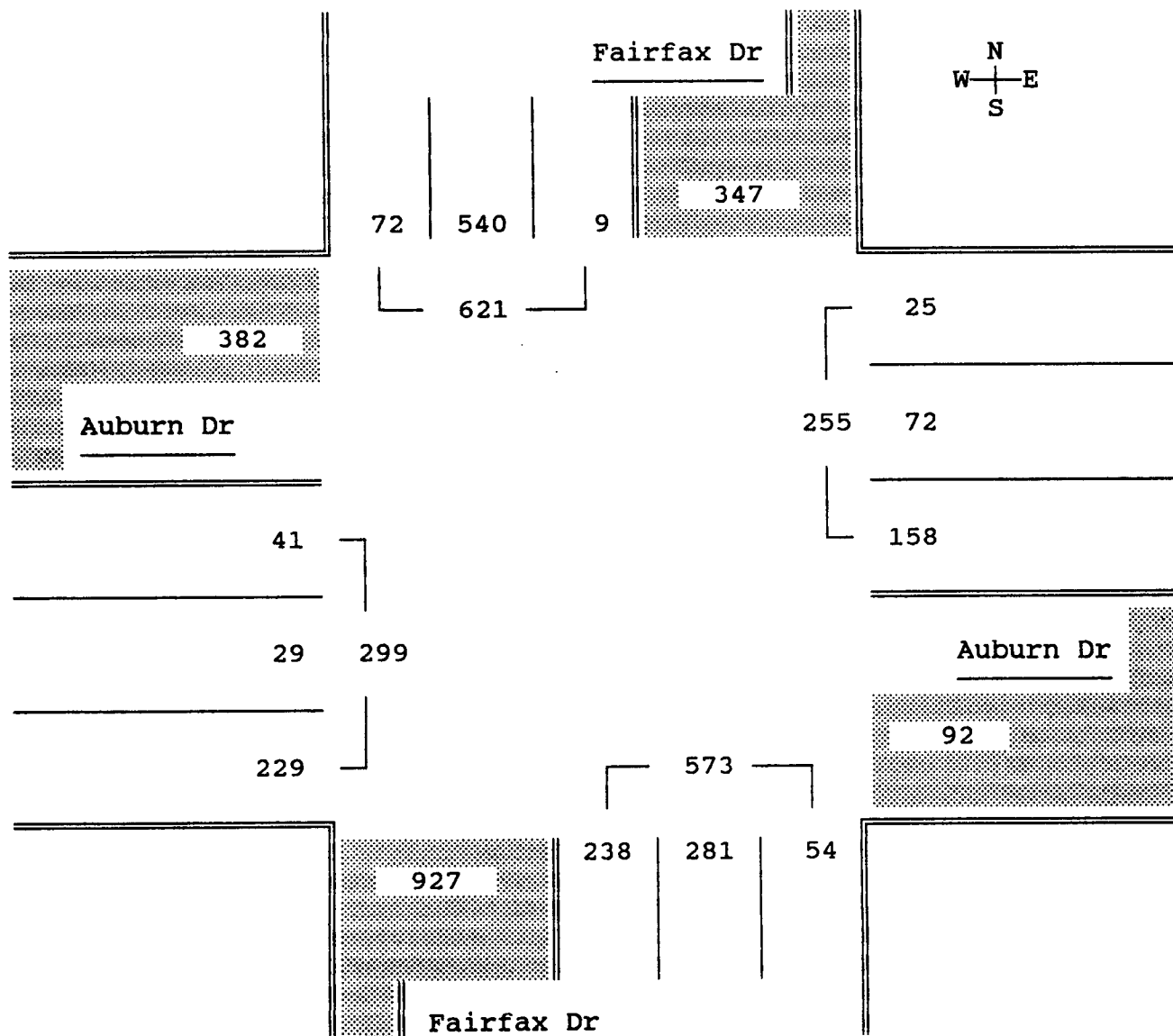
DATE: 11/03/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.81	72	540	9	621	12	87	1
East	7:00 AM	0.81	25	72	158	255	10	28	62
South	7:00 AM	0.72	54	281	238	573	9	49	42
West	7:00 AM	0.62	229	29	41	299	77	10	14

Entire Intersection

North	7:00 AM	0.81	72	540	9	621	12	87	1
East		0.81	25	72	158	255	10	28	62
South		0.72	54	281	238	573	9	49	42
West		0.62	229	29	41	299	77	10	14



Site Code : 09137005  
 N / S : SR 184 (Masterson)  
 E / W : SR 178  
 OPERATOR : JC

PAGE: 1  
 FILE: 9137005  
 DATE: 10/26/99

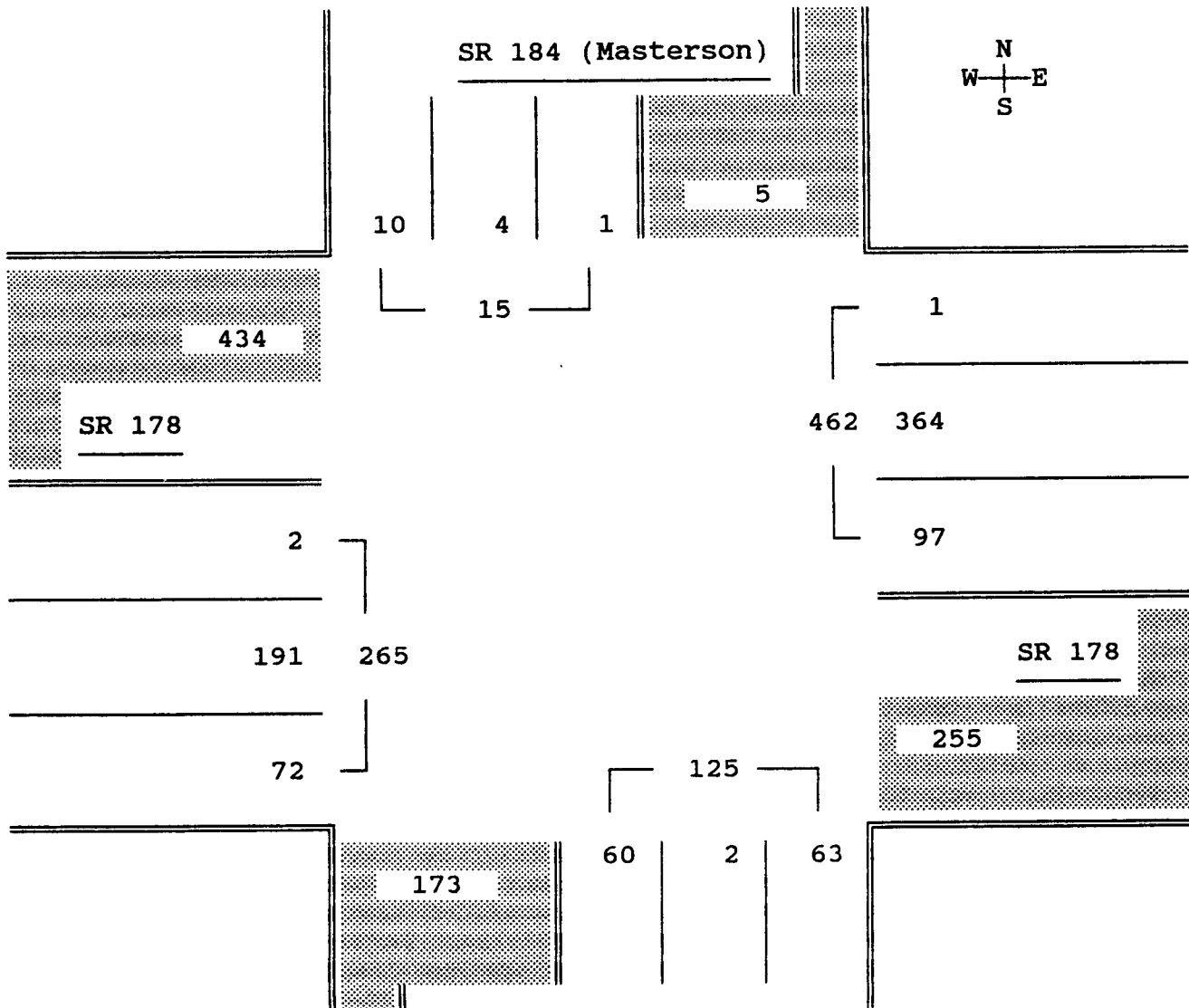
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PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	6:15 AM	0.71	16	3	1	20	80	15	5
East	7:00 AM	0.77	1	364	97	462	0	79	21
South	7:00 AM	0.65	63	2	60	125	50	2	48
West	7:00 AM	0.87	72	191	2	265	27	72	1

Entire Intersection

North	7:00 AM	0.75	10	4	1	15	67	27	7
East		0.77	1	364	97	462	0	79	21
South		0.65	63	2	60	125	50	2	48
West		0.87	72	191	2	265	27	72	1



TURN MOVEMENT COUNTS

Site Code : 09137003  
 S STREET: Fairfax Road  
 E-W STREET: Paladino Drive  
 DAY :

PAGE: 1  
 FILE: temp-1

Movements by: Primary

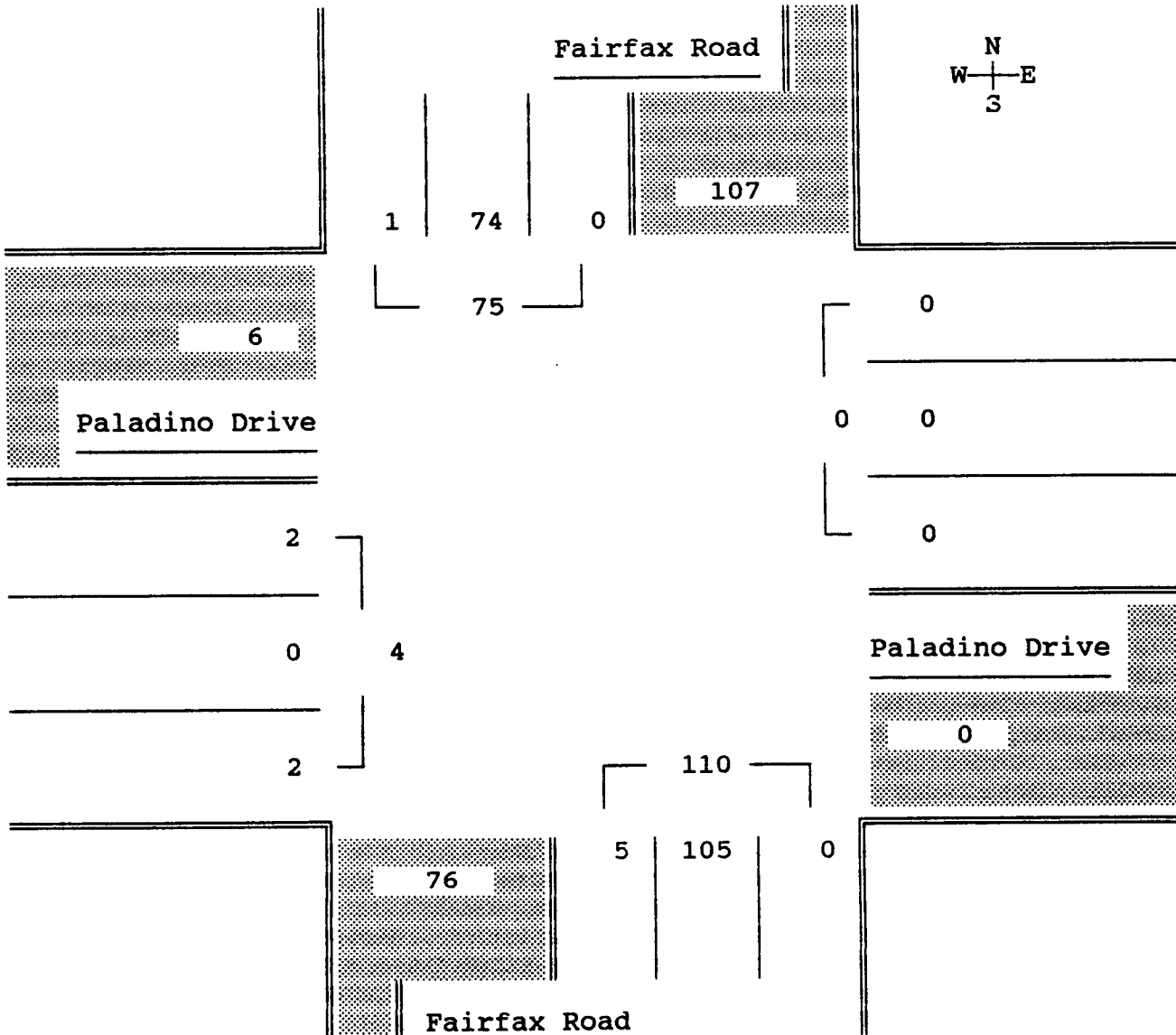
DATE: 10/26/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:15 AM	0.76	3	76	0	79	4	96	0
East	7:15 AM	0.00	0	0	0	0	0	0	0
South	6:30 AM	0.94	0	114	2	116	0	98	2
West	6:30 AM	0.63	0	0	5	5	0	0	100

Entire Intersection

North	7:00 AM	0.72	1	74	0	75	1	99	0
East		0.00	0	0	0	0	0	0	0
South		0.79	0	105	5	110	0	95	5
West		0.50	2	0	2	4	50	0	50



TURN MOVEMENT COUNTS

Site Code : 09137007  
 N / S : Alfred Harrell Hwy  
 E / W : SR 178  
 OPERATOR : DB

PAGE: 1  
 FILE: 9137007  
 DATE: 10/27/99

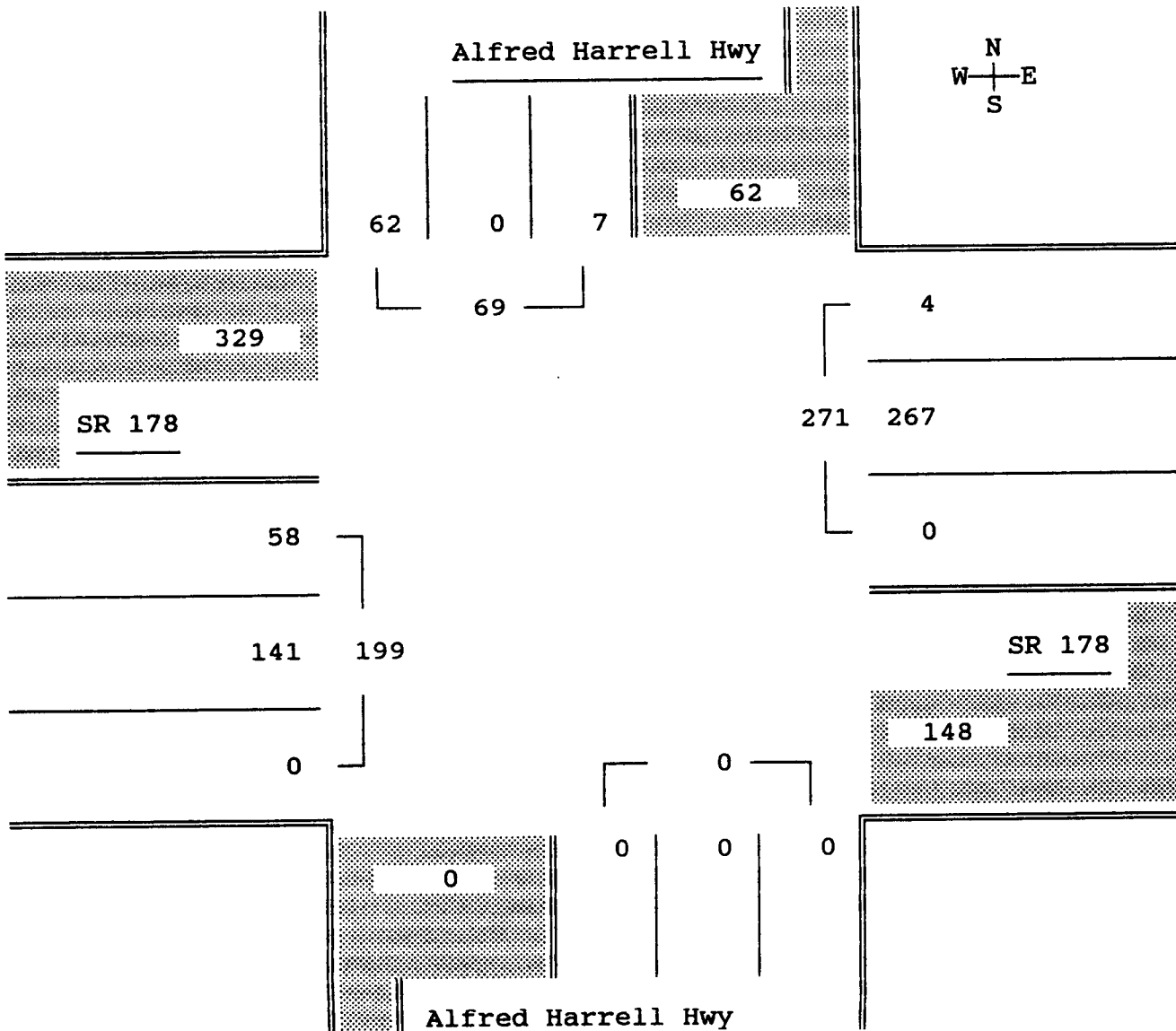
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.78	62	0	7	69	90	0	10
East	7:00 AM	0.85	4	267	0	271	1	99	0
South	7:00 AM	0.00	0	0	0	0	0	0	0
West	7:00 AM	0.73	0	141	58	199	0	71	29

Entire Intersection

North	7:00 AM	0.78	62	0	7	69	90	0	10
East		0.85	4	267	0	271	1	99	0
South		0.00	0	0	0	0	0	0	0
West		0.73	0	141	58	199	0	71	29



TURN MOVEMENT COUNTS

Site Code : 09137006  
 / S : Commanche Dr  
 E / W : SR 178  
 OPERATOR : JC

PAGE: 1  
 FILE: 9137006  
 DATE: 10/27/99

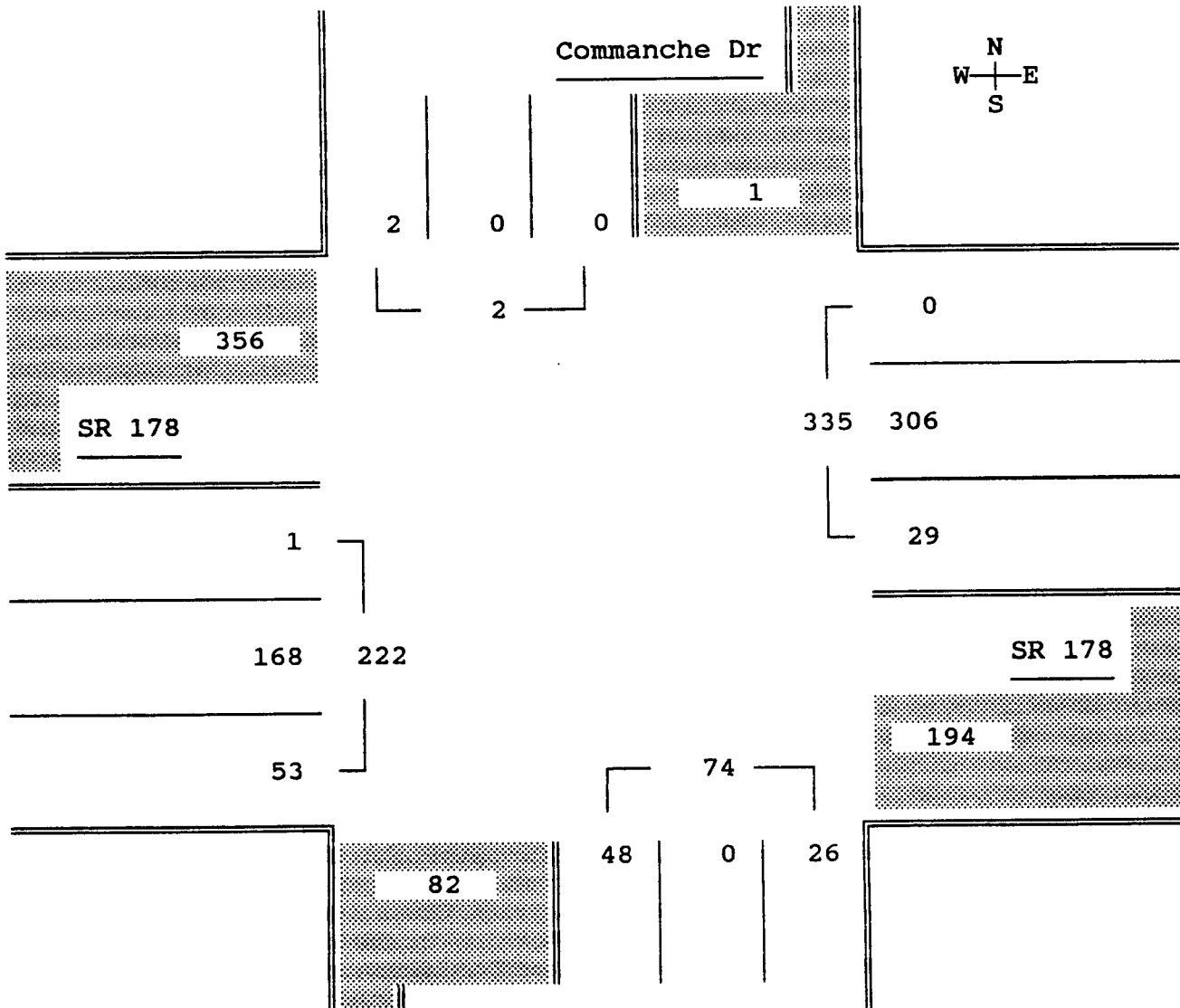
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.50	2	0	0	2	100	0	0
East	7:00 AM	0.86	0	306	29	335	0	91	9
South	7:00 AM	0.74	26	0	48	74	35	0	65
West	7:00 AM	0.75	53	168	1	222	24	76	0

Entire Intersection

North	7:00 AM	0.50	2	0	0	2	100	0	0
East		0.86	0	306	29	335	0	91	9
South		0.74	26	0	48	74	35	0	65
West		0.75	53	168	1	222	24	76	0



TURN MOVEMENT COUNTS

Site Code : 09137010  
 N-S STREET: Morning Drive  
 E-W STREET: Panaroma Drive  
 DAY : thur IL

PAGE: 1  
 FILE: TEMP-2

Movements by: Primary

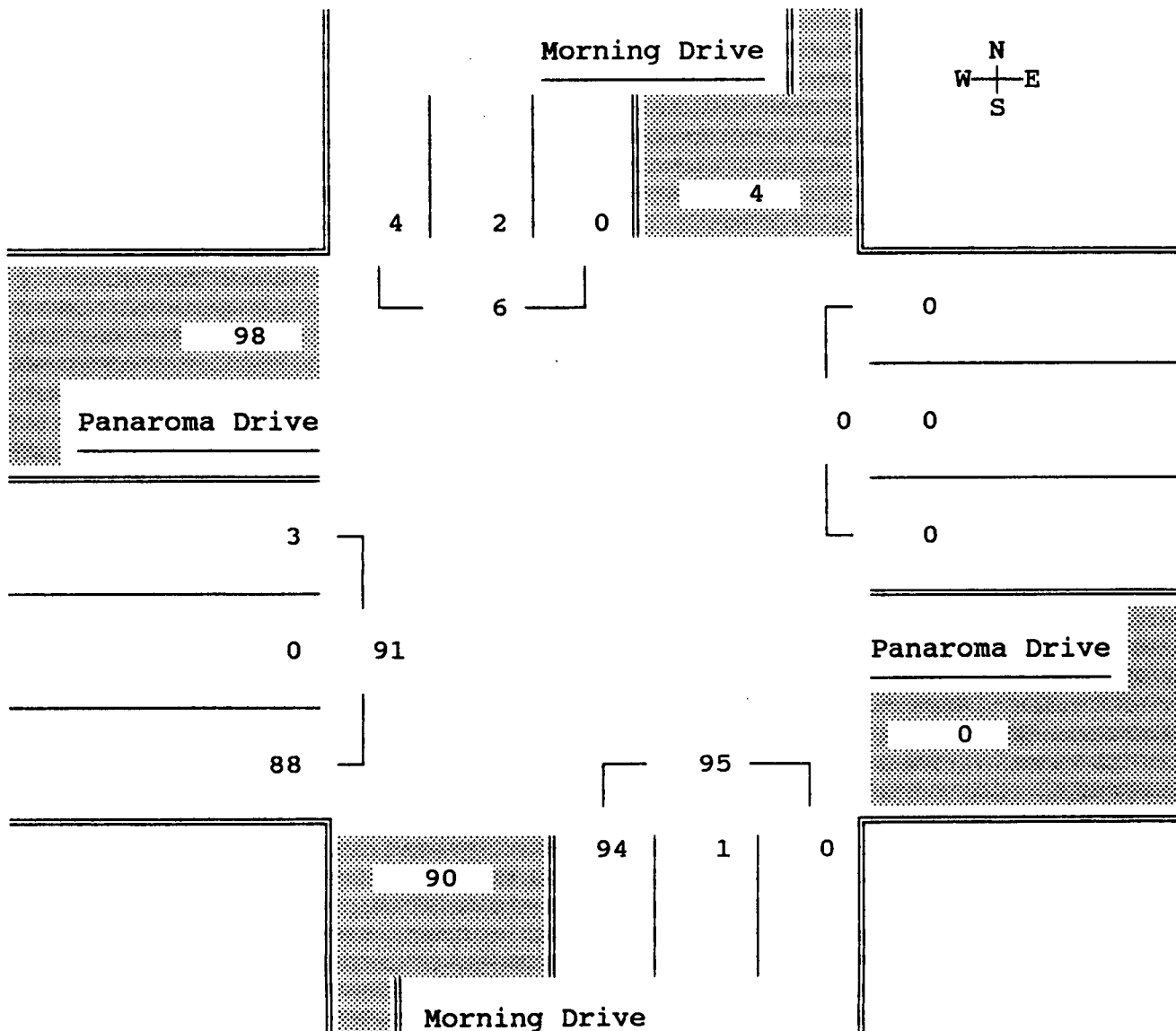
DATE: 10/28/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.75	4	2	0	6	67	33	0
East	7:00 AM	0.00	0	0	0	0	0	0	0
South	7:00 AM	0.59	0	1	94	95	0	1	99
West	7:00 AM	0.61	88	0	3	91	97	0	3

Entire Intersection

North	7:00 AM	0.75	4	2	0	6	67	33	0
East		0.00	0	0	0	0	0	0	0
South		0.59	0	1	94	95	0	1	99
West		0.61	88	0	3	91	97	0	3





TURN MOVEMENT COUNTS

Site Code : 09137001  
 / S : Morning Dr  
 E / W : SR 178  
 OPERATOR : JC

PAGE: 1  
 FILE: 9137001  
 DATE: 10/28/99

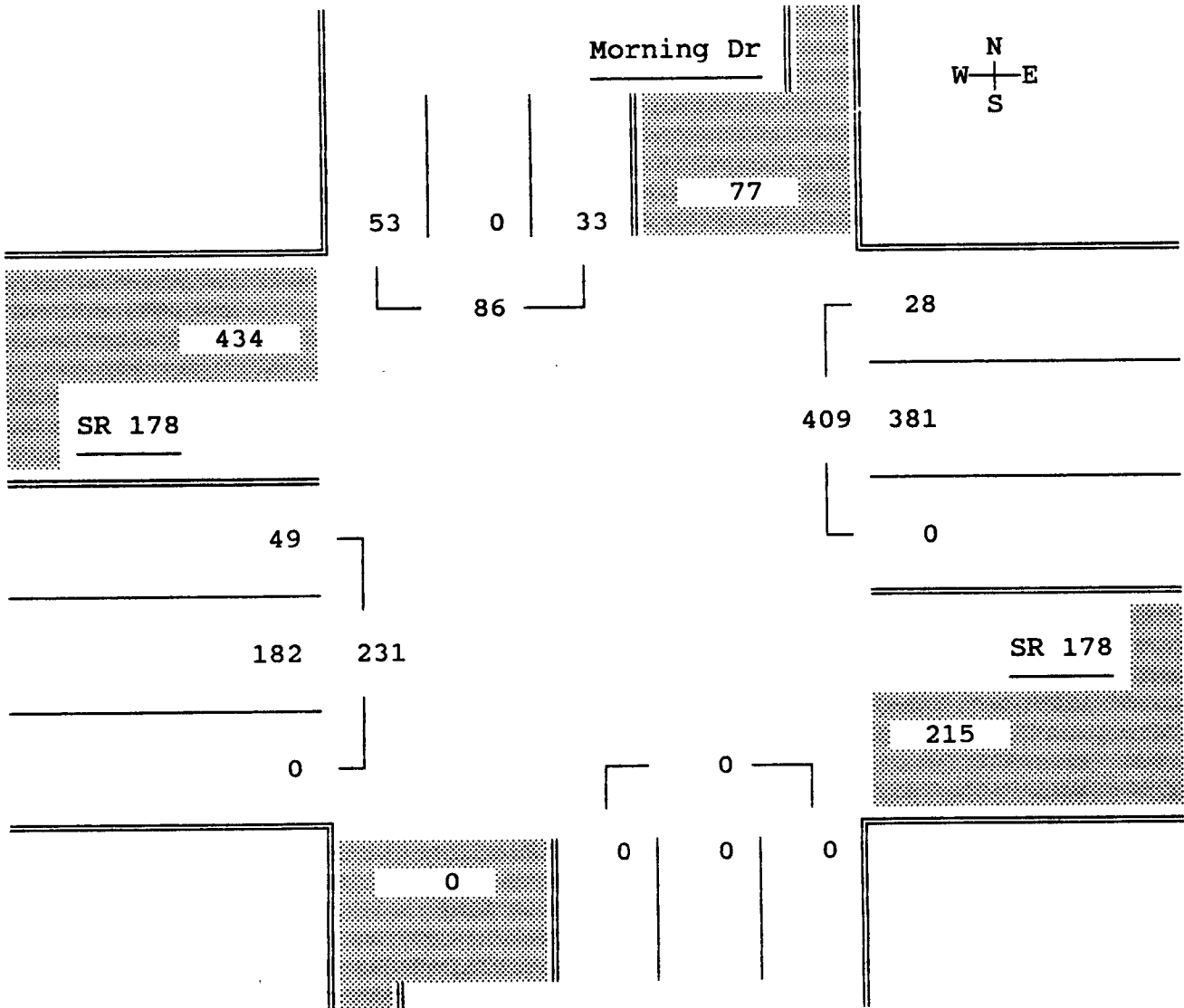
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PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.58	53	0	33	86	62	0	38
East	7:00 AM	0.79	28	381	0	409	7	93	0
South	7:00 AM	0.00	0	0	0	0	0	0	0
West	7:00 AM	0.70	0	182	49	231	0	79	21

Entire Intersection

North	7:00 AM	0.58	53	0	33	86	62	0	38
East		0.79	28	381	0	409	7	93	0
South		0.00	0	0	0	0	0	0	0
West		0.70	0	182	49	231	0	79	21



TURN MOVEMENT COUNTS

Site Code : 09137008  
 N / S : Fairfax Rd  
 E / W : SR 178  
 OPERATOR : DB

PAGE: 1  
 FILE: temp2

Movements by: Primary

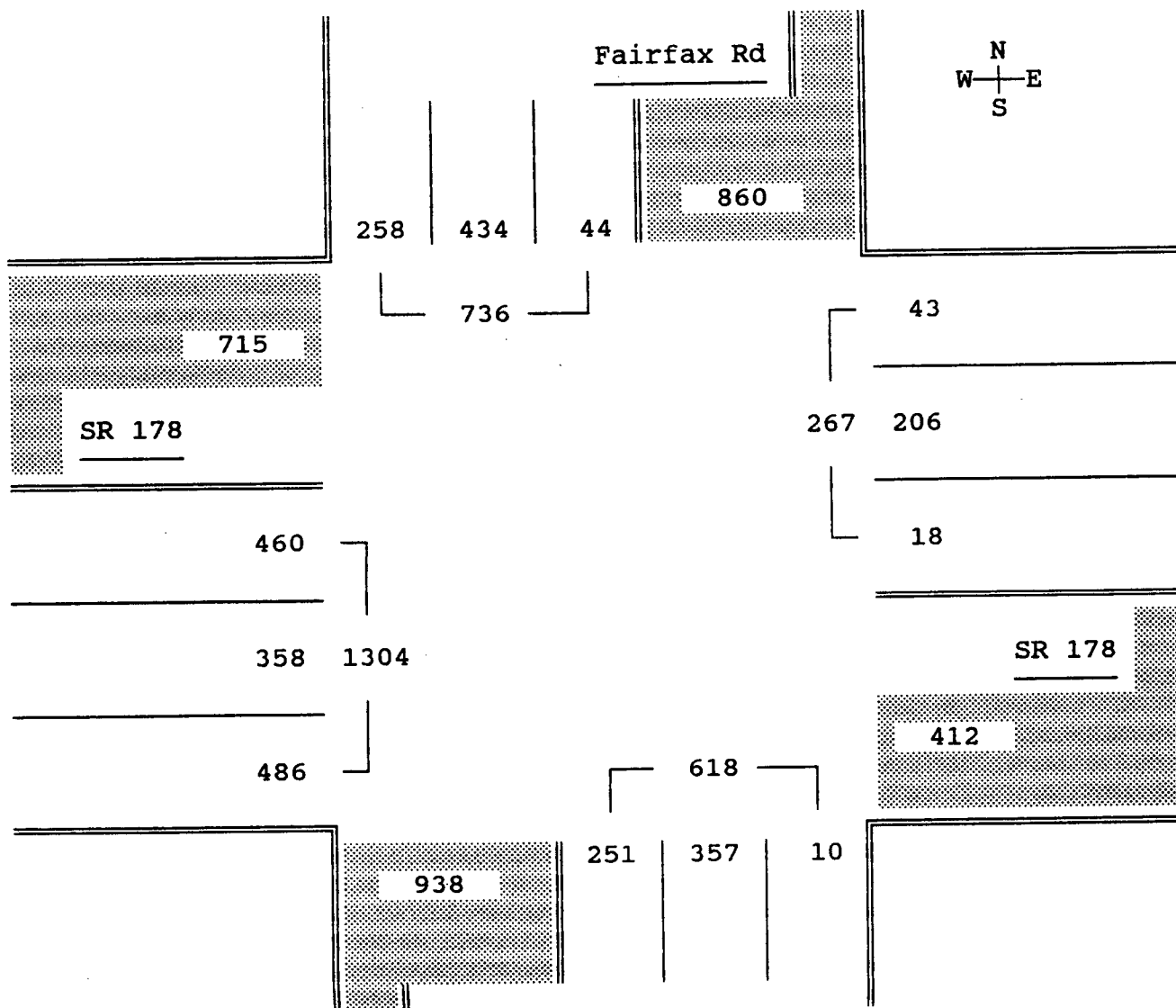
DATE: 0/02/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	5:00 PM	0.89	258	434	44	736	35	59	6
East	4:15 PM	0.94	38	236	16	290	13	81	6
South	5:00 PM	0.87	10	357	251	618	2	58	41
West	5:00 PM	0.91	486	358	460	1304	37	27	35

Entire Intersection

North	5:00 PM	0.89	258	434	44	736	35	59	6
East		0.83	43	206	18	267	16	77	7
South		0.87	10	357	251	618	2	58	40
West		0.91	486	358	460	1304	37	27	35



Site Code : 09999991  
 S Street: Oswald St  
 E-W Street: SH 178 W/B On & Off Ramps  
 Weather : Tue DB

PAGE: 1  
 FILE: 99999991  
 9-131  
 DATE: 12/21/99

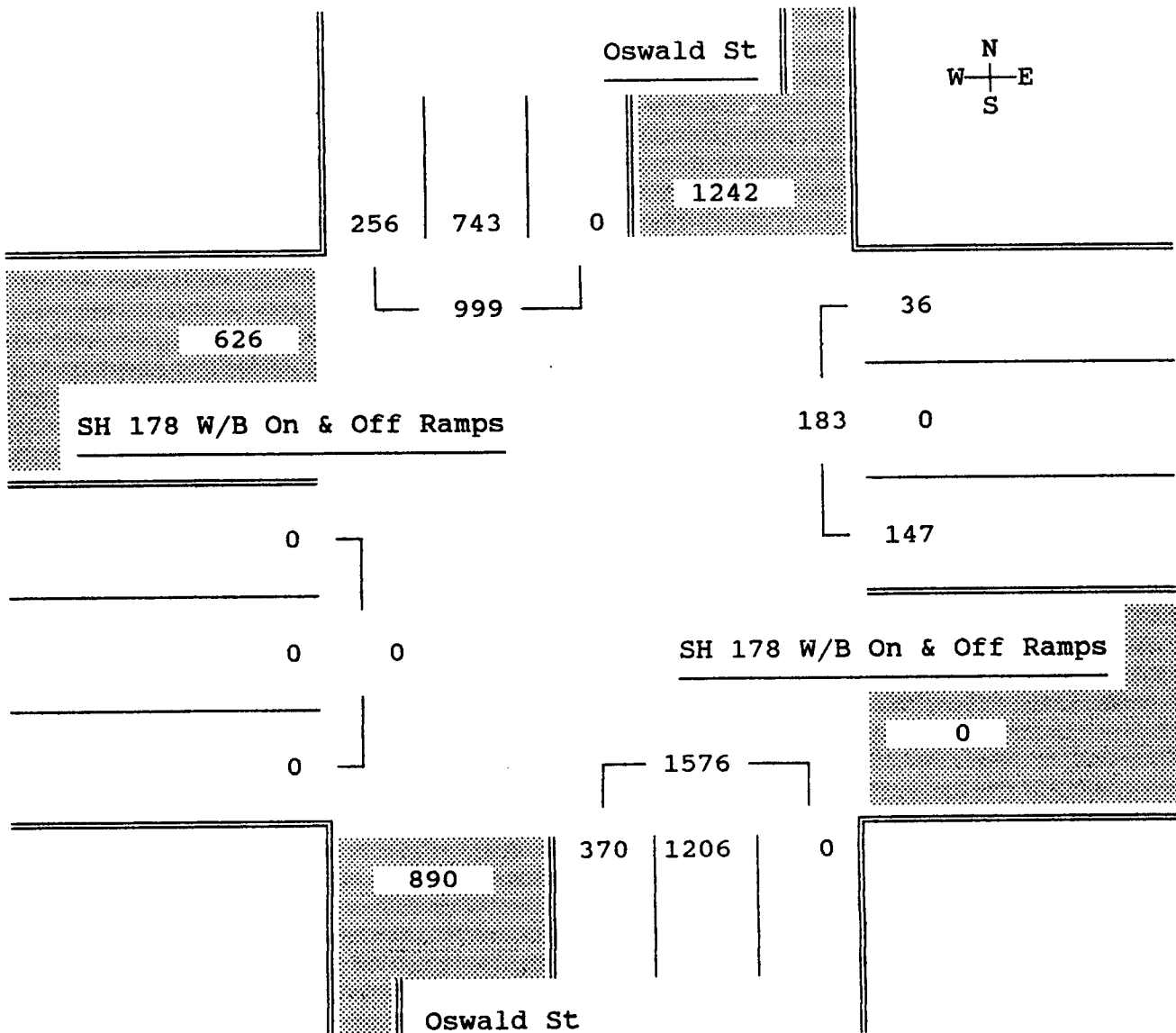
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:00 PM	0.95	274	761	0	1035	26	74	0
East	4:15 PM	0.91	41	0	145	186	22	0	78
South	4:45 PM	0.91	0	1215	373	1588	0	77	23
West	4:45 PM	0.00	0	0	0	0	0	0	0

Entire Intersection

North	4:30 PM	0.94	256	743	0	999	26	74	0
East		0.90	36	0	147	183	20	0	80
South		0.91	0	1206	370	1576	0	77	23
West		0.00	0	0	0	0	0	0	0



Site Code : 09999992  
 N-S Street: Oswald St  
 E-W Street: SH 178 E/B On & Off Ramps  
 Weather : Tue JC

PAGE: 1  
 FILE: 99999992  
 9-11  
 DATE: 12/21/99

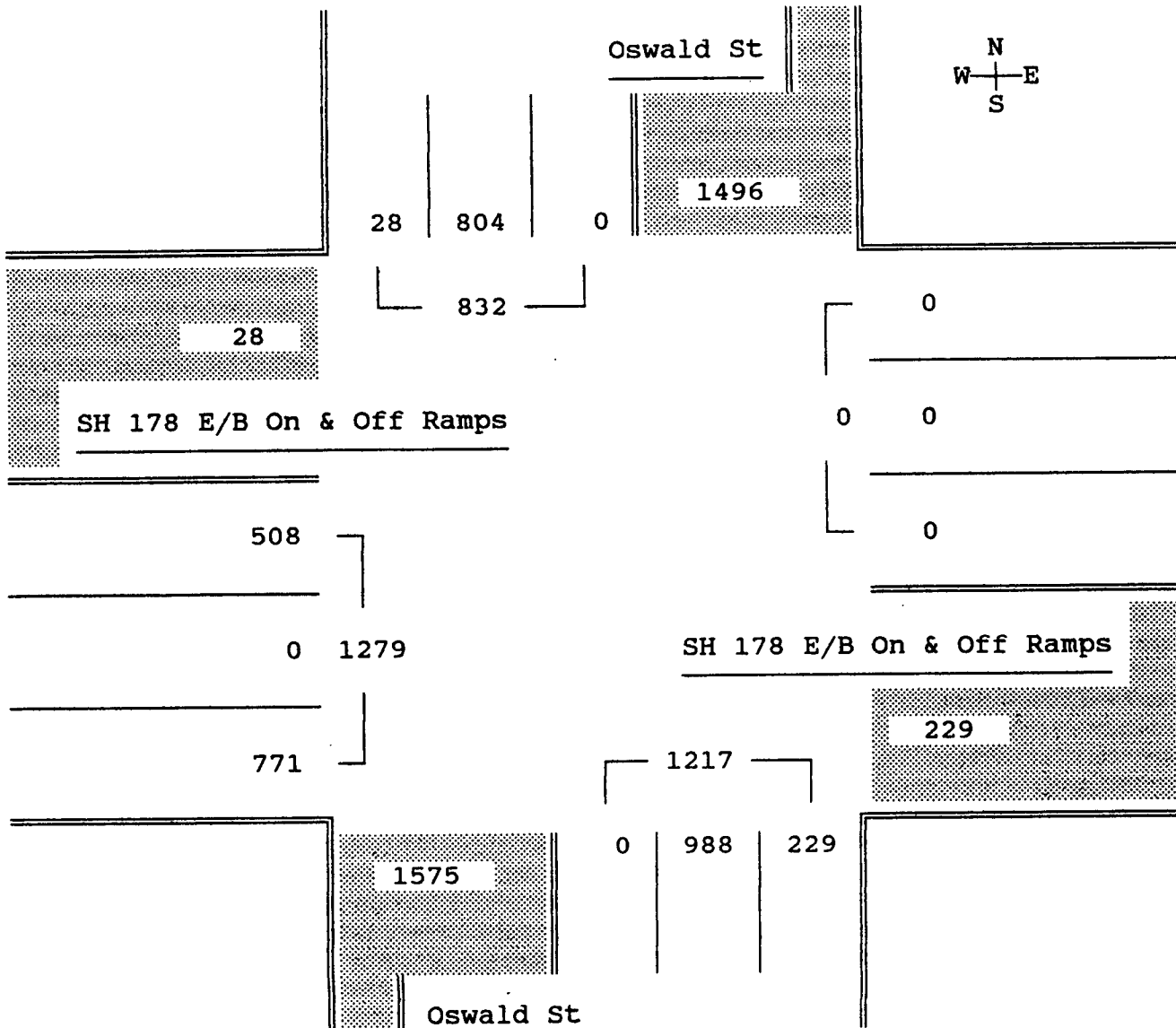
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:00 PM	0.93	31	839	0	870	4	96	0
East	4:00 PM	0.00	0	0	0	0	0	0	0
South	4:30 PM	0.87	218	1053	0	1271	17	83	0
West	5:00 PM	0.84	771	0	508	1279	60	0	40

Entire Intersection

North	5:00 PM	0.97	28	804	0	832	3	97	0
East		0.00	0	0	0	0	0	0	0
South		0.83	229	988	0	1217	19	81	0
West		0.84	771	0	508	1279	60	0	40



TURN MOVEMENT COUNTS

Site Code : 09137014  
 S STREET: Morning Dr  
 E-W STREET: Nile St  
 DAY : Wed

PAGE: 1  
 FILE: temp-3

Movements by: Primary

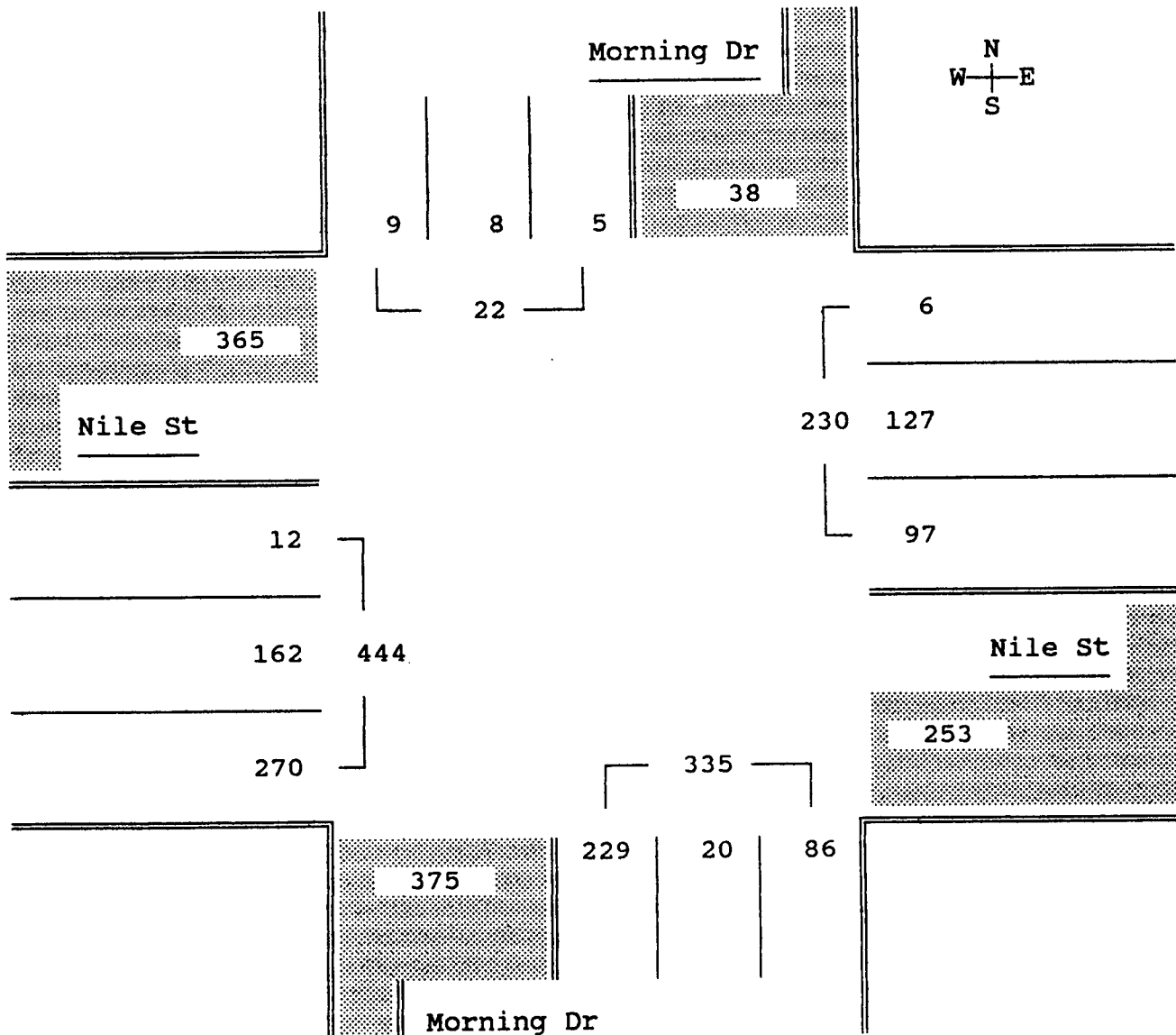
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PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:45 PM	0.86	12	9	3	24	50	38	12
East	4:30 PM	0.86	6	127	97	230	3	55	42
South	4:00 PM	0.90	92	13	230	335	27	4	69
West	4:30 PM	0.94	270	162	12	444	61	36	3

Entire Intersection

North	4:30 PM	0.92	9	8	5	22	41	36	23
East		0.86	6	127	97	230	3	55	42
South		0.90	86	20	229	335	26	6	68
West		0.94	270	162	12	444	61	36	3



TURN MOVEMENT COUNTS

Site Code : 09137013  
 N-S STREET: Morning Dr  
 E-W STREET: Auburn Dr  
 DAY : Tue JC

PAGE: 1  
 FILE: temp-1

Movements by: Primary

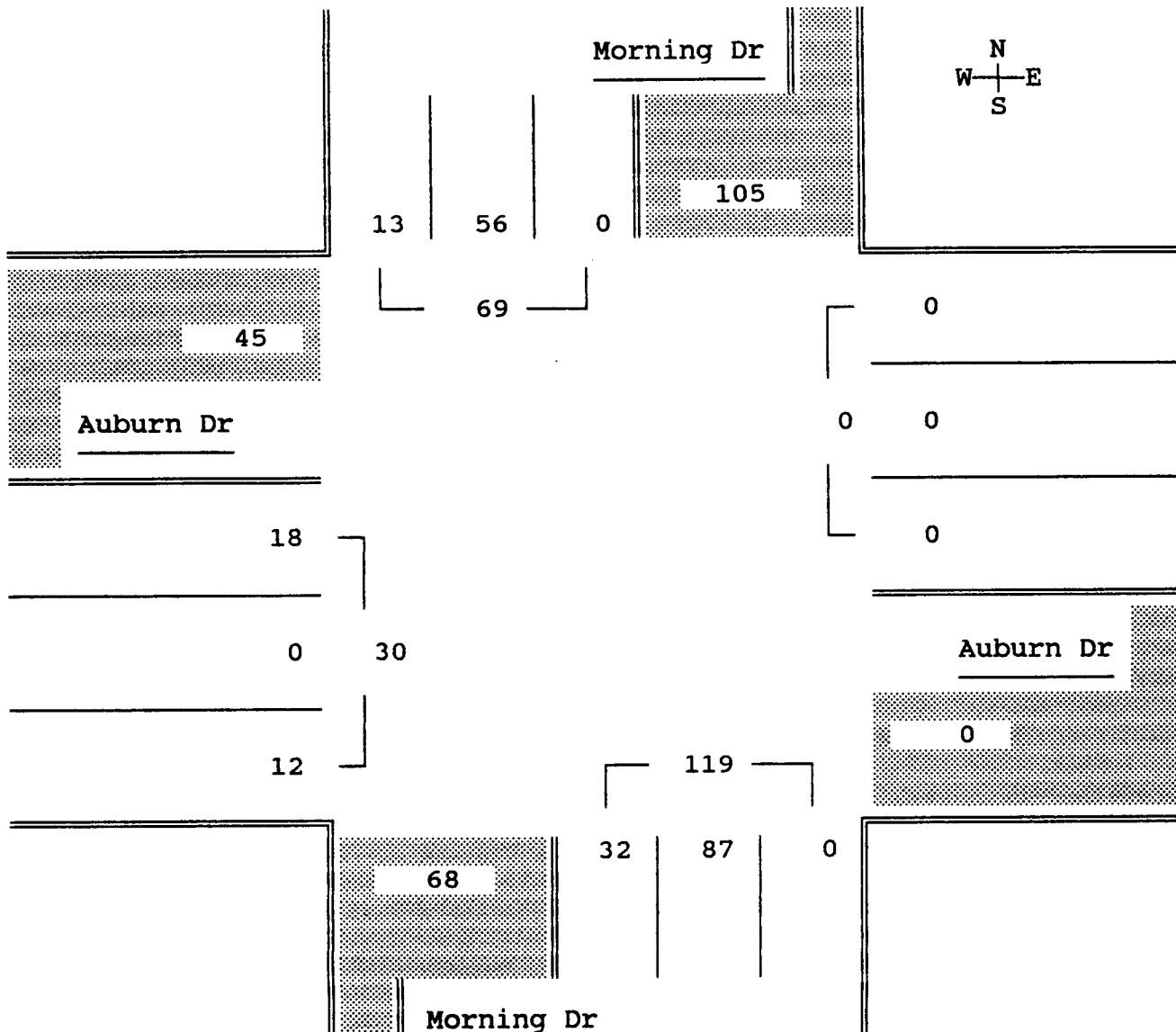
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PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:45 PM	0.75	13	56	0	69	19	81	0
East	4:45 PM	0.00	0	0	0	0	0	0	0
South	4:45 PM	0.73	0	87	32	119	0	73	27
West	4:30 PM	0.70	12	0	19	31	39	0	61

Entire Intersection

North	4:45 PM	0.75	13	56	0	69	19	81	0
East		0.00	0	0	0	0	0	0	0
South		0.73	0	87	32	119	0	73	27
West		0.68	12	0	18	30	40	0	60



TURN MOVEMENT COUNTS

Site Code : 09137009  
 S STREET: Fairfax Dr  
 E-W STREET: Pamorama Dr  
 DAY : Tue DB

PAGE: 1  
 FILE: temp-1

Movements by: Primary

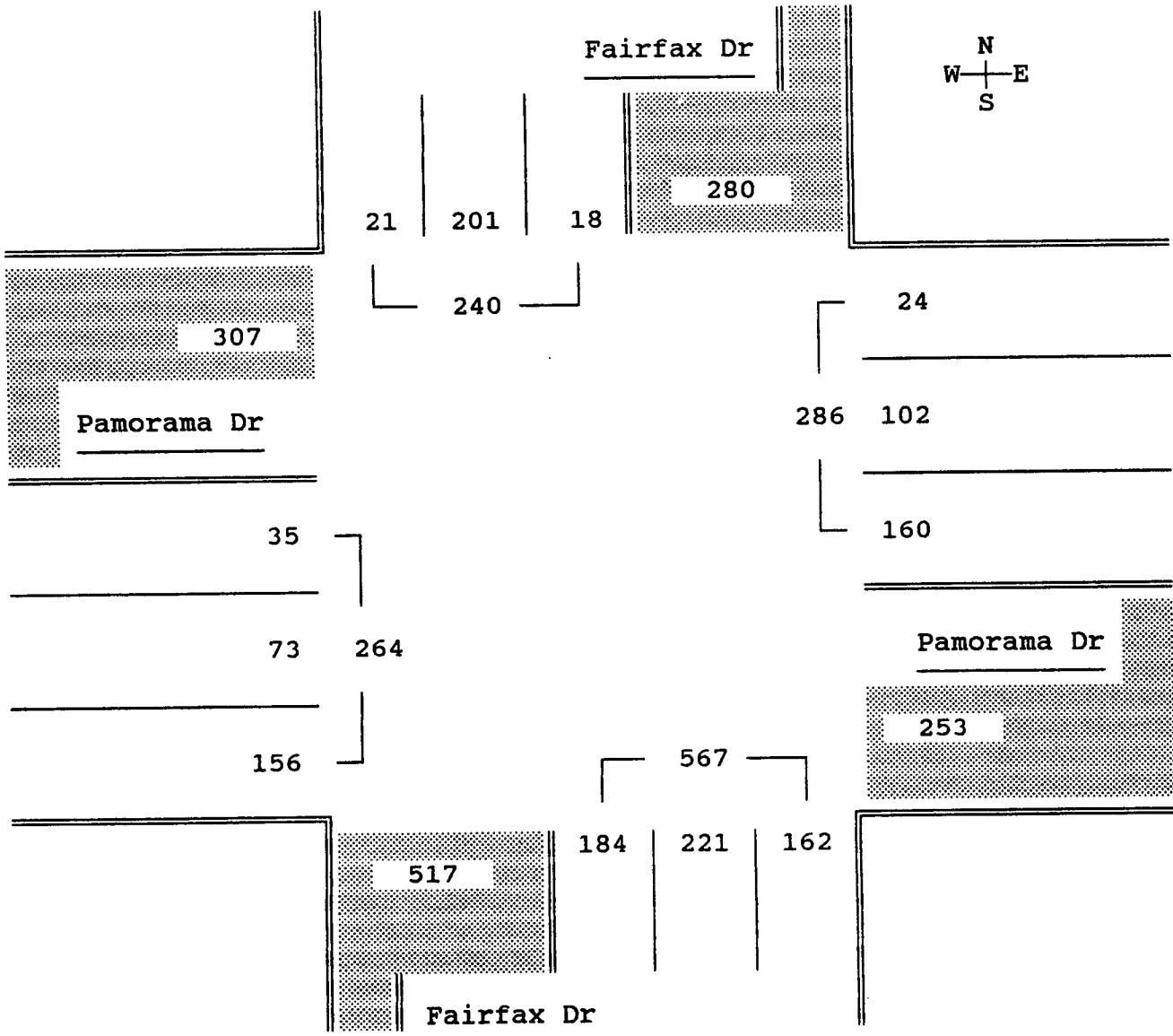
DATE: 11/02/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:30 PM	0.87	29	202	23	254	11	80	9
East	5:00 PM	0.64	24	102	160	286	8	36	56
South	5:00 PM	0.80	162	221	184	567	29	39	32
West	5:00 PM	0.87	156	73	35	264	59	28	13

Entire Intersection

North	5:00 PM	0.87	21	201	18	240	9	84	8
East		0.64	24	102	160	286	8	36	56
South		0.80	162	221	184	567	29	39	32
West		0.87	156	73	35	264	59	28	13



TURN MOVEMENT COUNTS

Site Code : 00913011  
 N-S STREET: Fairfax Dr  
 E-W STREET: Auburn Dr  
 DAY : wed DB

PAGE: 1  
 FILE: TEMP-2

Movements by: Primary

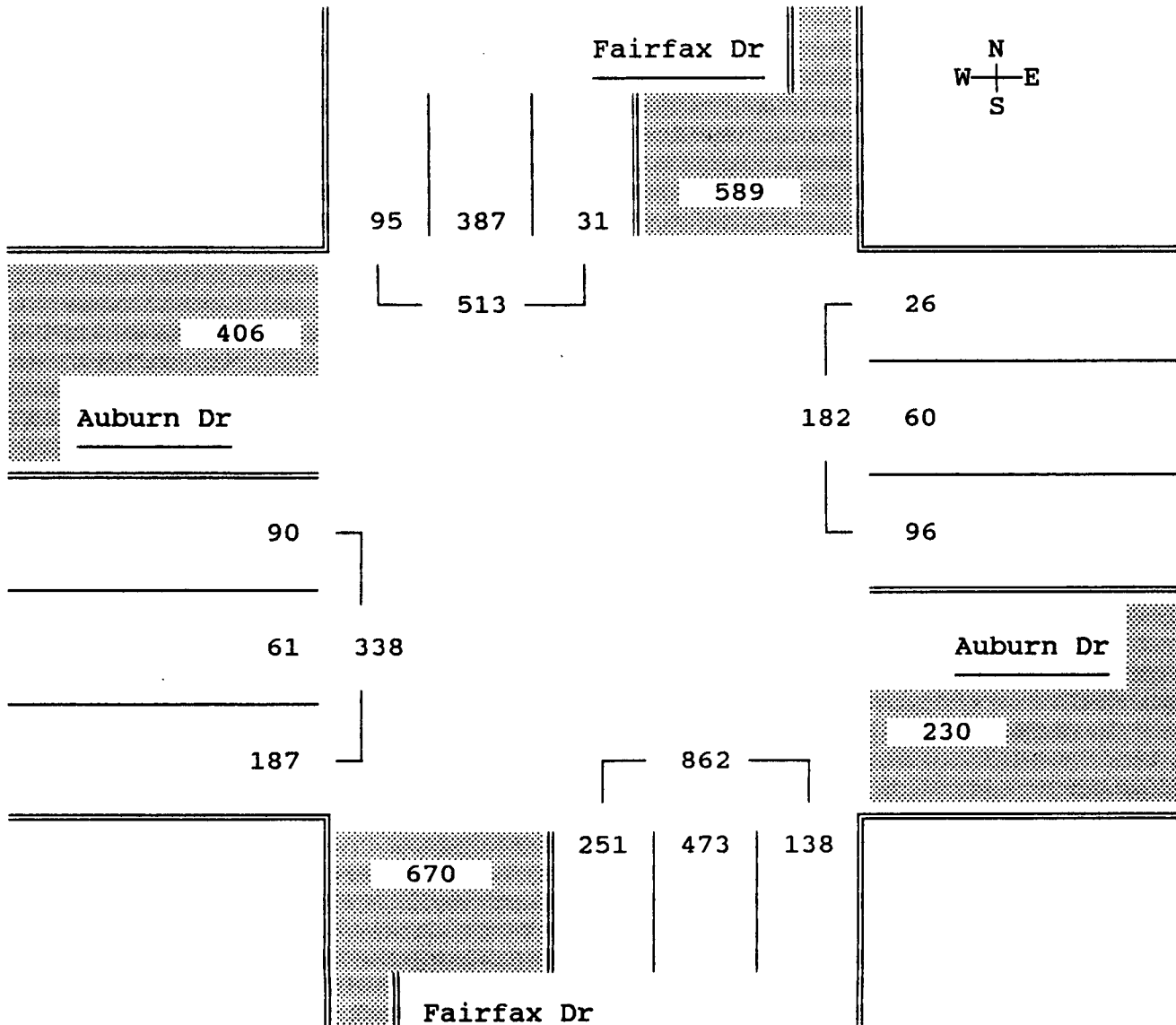
DATE: 11/03/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	5:00 PM	0.93	95	387	31	513	19	75	6
East	5:00 PM	0.88	26	60	96	182	14	33	53
South	5:00 PM	0.92	138	473	251	862	16	55	29
West	5:00 PM	0.86	187	61	90	338	55	18	27

Entire Intersection

North	5:00 PM	0.93	95	387	31	513	19	75	6
East		0.88	26	60	96	182	14	33	53
South		0.92	138	473	251	862	16	55	29
West		0.86	187	61	90	338	55	18	27





TURN MOVEMENT COUNTS

Site Code : 09137003  
 S STREET: Fairfax Road  
 E-W STREET: Paladino Drive  
 DAY :

PAGE: 1  
 FILE: temp-1

Movements by: Primary

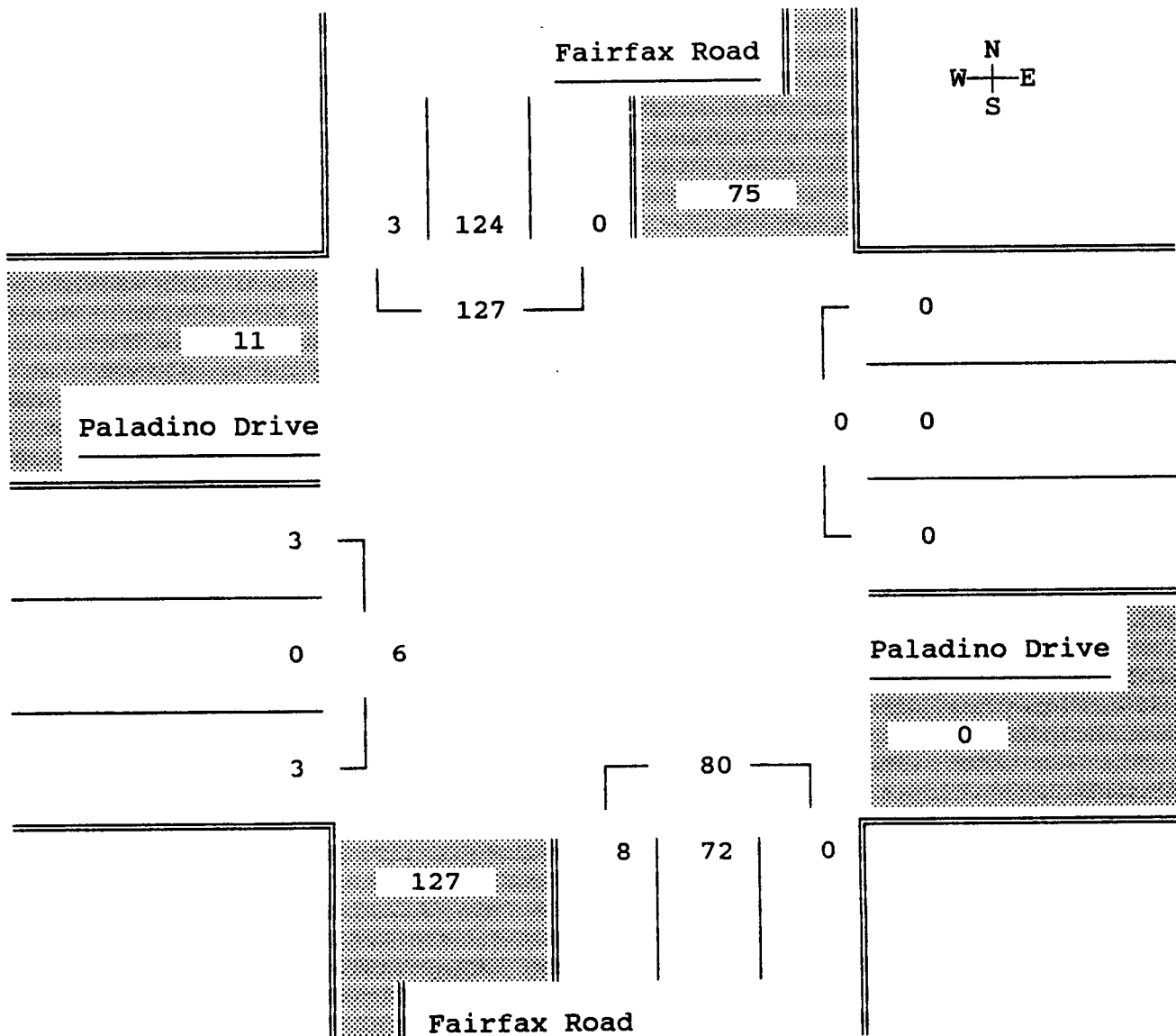
DATE: 10/26/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 5:45 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:45 PM	0.79	3	124	0	127	2	98	0
East	4:45 PM	0.00	0	0	0	0	0	0	0
South	4:45 PM	0.65	0	72	8	80	0	90	10
West	4:15 PM	0.58	2	0	5	7	29	0	71

Entire Intersection

North	4:45 PM	0.79	3	124	0	127	2	98	0
East		0.00	0	0	0	0	0	0	0
South		0.65	0	72	8	80	0	90	10
West		0.50	3	0	3	6	50	0	50



TURN MOVEMENT COUNTS

>&kOS  
 Site Code : 09137005  
 N / S : SR 184 (Masterson)  
 E / W : SR 178  
 OPERATOR : JC

PAGE: 1  
 FILE: 9137005

Movements by: Primary

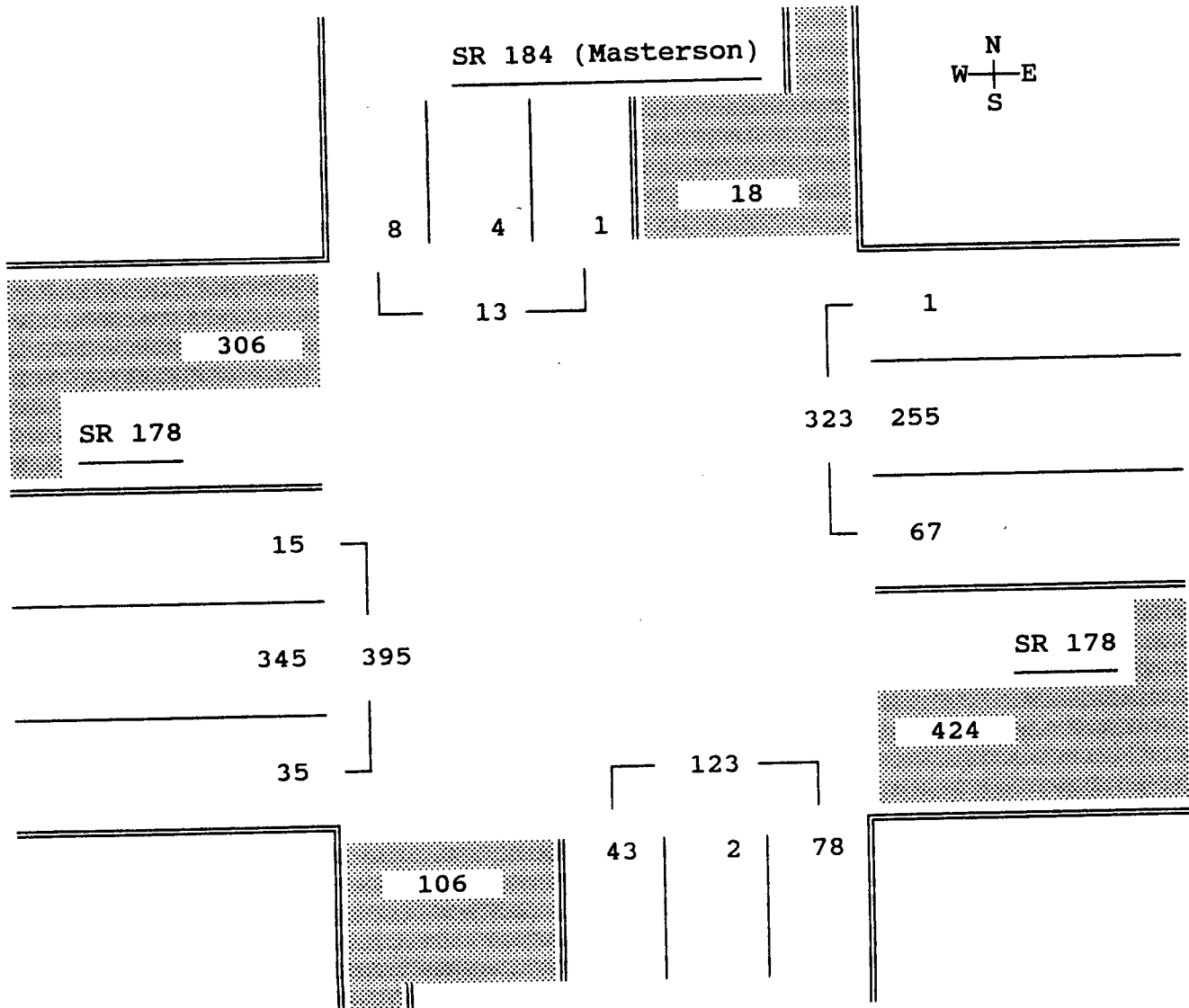
DATE: 10/26/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:15 PM	0.67	8	7	1	16	50	44	6
East	4:45 PM	0.92	1	255	67	323	0	79	21
South	4:15 PM	0.75	77	4	60	141	55	3	43
West	5:00 PM	0.94	27	374	14	415	7	90	3

Entire Intersection

North	4:45 PM	0.54	8	4	1	13	62	31	8
East		0.92	1	255	67	323	0	79	21
South		0.65	78	2	43	123	63	2	35
West		0.91	35	345	15	395	9	87	4



TURN MOVEMENT COUNTS

Site Code : 09137007  
 / S : Alfred Harrell Hwy  
 E / W : SR 178  
 OPERATOR : DB

PAGE: 1  
 FILE: 9137007

Movements by: Primary

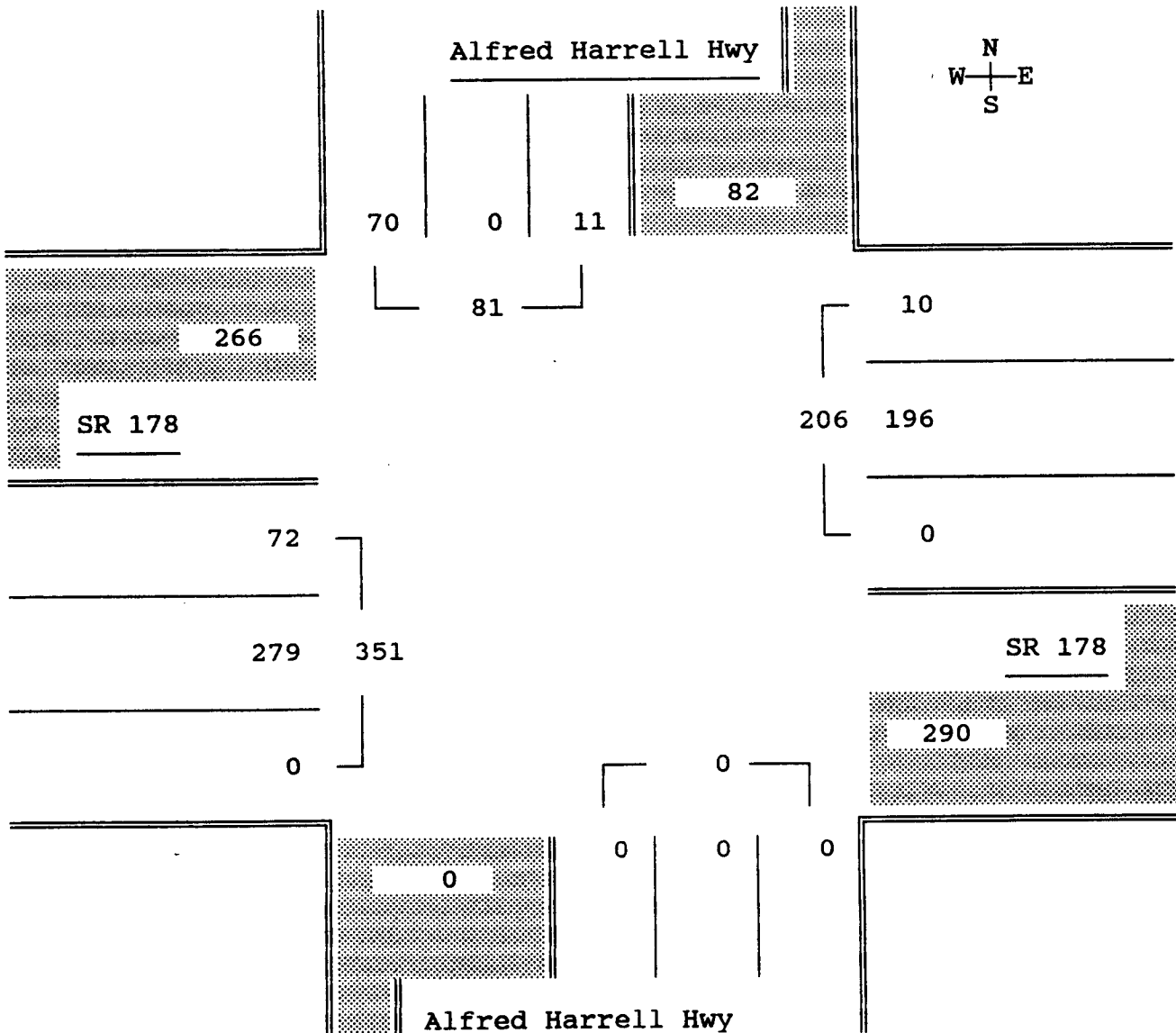
DATE: 10/27/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	5:00 PM	0.95	83	0	8	91	91	0	9
East	4:30 PM	0.86	10	196	0	206	5	95	0
South	4:30 PM	0.00	0	0	0	0	0	0	0
West	4:45 PM	0.88	0	280	72	352	0	80	20

Entire Intersection

North	4:30 PM	0.84	70	0	11	81	86	0	14
East		0.86	10	196	0	206	5	95	0
South		0.00	0	0	0	0	0	0	0
West		0.89	0	279	72	351	0	79	21



TURN MOVEMENT COUNTS

Site Code : 09137006  
 N / S : Commanche Dr  
 E / W : SR 178  
 OPERATOR : JC

PAGE: 1  
 FILE: 9137006  
 DATE: 10/27/99

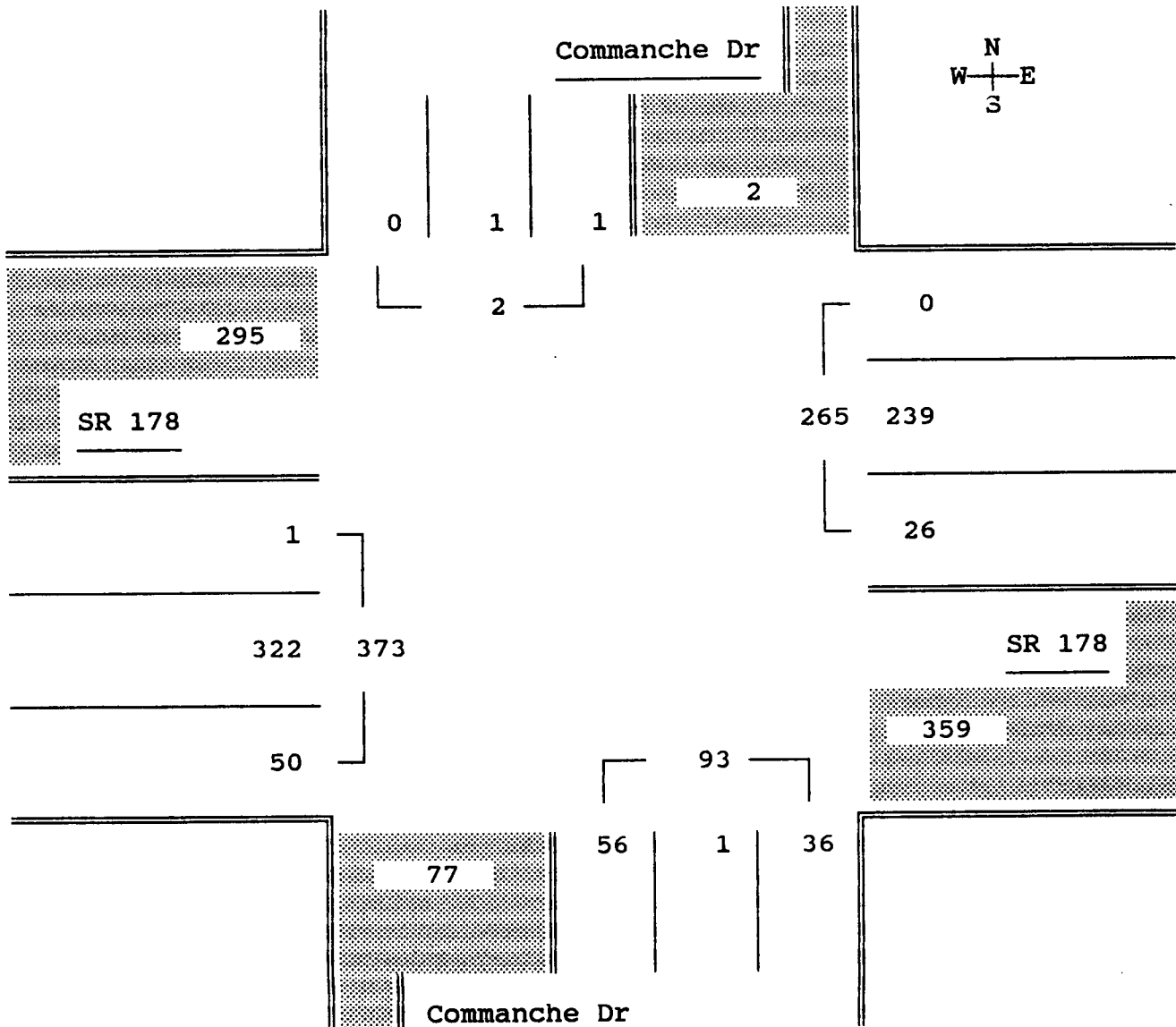
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:00 PM	0.50	1	1	0	2	50	50	0
East	4:30 PM	0.86	0	239	26	265	0	90	10
South	4:15 PM	0.74	39	1	63	103	38	1	61
West	4:30 PM	0.86	50	322	1	373	13	86	0

Entire Intersection

North	4:30 PM	0.50	0	1	1	2	0	50	50
East		0.86	0	239	26	265	0	90	10
South		0.83	36	1	56	93	39	1	60
West		0.86	50	322	1	373	13	86	0



TURN MOVEMENT COUNTS

Site Code : 09137001  
 / S : Morning Dr  
 E / W : SR 178  
 OPERATOR : JC

PAGE: 1  
 FILE: 9137001  
 DATE: 10/28/99

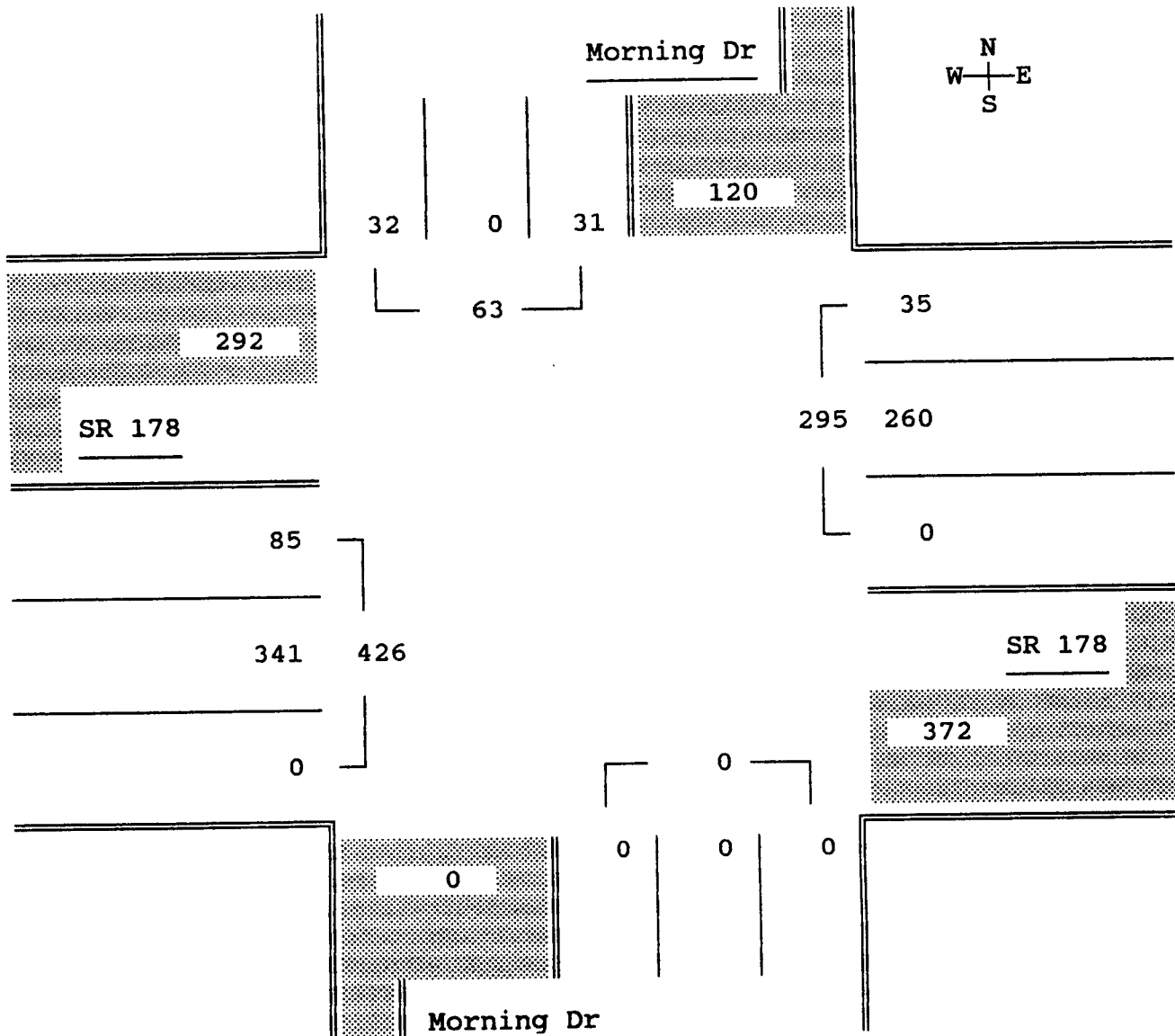
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:45 PM	0.83	32	0	31	63	51	0	49
East	4:15 PM	0.84	29	270	0	299	10	90	0
South	4:00 PM	0.50	0	0	2	2	0	0	100
West	5:00 PM	0.90	0	356	71	427	0	83	17

Entire Intersection

North	4:45 PM	0.83	32	0	31	63	51	0	49
East		0.83	35	260	0	295	12	88	0
South		0.00	0	0	0	0	0	0	0
West		0.90	0	341	85	426	0	80	20



TURN MOVEMENT COUNTS

Site Code : 09137010  
 N-S STREET: Morning Drive  
 E-W STREET: Panaroma Drive  
 DAY : thur IL

PAGE: 1  
 FILE: TEMP-2

Movements by: Primary

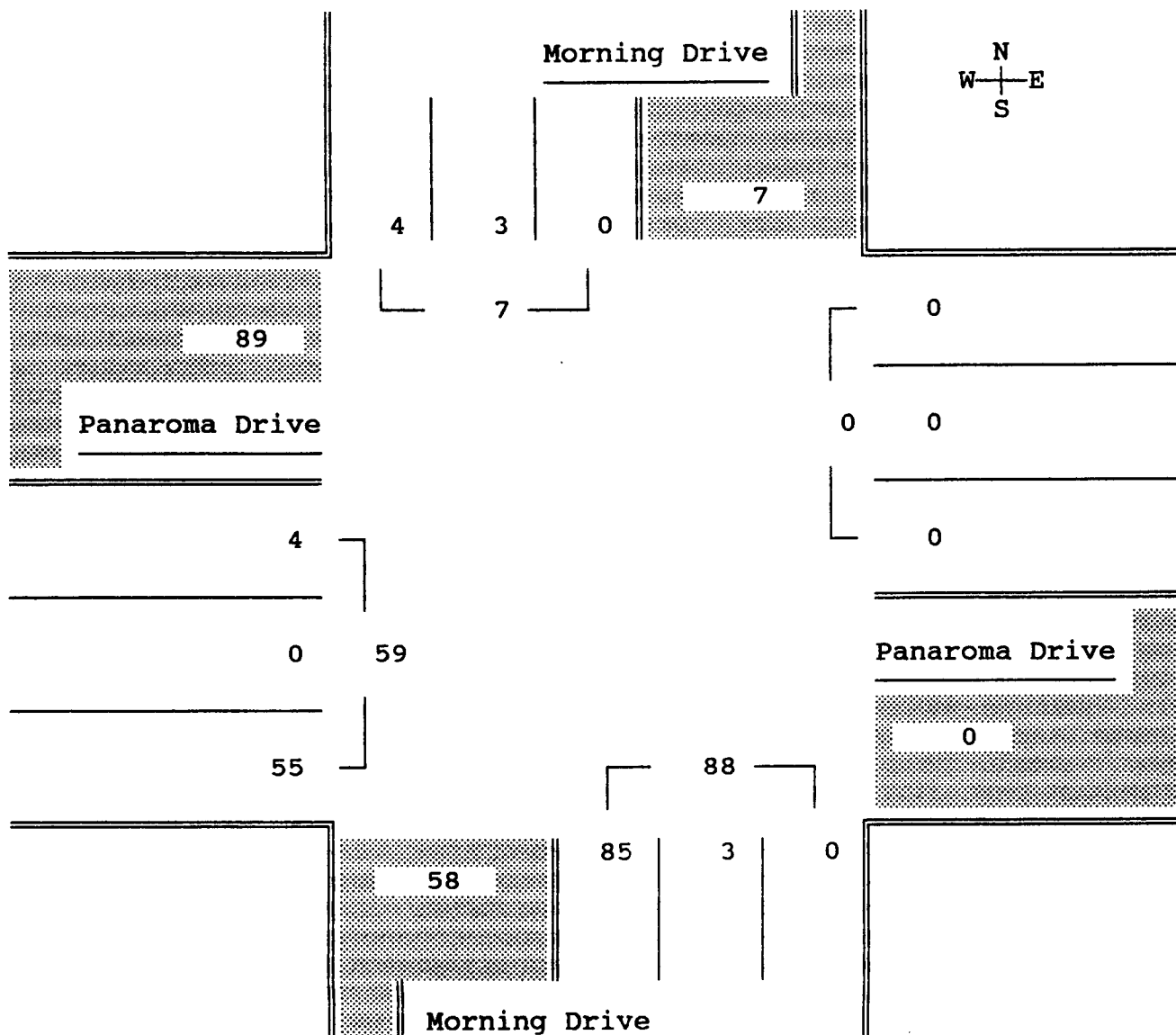
DATE: 10/28/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:45 PM	0.44	4	3	0	7	57	43	0
East	4:45 PM	0.00	0	0	0	0	0	0	0
South	4:45 PM	0.63	0	3	85	88	0	3	97
West	5:00 PM	0.70	60	0	4	64	94	0	6

Entire Intersection

North	4:45 PM	0.44	4	3	0	7	57	43	0
East		0.00	0	0	0	0	0	0	0
South		0.63	0	3	85	88	0	3	97
West		0.64	55	0	4	59	93	0	7



TURN MOVEMENT COUNTS

Site Code : 09999991  
 S STREET: Oswald St  
 E-W STREET: SH 178 W/B on & off ramps  
 DAY : Tue DB

PAGE: 1  
 FILE: 99999991  
 DATE: 12/21/99

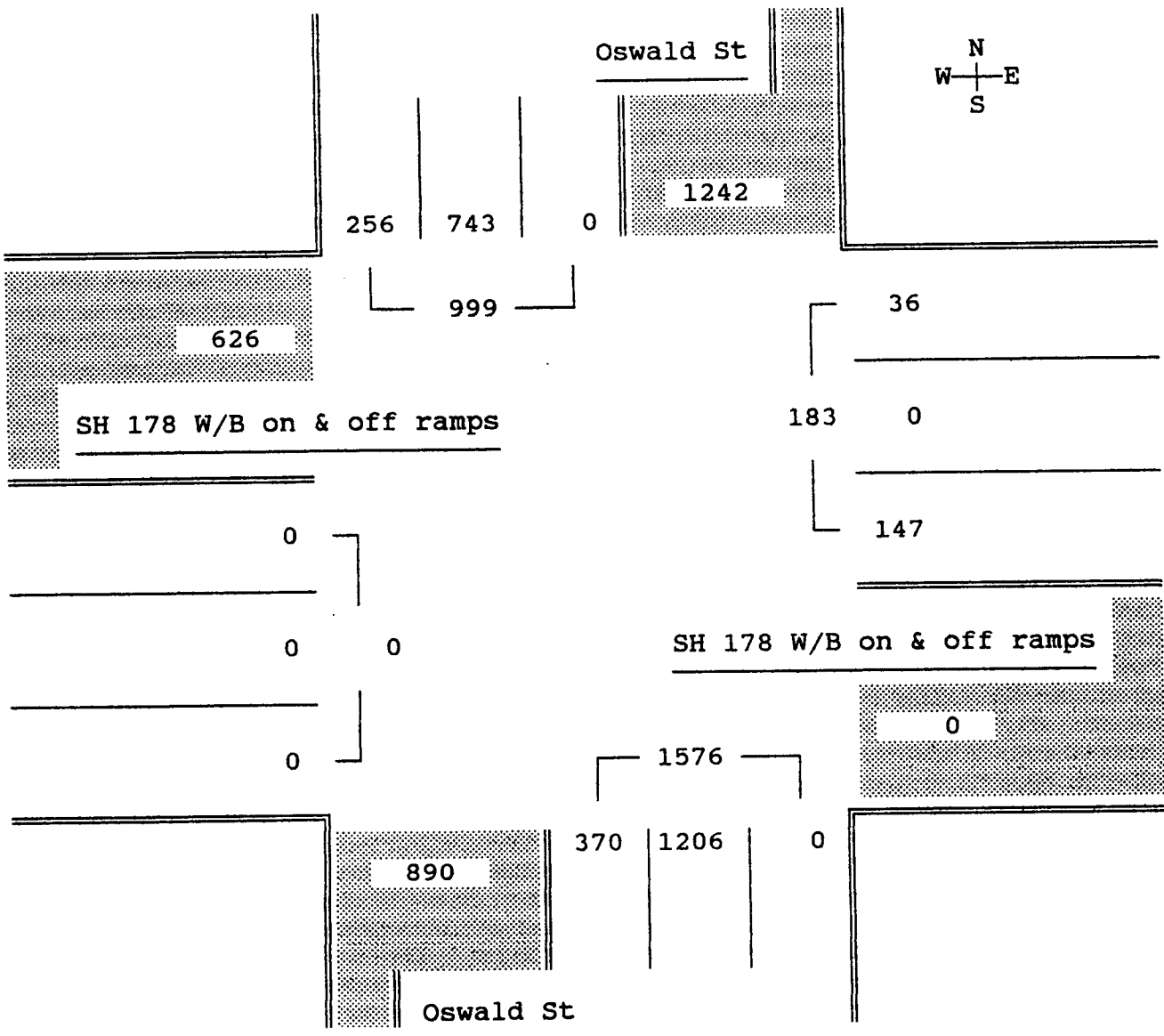
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:00 PM	0.95	274	761	0	1035	26	74	0
East	4:15 PM	0.91	41	0	145	186	22	0	78
South	4:45 PM	0.91	0	1215	373	1588	0	77	23
West	4:45 PM	0.00	0	0	0	0	0	0	0

Entire Intersection

North	4:30 PM	0.94	256	743	0	999	26	74	0
East		0.90	36	0	147	183	20	0	80
South		0.91	0	1206	370	1576	0	77	23
West		0.00	0	0	0	0	0	0	0



TURN MOVEMENT COUNTS

Site Code : 09999991  
 N-S STREET: Oswald St  
 E-W STREET: SH 178 W/B on & off ramps  
 DAY : Tue DB

PAGE: 1  
 FILE: 99999991  
 DATE: 12/21/99

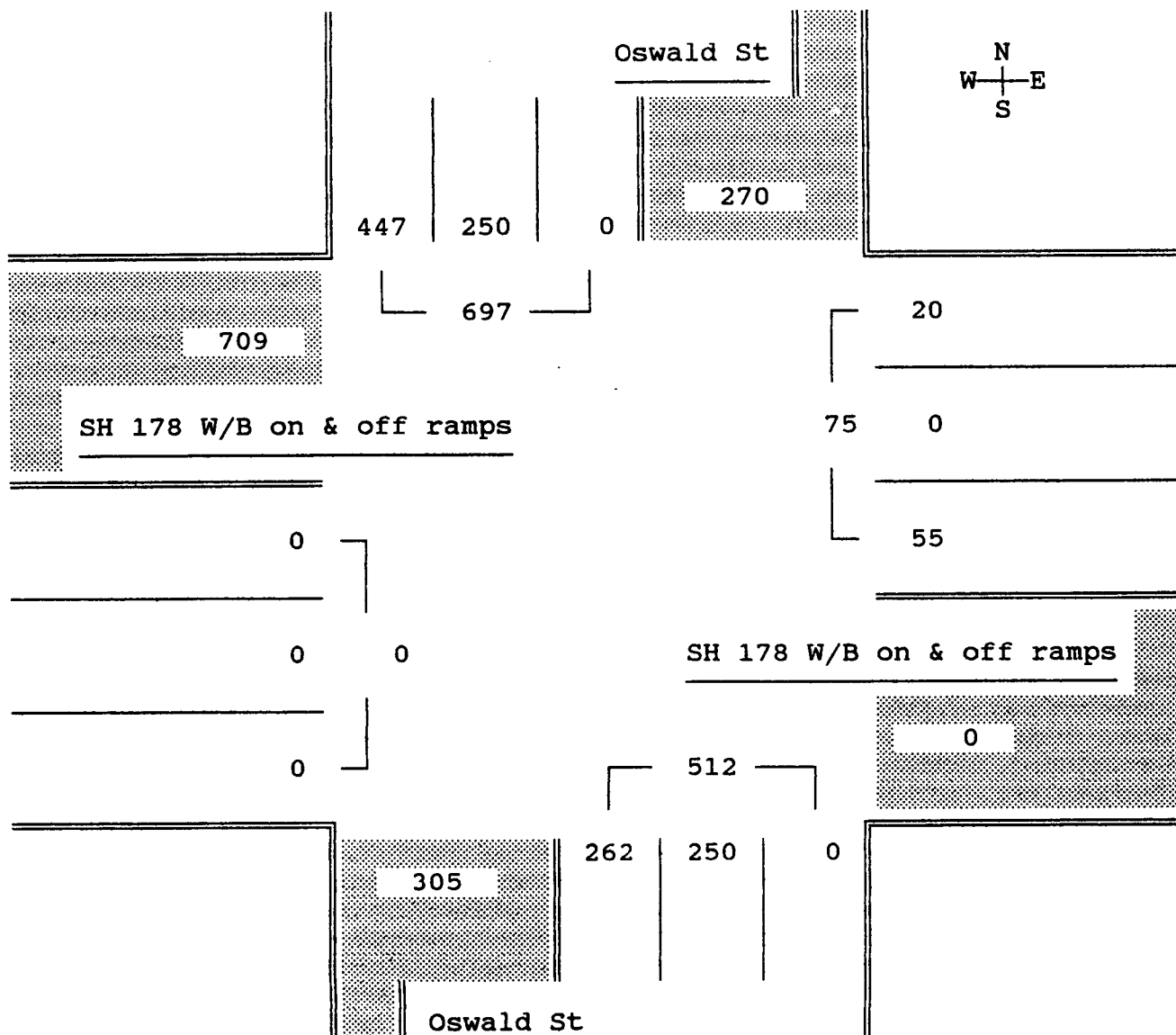
Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.68	447	250	0	697	64	36	0
East	7:00 AM	0.75	20	0	55	75	27	0	73
South	7:00 AM	0.86	0	250	262	512	0	49	51
West	7:00 AM	0.00	0	0	0	0	0	0	0

Entire Intersection

North	7:00 AM	0.68	447	250	0	697	64	36	0
East		0.75	20	0	55	75	27	0	73
South		0.86	0	250	262	512	0	49	51
West		0.00	0	0	0	0	0	0	0





TURN MOVEMENT COUNTS

Site Code : 09999992  
 S STREET: Oswald St  
 E-W STREET: SH 178 E/B on & off ramps  
 DAY : Tue JC

PAGE: 1  
 FILE: temp-1

Movements by: Primary

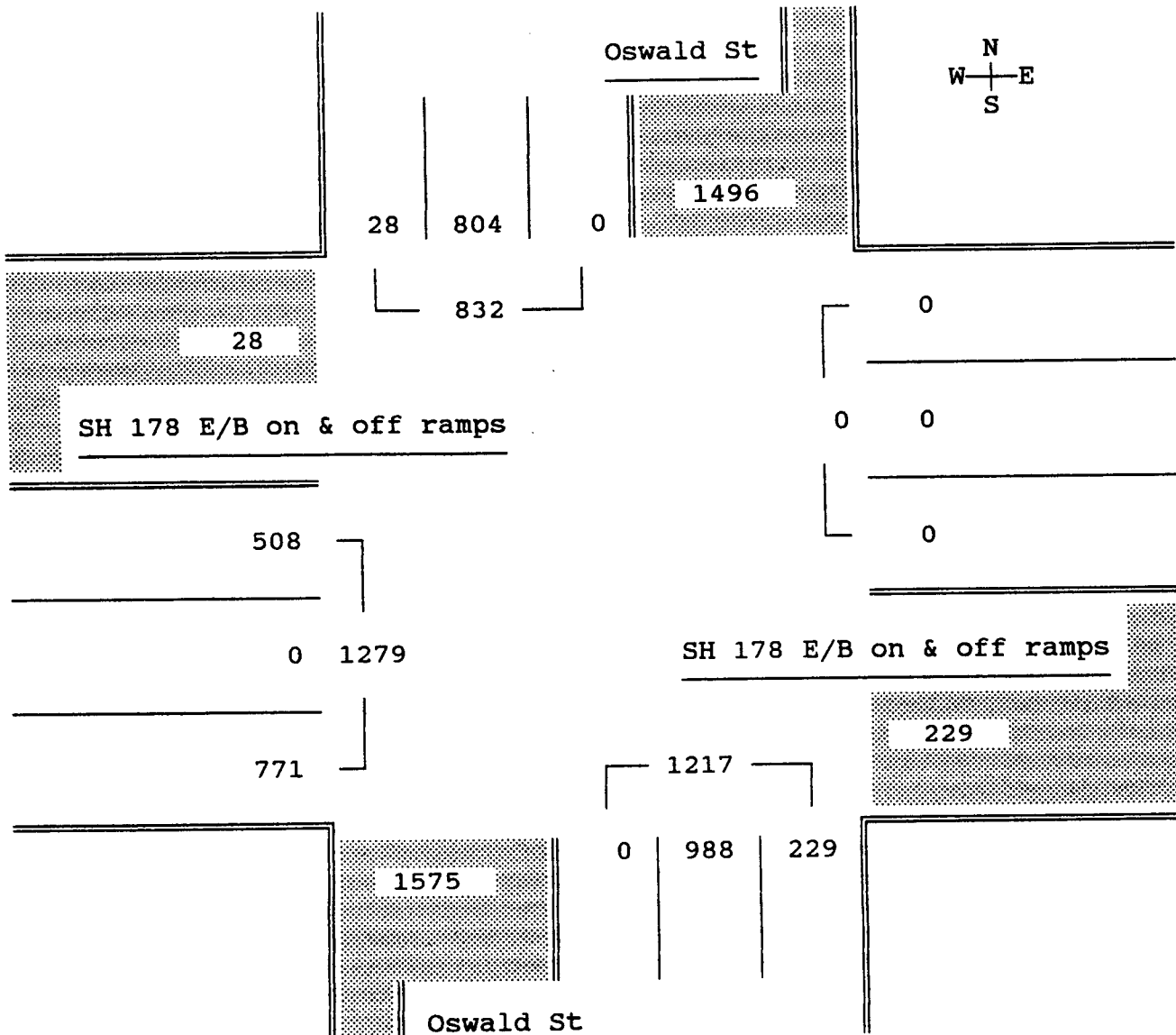
DATE: 12/21/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	4:00 PM	0.93	31	839	0	870	4	96	0
East	4:00 PM	0.00	0	0	0	0	0	0	0
South	4:30 PM	0.87	218	1053	0	1271	17	83	0
West	5:00 PM	0.84	771	0	508	1279	60	0	40

Entire Intersection

North	5:00 PM	0.97	28	804	0	832	3	97	0
East		0.00	0	0	0	0	0	0	0
South		0.83	229	988	0	1217	19	81	0
West		0.84	771	0	508	1279	60	0	40



TURN MOVEMENT COUNTS

Site Code : 09999992  
 N-S STREET: Oswald St  
 E-W STREET: SH 178 E/B on & off ramps  
 DAY : Tue JC

PAGE: 1  
 FILE: temp-1

Movements by: Primary

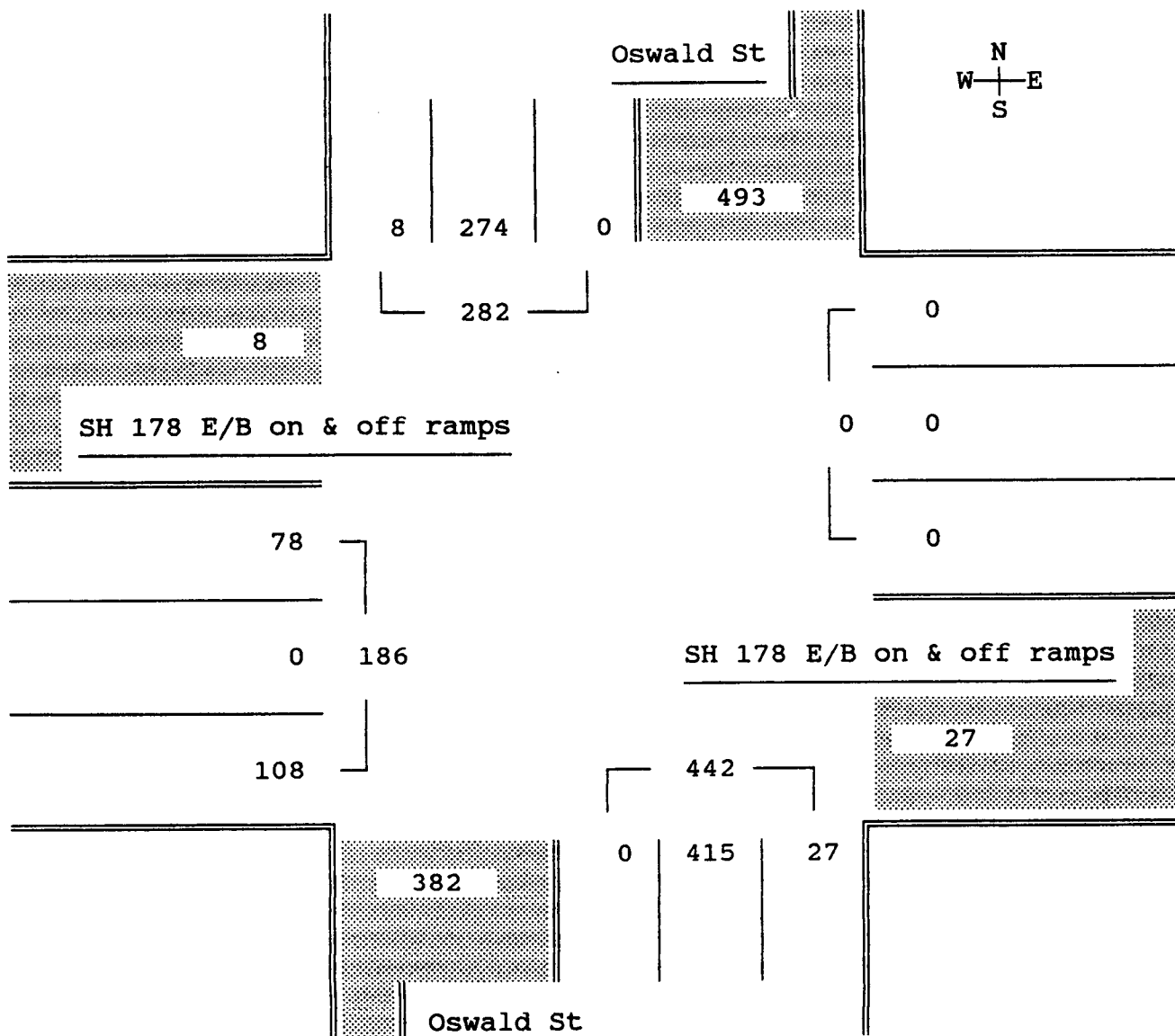
DATE: 12/21/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:00 AM - 8:00 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
North	7:00 AM	0.85	8	274	0	282	3	97	0
East	7:00 AM	0.00	0	0	0	0	0	0	0
South	7:00 AM	0.84	27	415	0	442	6	94	0
West	7:00 AM	0.80	108	0	78	186	58	0	42

Entire Intersection

North	7:00 AM	0.85	8	274	0	282	3	97	0
East		0.00	0	0	0	0	0	0	0
South		0.84	27	415	0	442	6	94	0
West		0.80	108	0	78	186	58	0	42



Center For Microcomputers In Transportation  
 University of Florida  
 512 Weil Hall  
 Gainesville, FL 32611-6585  
 Ph: (352) 392-0378

Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information.....PM Existing Volumes  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	1	0	0	0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	72	279			196	10				11	0	70
PHF	.95	.95			.95	.95				.95	.95	.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		206
Potential Capacity: (pcph)		1089
Movement Capacity: (pcph)		1089
Prob. of Queue-Free State:		0.93
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)		217
Potential Capacity: (pcph)		1351
Movement Capacity: (pcph)		1351
Prob. of Queue-Free State:		0.94
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		576
Potential Capacity: (pcph)		544
Capacity Adjustment Factor due to Impeding Movements		0.94
Movement Capacity: (pcph)		510
Prob. of Queue-Free State:		1.00
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		576
Potential Capacity: (pcph)		491
Major LT, Minor TH Impedance Factor:		0.94
Adjusted Impedance Factor:		0.94
Capacity Adjustment Factor due to Impeding Movements		0.94
Movement Capacity: (pcph)		460
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
SB L	13	460	>				
SB T	0	510	>	4.4	0.3	A	4.4
SB R	81	1089	>				
EB L	84	1351		2.8	0.1	A	0.6

Intersection Delay = 0.9 sec/veh

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Streets: (N-S) Commanche Dr (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information.....AM Existing Volumes  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	0	> 1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	1	322	50	26	239	0	56	1	36	1	1	0
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

=====

Worksheet for TWSC Intersection

-----

Step 1: RT from Minor Street	NB	SB
-----	-----	-----
Conflicting Flows: (vph)	366	252
Potential Capacity: (pcph)	903	1032
Movement Capacity: (pcph)	903	1032
Prob. of Queue-Free State:	0.95	1.00
-----	-----	-----
Step 2: LT from Major Street	WB	EB
-----	-----	-----
Conflicting Flows: (vph)	392	252
Potential Capacity: (pcph)	1115	1300
Movement Capacity: (pcph)	1115	1300
Prob. of Queue-Free State:	0.97	1.00
TH Saturation Flow Rate: (pcphpl)	1700	1700
RT Saturation Flow Rate: (pcphpl)	1700	1700
Major LT Shared Lane Prob. of Queue-Free State:	0.97	1.00
-----	-----	-----
Step 3: TH from Minor Street	NB	SB
-----	-----	-----
Conflicting Flows: (vph)	646	672
Potential Capacity: (pcph)	500	484
Capacity Adjustment Factor due to Impeding Movements	0.97	0.97
Movement Capacity: (pcph)	484	468
Prob. of Queue-Free State:	1.00	1.00
-----	-----	-----
Step 4: LT from Minor Street	NB	SB
-----	-----	-----
Conflicting Flows: (vph)	646	665
Potential Capacity: (pcph)	447	436
Major LT, Minor TH Impedance Factor:	0.97	0.97
Adjusted Impedance Factor:	0.97	0.97
Capacity Adjustment Factor due to Impeding Movements	0.97	0.93
Movement Capacity: (pcph)	435	405
-----	-----	-----

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	65	435 >					
NB T	1	484 >	545	8.2	0.8	B	8.2
NB R	42	903 >					
SB L	1	405 >					
SB T	1	468 >	434	8.3	0.0	B	8.3
SB R	0	1032 >					
EB L	1	1300		2.8	0.0	A	0.0
WB L	30	1115		3.3	0.0	A	0.3

Intersection Delay = 1.2 sec/veh

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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information.....AM Existing Volumes  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	15	345	35	67	255	1	43	2	78	1	1	0
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40



Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	382	268
Potential Capacity: (pcph)	887	1013
Movement Capacity: (pcph)	887	1013
Prob. of Queue-Free State:	0.90	1.00
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	400	269
Potential Capacity: (pcph)	1105	1276
Movement Capacity: (pcph)	1105	1276
Prob. of Queue-Free State:	0.93	0.99
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	738	756
Potential Capacity: (pcph)	447	438
Capacity Adjustment Factor due to Impeding Movements	0.92	0.92
Movement Capacity: (pcph)	410	401
Prob. of Queue-Free State:	1.00	1.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	738	779
Potential Capacity: (pcph)	396	375
Major LT, Minor TH Impedance Factor:	0.91	0.91
Adjusted Impedance Factor:	0.93	0.93
Capacity Adjustment Factor due to Impeding Movements	0.93	0.84
Movement Capacity: (pcph)	370	314

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	50	370 >					
NB T	2	410 >	588	8.1	1.0	B	8.1
NB R	90	887 >					
SB L	1	314 >					
SB T	1	401 >	352	10.3	0.0	C	10.3
SB R	0	1013 >					
EB L	18	1276		2.9	0.0	A	0.1
WB L	78	1105		3.5	0.1	A	0.7

Intersection Delay = 1.5 sec/veh

Center For Microcomputers In Transportation  
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 Ph: (352) 392-0378

Streets: (N-S) Morning Drive (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information..... Existing Volumes PM  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	85	341			260	35				31		32
PHF	.95	.95			.95	.95				.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10		

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			137
Potential Capacity: (pcph)			1180
Movement Capacity: (pcph)			1180
Prob. of Queue-Free State:			0.97
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			311
Potential Capacity: (pcph)			1167
Movement Capacity: (pcph)			1167
Prob. of Queue-Free State:			0.92
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			722
Potential Capacity: (pcph)			366
Major LT, Minor TH			
Impedance Factor:			0.92
Adjusted Impedance Factor:			0.92
Capacity Adjustment Factor			
due to Impeding Movements			0.92
Movement Capacity: (pcph)			335

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	36	335		12.0	0.3	C	7.5
SB R	37	1180		3.1	0.0	A	
EB L	98	1167		3.4	0.2	A	0.7

Intersection Delay = 1.0 sec/veh

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Streets: (N-S) Morning Drive (E-W) Auburn Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information..... Existing Volumes PM  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	12		18				32	87			56	13
PHF	.95		.95				.95	.95			.95	.95
Grade		0						0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10			1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			0
Potential Capacity: (pcph)			1385
Movement Capacity: (pcph)			1385
Prob. of Queue-Free State:			0.99
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			0
Potential Capacity: (pcph)			1714
Movement Capacity: (pcph)			1714
Prob. of Queue-Free State:			0.99
Step 3: TH from Minor Street		NB	SB
Conflicting Flows: (vph)	13		32
Potential Capacity: (pcph)	1072		1045
Capacity Adjustment Factor due to Impeding Movements	0.99		0.99
Movement Capacity: (pcph)	1063		1036
Prob. of Queue-Free State:	0.90		0.94
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)	50		
Potential Capacity: (pcph)	984		
Major LT, Minor TH Impedance Factor:	0.93		
Adjusted Impedance Factor:	0.95		
Capacity Adjustment Factor due to Impeding Movements	0.94		
Movement Capacity: (pcph)	921		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	37	921		4.1	0.0	A	
NB T	101	1063		3.7	0.3	A	3.8
SB T	65	1036		3.7	0.1	A	3.5
SB R	15	1385		2.6	0.0	A	
EB L	14	1714		2.1	0.0	A	0.8

Intersection Delay = 3.3 sec/veh

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Streets: (N-S) Morning Drive (E-W) Panorama Dr  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information.....Existing Volumes PM  
 All-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Volumes	4		55				85	3			3	4
PHF	.95		.95				.95	.95			.95	.95

Volume Summary and Capacity Analysis WorkSheet

	EB	WB	NB	SB
LT Flow Rate	4		89	0
RT Flow Rate	58		0	4
Approach Flow Rate	62		92	7
Proportion LT	0.06		0.97	0.00
Proportion RT	0.94		0.00	0.57
Opposing Approach Flow Rate	0		7	92
Conflicting Approaches Flow Rate	99		62	62
Proportion, Subject Approach Flow Rate	0.39		0.57	0.04
Proportion, Opposing Approach Flow Rate	0.00		0.04	0.57
Lanes on Subject Approach	2		2	2
Lanes on Opposing Approach	0		2	2
LT, Opposing Approach	0		0	89
RT, Opposing Approach	0		4	0
LT, Conflicting Approaches	89		4	4
RT, Conflicting Approaches	4		58	58
Proportion LT, Opposing Approach	0.00		0.00	0.97
Proportion RT, Opposing Approach	0.00		0.57	0.00
Proportion LT, Conflicting Approaches	0.90		0.06	0.06
Proportion RT, Conflicting Approaches	0.04		0.94	0.94
Approach Capacity	528		1177	615

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
EB	62	528	0.12	1.6	A
NB	92	1177	0.08	1.3	A
SB	7	615	0.01	1.0	A

Intersection Delay = 1.4  
 Level of Service (Intersection) = A

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Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information..... Existing Volumes PM  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	3	0	3				8	72		124	3	
PHF	.95	.95	.95				.95	.95		.95	.95	
Grade		0						0		0		
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10		1.10	1.10	

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

-----  
 Worksheet for TWSC Intersection  
 -----

Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1385
Movement Capacity: (pcph)		1385
Prob. of Queue-Free State:		1.00
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1714
Movement Capacity: (pcph)		1714
Prob. of Queue-Free State:		1.00
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		1700
Major LT Shared Lane Prob. of Queue-Free State:		1.00
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	4	6
Potential Capacity: (pcph)	1086	1083
Capacity Adjustment Factor due to Impeding Movements	1.00	1.00
Movement Capacity: (pcph)	1084	1081
Prob. of Queue-Free State:	0.92	0.87
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	72	
Potential Capacity: (pcph)	962	
Major LT, Minor TH Impedance Factor:	0.87	
Adjusted Impedance Factor:	0.90	
Capacity Adjustment Factor due to Impeding Movements	0.89	
Movement Capacity: (pcph)	861	
-----		



Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	9	861		4.2	0.0	A	
NB T	84	1084		3.6	0.2	A	3.7
SB T	144	1081		3.8	0.5	A	3.8
SB R	3	1385		2.6	0.0	A	
EB L	3	1714		2.1	0.0	A	1.1

Intersection Delay = 3.7 sec/veh



Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			200
Potential Capacity: (pcph)			1096
Movement Capacity: (pcph)			1096
Prob. of Queue-Free State:			0.97
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			430
Potential Capacity: (pcph)			1007
Movement Capacity: (pcph)			1007
Prob. of Queue-Free State:			0.94
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			540
Potential Capacity: (pcph)			478
Major LT, Minor TH			
Impedance Factor:			0.94
Adjusted Impedance Factor:			0.94
Capacity Adjustment Factor			
due to Impeding Movements			0.94
Movement Capacity: (pcph)			451

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	92	451		10.0	0.8	C	8.3
SB R	34	1096		3.4	0.0	A	
EB L	57	1007		3.8	0.0	A	1.4

Intersection Delay = 1.7 sec/veh

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Streets: (N-S) Morning Drive      (E-W) Auburn Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information.....Existing Volumes  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	34		14				10	67			80	29
PHF	.95		.95				.95	.95			.95	.95
Grade		0						0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10			1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			0
Potential Capacity: (pcph)			1385
Movement Capacity: (pcph)			1385
Prob. of Queue-Free State:			0.98
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			0
Potential Capacity: (pcph)			1714
Movement Capacity: (pcph)			1714
Prob. of Queue-Free State:			0.98
Step 3: TH from Minor Street		NB	SB
Conflicting Flows: (vph)	36		51
Potential Capacity: (pcph)	1039		1018
Capacity Adjustment Factor due to Impeding Movements	0.98		0.98
Movement Capacity: (pcph)	1015		994
Prob. of Queue-Free State:	0.92		0.91
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)	94		
Potential Capacity: (pcph)	922		
Major LT, Minor TH Impedance Factor:	0.89		
Adjusted Impedance Factor:	0.91		
Capacity Adjustment Factor due to Impeding Movements	0.89		
Movement Capacity: (pcph)	821		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	12	821		4.4	0.0	A	
NB T	78	1015		3.8	0.2	A	3.9
SB T	92	994		4.0	0.2	A	3.6
SB R	34	1385		2.7	0.0	A	
EB L	40	1714		2.2	0.0	A	1.5

Intersection Delay = 3.3 sec/veh

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Streets: (N-S) Morning Drive (E-W) Panorama Dr  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information..... Existing Volumes  
 All-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Volumes	34		14				10	67			80	29
PHF	.95		.95				.95	.95			.95	.95

Volume Summary and Capacity Analysis WorkSheet

	EB	WB	NB	SB
LT Flow Rate	36		11	0
RT Flow Rate	15		0	31
Approach Flow Rate	51		82	115
Proportion LT	0.71		0.13	0.00
Proportion RT	0.29		0.00	0.27
Opposing Approach Flow Rate	0		115	82
Conflicting Approaches Flow Rate	197		51	51
Proportion, Subject Approach Flow Rate	0.21		0.33	0.46
Proportion, Opposing Approach Flow Rate	0.00		0.46	0.33
Lanes on Subject Approach	2		2	2
Lanes on Opposing Approach	0		2	2
LT, Opposing Approach	0		0	11
RT, Opposing Approach	0		31	0
LT, Conflicting Approaches	11		36	36
RT, Conflicting Approaches	31		15	15
Proportion LT, Opposing Approach	0.00		0.00	0.13
Proportion RT, Opposing Approach	0.00		0.27	0.00
Proportion LT, Conflicting Approaches	0.06		0.71	0.71
Proportion RT, Conflicting Approaches	0.16		0.29	0.29
Approach Capacity	636		786	731

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
EB	51	636	0.08	1.4	A
NB	82	786	0.10	1.5	A
SB	115	731	0.16	1.8	A

Intersection Delay = 1.6  
 Level of Service (Intersection) = A

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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information.....AM Existing Volumes  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	2	191	72	97	364	1	60	2	63	2	1	1
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	239	384
Potential Capacity: (pcph)	1048	885
Movement Capacity: (pcph)	1048	885
Prob. of Queue-Free State:	0.93	1.00
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	277	384
Potential Capacity: (pcph)	1265	1125
Movement Capacity: (pcph)	1265	1125
Prob. of Queue-Free State:	0.91	1.00
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	727	764
Potential Capacity: (pcph)	453	433
Capacity Adjustment Factor due to Impeding Movements	0.91	0.91
Movement Capacity: (pcph)	412	394
Prob. of Queue-Free State:	1.00	1.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	728	760
Potential Capacity: (pcph)	401	384
Major LT, Minor TH Impedance Factor:	0.91	0.91
Adjusted Impedance Factor:	0.93	0.93
Capacity Adjustment Factor due to Impeding Movements	0.93	0.86
Movement Capacity: (pcph)	372	331

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	69	372 >					
NB T	2	412 >	554	8.8	1.1	B	8.8
NB R	73	1048 >					
SB L	2	331 >					
SB T	1	394 >	412	8.8	0.0	B	8.8
SB R	1	885 >					
EB L	2	1125		3.2	0.0	A	0.0
WB L	112	1265		3.1	0.2	A	0.7

Intersection Delay = 1.7 sec/veh



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 Ph: (352) 392-0378

Streets: (N-S) Commanche Dr (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information.....AM Existing Volumes  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	0	> 1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	1	168	53	29	306	0	48	0	26	12	1	2
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	205	322
Potential Capacity: (pcph)	1090	951
Movement Capacity: (pcph)	1090	951
Prob. of Queue-Free State:	0.97	1.00
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)	233	322
Potential Capacity: (pcph)	1328	1204
Movement Capacity: (pcph)	1328	1204
Prob. of Queue-Free State:	0.97	1.00
TH Saturation Flow Rate: (pcphpl)	1700	1700
RT Saturation Flow Rate: (pcphpl)	1700	1700
Major LT Shared Lane Prob. of Queue-Free State:	0.97	1.00
Step 3: TH from Minor Street	NB	SB
Conflicting Flows: (vph)	559	587
Potential Capacity: (pcph)	555	537
Capacity Adjustment Factor due to Impeding Movements	0.97	0.97
Movement Capacity: (pcph)	537	520
Prob. of Queue-Free State:	1.00	1.00
Step 4: LT from Minor Street	NB	SB
Conflicting Flows: (vph)	560	572
Potential Capacity: (pcph)	502	494
Major LT, Minor TH Impedance Factor:	0.97	0.97
Adjusted Impedance Factor:	0.97	0.98
Capacity Adjustment Factor due to Impeding Movements	0.97	0.95
Movement Capacity: (pcph)	488	468

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	56	488 >					
NB T	0	537 >	604	6.9	0.5	B	6.9
NB R	30	1090 >					
SB L	14	468 >					
SB T	1	520 >	501	7.4	0.0	B	7.4
SB R	2	951 >					
EB L	1	1204		3.0	0.0	A	0.0
WB L	34	1328		2.8	0.0	A	0.2

Intersection Delay = 1.1 sec/veh

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Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information.....AM Existing Volumes  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	1	0	0	0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	58	141			267	4				7	0	62
PHF	.95	.95			.95	.95				.95	.95	.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			281
Potential Capacity: (pcph)			998
Movement Capacity: (pcph)			998
Prob. of Queue-Free State:			0.93
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			285
Potential Capacity: (pcph)			1254
Movement Capacity: (pcph)			1254
Prob. of Queue-Free State:			0.95
Step 3: TH from Minor Street		NB	SB
Conflicting Flows: (vph)			490
Potential Capacity: (pcph)			603
Capacity Adjustment Factor due to Impeding Movements			0.95
Movement Capacity: (pcph)			571
Prob. of Queue-Free State:			1.00
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			490
Potential Capacity: (pcph)			551
Major LT, Minor TH Impedance Factor:			0.95
Adjusted Impedance Factor:			0.95
Capacity Adjustment Factor due to Impeding Movements			0.95
Movement Capacity: (pcph)			522

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	8	522 >					
SB T	0	571 >	915	4.3	0.2	A	4.3
SB R	72	998 >					
EB L	67	1254		3.0	0.0	A	0.9

Intersection Delay = 0.9 sec/veh

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Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 12/20/99  
 Other Information..... AM Existing Volumes  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	2	0	2				5	105		74	1	
PHF	.95	.95	.95				.95	.95		.95	.95	
Grade		0						0		0		
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10 1.10			1.10 1.10		

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1385
Movement Capacity: (pcph)		1385
Prob. of Queue-Free State:		1.00
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1714
Movement Capacity: (pcph)		1714
Prob. of Queue-Free State:		1.00
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		1700
Major LT Shared Lane Prob. of Queue-Free State:		1.00
Step 3: TH from Minor Street	NB	SB
Conflicting Flows: (vph)	3	4
Potential Capacity: (pcph)	1087	1086
Capacity Adjustment Factor due to Impeding Movements	1.00	1.00
Movement Capacity: (pcph)	1086	1085
Prob. of Queue-Free State:	0.89	0.92
Step 4: LT from Minor Street	NB	SB
Conflicting Flows: (vph)	42	
Potential Capacity: (pcph)	1001	
Major LT, Minor TH Impedance Factor:	0.92	
Adjusted Impedance Factor:	0.94	
Capacity Adjustment Factor due to Impeding Movements	0.94	
Movement Capacity: (pcph)	939	

## Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	6	939		3.9	0.0	A	
NB T	122	1086		3.7	0.4	A	3.7
SB T	86	1085		3.6	0.2	A	3.6
SB R	1	1385		2.6	0.0	A	
EB L	2	1714		2.1	0.0	A	1.1

Intersection Delay = 3.6 sec/veh



HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4f 12-29-1999  
 Center For Microcomputers In Transportation

Streets: (E-W) State Route 178 EB (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: AOSRE.HC9  
 Area Type: Other 12-29-99 AM Peak  
 Comment: Existing Volumes

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	78		108					415	27		274	8
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			50						10			4
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right								
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	708	1770	0.116	0.400	5.5	B	3.1	A
	R	1583	1583	0.039	1.000	0.0	A		
NB	T	1739	3725	0.264	0.467	4.7	A	4.7	A
	R	739	1583	0.023	0.467	4.2	A		
SB	T	1739	3725	0.174	0.467	4.5	A	4.4	A
	R	1583	1583	0.003	1.000	0.0	A		
Intersection Delay =					4.4 sec/veh	Intersection LOS = A			
Lost Time/Cycle, L =					6.0 sec	Critical v/c(x) =		0.196	

Center For Microcomputers In Transportation

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: OESRE.HC9  
 Area Type: Other 12-29-99 PM Peak  
 Comment: Existing Volumes

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	508		771					988	229		804	28
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			50						10			4
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right		*						
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right						*		
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
EB	L	708	1770	0.756	0.400	10.7	B	4.5	A
	R	1583	1583	0.479	1.000	0.2	A		
NB	T	1739	3725	0.628	0.467	6.4	B	6.1	B
	R	739	1583	0.311	0.467	4.9	A		
SB	T	1739	3725	0.511	0.467	5.6	B	5.5	B
	R	1583	1583	0.016	1.000	0.0	A		

Intersection Delay = 5.4 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.687

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: AOES26WP.HC9  
 Area Type: Other 12-29-99 AM Peak  
 Comment: 2005 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	90		130					495	30		325	10
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			0						15			5
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right								
SB Right	*							
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
EB	L	708	1770	0.134	0.400	5.5	B	2.3	A
	R	1583	1583	0.087	1.000	0.0	A		
NB	T	1739	3725	0.315	0.467	4.9	A	4.9	A
	R	739	1583	0.022	0.467	4.2	A		
SB	T	1739	3725	0.206	0.467	4.6	A	4.5	A
	R	1583	1583	0.004	1.000	0.0	A		

Intersection Delay = 4.2 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.231

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: OESR20WP.HC9  
 Area Type: Other 12-29-99 PM Peak  
 Comment: 2005 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	600		915					1180	270		995	35
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			400						120			15
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right								
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs							
Phase combination order:	#1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	708	1770	0.893	0.400	17.9	C	9.7	B
	R	1583	1583	0.342	1.000	0.1	A		
NB	T	1739	3725	0.750	0.467	7.7	B	7.3	B
	R	739	1583	0.214	0.467	4.6	A		
SB	T	1739	3725	0.632	0.467	6.4	B	6.3	B
	R	1583	1583	0.013	1.000	0.0	A		

Intersection Delay = 7.8 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.816

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: AOES25P.HC9  
 Area Type: Other 12-29-99 AM Peak  
 Comment: 2005 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	80		130					495	40		335	10
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			0						15			5
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right		*						
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right					*			
SB Right								*
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	708	1770	0.119	0.400	5.5	B	2.1	A
	R	1583	1583	0.087	1.000	0.0	A		
NB	T	1739	3725	0.315	0.467	4.9	A	4.9	A
	R	739	1583	0.035	0.467	4.2	A		
SB	T	1739	3725	0.213	0.467	4.6	A	4.5	A
	R	1583	1583	0.004	1.000	0.0	A		

Intersection Delay = 4.2 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.224

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: OES05P.HC9  
 Area Type: Other 12-29-99 PM Peak  
 Comment: 2005 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	600		915					1180	420		575	35
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			400						200			15
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru						*		
Right	*					*		
Peds								
WB Left								
Thru						*		
Right						*		
Peds								
NB Right						*		
SB Right	*							
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	708	1770	0.893	0.400	17.9	C	9.7	B
	R	1583	1583	0.342	1.000	0.1	A		
NB	T	1739	3725	0.750	0.467	7.7	B	7.3	B
	R	739	1583	0.313	0.467	4.9	A		
SB	T	1739	3725	0.365	0.467	5.0	A	4.9	A
	R	1583	1583	0.013	1.000	0.0	A		
Intersection Delay =					7.6 sec/veh Intersection LOS = B				
Lost Time/Cycle, L =					6.0 sec Critical v/c(x) = 0.816				

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: OES20P.HC9  
 Area Type: Other 12-29-99 PM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	600		915					745	420		955	150
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			400						200			15
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right					*			
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	708	1770	0.893	0.400	17.9	C	9.7	B
	R	1583	1583	0.342	1.000	0.1	A		
NB	T	1739	3725	0.473	0.467	5.5	B	5.3	B
	R	739	1583	0.313	0.467	4.9	A		
SB	T	1739	3725	0.607	0.467	6.2	B	5.5	B
	R	1583	1583	0.090	1.000	0.0	A		
Intersection Delay =					6.9 sec/veh	Intersection LOS = B			
Lost Time/Cycle, L =					6.0 sec	Critical v/c(x) =		0.739	

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: AWSRO20E.HC9  
 Area Type: Other 12-29-99 AM Peak  
 Comment: Existing Volumes

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				20		55	262	250			250	447
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						25			100			200
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green	14.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
WB	L	551	1770	0.038	0.311	7.0	B	2.8	A
	R	1583	1583	0.020	1.000	0.0	A		
NB	L	748	1347	0.380	0.556	3.8	A	3.5	A
	T	2070	3725	0.133	0.556	3.1	A		
SB	T	2070	3725	0.133	0.556	3.1	A	1.6	A
	R	1583	1583	0.164	1.000	0.0	A		

Intersection Delay = 2.6 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.257



Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: WSRO20E.HC9  
 Area Type: Other 12-29-99 PM Peak  
 Comment: Existing Volumes

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				36		147	370	1206			743	256
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						25			100			200
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green		14.0A			Green 25.0A			
Yellow/AR		3.0			Yellow/AR 3.0			
Cycle Length:	45 secs		Phase combination order: #1 #5					

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
							Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio				
WB L	551	1770	0.069	0.311	7.1	B	1.6	A
R	1583	1583	0.081	1.000	0.0	A		
NB L	662	1192	0.605	0.556	5.5	B	5.1	B
T	2070	3725	0.644	0.556	5.0	A		
SB T	2070	3725	0.397	0.556	3.8	A	3.5	A
R	1583	1583	0.037	1.000	0.0	A		

Intersection Delay = 4.4 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.437

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: AWBSR05WP.HC9  
 Area Type: Other 12-29-99 AM Peak  
 Comment: 2005 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				25		65	300	310			300	530
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						35			100			250
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					*			
Thru					*			
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*						
Green	14.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
WB	L	551	1770	0.047	0.311	7.0	B	3.2	A
	R	1583	1583	0.020	1.000	0.0	A		
NB	L	653	1175	0.498	0.556	4.5	A	3.8	A
	T	2070	3725	0.165	0.556	3.2	A		
SB	T	2070	3725	0.160	0.556	3.2	A	1.7	A
	R	1583	1583	0.186	1.000	0.0	A		

Intersection Delay = 2.8 sec/veh Intersection LOS = A

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.336

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: WBSR05WP.HC9  
 Area Type: Other 12-29-99 PM Peak  
 Comment: 2005 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				40		175	440	1430	0	0	850	30
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						70						150
Lost Time				3.00		3.00	3.00	3.00	100			3.00

Phase Combination		1	2	Signal Operations				3	4	5	6	7	8
EB	Left												
	Thru												
	Right												
	Peds												
WB	Left		*										
	Thru												
	Right		*										
	Peds												
NB	Right												
SB	Right		*										
Green		14.0A								25.0A			
Yellow/AR		3.0								3.0			
Cycle Length:		45 secs		Phase combination order: #1 #5									

Intersection Performance Summary									
Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
WB	L	551	1770	0.076	0.311	7.1	B	2.0	A
	R	1583	1583	0.069	1.000	0.0	A		
NB	L	725	1304	0.658	0.556	6.1	B	6.2	B
	T	2070	3725	0.763	0.556	6.2	B		
SB	T	2070	3725	0.454	0.556	4.0	A	3.4	A
	R	1583	1583	0.100	1.000	0.0	A		

Intersection Delay = 5.1 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.517

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137 File Name: AWBSR05P.HC9  
 Area Type: Other 12-29-99 AM Peak  
 Comment: 2005 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				50		190	440	1440			850	320
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						35			100			250
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green	14.0A				Green 25.0A			
Yellow/AR	3.0				Yellow/AR 3.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Cap	Flow	Ratio
WB	L	551	1770	0.096	0.311	7.1	B	1.7	A
	R	1583	1583	0.103	1.000	0.0	A		
NB	L	724	1304	0.658	0.556	6.1	B	6.2	B
	T	2069	3725	0.769	0.556	6.3	B		
SB	T	2069	3725	0.454	0.556	4.0	A	3.7	A
	R	1583	1583	0.047	1.000	0.0	A		
Intersection Delay =					5.2 sec/veh	Intersection LOS = B			
Lost Time/Cycle, L =					6.0 sec	Critical v/c(x) = 0.528			

Streets: (E-W) State Route 178  
 Analyst: Wwc 9-137  
 Area Type: Other  
 Comment: Existing Volumes

(N-S) Fairfax Road  
 File Name: AFSRE.HC9  
 12-20-99 AM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	< 0	2	2	< 0	1	2	1
Volumes	174	172	183	17	372	42	411	302	20	47	346	546
Lane W (ft)	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vols			85			40			10			250
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
EB Thru		*			EB Thru	*		
EB Right		*			EB Right	*		
EB Peds					EB Peds			
WB Left	*				SB Left *			
WB Thru		*			SB Thru	*		
WB Right		*			SB Right	*		
WB Peds					SB Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A	22.0A			Green	20.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length: 95 secs Phase combination order: #1 #2 #5 #6								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	261	1770	0.702	0.147	30.4	D	23.5	C
	T	863	3725	0.220	0.232	19.1	C		
	R	367	1583	0.284	0.232	19.5	C		
WB	L	261	1770	0.069	0.147	22.5	C	20.8	C
	TR	862	3723	0.480	0.232	20.7	C		
NB	L	633	3539	0.704	0.179	26.1	D	21.7	C
	TR	1171	3708	0.294	0.316	15.9	C		
SB	L	317	1770	0.155	0.179	21.3	C	17.9	C
	T	1176	3725	0.325	0.316	16.1	C		
	R	500	1583	0.624	0.316	19.6	C		

Intersection Delay = 20.7 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.615

Streets: (E-W) Auburn Street (N-S) Fairfax Road  
 Analyst: Wwc 9-137 File Name: AFAE.HC9  
 Area Type: Other 12-20-99 AM Peak  
 Comment: Existing Volumes

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	41	29	229	158	72	25	238	281	54	9	540	72
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			110			10			25			35
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru					Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0A	15.0A			Green	25.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		343	1770	0.125	0.194	21.1	C	23.4	C
	TR		502	3278	0.327	0.153	24.0	C		
WB	L		343	1770	0.484	0.194	23.6	C	23.5	C
	TR		556	3633	0.173	0.153	23.3	C		
NB	L		397	1770	0.632	0.224	24.5	C	20.1	C
	TR		1124	3673	0.305	0.306	16.9	C		
SB	L		397	1770	0.023	0.224	19.1	C	18.9	C
	TR		1129	3690	0.564	0.306	18.9	C		

Intersection Delay = 20.6 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.522

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: Wwc 9-137 File Name: APFE.HC9  
 Area Type: Other 12-20-99 AM Peak  
 Comment: Existing Volumes

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	29	105	199	187	9	18	140	143	80	50	208	43
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			110			10			25			35
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				*			
Thru						*		
Right		*				*		
Peds								
WB Left		*			*			
Thru			*			*		
Right			*			*		
Peds								
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A	15.0A			Green	15.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	73 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	339	1770	0.091	0.192	15.7	C	15.9	C
	TR	713	3471	0.300	0.205	15.9	C		
WB	L	339	1770	0.580	0.192	19.2	C	18.8	C
	TR	711	3463	0.025	0.205	15.0	B		
NB	L	291	1770	0.505	0.164	19.2	C	15.6	C
	TR	978	3570	0.224	0.274	13.3	B		
SB	L	291	1770	0.182	0.164	17.0	C	14.0	B
	TR	1015	3706	0.234	0.274	13.3	B		

Intersection Delay = 15.9 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.383

Streets: (E-W) State Route 178 (N-S) Fairfax Road  
 Analyst: Wwc 9-137 File Name: FSRE.HC9  
 Area Type: Other 12-20-99 PM Peak  
 Comment: Existing Volumes

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	< 0	2	2	< 0	1	2	1
Volumes	460	358	486	18	206	43	251	357	10	44	434	258
Lane W (ft)	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vols			85			40			10			250
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*	*			NB Left	*	*	
Thru		*	*		Thru		*	*
Right		*	*		Right		*	*
Peds					Peds			
WB Left	*				SB Left	*	*	
Thru			*		Thru			*
Right			*		Right			*
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	7.0A	22.0A	10.0A		Green	5.0A	17.0A	20.0A
Yellow/AR	0.0	3.0	3.0		Yellow/AR	0.0	3.0	3.0
Cycle Length:	93 secs Phase combination order: #1 #2 #3 #5 #6 #7							

Intersection Performance Summary

	Lane Group:	Mvmts	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Cap	Delay
EB	L	552	1770	0.877	0.312	30.0	D	21.2	C
	T	1402	3725	0.282	0.376	13.1	B		
	R	596	1583	0.710	0.376	18.7	C		
WB	L	76	1770	0.250	0.043	28.2	D	27.1	D
	TR	400	3718	0.578	0.108	27.0	D		
NB	L	837	3539	0.325	0.237	19.0	C	14.2	B
	TR	1602	3725	0.247	0.430	10.9	B		
SB	L	151	1770	0.305	0.237	18.5	C	21.8	C
	T	801	3725	0.599	0.215	22.2	C		
	R	341	1583	0.026	0.215	18.6	C		

Intersection Delay = 20.2 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.622



Streets: (E-W) Auburn Street (N-S) Fairfax Road  
 Analyst: Wwc 9-137 File Name: FAE.HC9  
 Area Type: Other 12-20-99 PM Peak  
 Comment: Existing Volumes

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	90	61	187	96	60	26	251	473	138	31	387	95
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			90			10			60			40
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru					Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0A	15.0A			Green	25.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
EB	L	343	1770	0.277	0.194	21.9	C	23.3	C
	TR	518	3382	0.336	0.153	24.1	C		
WB	L	343	1770	0.294	0.194	22.0	C	22.5	C
	TR	553	3612	0.150	0.153	23.2	C		
NB	L	397	1770	0.665	0.224	25.3	D	20.7	C
	TR	1116	3646	0.546	0.306	18.7	C		
SB	L	397	1770	0.083	0.224	19.4	C	17.9	C
	TR	1119	3656	0.436	0.306	17.8	C		

Intersection Delay = 20.5 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.484

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: Wwc 9-137 File Name: PFE.HC9  
 Area Type: Other 12-20-99 PM Peak  
 Comment: Existing Volumes

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	35	73	156	160	102	24	184	221	162	18	201	21
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			75			10			80			10
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left	*				SB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A	15.0A			Green	15.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	73 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	339	1770	0.109	0.192	15.7	C	15.7	C
	TR	705	3432	0.241	0.205	15.7	C		
WB	L	339	1770	0.495	0.192	18.0	C	16.9	C
	TR	752	3661	0.169	0.205	15.4	C		
NB	L	291	1770	0.667	0.164	22.4	C	17.0	C
	TR	979	3574	0.343	0.274	13.8	B		
SB	L	291	1770	0.065	0.164	16.6	C	13.5	B
	TR	1013	3698	0.231	0.274	13.3	B		

Intersection Delay = 16.1 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.417

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: Wwc 9-137 File Name: AWMNE.HC9  
 Area Type: Other 1-3-0 AM Peak  
 Comment: Existing Volumes AM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	3	37	67	60	89	2	113	4	42	4	15	4
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			30			1			20			2
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order:		#1 #5				

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	562	1406	0.005	0.400	5.2	B	5.4	B
	TR	1378	3446	0.059	0.400	5.4	B		
WB	L	584	1460	0.108	0.400	5.5	B	5.4	B
	TR	1488	3720	0.067	0.400	5.4	B		
NB	L	775	1661	0.154	0.467	4.5	A	4.4	A
	TR	1516	3249	0.018	0.467	4.2	A		
SB	LTR	765	1638	0.029	0.467	4.2	A	4.2	A

Intersection Delay = 5.0 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.132

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: Wwc 9-137 File Name: WMNE.HC9  
 Area Type: Other 1-3-0 PM Peak  
 Comment: Existing Volumes PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	12	162	270	97	127	6	229	20	86	5	8	9
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			135			6			40			4
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NE Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Delay	LOS	
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	518	1296	0.025	0.400	5.3	B	5.8	B
	TR	1389	3472	0.237	0.400	5.8	B		
WB	L	375	937	0.272	0.400	6.0	B	5.7	B
	TR	1490	3725	0.095	0.400	5.4	B		
NB	L	784	1680	0.307	0.467	4.9	A	4.7	A
	TR	1556	3334	0.047	0.467	4.2	A		
SB	LTR	728	1559	0.025	0.467	4.2	A	4.2	A
Intersection Delay =					5.4 sec/veh	Intersection LOS =		B	
Lost Time/Cycle, L =					6.0 sec	Critical v/c(x) =		0.291	

### Figure 9-1 TRAFFIC SIGNAL WARRANTS

DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_

CALC W/c DATE 12-30-99  
 CHK \_\_\_\_\_ DATE \_\_\_\_\_

Major St: State Route 178 Critical Approach Speed 55 mph  
 Minor St: Morning Drive Critical Approach Speed \_\_\_\_\_ mph

Critical speed of major street traffic  $\geq$  40 mph -----  }  
 or  
 In built up area of isolated community of < 10,000 pop. -----  } RURAL (R)  
 URBAN (U)

**WARRANT 1 - Minimum Vehicular Volume**

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
 80% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				/	/	/	/	/	/	/	/	/	Hour	
	U	R	U	R										AM	PM
	1				2 or more										
Both Approchs. Major Street	500 (400)	350 (280)	600 (480)	420 (336)	/	/	/	/	/	/	/	/	/	384	432
Highest Approach. Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	/	/	/	/	/	/	/	/	/	52	38

**WARRANT 2 - Interruption of Continuous Traffic**

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
 80% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				/	/	/	/	/	/	/	/	/	Hour	
	U	R	U	R										AM	PM
	1				2 or more										
Both Approchs. Major Street	750 (600)	525 (420)	900 (720)	630 (504)	/	/	/	/	/	/	/	/	/	384	432
Highest Approach. Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	/	/	/	/	/	/	/	/	/	52	38

**WARRANT 3 - Minimum Pedestrian Volume**

100% SATISFIED YES  NO

REQUIREMENT	FULFILLED
Pedestrian volume crossing the major street is 100 or more for each of any four hours or is 190 or more during any one hour; <u>AND</u>	Yes <input type="checkbox"/> No <input type="checkbox"/>
There are less than 60 gaps per hour in the major street traffic stream of adequate length for pedestrians to cross; <u>AND</u>	Yes <input type="checkbox"/> No <input type="checkbox"/>
The nearest traffic signal along the major street is greater than 300 feet; <u>AND</u>	Yes <input type="checkbox"/> No <input type="checkbox"/>
The new traffic signal will not seriously disrupt progressive traffic flow on the major street.	Yes <input type="checkbox"/> No <input type="checkbox"/>

The satisfaction of a warrant is not necessarily justification for a signal. Delay, congestion, confusion or other evidence of the need for right-of-way assignment must be shown.

Figure 9-1  
 TRAFFIC SIGNAL WARRANTS

DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_  
 CALC WC DATE 12-30-99  
 CHK \_\_\_\_\_ DATE \_\_\_\_\_  
 Major St: State Route 178 Critical Approach Speed 55 mph  
 Minor St: MASKERSON ST (SR 184) Critical Approach Speed \_\_\_\_\_ mph  
 Critical speed of major street traffic  $\geq 40$  mph  }  
 In built up area of isolated community of  $< 10,000$  pop.  }  
 RURAL (R)  
 URBAN (U)

WARRANT 1 - Minimum Vehicular Volume

100% SATISFIED YES  NO  AM  PM   
 80% SATISFIED YES  NO  AM  PM

		MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)							
		U	R	U	R				
APPROACH LANES		1		2 or more					
Both Approchs. Major Street		500 (400)	350 (280)	600 (480)	420 (336)	/	/	/	/
Highest Approch. Minor Street		150 (120)	85 (84)	200 (160)	140 (112)	/	/	436	430
						/	/	75	73

WARRANT 2 - Interruption of Continuous Traffic

100% SATISFIED YES  NO  AM  PM   
 80% SATISFIED YES  NO  AM  PM

		MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)							
		U	R	U	R				
APPROACH LANES		1		2 or more					
Both Approchs. Major Street		750 (600)	525 (420)	900 (720)	630 (504)	/	/	436	430
Highest Approch. Minor Street		75 (60)	53 (42)	100 (80)	70 (56)	/	/	75	73

WARRANT 3 - Minimum Pedestrian Volume

100% SATISFIED YES  NO

REQUIREMENT	FULFILLED
Pedestrian volume crossing the major street is 100 or more for each of any four hours or is 190 or more during any one hour; AND	Yes <input type="checkbox"/> No <input type="checkbox"/>
There are less than 60 gaps per hour in the major street traffic stream of adequate length for pedestrians to cross; AND	Yes <input type="checkbox"/> No <input type="checkbox"/>
The nearest traffic signal along the major street is greater than 300 feet; AND	Yes <input type="checkbox"/> No <input type="checkbox"/>
The new traffic signal will not seriously disrupt progressive traffic flow on the major street.	Yes <input type="checkbox"/> No <input type="checkbox"/>

The satisfaction of a warrant is not necessarily justification for a signal. Delay, congestion, confusion or other evidence of the need for right-of-way assignment must be shown.

### Figure 9-1 TRAFFIC SIGNAL WARRANTS

DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_

CALC W/C DATE 12-30-99

CHK \_\_\_\_\_ DATE \_\_\_\_\_

Major St: State Route 178 Critical Approach Speed 55 mph

Minor St: Comanche Dr. Critical Approach Speed \_\_\_\_\_ mph

Critical speed of major street traffic  $\geq 40$  mph  or  } RURAL (R)

In built up area of isolated community of  $< 10,000$  pop.  } URBAN (U)

**WARRANT 1 - Minimum Vehicular Volume** 100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>

80% SATISFIED YES  NO

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)										
	U	R	U	R						
APPROACH LANES	1		2 or more							
Both Approchs. Major Street	500 (400)	<u>250</u> (280)	500 (480)	420 (336)	/	/	/	/	334	382
Highest Approach. Minor Street	150 (120)	<u>75</u> (84)	200 (160)	140 (112)	/	/	/	/	45	56

**WARRANT 2 - Interruption of Continuous Traffic** 100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>

80% SATISFIED YES  NO

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)										
	U	R	U	R						
APPROACH LANES	1		2 or more							
Both Approchs. Major Street	750 (600)	<u>425</u> (420)	900 (720)	630 (504)	/	/	/	/	334	382
Highest Approach. Minor Street	75 (60)	<u>53</u> (42)	100 (80)	70 (56)	/	/	/	/	45	56

**WARRANT 3 - Minimum Pedestrian Volume** 100% SATISFIED YES  NO

REQUIREMENT	FULFILLED	
Pedestrian volume crossing the major street is 100 or more for each of any four hours or is 190 or more during any one hour; <b>AND</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
There are less than 60 gaps per hour in the major street traffic stream of adequate length for pedestrians to cross; <b>AND</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
The nearest traffic signal along the major street is greater than 300 feet; <b>AND</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
The new traffic signal will not seriously disrupt progressive traffic flow on the major street.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

The satisfaction of a warrant is not necessarily justification for a signal. Delay, congestion, confusion or other evidence of the need for right-of-way assignment must be shown.

Figure 9-1  
TRAFFIC SIGNAL WARRANTS

DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_

CALC W/C DATE 12-30-99  
 CHK \_\_\_\_\_ DATE \_\_\_\_\_

Major St: State Route 178 Critical Approach Speed 55 mph  
 Minor St: Alfred Horrell Hwy Critical Approach Speed \_\_\_\_\_ mph

Critical speed of major street traffic  $\geq$  40 mph  }  
 or  
 In built up area of isolated community of < 10,000 pop.  } RURAL (R)  
 URBAN (U)

WARRANT 1 - Minimum Vehicular Volume

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
 80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)							
	U		R		U		R	
	1		2 or more		/	/	/	/
Both Approchs. Major Street	500 (400)	<u>350</u> (280)	500 (480)	420 (336)				
Highest Approach. Minor Street	150 (120)	<u>75</u> (84)	200 (160)	140 (112)				
							282	334
							41	49

WARRANT 2 - Interruption of Continuous Traffic

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
 80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)							
	U		R		U		R	
	1		2 or more		/	/	/	/
Both Approchs. Major Street	750 (600)	<u>425</u> (420)	300 (720)	630 (504)				
Highest Approach. Minor Street	75 (60)	<u>53</u> (42)	100 (80)	70 (56)				
							282	334
							41	49

WARRANT 3 - Minimum Pedestrian Volume

100% SATISFIED YES  NO

REQUIREMENT	FULFILLED	
Pedestrian volume crossing the major street is 100 or more for each of any four hours or is 190 or more during any one hour; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
There are less than 60 gaps per hour in the major street traffic stream of adequate length for pedestrians to cross; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
The nearest traffic signal along the major street is greater than 300 feet; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
The new traffic signal will not seriously disrupt progressive traffic flow on the major street.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

The satisfaction of a warrant is not necessarily justification for a signal. Delay, congestion, confusion or other evidence of the need for right-of-way assignment must be shown.



### Figure 9-1 TRAFFIC SIGNAL WARRANTS

DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_  
 CALC W/C DATE 12-30-99  
 CHK \_\_\_\_\_ DATE \_\_\_\_\_

Major St: Ferris Road Critical Approach Speed 50 mph  
 Minor St: Paladino Dr. Critical Approach Speed \_\_\_\_\_ mph

Critical speed of major street traffic  $\geq 40$  mph  or   
 In built up area of isolated community of  $< 10,000$  pop.  }  
 } RURAL (R)  
 } URBAN (U)

**WARRANT 1 - Minimum Vehicular Volume**

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
 80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				/	/	/	/	/	/	/	/	/	Hour	
	U	R	U	R										AM	PM
	1		2 or more												
Both Approchs. Major Street	500 (400)	350 (280)	500 (480)	420 (336)										111	124
Highest Approach. Minor Street	150 (120)	105 (84)	200 (160)	140 (112)										3	2

**WARRANT 2 - Interruption of Continuous Traffic**

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
 80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				/	/	/	/	/	/	/	/	/	Hour	
	U	R	U	R										AM	PM
	1		2 or more												
Both Approchs. Major Street	750 (600)	525 (420)	900 (720)	630 (504)										111	124
Highest Approach. Minor Street	75 (60)	53 (42)	100 (80)	70 (56)										3	2

**WARRANT 3 - Minimum Pedestrian Volume**

100% SATISFIED YES  NO

REQUIREMENT	FULFILLED
Pedestrian volume crossing the major street is 100 or more for each of any four hours or is 190 or more during any one hour; <b>AND</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>
There are less than 60 gaps per hour in the major street traffic stream of adequate length for pedestrians to cross; <b>AND</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>
The nearest traffic signal along the major street is greater than 300 feet; <b>AND</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>
The new traffic signal will not seriously disrupt progressive traffic flow on the major street.	Yes <input type="checkbox"/> No <input type="checkbox"/>

The satisfaction of a warrant is not necessarily justification for a signal. Delay, congestion, confusion or other evidence of the need for right-of-way assignment must be shown.

### Figure 9-1 TRAFFIC SIGNAL WARRANTS

DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_ CALC WC DATE 12-30-99  
 CHK \_\_\_\_\_ DATE \_\_\_\_\_

Major St: Panama Dr. Critical Approach Speed \_\_\_\_\_ mph  
 Minor St: Manning Dr. Critical Approach Speed \_\_\_\_\_ mph

Critical speed of major street traffic  $\geq 40$  mph -----  or  } **RURAL (R)**  
 In built up area of isolated community of  $< 10,000$  pop. -----  } **URBAN (U)**

**WARRANT 1 - Minimum Vehicular Volume**

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
 80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)							
	U	R	U	R				
	1		2 or more					
Both Approchs. Major Street	500 (400)	(350) (280)	600 (480)	420 (336)				
Highest Approch. Minor Street	150 (120)	(105) (84)	200 (160)	140 (112)				
							AM Hour PM	
							60	
							55 35	

**WARRANT 2 - Interruption of Continuous Traffic**

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
 80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)							
	U	R	U	R				
	1		2 or more					
Both Approchs. Major Street	750 (600)	(525) (420)	900 (720)	630 (504)				
Highest Approch. Minor Street	75 (60)	(53) (42)	100 (80)	70 (56)				
							AM Hour PM	
							60 5	
							55 35	

**WARRANT 3 - Minimum Pedestrian Volume**

100% SATISFIED YES  NO

REQUIREMENT	FULFILLED	
Pedestrian volume crossing the major street is 100 or more for each of any four hours or is 190 or more during any one hour; <b>AND</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
There are less than 60 gaps per hour in the major street traffic stream of adequate length for pedestrians to cross; <b>AND</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
The nearest traffic signal along the major street is greater than 300 feet; <b>AND</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
The new traffic signal will not seriously disrupt progressive traffic flow on the major street.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

The satisfaction of a warrant is not necessarily justification for a signal. Delay, congestion, confusion or other evidence of the need for right-of-way assignment must be shown.

### Figure 9-1 TRAFFIC SIGNAL WARRANTS

CALC W/C DATE 12-30-99  
CHK \_\_\_\_\_ DATE \_\_\_\_\_

DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_

Major St: Auburn Street Critical Approach Speed \_\_\_\_\_ mph  
Minor St: Manning Drive Critical Approach Speed \_\_\_\_\_ mph

Critical speed of major street traffic  $\geq 40$  mph -----  or  } RURAL (R)  
In built up area of isolated community of  $< 10,000$  pop. -----  } URBAN (U)

**WARRANT 1 - Minimum Vehicular Volume**

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)							
	1		2 or more					
	U	R	U	R				
Both Approch. Major Street	500 (400)	<u>250</u> (280)	500 (480)	420 (336)	/	/	/	/
Highest Apprch. Minor Street	150 (120)	<u>105</u> (84)	200 (160)	140 (112)	/	/	/	/
								AM Hour PM
								129 112
								28 18

**WARRANT 2 - Interruption of Continuous Traffic**

100% SATISFIED YES  NO  <sup>AM</sup>  <sup>PM</sup>   
80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)							
	1		2 or more					
	U	R	U	R				
Both Approch. Major Street	750 (600)	<u>525</u> (420)	900 (720)	630 (504)	/	/	/	/
Highest Apprch. Minor Street	75 (60)	<u>53</u> (42)	100 (80)	70 (56)	/	/	/	/
								AM Hour PM
								129 112
								28 18

**WARRANT 3 - Minimum Pedestrian Volume**

100% SATISFIED YES  NO

REQUIREMENT	FULFILLED
Pedestrian volume crossing the major street is 100 or more for each of any four hours or is 190 or more during any one hour; <b>AND</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>
There are less than 60 gaps per hour in the major street traffic stream of adequate length for pedestrians to cross; <b>AND</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>
The nearest traffic signal along the major street is greater than 300 feet; <b>AND</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>
The new traffic signal will not seriously disrupt progressive traffic flow on the major street.	Yes <input type="checkbox"/> No <input type="checkbox"/>

The satisfaction of a warrant is not necessarily justification for a signal. Delay, congestion, confusion or other evidence of the need for right-of-way assignment must be shown.

Center For Microcomputers In Transportation  
 University of Florida  
 512 Weil Hall  
 Gainesville, FL 32611-6585  
 Ph: (352) 392-0378

Streets: (N-S) Morning Drive (E-W) Panorama Dr  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....AM2010 WITHOUT PROJECT  
 All-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Volumes	5		120				125	5			5	5
PHF	.95		.95				.95	.95			.95	.95

Volume Summary and Capacity Analysis WorkSheet

	EB	WB	NB	SB
LT Flow Rate	5		132	0
RT Flow Rate	126		0	5
Approach Flow Rate	131		137	10
Proportion LT	0.04		0.96	0.00
Proportion RT	0.96		0.00	0.50
Opposing Approach Flow Rate	0		10	137
Conflicting Approaches Flow Rate	147		131	131
Proportion, Subject Approach Flow Rate	0.47		0.49	0.04
Proportion, Opposing Approach Flow Rate	0.00		0.04	0.49
Lanes on Subject Approach	2		2	2
Lanes on Opposing Approach	0		2	2
LT, Opposing Approach	0		0	132
RT, Opposing Approach	0		5	0
LT, Conflicting Approaches	132		5	5
RT, Conflicting Approaches	5		126	126
Proportion LT, Opposing Approach	0.00		0.00	0.96
Proportion RT, Opposing Approach	0.00		0.50	0.00
Proportion LT, Conflicting Approaches	0.90		0.04	0.04
Proportion RT, Conflicting Approaches	0.03		0.96	0.96
Approach Capacity	612		1095	569

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
EB	131	612	0.21	2.3	A
NB	137	1095	0.13	1.6	A
SB	10	569	0.02	1.1	A

Intersection Delay = 1.9  
 Level of Service (Intersection) = A

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 Gainesville, FL 32611-6585  
 Ph: (352) 392-0378

Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....AM 2010 WITHOUT PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	5	0	5				10	140		100	5	
PHF	.95	.95	.95				.95	.95		.95	.95	
Grade		0						0		0		
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10		1.10	1.10	

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1385
Movement Capacity: (pcph)		1385
Prob. of Queue-Free State:		1.00
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1714
Movement Capacity: (pcph)		1714
Prob. of Queue-Free State:		1.00
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		1700
Major LT Shared Lane Prob. of Queue-Free State:		1.00
Step 3: TH from Minor Street	NB	SB
Conflicting Flows: (vph)	8	10
Potential Capacity: (pcph)	1080	1078
Capacity Adjustment Factor due to Impeding Movements	1.00	1.00
Movement Capacity: (pcph)	1076	1074
Prob. of Queue-Free State:	0.85	0.89
Step 4: LT from Minor Street	NB	SB
Conflicting Flows: (vph)	62	
Potential Capacity: (pcph)	975	
Major LT, Minor TH Impedance Factor:	0.89	
Adjusted Impedance Factor:	0.91	
Capacity Adjustment Factor due to Impeding Movements	0.91	
Movement Capacity: (pcph)	888	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	12	888		4.1	0.0	A	
NB T	162	1076		3.9	0.6	A	3.9
SB T	116	1074		3.8	0.3	A	3.7
SB R	6	1385		2.6	0.0	A	
EB L	6	1714		2.1	0.0	A	1.1

Intersection Delay = 3.7 sec/veh

Center For Microcomputers In Transportation  
 University of Florida  
 512 Weil Hall  
 Gainesville, FL 32611-6585  
 Ph: (352) 392-0378

Streets: (N-S) Morning Drive (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....2010 without project AM  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	65	245			510	40				45		70
PHF	.95	.95			.95	.95				.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40



Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			268
Potential Capacity: (pcph)			1013
Movement Capacity: (pcph)			1013
Prob. of Queue-Free State:			0.92
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			579
Potential Capacity: (pcph)			838
Movement Capacity: (pcph)			838
Prob. of Queue-Free State:			0.91
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			863
Potential Capacity: (pcph)			297
Major LT, Minor TH			
Impedance Factor:			0.91
Adjusted Impedance Factor:			0.91
Capacity Adjustment Factor			
due to Impeding Movements			0.91
Movement Capacity: (pcph)			270

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	52	270		16.5	0.7	C	8.8
SB R	81	1013		3.9	0.2	A	
EB L	75	838		4.7	0.2	A	1.0
Intersection Delay =				1.4 sec/veh			

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Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....AM 2010 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	0	> 1	< 0
Stop/Yield			N			N						
Volumes	75	190	70	40	360	5	65	0	35	10	0	85
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10 1.10 1.10			1.10 1.10 1.10		

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	200	379
Potential Capacity: (pcph)	1096	890
Movement Capacity: (pcph)	1096	890
Prob. of Queue-Free State:	0.96	0.89
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)	274	384
Potential Capacity: (pcph)	1269	1125
Movement Capacity: (pcph)	1269	1125
Prob. of Queue-Free State:	0.96	0.92
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	705	774
Potential Capacity: (pcph)	465	428
Capacity Adjustment Factor due to Impeding Movements	0.89	0.89
Movement Capacity: (pcph)	413	381
Prob. of Queue-Free State:	1.00	1.00
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	744	719
Potential Capacity: (pcph)	393	406
Major LT, Minor TH		
Impedance Factor:	0.89	0.89
Adjusted Impedance Factor:	0.92	0.92
Capacity Adjustment Factor due to Impeding Movements	0.81	0.88
Movement Capacity: (pcph)	320	358
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	75	320		14.7	0.9	C	
NB T	0	413		8.7	0.0	B	10.7
NB R	41	1096		3.4	0.0	A	
SB L	12	358	>				
SB T	0	381	> 766	5.5	0.5	B	5.5
SB R	98	890	>				
EB L	87	1125		3.5	0.2	A	0.8
WB L	46	1269		2.9	0.0	A	0.3

Intersection Delay = 2.1 sec/veh

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: Wwc 9-137R File Name: AOESR10WP.HC9  
 Area Type: Other 3-8-0 AM Peak  
 Comment: 2010 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	105		145					555	35		370	10
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			0						15			5
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right					*			
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		708	1770	0.157	0.400	5.6	B	2.4	A
	R		1583	1583	0.097	1.000	0.0	A		
NB	T		1739	3725	0.353	0.467	5.0	A	5.0	A
	R		739	1583	0.028	0.467	4.2	A		
SB	T		1739	3725	0.235	0.467	4.7	A	4.6	A
	R		1583	1583	0.004	1.000	0.0	A		

Intersection Delay = 4.3 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.262

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137R File Name: WBSR010WP.HC9  
 Area Type: Other 3-8-0 AM Peak  
 Comment: 2010 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				75		25	350	335			335	600
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						10			100			250
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green		14.0A			Green	25.0A		
Yellow/AR		3.0			Yellow/AR	3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.143	0.311	7.2	B	6.1	B
	R		1583	1583	0.009	1.000	0.0	A		
NB	L		597	1075	0.635	0.556	6.0	B	4.6	A
	T		2070	3725	0.179	0.556	3.2	A		
SB	T		2070	3725	0.179	0.556	3.2	A	1.6	A
	R		1583	1583	0.233	1.000	0.0	A		

Intersection Delay = 3.3 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.458

Streets: (E-W) State Route 178 (N-S) Fairfax Road  
 Analyst: Wwc 9-137R File Name: AFSR10WP.HC9  
 Area Type: Other 3-8-0 AM Peak  
 Comment: 2010 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	< 0	2	2	< 0	1	2	1
Volumes	235	230	245	20	500	55	550	405	25	55	410	650
Lane W (ft)	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vols			100			25			10			300
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*	*		NB Left	*	*	
Thru			*	*	Thru		*	*
Right			*	*	Right		*	*
Peds					Peds			
WB Left		*			SB Left	*	*	
Thru				*	Thru			*
Right				*	Right			*
Peds					Peds			
NB Right					EB Right			
SB Right		*	*	*	WB Right			
Green		7.0A	22.0A	20.0A	Green	5.0A	17.0A	20.0A
Yellow/AR		0.0	3.0	3.0	Yellow/AR	0.0	3.0	3.0
Cycle Length: 103 secs Phase combination order: #1 #2 #3 #5 #6 #7								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	498	1770	0.496	0.282	20.6	C	14.9	B
	T	1628	3725	0.156	0.437	11.3	B		
	R	692	1583	0.221	0.437	11.7	B		
WB	L	69	1770	0.306	0.039	31.9	D	30.8	D
	TR	717	3693	0.817	0.194	30.8	D		
NB	L	756	3539	0.788	0.214	28.6	D	22.4	C
	TR	1439	3706	0.322	0.388	14.3	B		
SB	L	107	1770	0.542	0.214	27.2	D	16.8	C
	T	723	3725	0.628	0.194	25.8	D		
	R	1107	1583	0.332	0.699	4.0	A		

Intersection Delay = 20.9 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.666

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-08-2000  
 Center For Microcomputers In Transportation

Streets: (E-W) Auburn Street  
 Analyst: Wwc 9-137R  
 Area Type: Other  
 Comment: 2010 without Project

(N-S) Fairfax Road  
 File Name: AFA10WP.HC9  
 3-8-0 AM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	55	40	305	210	45	35	320	375	70	10	725	95
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			135			15			35			40
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0A	15.0A			Green	25.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	343	1770	0.169	0.194	21.3	C	24.2	C
	TR	501	3273	0.463	0.153	24.9	C		
WB	L	343	1770	0.644	0.194	26.4	D	25.6	D
	TR	544	3553	0.131	0.153	23.2	C		
NB	L	397	1770	0.848	0.224	34.4	D	24.7	C
	TR	1126	3678	0.403	0.306	17.5	C		
SB	L	397	1770	0.028	0.224	19.2	C	22.1	C
	TR	1128	3686	0.764	0.306	22.1	C		

Intersection Delay = 23.7 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.707

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137R File Name: WBSRO10WP.HC9  
 Area Type: Other 3-8-0 PM Peak  
 Comment: 2010 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				195		50	495	1620			985	345
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						25			100			150
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green		14.0A			Green	25.0A		
Yellow/AR		3.0			Yellow/AR	3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.372	0.311	8.0	B	7.1	B
	R		1583	1583	0.017	1.000	0.0	A		
NB	L		833	1499	0.645	0.556	5.7	B	7.8	B
	T		2070	3725	0.865	0.556	8.5	B		
SB	T		2070	3725	0.526	0.556	4.3	A	3.6	A
	R		1583	1583	0.129	1.000	0.0	A		

Intersection Delay = 6.4 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.688



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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....AM 2010 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	5	225	95	130	490	5	80	5	85	5	5	15
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	287	518
Potential Capacity: (pcph)	991	757
Movement Capacity: (pcph)	991	757
Prob. of Queue-Free State:	0.90	0.98
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	337	521
Potential Capacity: (pcph)	1184	968
Movement Capacity: (pcph)	1184	968
Prob. of Queue-Free State:	0.87	0.99
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	950	998
Potential Capacity: (pcph)	346	327
Capacity Adjustment Factor due to Impeding Movements	0.87	0.87
Movement Capacity: (pcph)	300	284
Prob. of Queue-Free State:	0.98	0.98
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	958	994
Potential Capacity: (pcph)	295	281
Major LT, Minor TH Impedance Factor:	0.85	0.85
Adjusted Impedance Factor:	0.88	0.88
Capacity Adjustment Factor due to Impeding Movements	0.86	0.80
Movement Capacity: (pcph)	255	224

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	92	255	>				
NB T	6	300	> 409	16.6	2.5	C	16.6
NB R	98	991	>				
SB L	6	224	>				
SB T	6	284	> 418	9.3	0.1	B	9.3
SB R	18	757	>				
EB L	6	968		3.7	0.0	A	0.1
WB L	151	1184		3.5	0.4	A	0.7

Intersection Delay = 3.1 sec/veh

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Streets: (N-S) Morning Drive (E-W) Auburn Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....AM 2010 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	45		20				15	90			105	40
PHF	.95		.95				.95	.95			.95	.95
Grade		0						0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10			1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street			NB	SB
Conflicting Flows: (vph)				0
Potential Capacity: (pcph)				1385
Movement Capacity: (pcph)				1385
Prob. of Queue-Free State:				0.97
Step 2: LT from Major Street			WB	EB
Conflicting Flows: (vph)				0
Potential Capacity: (pcph)				1714
Movement Capacity: (pcph)				1714
Prob. of Queue-Free State:				0.97
Step 3: TH from Minor Street			NB	SB
Conflicting Flows: (vph)		47		68
Potential Capacity: (pcph)		1024		995
Capacity Adjustment Factor due to Impeding Movements		0.97		0.97
Movement Capacity: (pcph)		993		965
Prob. of Queue-Free State:		0.89		0.87
Step 4: LT from Minor Street			NB	SB
Conflicting Flows: (vph)		124		
Potential Capacity: (pcph)		882		
Major LT, Minor TH				
Impedance Factor:		0.85		
Adjusted Impedance Factor:		0.88		
Capacity Adjustment Factor due to Impeding Movements		0.85		
Movement Capacity: (pcph)		753		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	18	753		4.9	0.0	A	
NB T	105	993		4.1	0.3	A	4.2
SB T	122	965		4.3	0.4	A	3.8
SB R	46	1385		2.7	0.0	A	
EB L	52	1714		2.2	0.0	A	1.5

Intersection Delay = 3.5 sec/veh

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Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM 2010 WITHOUT PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	5	0	5				10	95		165	5	
PHF	.95	.95	.95				.95	.95		.95	.95	
Grade		0						0		0		
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10 1.10			1.10 1.10		

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1385
Movement Capacity: (pcph)		1385
Prob. of Queue-Free State:		1.00
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1714
Movement Capacity: (pcph)		1714
Prob. of Queue-Free State:		1.00
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		1700
Major LT Shared Lane Prob. of Queue-Free State:		1.00
Step 3: TH from Minor Street	NB	SB
Conflicting Flows: (vph)	8	10
Potential Capacity: (pcph)	1080	1078
Capacity Adjustment Factor due to Impeding Movements	1.00	1.00
Movement Capacity: (pcph)	1076	1074
Prob. of Queue-Free State:	0.90	0.82
Step 4: LT from Minor Street	NB	SB
Conflicting Flows: (vph)	97	
Potential Capacity: (pcph)	930	
Major LT, Minor TH Impedance Factor:	0.82	
Adjusted Impedance Factor:	0.86	
Capacity Adjustment Factor due to Impeding Movements	0.86	
Movement Capacity: (pcph)	797	

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Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....PM 2010 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	1	1	1	1	0	> 0	< 1
Stop/Yield			N			N						
Volumes	95	375		35	265	15	75	5	40	15		90
PHF	.95	.95		.95	.95	.95	.95	.95	.95	.95		.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	12	797		4.6	0.0	A	
NB T	110	1076		3.7	0.3	A	3.8
SB T	191	1074		4.1	0.7	A	4.0
SB R	6	1385		2.6	0.0	A	
EB L	6	1714		2.1	0.0	A	1.1

Intersection Delay = 3.8 sec/veh



Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	395	279
Potential Capacity: (pcph)	873	1000
Movement Capacity: (pcph)	873	1000
Prob. of Queue-Free State:	0.95	0.89
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)	395	295
Potential Capacity: (pcph)	1111	1240
Movement Capacity: (pcph)	1111	1240
Prob. of Queue-Free State:	0.96	0.91
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	827	
Potential Capacity: (pcph)	402	
Capacity Adjustment Factor due to Impeding Movements	0.88	
Movement Capacity: (pcph)	353	
Prob. of Queue-Free State:	0.98	
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	858	834
Potential Capacity: (pcph)	337	348
Major LT, Minor TH Impedance Factor:	0.88	0.86
Adjusted Impedance Factor:	0.88	0.89
Capacity Adjustment Factor due to Impeding Movements	0.79	0.85
Movement Capacity: (pcph)	265	295
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	87	265		20.1	1.4	D	
NB T	6	353		10.4	0.0	C	14.4
NB R	46	873		4.4	0.0	A	
SB L	18	295	>				
			741	5.8	0.6	B	5.8
SB R	105	1000	>				
EB L	110	1240		3.2	0.2	A	0.6
WB L	41	1111		3.4	0.0	A	0.4

Intersection Delay = 2.7 sec/veh

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Streets: (N-S) Morning Drive (E-W) Panorama Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/99  
 Other Information..... PM 2010 WITHOUT PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	5		75				115	5			5	5
PHF	.95		.95				.95	.95			.95	.95
Grade		0						0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10			1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1385
Movement Capacity: (pcph)		1385
Prob. of Queue-Free State:		1.00
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1714
Movement Capacity: (pcph)		1714
Prob. of Queue-Free State:		1.00
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	5	84
Potential Capacity: (pcph)	1084	974
Capacity Adjustment Factor due to Impeding Movements	1.00	1.00
Movement Capacity: (pcph)	1080	971
Prob. of Queue-Free State:	0.99	0.99
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	10	
Potential Capacity: (pcph)	1043	
Major LT, Minor TH Impedance Factor:	0.99	
Adjusted Impedance Factor:	0.99	
Capacity Adjustment Factor due to Impeding Movements	0.99	
Movement Capacity: (pcph)	1031	
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
NB L	133	1031		4.0	0.4	A	
NB T	6	1080		3.4	0.0	A	4.0
SB T	6	971		3.7	0.0	A	3.2
SB R	6	1385		2.6	0.0	A	
EB L	6	1714		2.1	0.0	A	0.1

Intersection Delay = 2.5 sec/veh

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Streets: (N-S) Morning Drive (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM 2010 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	115	460			350	50				40		45
PHF	.95	.95			.95	.95				.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			184
Potential Capacity: (pcph)			1117
Movement Capacity: (pcph)			1117
Prob. of Queue-Free State:			0.95
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			421
Potential Capacity: (pcph)			1019
Movement Capacity: (pcph)			1019
Prob. of Queue-Free State:			0.87
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			974
Potential Capacity: (pcph)			252
Major LT, Minor TH			
Impedance Factor:			0.87
Adjusted Impedance Factor:			0.87
Capacity Adjustment Factor			
due to Impeding Movements			0.87
Movement Capacity: (pcph)			219

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	46	219		20.8	0.8	D	11.6
SB R	52	1117		3.4	0.0	A	
EB L	133	1019		4.1	0.5	A	0.8

Intersection Delay = 1.4 sec/veh

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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM 2010 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	20	465	45	90	340	5	65	5	105	5	5	10
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	512	360
Potential Capacity: (pcph)	762	910
Movement Capacity: (pcph)	762	910
Prob. of Queue-Free State:	0.84	0.99
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	536	363
Potential Capacity: (pcph)	952	1151
Movement Capacity: (pcph)	952	1151
Prob. of Queue-Free State:	0.89	0.98
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	992	1012
Potential Capacity: (pcph)	329	321
Capacity Adjustment Factor due to Impeding Movements	0.87	0.87
Movement Capacity: (pcph)	287	280
Prob. of Queue-Free State:	0.98	0.98
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	997	1047
Potential Capacity: (pcph)	280	262
Major LT, Minor TH Impedance Factor:	0.85	0.85
Adjusted Impedance Factor:	0.89	0.89
Capacity Adjustment Factor due to Impeding Movements	0.88	0.75
Movement Capacity: (pcph)	245	195

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	75	245 >					
NB T	6	287 >	417	16.6	2.6	C	16.6
NB R	122	762 >					
SB L	6	195 >					
SB T	6	280 >	367	10.5	0.1	C	10.5
SB R	12	910 >					
EB L	23	1151		3.2	0.0	A	0.1
WB L	105	952		4.2	0.3	A	0.9

Intersection Delay = 3.1 sec/veh

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Streets: (N-S) Morning Drive (E-W) Auburn Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM2010 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	25		15				45	115			75	20
PHF	.95		.95				.95	.95			.95	.95
Grade		0						0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10			1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40



Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1385
Movement Capacity: (pcph)		1385
Prob. of Queue-Free State:		0.98
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1714
Movement Capacity: (pcph)		1714
Prob. of Queue-Free State:		0.98
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	26	42
Potential Capacity: (pcph)	1053	1031
Capacity Adjustment Factor due to Impeding Movements	0.98	0.98
Movement Capacity: (pcph)	1035	1014
Prob. of Queue-Free State:	0.87	0.91
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	76	
Potential Capacity: (pcph)	947	
Major LT, Minor TH Impedance Factor:	0.90	
Adjusted Impedance Factor:	0.92	
Capacity Adjustment Factor due to Impeding Movements	0.91	
Movement Capacity: (pcph)	859	
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	52	859		4.5	0.1	A	
NB T	133	1035		4.0	0.4	A	4.1
SB T	87	1014		3.9	0.2	A	3.6
SB R	23	1385		2.6	0.0	A	
EB L	29	1714		2.1	0.0	A	1.3

Intersection Delay = 3.6 sec/veh

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137R File Name: WBSR10WP.HC9  
 Area Type: Other 3-7-0 PM Peak  
 Comment: 2010 Without Project *PM*

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				50		195	495	1620			985	345
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						70			100			150
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green	14.0A				Green 25.0A			
Yellow/AR	3.0				Yellow/AR 3.0			
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
WB	L	551	1770	0.096	0.311	7.1	B	2.0	A
	R	1583	1583	0.083	1.000	0.0	A		
NB	L	833	1499	0.645	0.556	5.7	B	7.8	B
	T	2069	3725	0.865	0.556	8.5	B		
SB	T	2069	3725	0.526	0.556	4.3	A	3.6	A
	R	1583	1583	0.130	1.000	0.0	A		

Intersection Delay = 6.1 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.589

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: Wwc 9-137 File Name: WMN10WP.HC9  
 Area Type: Other 1-3-0 PM Peak  
 Comment: 2010 Without Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	15	275	360	145	220	15	305	30	150	15	10	10
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			20			5			45			5
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length: 45 secs Phase combination order: #1 #5								

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Mvmts	Cap
EB	L	422	1055	0.038	0.400	5.3	B	6.7	B
	TR	1367	3416	0.497	0.400	6.8	B		
WB	L	181	452	0.847	0.400	27.9	D	14.0	B
	TR	1480	3700	0.172	0.400	5.6	B		
NB	L	751	1610	0.427	0.467	5.4	B	5.1	B
	TR	1536	3292	0.098	0.467	4.3	A		
SB	LTR	676	1449	0.049	0.467	4.2	A	4.2	A

Intersection Delay = 8.0 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.621

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: WWC 9-137R File Name: PMOSR10WP.HC9  
 Area Type: Other 3-7-0 PM Peak  
 Comment: 2010 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	680		1035					1340	305		1080	40
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			400						120			15
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
EB Thru								
EB Right		*						
EB Peds								
WB Left								
WB Thru								
WB Right								
WB Peds								
NB Right					*			
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	708	1770	1.012	0.400	37.6	D	19.5	C
	R	1583	1583	0.422	1.000	0.1	A		
NB	T	1739	3725	0.852	0.467	10.0	B	9.3	B
	R	739	1583	0.264	0.467	4.8	A		
SB	T	1739	3725	0.687	0.467	6.9	B	6.7	B
	R	1583	1583	0.016	1.000	0.0	A		

Intersection Delay = 11.9 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.926

Streets: (E-W) State Route 178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: FSR10WP.HC9  
 Area Type: Other 3-7-0 PM Peak  
 Comment: PM 2010 WITHOUT PROJECT

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	< 0	2	2	< 0	1	2	1
Volumes	620	480	655	25	275	55	335	480	15	60	585	345
Lane W (ft)	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vols			225			25			5			150
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*	*		NB Left	*	*	
Thru			*	*	Thru		*	*
Right			*	*	Right		*	*
Peds					Peds			
WB Left		*			SB Left	*	*	
Thru				*	Thru			*
Right				*	Right			*
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		7.0A	22.0A	10.0A	Green	5.0A	17.0A	20.0A
Yellow/AR		0.0	3.0	3.0	Yellow/AR	0.0	3.0	3.0
Cycle Length:	93 secs Phase combination order: #1 #2 #3 #5 #6 #7							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Cap	Flow	Ratio
EB	L	552	1770	1.183	0.312	*	*	*	*
	T	1402	3725	0.378	0.376	13.7	B		
	R	596	1583	0.759	0.376	20.2	C		
WB	L	76	1770	0.342	0.043	29.0	D	37.1	D
	TR	395	3670	0.854	0.108	37.8	D		
NB	L	837	3539	0.435	0.237	19.8	C	14.8	B
	TR	1597	3714	0.339	0.430	11.5	B		
SB	L	118	1770	0.534	0.237	23.3	C	25.7	D
	T	801	3725	0.808	0.215	26.7	D		
	R	341	1583	0.602	0.215	23.4	C		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) Auburn Street (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: FA10WP.HC9  
 Area Type: Other 3-7-0 PM Peak  
 Comment: 2010 WITHOUT PROJECT

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	120	80	250	130	80	35	335	635	185	40	520	125
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			90			10			60			40
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
EB Thru						*		
EB Right			*				*	
EB Peds								
WB Left		*						
WB Thru						*		
WB Right			*				*	
WB Peds								
NB Right								
SB Right								
Green	22.0A	15.0A			25.0A	30.0A		
Yellow/AR	0.0	3.0			0.0	3.0		
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	343	1770	0.367	0.194	22.5	C	24.5	C
	TR	513	3353	0.516	0.153	25.4	D		
WB	L	343	1770	0.399	0.194	22.7	C	23.1	C
	TR	550	3593	0.209	0.153	23.5	C		
NB	L	397	1770	0.889	0.224	38.6	D	26.8	D
	TR	1112	3633	0.755	0.306	21.9	C		
SB	L	397	1770	0.106	0.224	19.5	C	19.3	C
	TR	1116	3647	0.599	0.306	19.3	C		

Intersection Delay = 24.0 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.669

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: PF10WP.HC9  
 Area Type: Other 3-7-0 PM Peak  
 Comment: 2010 Without Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	45	100	210	215	135	30	250	295	220	25	270	30
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			75			10			80			10
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A	15.0A			Green	15.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	73 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
EB	L	339	1770	0.138	0.192	15.8	C	16.2	C
	TR	699	3404	0.370	0.205	16.3	C		
WB	L	339	1770	0.666	0.192	21.0	C	18.7	C
	TR	751	3653	0.228	0.205	15.6	C		
NB	L	291	1770	0.904	0.164	40.1	E	23.7	C
	TR	971	3545	0.496	0.274	14.7	B		
SB	L	291	1770	0.089	0.164	16.7	C	13.9	B
	TR	1010	3687	0.317	0.274	13.7	B		

Intersection Delay = 19.4 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.584

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: Wwc 9-137R File Name: WMN10WP.HC9  
 Area Type: Other 3-8-0 PM Peak  
 Comment: 2010 Without Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	15	215	360	130	170	10	305	130	115	5	10	10
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0		
RTOR Vols			20			5			45			5
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
EB Thru	*				NB Thru	*		
EB Right	*				NB Right	*		
EB Peds					NB Peds			
WB Left	*				SB Left	*		
WB Thru	*				SB Thru	*		
WB Right	*				SB Right	*		
WB Peds					SB Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	471	1176	0.034	0.400	5.3	B	6.5	B
	TR	1353	3383	0.453	0.400	6.6	B		
WB	L	215	537	0.638	0.400	11.3	B	7.9	B
	TR	1483	3707	0.131	0.400	5.5	B		
NB	L	775	1661	0.414	0.467	5.3	B	5.0	A
	TR	1647	3530	0.135	0.467	4.4	A		
SB	LTR	706	1513	0.031	0.467	4.2	A	4.2	A

Intersection Delay = 6.2 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.517



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Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....AM 2010 WITH PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	5	0	5				10	145		105	5	
PHF	.95	.95	.95				.95	.95		.95	.95	
Grade		0						0		0		
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10		1.10	1.10	

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1385
Movement Capacity: (pcph)		1385
Prob. of Queue-Free State:		1.00
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1714
Movement Capacity: (pcph)		1714
Prob. of Queue-Free State:		1.00
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		1700
Major LT Shared Lane Prob. of Queue-Free State:		1.00
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	8	10
Potential Capacity: (pcph)	1080	1078
Capacity Adjustment Factor due to Impeding Movements	1.00	1.00
Movement Capacity: (pcph)	1076	1074
Prob. of Queue-Free State:	0.84	0.89
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	66	
Potential Capacity: (pcph)	970	
Major LT, Minor TH Impedance Factor:	0.88	
Adjusted Impedance Factor:	0.91	
Capacity Adjustment Factor due to Impeding Movements	0.91	
Movement Capacity: (pcph)	879	
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	12	879		4.2	0.0	A	
NB T	168	1076		4.0	0.6	A	4.0
SB T	122	1074		3.8	0.4	A	3.7
SB R	6	1385		2.6	0.0	A	
EB L	6	1714		2.1	0.0	A	1.1

Intersection Delay = 3.8 sec/veh

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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....AM 2010 with project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	15	280	105	130	500	45	85	70	85	85	165	40
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	350	550
Potential Capacity: (pcph)	920	729
Movement Capacity: (pcph)	920	729
Prob. of Queue-Free State:	0.89	0.94
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	406	573
Potential Capacity: (pcph)	1098	914
Movement Capacity: (pcph)	1098	914
Prob. of Queue-Free State:	0.86	0.98
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	1076	1108
Potential Capacity: (pcph)	297	286
Capacity Adjustment Factor due to Impeding Movements	0.85	0.85
Movement Capacity: (pcph)	251	242
Prob. of Queue-Free State:	0.68	0.21
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	1161	1134
Potential Capacity: (pcph)	225	233
Major LT, Minor TH Impedance Factor:	0.18	0.57
Adjusted Impedance Factor:	0.31	0.67
Capacity Adjustment Factor due to Impeding Movements	0.29	0.60
Movement Capacity: (pcph)	66	139

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	98	66 >					
NB T	81	251 >	145	481.2	19.0	F	481.2
NB R	98	920 >					
SB L	98	139 >					
SB T	191	242 >	215	308.2	18.8	F	308.2
SB R	46	729 >					
EB L	18	914		4.0	0.0	A	0.2
WB L	151	1098		3.8	0.5	A	0.7

Intersection Delay = 128.0 sec/veh

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Streets: (N-S) Morning Drive (E-W) Panorama Dr  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....AM2010 With Project  
 All-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Volumes	5	35	120	135	30	5	125	5	65	5	5	5
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95

Volume Summary and Capacity Analysis WorkSheet

	EB	WB	NB	SB
LT Flow Rate	5	142	132	5
RT Flow Rate	126	5	68	5
Approach Flow Rate	168	179	205	15
Proportion LT	0.03	0.79	0.64	0.33
Proportion RT	0.75	0.03	0.33	0.33
Opposing Approach Flow Rate	179	168	15	205
Conflicting Approaches Flow Rate	220	220	347	347
Proportion, Subject Approach Flow Rate	0.30	0.32	0.36	0.03
Proportion, Opposing Approach Flow Rate	0.32	0.30	0.03	0.36
Lanes on Subject Approach	3	3	3	3
Lanes on Opposing Approach	3	3	3	3
LT, Opposing Approach	142	5	5	132
RT, Opposing Approach	5	126	5	68
LT, Conflicting Approaches	137	137	147	147
RT, Conflicting Approaches	73	73	131	131
Proportion LT, Opposing Approach	0.79	0.03	0.33	0.64
Proportion RT, Opposing Approach	0.03	0.75	0.33	0.33
Proportion LT, Conflicting Approaches	0.62	0.62	0.42	0.42
Proportion RT, Conflicting Approaches	0.33	0.33	0.38	0.38
Approach Capacity	498	877	633	439

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
EB	168	498	0.34	3.6	A
WB	179	877	0.20	2.2	A
NB	205	633	0.32	3.4	A
SB	15	439	0.03	1.1	A

Intersection Delay = 3.0  
 Level of Service (Intersection) = A

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Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....AM 2010 with project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	0	1
Stop/Yield												
Volumes	85	225	95	40	395	5	75	5	35	10		90
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95		.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	237	416
Potential Capacity: (pcph)	1050	852
Movement Capacity: (pcph)	1050	852
Prob. of Queue-Free State:	0.96	0.88
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)	337	421
Potential Capacity: (pcph)	1184	1080
Movement Capacity: (pcph)	1184	1080
Prob. of Queue-Free State:	0.96	0.91
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	789	
Potential Capacity: (pcph)	420	
Capacity Adjustment Factor due to Impeding Movements	0.87	
Movement Capacity: (pcph)	367	
Prob. of Queue-Free State:	0.98	
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	832	806
Potential Capacity: (pcph)	349	361
Major LT, Minor TH Impedance Factor:	0.87	0.86
Adjusted Impedance Factor:	0.87	0.89
Capacity Adjustment Factor due to Impeding Movements	0.77	0.86
Movement Capacity: (pcph)	267	310
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	87	267		19.9	1.4	C	
NB T	6	367		10.0	0.0	B	14.5
NB R	41	1050		3.6	0.0	A	
SB L	12	310		12.1	0.0	C	
SB R	105	852		4.8	0.4	A	5.5
EB L	98	1080		3.7	0.2	A	0.8
WB L	46	1184		3.2	0.0	A	0.3

Intersection Delay = 2.5 sec/veh



Streets: (E-W) Auburn Street (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: AFA10P.HC9  
 Area Type: Other 3-8-0 AM Peak  
 Comment: 2010 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	60	40	305	215	45	40	320	385	75	10	730	95
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			135			15			35			40
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*			NB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		22.0A	15.0A		Green	25.0A	30.0A	
Yellow/AR		0.0	3.0		Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	343	1770	0.184	0.194	21.4	C	24.2	C
	TR	501	3273	0.463	0.153	24.9	C		
WB	L	343	1770	0.659	0.194	26.8	D	25.9	D
	TR	540	3526	0.143	0.153	23.2	C		
NB	L	397	1770	0.848	0.224	34.4	D	24.6	C
	TR	1124	3673	0.417	0.306	17.6	C		
SB	L	397	1770	0.028	0.224	19.2	C	22.2	C
	TR	1128	3686	0.768	0.306	22.2	C		

Intersection Delay = 23.8 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.711

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: WWC 9-137R File Name: AOES10P.HC9  
 Area Type: Other 3-8-0 AM Peak  
 Comment: 2010 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	105		145					555	40		375	10
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			0						15			5
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right					*			
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		708	1770	0.157	0.400	5.6	B	2.4	A
	R		1583	1583	0.097	1.000	0.0	A		
NB	T		1739	3725	0.353	0.467	5.0	A	5.0	A
	R		739	1583	0.035	0.467	4.2	A		
SB	T		1739	3725	0.239	0.467	4.7	A	4.6	A
	R		1583	1583	0.004	1.000	0.0	A		

Intersection Delay = 4.3 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.262

Streets: (E-W) State Route 178  
 Analyst: Wwc 9-137R  
 Area Type: Other  
 Comment: 2010 With Project

(N-S) Fairfax Road  
 File Name: AFSR10P.HC9  
 3-8-0 AM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	< 0	2	2	< 0	1	2	1
Volumes	240	335	245	45	765	60	550	405	80	85	415	665
Lane W (ft)	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vols			100			25			10			300
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*	*		NB Left	*	*	
Thru			*	*	Thru		*	*
Right			*	*	Right		*	*
Peds					Peds			
WB Left		*			SB Left	*	*	
Thru				*	Thru			*
Right				*	Right			*
Peds					Peds			
NB Right					EB Right			
SB Right		*	*	*	WB Right			
Green		9.0A	25.0A	22.0A	Green	5.0A	17.0A	20.0A
Yellow/AR		0.0	3.0	3.0	Yellow/AR	0.0	3.0	3.0
Cycle Length: 110 secs Phase combination order: #1 #2 #3 #5 #6 #7								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	547	1770	0.463	0.309	20.3	C	14.5	B
	T	1693	3725	0.219	0.455	11.8	B		
	R	720	1583	0.213	0.455	11.7	B		
WB	L	97	1770	0.487	0.055	35.6	D	*	*
	TR	740	3701	1.194	0.200	*	*		
NB	L	708	3539	0.842	0.200	33.7	D	25.8	D
	TR	1325	3644	0.395	0.364	16.9	C		
SB	L	100	1770	0.890	0.200	67.5	F	22.3	C
	T	677	3725	0.678	0.182	29.0	D		
	R	1137	1583	0.338	0.718	3.8	A		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: Wwc 9-137R File Name: AWMN10P.HC9  
 Area Type: Other 3-8-0 AM Peak  
 Comment: 2010 With Project AM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	5	100	90	140	190	10	150	5	120	10	20	5
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			20			5			45			5
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane Group:	Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
									Delay	LOS
EB	L	452		1130	0.011	0.400	5.3	B	5.5	B
	TR	1398		3494	0.134	0.400	5.5	B		
WB	L	475		1189	0.309	0.400	6.1	B	5.8	B
	TR	1484		3709	0.146	0.400	5.6	B		
NB	L	753		1614	0.210	0.467	4.6	A	4.5	A
	TR	1493		3200	0.059	0.467	4.3	A		
SB	LTR	825		1768	0.039	0.467	4.2	A	4.2	A

Intersection Delay = 5.3 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.256

Streets: (E-W) Panorama Drive  
 Analyst: Wwc 9-137R  
 Area Type: Other  
 Comment: 2010 With Project AM

(N-S) Fairfax Road  
 File Name: APF10P.HC9  
 3-8-0 AM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	40	155	265	260	120	30	185	190	145	65	250	50
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			75			10			80			10
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
EB Thru		*			NB Thru		*	
EB Right		*			NB Right		*	
EB Peds					NB Peds			
WB Left		*			SB Left	*		
WB Thru			*		SB Thru		*	
WB Right			*		SB Right		*	
WB Peds					SB Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A	15.0A			Green	15.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	73 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	339	1770	0.124	0.192	15.8	C	17.3	C
	TR	702	3418	0.543	0.205	17.4	C		
WB	L	339	1770	0.807	0.192	27.4	D	23.2	C
	TR	749	3646	0.206	0.205	15.6	C		
NB	L	291	1770	0.670	0.164	22.5	C	17.2	C
	TR	981	3582	0.287	0.274	13.5	B		
SB	L	291	1770	0.234	0.164	17.2	C	14.3	B
	TR	1000	3649	0.320	0.274	13.7	B		

Intersection Delay = 18.1 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.556

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Streets: (N-S) QUEEN STREET (E-W) Panorama Drive  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....PM 2010 with project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	70	235			200	15				25		55
PHF	.95	.95			.95	.95				.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			106
Potential Capacity: (pcph)			1224
Movement Capacity: (pcph)			1224
Prob. of Queue-Free State:			0.95
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			227
Potential Capacity: (pcph)			1295
Movement Capacity: (pcph)			1295
Prob. of Queue-Free State:			0.94
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			532
Potential Capacity: (pcph)			484
Major LT, Minor TH			
Impedance Factor:			0.94
Adjusted Impedance Factor:			0.94
Capacity Adjustment Factor			
due to Impeding Movements			0.94
Movement Capacity: (pcph)			454

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	29	454		8.5	0.1	B	4.8
SB R	64	1224		3.1	0.0	A	
EB L	81	1295		3.0	0.1	A	0.7

Intersection Delay = 1.0 sec/veh

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Streets: (N-S) Vineland Road      (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information..... PM 2010 with project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	225	130			125	120				50		200
PHF	.95	.95			.95	.95				.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40



Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			66
Potential Capacity: (pcph)			1282
Movement Capacity: (pcph)			1282
Prob. of Queue-Free State:			0.82
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			258
Potential Capacity: (pcph)			1246
Movement Capacity: (pcph)			1246
Prob. of Queue-Free State:			0.79
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			506
Potential Capacity: (pcph)			503
Major LT, Minor TH			
Impedance Factor:			0.79
Adjusted Impedance Factor:			0.79
Capacity Adjustment Factor			
due to Impeding Movements			0.79
Movement Capacity: (pcph)			398

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	58	398		10.6	0.5	C	4.9
SB R	232	1282		3.4	0.7	A	
EB L	261	1246		3.7	0.9	A	2.3

Intersection Delay = 2.4 sec/veh

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Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... 2010 With Project PM  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	2	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	5	0	5	0	0	0	10	100	0	0	170	5
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	0	0
Potential Capacity: (pcph)	1385	1385
Movement Capacity: (pcph)	1385	1385
Prob. of Queue-Free State:	1.00	1.00
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)	5	0
Potential Capacity: (pcph)	1705	1714
Movement Capacity: (pcph)	1705	1714
Prob. of Queue-Free State:	1.00	1.00
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	5	10
Potential Capacity: (pcph)	1084	1078
Capacity Adjustment Factor due to Impeding Movements	1.00	1.00
Movement Capacity: (pcph)	1080	1074
Prob. of Queue-Free State:	0.89	0.82
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	96	58
Potential Capacity: (pcph)	932	980
Major LT, Minor TH Impedance Factor:	0.81	0.89
Adjusted Impedance Factor:	0.86	0.92
Capacity Adjustment Factor due to Impeding Movements	0.85	0.92
Movement Capacity: (pcph)	795	897
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
NB L	12	795		4.6	0.0	A	
NB T	116	1080		3.7	0.3	A	3.8
NB R	0	1385		2.6	0.0	A	
SB L	0	897		4.0	0.0	A	
SB T	197	1074		4.1	0.7	A	4.1
SB R	6	1385		2.6	0.0	A	
EB L	6	1714		2.1	0.0	A	1.1
WB L	0	1705		2.1	0.0	A	0.0

Intersection Delay = 3.9 sec/veh

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Streets: (N-S) Morning Drive (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM 2010 WITH PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	465	1310			885	85				65		200
PHF	.95	.95			.95	.95				.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			466
Potential Capacity: (pcph)			804
Movement Capacity: (pcph)			804
Prob. of Queue-Free State:			0.71
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			1021
Potential Capacity: (pcph)			485
Movement Capacity: (pcph)			485
Prob. of Queue-Free State:			0.00
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			2800
Potential Capacity: (pcph)			17
Major LT, Minor TH			
Impedance Factor:			0.00
Adjusted Impedance Factor:			0.00
Capacity Adjustment Factor			
due to Impeding Movements			0.00
Movement Capacity: (pcph)			0

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	75	0		*	*	F	*
SB R	232	804		6.3	1.3	B	
EB L	538	485		97.7	16.3	F	25.6

Intersection Delay = \*

\* The calculated value was greater than 999.9.

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Streets: (N-S) Morning Drive (E-W) Auburn St  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM 2010 WITH PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	70		15				40	515			265	65
PHF	.95		.95				.95	.95			.95	.95
Grade		0						0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10			1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1385
Movement Capacity: (pcph)		1385
Prob. of Queue-Free State:		0.95
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1714
Movement Capacity: (pcph)		1714
Prob. of Queue-Free State:		0.95
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	74	90
Potential Capacity: (pcph)	987	966
Capacity Adjustment Factor due to Impeding Movements	0.95	0.95
Movement Capacity: (pcph)	940	920
Prob. of Queue-Free State:	0.37	0.67
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	248	
Potential Capacity: (pcph)	735	
Major LT, Minor TH Impedance Factor:	0.63	
Adjusted Impedance Factor:	0.72	
Capacity Adjustment Factor due to Impeding Movements	0.68	
Movement Capacity: (pcph)	498	
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	46	498		8.0	0.2	B	
NB T	596	940		10.2	4.7	C	10.1
SB T	307	920		5.9	1.6	B	5.2
SB R	75	1385		2.7	0.0	A	
EB L	81	1714		2.2	0.0	A	1.8

Intersection Delay = 7.7 sec/veh

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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM 2010 WITH PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	65	465	45	90	340	25	140	100	105	85	95	60
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40



Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	512	371
Potential Capacity: (pcph)	762	898
Movement Capacity: (pcph)	762	898
Prob. of Queue-Free State:	0.84	0.92
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	536	384
Potential Capacity: (pcph)	952	1125
Movement Capacity: (pcph)	952	1125
Prob. of Queue-Free State:	0.89	0.93
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	1060	1070
Potential Capacity: (pcph)	303	299
Capacity Adjustment Factor due to Impeding Movements	0.83	0.83
Movement Capacity: (pcph)	252	248
Prob. of Queue-Free State:	0.54	0.56
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	1128	1154
Potential Capacity: (pcph)	235	227
Major LT, Minor TH Impedance Factor:	0.46	0.45
Adjusted Impedance Factor:	0.57	0.56
Capacity Adjustment Factor due to Impeding Movements	0.53	0.47
Movement Capacity: (pcph)	125	107

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	162	125 >					
NB T	116	252 >	209	461.8	26.6	F	461.8
NB R	122	762 >					
SB L	98	107 >					
SB T	110	248 >	193	263.7	14.7	F	263.7
SB R	69	898 >					
EB L	75	1125		3.4	0.1	A	0.4
WB L	105	952		4.2	0.3	A	0.8

Intersection Delay = 138.2 sec/veh

Center For Microcomputers In Transportation  
 University of Florida  
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 Gainesville, FL 32611-6585  
 Ph: (352) 392-0378

Streets: (N-S) Morning Drive (E-W) Panorama Dr  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM 2010 WITH PROJECT  
 All-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	1	1	1	1	1	< 0
Volumes	5	80	75	200	50	5	115	25	200	20	5	5
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95

Volume Summary and Capacity Analysis WorkSheet

	EB	WB	NB	SB
LT Flow Rate	5	211	121	21
RT Flow Rate	79	5	211	5
Approach Flow Rate	168	269	358	31
Proportion LT	0.03	0.78	0.34	0.68
Proportion RT	0.47	0.02	0.59	0.16
Opposing Approach Flow Rate	269	168	31	358
Conflicting Approaches Flow Rate	389	389	437	437
Proportion, Subject Approach Flow Rate	0.20	0.33	0.43	0.04
Proportion, Opposing Approach Flow Rate	0.33	0.20	0.04	0.43
Lanes on Subject Approach	2	2	3	2
Lanes on Opposing Approach	2	2	2	3
LT, Opposing Approach	211	5	21	121
RT, Opposing Approach	5	79	5	211
LT, Conflicting Approaches	142	142	216	216
RT, Conflicting Approaches	216	216	84	84
Proportion LT, Opposing Approach	0.78	0.03	0.68	0.34
Proportion RT, Opposing Approach	0.02	0.47	0.16	0.59
Proportion LT, Conflicting Approaches	0.37	0.37	0.49	0.49
Proportion RT, Conflicting Approaches	0.56	0.56	0.19	0.19
Approach Capacity	457	810	598	367

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
EB	168	457	0.37	4.0	A
WB	269	810	0.33	3.5	A
NB	358	598	0.60	9.7	B
SB	31	367	0.08	1.4	A

Intersection Delay = 6.2  
 Level of Service (Intersection) = B

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Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information.....PM 2010 WITH PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	0	1	1	1	1	1	0	> 1	< 0
Stop/Yield			N			N						
Volumes	50	420	25		315	15	125	5	40	15	5	105
PHF	.95	.95	.95		.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street			NB	SB
Conflicting Flows: (vph)	442	332		
Potential Capacity: (pcph)	827	940		
Movement Capacity: (pcph)	827	940		
Prob. of Queue-Free State:	0.94	0.87		
Step 2: LT from Major Street			WB	EB
Conflicting Flows: (vph)		348		
Potential Capacity: (pcph)		1170		
Movement Capacity: (pcph)		1170		
Prob. of Queue-Free State:		0.95		
Step 3: TH from Minor Street			NB	SB
Conflicting Flows: (vph)	843	853		
Potential Capacity: (pcph)	394	389		
Capacity Adjustment Factor due to Impeding Movements	0.95	0.95		
Movement Capacity: (pcph)	374	370		
Prob. of Queue-Free State:	0.98	0.98		
Step 4: LT from Minor Street			NB	SB
Conflicting Flows: (vph)	885	851		
Potential Capacity: (pcph)	325	340		
Major LT, Minor TH Impedance Factor:	0.94	0.94		
Adjusted Impedance Factor:	0.95	0.95		
Capacity Adjustment Factor due to Impeding Movements	0.83	0.90		
Movement Capacity: (pcph)	269	305		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	145	269		28.0	2.8	D	
NB T	6	374		9.8	0.0	B	22.0
NB R	46	827		4.6	0.0	A	
SB L	18	305 >					
SB T	6	370 >	712	6.4	0.8	B	6.4
SB R	122	940 >					
EB L	58	1170		3.2	0.0	A	0.3

Intersection Delay = 4.2 sec/veh

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 Ph: (352) 392-0378

Streets: (N-S) Morning Drive (E-W) Auburn St  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM2010 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	55		20				20	140			225	55
PHF	.95		.95				.95	.95			.95	.95
Grade		0						0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10			1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			0
Potential Capacity: (pcph)			1385
Movement Capacity: (pcph)			1385
Prob. of Queue-Free State:			0.95
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			0
Potential Capacity: (pcph)			1714
Movement Capacity: (pcph)			1714
Prob. of Queue-Free State:			0.96
Step 3: TH from Minor Street		NB	SB
Conflicting Flows: (vph)	58		79
Potential Capacity: (pcph)	1009		981
Capacity Adjustment Factor due to Impeding Movements	0.96		0.96
Movement Capacity: (pcph)	971		944
Prob. of Queue-Free State:	0.83		0.72
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)	206		
Potential Capacity: (pcph)	782		
Major LT, Minor TH Impedance Factor:	0.70		
Adjusted Impedance Factor:	0.77		
Capacity Adjustment Factor due to Impeding Movements	0.73		
Movement Capacity: (pcph)	571		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	23	571		6.6	0.0	B	
NB T	162	971		4.4	0.6	A	4.7
SB T	261	944		5.3	1.3	B	4.8
SB R	64	1385		2.7	0.0	A	
EB L	64	1714		2.2	0.0	A	1.6

Intersection Delay = 4.3 sec/veh

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Streets: (N-S) Morning Drive (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/7/0  
 Other Information..... PM 2010 with project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	125	355			730	65				50		170
PHF	.95	.95			.95	.95				.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			384
Potential Capacity: (pcph)			885
Movement Capacity: (pcph)			885
Prob. of Queue-Free State:			0.78
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			836
Potential Capacity: (pcph)			610
Movement Capacity: (pcph)			610
Prob. of Queue-Free State:			0.76
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			1274
Potential Capacity: (pcph)			162
Major LT, Minor TH			
Impedance Factor:			0.76
Adjusted Impedance Factor:			0.76
Capacity Adjustment Factor			
due to Impeding Movements			0.76
Movement Capacity: (pcph)			123

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	58	123		53.0	1.9	F	16.1
SB R	197	885		5.2	0.9	B	
EB L	145	610		7.7	1.0	B	2.0

Intersection Delay = 3.0 sec/veh



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Streets: (N-S) Morning Dr (E-W) Highland St  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	20	165	30	30	185	35	60	65	15	40	75	20
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	WB	EB
Conflicting Flows: (vph)	174	195
Potential Capacity: (pcph)	1130	1103
Movement Capacity: (pcph)	1130	1103
Prob. of Queue-Free State:	0.98	0.98
Step 2: LT from Major Street		
	SB	NB
Conflicting Flows: (vph)	206	232
Potential Capacity: (pcph)	1367	1329
Movement Capacity: (pcph)	1367	1329
Prob. of Queue-Free State:	0.97	0.98
Step 3: TH from Minor Street		
	WB	EB
Conflicting Flows: (vph)	459	454
Potential Capacity: (pcph)	626	630
Capacity Adjustment Factor due to Impeding Movements	0.96	0.96
Movement Capacity: (pcph)	599	603
Prob. of Queue-Free State:	0.85	0.88
Step 4: LT from Minor Street		
	WB	EB
Conflicting Flows: (vph)	464	472
Potential Capacity: (pcph)	570	564
Major LT, Minor TH Impedance Factor:	0.84	0.82
Adjusted Impedance Factor:	0.88	0.86
Capacity Adjustment Factor due to Impeding Movements	0.86	0.84
Movement Capacity: (pcph)	491	475

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	69	475		8.9	0.5	B	
EB T	75	603		6.8	0.4	B	7.3
EB R	18	1103		3.3	0.0	A	
WB L	46	491		8.1	0.2	B	
WB T	87	599		7.0	0.5	B	6.8
WB R	23	1130		3.3	0.0	A	
NB L	23	1329		2.8	0.0	A	0.3
SB L	35	1367		2.7	0.0	A	0.3

Intersection Delay = 2.8 sec/veh

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Streets: (N-S) Morning Dr (E-W) College Ave  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	70	125	50	40	150	35	10	25	10	10	25	10
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	WB	EB
-----		
Conflicting Flows: (vph)	132	158
Potential Capacity: (pcph)	1187	1152
Movement Capacity: (pcph)	1187	1152
Prob. of Queue-Free State:	0.99	0.99
-----		
Step 2: LT from Major Street	SB	NB
-----		
Conflicting Flows: (vph)	185	195
Potential Capacity: (pcph)	1399	1384
Movement Capacity: (pcph)	1399	1384
Prob. of Queue-Free State:	0.97	0.94
-----		
Step 3: TH from Minor Street	WB	EB
-----		
Conflicting Flows: (vph)	443	459
Potential Capacity: (pcph)	639	626
Capacity Adjustment Factor due to Impeding Movements	0.91	0.91
Movement Capacity: (pcph)	582	570
Prob. of Queue-Free State:	0.95	0.95
-----		
Step 4: LT from Minor Street	WB	EB
-----		
Conflicting Flows: (vph)	426	426
Potential Capacity: (pcph)	600	600
Major LT, Minor TH Impedance Factor:	0.86	0.87
Adjusted Impedance Factor:	0.90	0.90
Capacity Adjustment Factor due to Impeding Movements	0.89	0.89
Movement Capacity: (pcph)	532	533
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
EB L	12	533		6.9	0.0	B	
EB T	29	570		6.7	0.0	B	5.9
EB R	12	1152		3.2	0.0	A	
WB L	12	532		6.9	0.0	B	
WB T	29	582		6.5	0.0	B	5.8
WB R	12	1187		3.1	0.0	A	
NB L	81	1384		2.8	0.1	A	0.8
SB L	46	1399		2.7	0.0	A	0.5

Intersection Delay = 1.5 sec/veh

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Streets: (N-S) Vineland St (E-W) Knolls  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	0	0	1	1	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	30	120			135	50	85		25			
PHF	.95	.95			.95	.95	.95		.95			
Grade		0			0			0				
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10		1.10			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		WB	EB
Conflicting Flows: (vph)			142
Potential Capacity: (pcph)			1173
Movement Capacity: (pcph)			1173
Prob. of Queue-Free State:			0.98
Step 2: LT from Major Street		SB	NB
Conflicting Flows: (vph)			195
Potential Capacity: (pcph)			1384
Movement Capacity: (pcph)			1384
Prob. of Queue-Free State:			0.97
TH Saturation Flow Rate: (pcphpl)			1700
Major LT Shared Lane Prob. of Queue-Free State:			0.97
Step 4: LT from Minor Street		WB	EB
Conflicting Flows: (vph)			300
Potential Capacity: (pcph)			710
Major LT, Minor TH Impedance Factor:			0.97
Adjusted Impedance Factor:			0.97
Capacity Adjustment Factor due to Impeding Movements			0.97
Movement Capacity: (pcph)			691

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	98	691		6.1	0.5	B	5.4
EB R	29	1173		3.1	0.0	A	
NB L	35	1384		2.7	0.0	A	0.5

Intersection Delay = 1.5 sec/veh

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Streets: (N-S) SR184 (E-W) Chase Ave  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	< 0	0	> 1	0	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes		620	60	30	450					20		15
PHF		.95	.95	.95	.95					.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		WB	EB
Conflicting Flows: (vph)		684	
Potential Capacity: (pcph)		623	
Movement Capacity: (pcph)		623	
Prob. of Queue-Free State:		0.97	
Step 2: LT from Major Street		SB	NB
Conflicting Flows: (vph)		716	
Potential Capacity: (pcph)		781	
Movement Capacity: (pcph)		781	
Prob. of Queue-Free State:		0.96	
TH Saturation Flow Rate: (pcphpl)		1700	
RT Saturation Flow Rate: (pcphpl)			
Major LT Shared Lane Prob. of Queue-Free State:		0.94	
Step 4: LT from Minor Street		WB	EB
Conflicting Flows: (vph)		1190	
Potential Capacity: (pcph)		217	
Major LT, Minor TH Impedance Factor:		0.94	
Adjusted Impedance Factor:		0.94	
Capacity Adjustment Factor due to Impeding Movements		0.94	
Movement Capacity: (pcph)		204	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	23	204		19.9	0.3	C	13.9
WB R	18	623		6.0	0.0	B	
SB L	35	781		4.8	0.0	A	0.3

Intersection Delay = 0.5 sec/veh



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 University of Florida  
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 Ph: (352) 392-0378

Streets: (N-S) Morning Dr (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	65	355	75	30	225	40	100	185	75	45	300	50
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	374	237
Potential Capacity: (pcph)	895	1050
Movement Capacity: (pcph)	895	1050
Prob. of Queue-Free State:	0.90	0.94
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	453	279
Potential Capacity: (pcph)	1043	1262
Movement Capacity: (pcph)	1043	1262
Prob. of Queue-Free State:	0.97	0.94
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	753	790
Potential Capacity: (pcph)	439	420
Capacity Adjustment Factor due to Impeding Movements	0.91	0.91
Movement Capacity: (pcph)	399	382
Prob. of Queue-Free State:	0.46	0.09
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	895	848
Potential Capacity: (pcph)	321	342
Major LT, Minor TH Impedance Factor:	0.08	0.42
Adjusted Impedance Factor:	0.20	0.54
Capacity Adjustment Factor due to Impeding Movements	0.19	0.49
Movement Capacity: (pcph)	60	166

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	116	60		580.3	8.9	F	
NB T	215	399		19.1	3.1	C	171.9
NB R	87	895		4.5	0.3	A	
SB L	52	166		31.3	1.2	E	
SB T	348	382		54.7	8.6	F	45.6
SB R	58	1050		3.6	0.0	A	
EB L	75	1262		3.0	0.1	A	0.4
WB L	35	1043		3.6	0.0	A	0.4

Intersection Delay = 51.9 sec/veh

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Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....AM 2020 WITHOUT PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	5	5	5	225	25	160	30	350	175	5	490	40
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	8	26
Potential Capacity: (pcph)	1372	1343
Movement Capacity: (pcph)	1372	1343
Prob. of Queue-Free State:	0.85	0.97
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)	10	194
Potential Capacity: (pcph)	1696	1386
Movement Capacity: (pcph)	1696	1386
Prob. of Queue-Free State:	0.85	1.00
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		1700
Major LT Shared Lane Prob. of Queue-Free State:		1.00
Step 3: TH from Minor Street	NB	SB
Conflicting Flows: (vph)	444	278
Potential Capacity: (pcph)	638	780
Capacity Adjustment Factor due to Impeding Movements	0.84	0.84
Movement Capacity: (pcph)	537	657
Prob. of Queue-Free State:	0.25	0.14
Step 4: LT from Minor Street	NB	SB
Conflicting Flows: (vph)	554	552
Potential Capacity: (pcph)	506	507
Major LT, Minor TH Impedance Factor:	0.11	0.21
Adjusted Impedance Factor:	0.24	0.34
Capacity Adjustment Factor due to Impeding Movements	0.23	0.29
Movement Capacity: (pcph)	117	148

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	35	117		43.4	1.0	E	
NB T	405	537		24.4	6.2	D	18.7
NB R	202	1372		3.1	0.5	A	
SB L	6	148		25.3	0.0	D	
SB T	568	657		30.3	9.4	E	28.2
SB R	46	1343		2.8	0.0	A	
EB L	6	1386		2.6	0.0	A	0.9
WB L	261	1696		2.5	0.6	A	1.4

Intersection Delay = 17.2 sec/veh

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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... wwc9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....AM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	1	1	2	0
Stop/Yield			N			N						
Volumes				40		60		500	40	60	250	
PHF				.95		.95		.95	.95	.95	.95	
Grade					0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10				1.10	1.10	1.10	1.10	

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)		0	
Potential Capacity: (pcph)		1385	
Movement Capacity: (pcph)		1385	
Prob. of Queue-Free State:		0.97	
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)		0	
Potential Capacity: (pcph)		1714	
Movement Capacity: (pcph)		1714	
Prob. of Queue-Free State:		0.97	
Step 3: TH from Minor Street		NB	SB
Conflicting Flows: (vph)		105	42
Potential Capacity: (pcph)		947	1031
Capacity Adjustment Factor due to Impeding Movements		0.97	0.97
Movement Capacity: (pcph)		922	1003
Prob. of Queue-Free State:		0.37	0.71
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			326
Potential Capacity: (pcph)			655
Major LT, Minor TH Impedance Factor:			0.36
Adjusted Impedance Factor:			0.49
Capacity Adjustment Factor due to Impeding Movements			0.47
Movement Capacity: (pcph)			309

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB T	579	922		10.3	4.6	C	9.7
NB R	46	1385		2.7	0.0	A	
SB L	69	309		15.0	0.9	C	
SB T	289	1003		5.0	1.3	B	7.0
WB L	46	1714		2.2	0.0	A	0.9

Intersection Delay = 7.9 sec/veh

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Streets: (N-S) Morning Drive (E-W) Auburn Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....AM 2020 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	1	0	0	1	1
Stop/Yield			N			N						
Volumes	75		50				40	200			310	200
PHF	.95		.95				.95	.95			.95	.95
Grade		0						0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10	1.10			1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40



Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1385
Movement Capacity: (pcph)		1385
Prob. of Queue-Free State:		0.83
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)		0
Potential Capacity: (pcph)		1714
Movement Capacity: (pcph)		1714
Prob. of Queue-Free State:		0.95
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	79	132
Potential Capacity: (pcph)	981	913
Capacity Adjustment Factor due to Impeding Movements	0.95	0.95
Movement Capacity: (pcph)	931	867
Prob. of Queue-Free State:	0.75	0.59
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	348	
Potential Capacity: (pcph)	634	
Major LT, Minor TH Impedance Factor:	0.56	
Adjusted Impedance Factor:	0.65	
Capacity Adjustment Factor due to Impeding Movements	0.54	
Movement Capacity: (pcph)	344	
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
NB L	46	344		12.1	0.4	C	
NB T	232	931		5.1	1.1	B	6.3
SB T	359	867		7.1	2.2	B	5.5
SB R	232	1385		3.1	0.7	A	
EB L	87	1714		2.2	0.0	A	1.3

Intersection Delay = 5.1 sec/veh

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Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....AM 2020 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	0	> 1	< 0
Stop/Yield			N			N						
Volumes	30	115	20	10	100	10	85	5	20	10	0	160
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	121	105
Potential Capacity: (pcph)	1202	1225
Movement Capacity: (pcph)	1202	1225
Prob. of Queue-Free State:	0.98	0.85
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	142	116
Potential Capacity: (pcph)	1467	1509
Movement Capacity: (pcph)	1467	1509
Prob. of Queue-Free State:	0.99	0.98
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	280	290
Potential Capacity: (pcph)	778	768
Capacity Adjustment Factor due to Impeding Movements	0.97	0.97
Movement Capacity: (pcph)	754	744
Prob. of Queue-Free State:	0.99	1.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	352	282
Potential Capacity: (pcph)	662	727
Major LT, Minor TH Impedance Factor:	0.97	0.96
Adjusted Impedance Factor:	0.98	0.97
Capacity Adjustment Factor due to Impeding Movements	0.83	0.95
Movement Capacity: (pcph)	549	692

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	98	549		8.0	0.7	B	
NB T	6	754		4.8	0.0	A	6.9
NB R	23	1202		3.1	0.0	A	
SB L	12	692	>				
SB T	0	744	> 1170	3.7	0.7	A	3.7
SB R	185	1225	>				
EB L	35	1509		2.4	0.0	A	0.4
WB L	12	1467		2.5	0.0	A	0.2

Intersection Delay = 2.6 sec/veh

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Streets: (N-S) Morning Drive (E-W) Panorama Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information..... PM 2020 Without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	40	105	135	50	25	20	90	130	180	115	190	110
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	111	26
Potential Capacity: (pcph)	1216	1343
Movement Capacity: (pcph)	1216	1343
Prob. of Queue-Free State:	0.83	0.90
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)	253	47
Potential Capacity: (pcph)	1299	1628
Movement Capacity: (pcph)	1299	1628
Prob. of Queue-Free State:	0.96	0.97
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	253	374
Potential Capacity: (pcph)	804	694
Capacity Adjustment Factor due to Impeding Movements	0.93	0.93
Movement Capacity: (pcph)	746	644
Prob. of Queue-Free State:	0.80	0.66
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	390	395
Potential Capacity: (pcph)	629	625
Major LT, Minor TH Impedance Factor:	0.61	0.74
Adjusted Impedance Factor:	0.70	0.80
Capacity Adjustment Factor due to Impeding Movements	0.63	0.66
Movement Capacity: (pcph)	397	414
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
NB L	105	397		12.3	1.1	C	
NB T	151	746		6.0	0.8	B	6.3
NB R	208	1216		3.6	0.7	A	
SB L	133	414		12.8	1.4	C	
SB T	220	644		8.5	1.6	B	8.2
SB R	128	1343		3.0	0.3	A	
EB L	46	1628		2.3	0.0	A	0.3
WB L	58	1299		2.9	0.0	A	1.5

Intersection Delay = 5.2 sec/veh

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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....PM 2020 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	1	1	1	1	0
Stop/Yield			N			N						
Volumes				95		65	400	100		125	400	
PHF				.95		.95	.95	.95		.95	.95	
Grade					0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10			1.10	1.10		1.10	1.10	

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

-----  
 Step 1: RT from Minor Street NB SB  
 -----

Conflicting Flows: (vph) 0  
 Potential Capacity: (pcph) 1385  
 Movement Capacity: (pcph) 1385  
 Prob. of Queue-Free State: 0.92  
 -----

Step 2: LT from Major Street WB EB  
 -----

Conflicting Flows: (vph) 0  
 Potential Capacity: (pcph) 1714  
 Movement Capacity: (pcph) 1714  
 Prob. of Queue-Free State: 0.94  
 -----

Step 3: TH from Minor Street NB SB  
 -----

Conflicting Flows: (vph) 168 100  
 Potential Capacity: (pcph) 870 953  
 Capacity Adjustment Factor  
 due to Impeding Movements 0.94 0.94  
 Movement Capacity: (pcph) 814 892  
 Prob. of Queue-Free State: 0.43 0.48  
 -----

Step 4: LT from Minor Street NB SB  
 -----

Conflicting Flows: (vph) 363  
 Potential Capacity: (pcph) 620  
 Major LT, Minor TH  
 Impedance Factor: 0.40  
 Adjusted Impedance Factor: 0.52  
 Capacity Adjustment Factor  
 due to Impeding Movements 0.48  
 Movement Capacity: (pcph) 298  
 -----

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB T	463	814		10.1	3.7	C	8.6
NB R	116	1385		2.8	0.2	A	
SB L	145	298		23.0	2.5	D	
SB T	463	892		8.3	3.2	B	11.8
WB L	110	1714		2.2	0.1	A	1.3

Intersection Delay = 9.1 sec/veh

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Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....PM 2020 without project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	50	1150	20	10	350	20	165	10	55	55	10	110
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40



Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	606	368
Potential Capacity: (pcph)	683	901
Movement Capacity: (pcph)	683	901
Prob. of Queue-Free State:	0.91	0.86
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)	1232	389
Potential Capacity: (pcph)	444	1119
Movement Capacity: (pcph)	444	1119
Prob. of Queue-Free State:	0.97	0.95
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	1664	1664
Potential Capacity: (pcph)	146	146
Capacity Adjustment Factor due to Impeding Movements	0.92	0.92
Movement Capacity: (pcph)	135	135
Prob. of Queue-Free State:	0.91	0.91
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	1708	1649
Potential Capacity: (pcph)	109	117
Major LT, Minor TH Impedance Factor:	0.84	0.84
Adjusted Impedance Factor:	0.88	0.88
Capacity Adjustment Factor due to Impeding Movements	0.75	0.80
Movement Capacity: (pcph)	82	93
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
NB L	191	82		711.0	15.3	F	
NB T	12	135		29.3	0.2	D	512.8
NB R	64	683		5.8	0.2	B	
SB L	64	93		98.6	2.8	F	
SB T	12	135		29.3	0.2	D	35.6
SB R	128	901		4.7	0.5	A	
EB L	58	1119		3.4	0.0	A	0.1
WB L	12	444		8.3	0.0	B	0.2

Intersection Delay = 62.1 sec/veh

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 Ph: (352) 392-0378

Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information..... PM 2020 WITHOUT PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	10	10	10	460	50	260	50	645	195	30	240	65
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	11	53
Potential Capacity: (pcph)	1367	1302
Movement Capacity: (pcph)	1367	1302
Prob. of Queue-Free State:	0.83	0.94
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	22	327
Potential Capacity: (pcph)	1673	1197
Movement Capacity: (pcph)	1673	1197
Prob. of Queue-Free State:	0.68	0.99
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	833	570
Potential Capacity: (pcph)	399	548
Capacity Adjustment Factor due to Impeding Movements	0.68	0.68
Movement Capacity: (pcph)	269	370
Prob. of Queue-Free State:	0.00	0.25
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	719	1002
Potential Capacity: (pcph)	406	278
Major LT, Minor TH		
Impedance Factor:	0.17	0.00
Adjusted Impedance Factor:	0.30	0.00
Capacity Adjustment Factor due to Impeding Movements	0.28	0.00
Movement Capacity: (pcph)	116	0

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	58	116		58.7	2.0	F	
NB T	747	269		833.4	61.3	F	608.0
NB R	226	1367		3.2	0.6	A	
SB L	35	0		*	*	F	
SB T	278	370		33.9	5.5	E	*
SB R	75	1302		2.9	0.0	A	
EB L	12	1197		3.0	0.0	A	1.0
WB L	532	1673		3.2	1.6	A	1.9

Intersection Delay = \*

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 University of Florida  
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Streets: (N-S) Morning Drive (E-W) Panorama Dr  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....AM2020 WITHOUT PROJECT  
 All-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Volumes	85	65	80	185	50	10	55	95	155	70	215	65
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95

Volume Summary and Capacity Analysis WorkSheet

	EB	WB	NB	SB
LT Flow Rate	89	195	58	74
RT Flow Rate	84	11	163	68
Approach Flow Rate	241	259	321	368
Proportion LT	0.37	0.75	0.18	0.20
Proportion RT	0.35	0.04	0.51	0.18
Opposing Approach Flow Rate	259	241	368	321
Conflicting Approaches Flow Rate	689	689	500	500
Proportion, Subject Approach Flow Rate	0.20	0.22	0.27	0.31
Proportion, Opposing Approach Flow Rate	0.22	0.20	0.31	0.27
Lanes on Subject Approach	3	3	3	3
Lanes on Opposing Approach	3	3	3	3
LT, Opposing Approach	195	89	74	58
RT, Opposing Approach	11	84	68	163
LT, Conflicting Approaches	132	132	284	284
RT, Conflicting Approaches	231	231	95	95
Proportion LT, Opposing Approach	0.75	0.37	0.20	0.18
Proportion RT, Opposing Approach	0.04	0.35	0.18	0.51
Proportion LT, Conflicting Approaches	0.19	0.19	0.57	0.57
Proportion RT, Conflicting Approaches	0.34	0.34	0.19	0.19
Approach Capacity	481	662	650	732

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
EB	241	481	0.50	6.7	B
WB	259	662	0.39	4.4	A
NB	321	650	0.49	6.5	B
SB	368	732	0.50	6.8	B

Intersection Delay = 6.2  
 Level of Service (Intersection) = B

Center For Microcomputers In Transportation  
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Streets: (N-S) Vineland (E-W) Highland-Knolls  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information..... PM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	1	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	50	200			320	80	140		45			
PHF	.95	.95			.95	.95	.95		.95			
Grade		0			0			0				
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10			1.10		

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)		337
Potential Capacity: (pcph)		934
Movement Capacity: (pcph)		934
Prob. of Queue-Free State:		0.94
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)		421
Potential Capacity: (pcph)		1080
Movement Capacity: (pcph)		1080
Prob. of Queue-Free State:		0.95
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)		601
Potential Capacity: (pcph)		475
Major LT, Minor TH		
Impedance Factor:		0.95
Adjusted Impedance Factor:		0.95
Capacity Adjustment Factor		
due to Impeding Movements		0.95
Movement Capacity: (pcph)		449

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	162	449		12.5	1.7	C	10.4
EB R	52	934		4.1	0.0	A	
NB L	58	1080		3.5	0.0	A	0.7

Intersection Delay = 2.5 sec/veh

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Streets: (N-S) Vineland (E-W) Knolls  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information..... PM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	1	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	50	200			320	80	140		45			
PHF	.95	.95			.95	.95	.95		.95			
Grade		0			0			0				
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10		1.10			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		WB	EB
Conflicting Flows: (vph)			337
Potential Capacity: (pcph)			934
Movement Capacity: (pcph)			934
Prob. of Queue-Free State:			0.94
Step 2: LT from Major Street		SB	NB
Conflicting Flows: (vph)			421
Potential Capacity: (pcph)			1080
Movement Capacity: (pcph)			1080
Prob. of Queue-Free State:			0.95
Step 4: LT from Minor Street		WB	EB
Conflicting Flows: (vph)			601
Potential Capacity: (pcph)			475
Major LT, Minor TH			
Impedance Factor:			0.95
Adjusted Impedance Factor:			0.95
Capacity Adjustment Factor			
due to Impeding Movements			0.95
Movement Capacity: (pcph)			449

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	162	449		12.5	1.7	C	10.4
EB R	52	934		4.1	0.0	A	
NB L	58	1080		3.5	0.0	A	0.7

Intersection Delay = 2.5 sec/veh



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Streets: (N-S) Morning Dr (E-W) Highland-Knolls  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information..... PM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	30	270	50	50	310	55	100	110	20	60	120	30
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	WB	EB
Conflicting Flows: (vph)	284	326
Potential Capacity: (pcph)	994	947
Movement Capacity: (pcph)	994	947
Prob. of Queue-Free State:	0.96	0.98
Step 2: LT from Major Street		
	SB	NB
Conflicting Flows: (vph)	337	384
Potential Capacity: (pcph)	1184	1125
Movement Capacity: (pcph)	1184	1125
Prob. of Queue-Free State:	0.95	0.97
Step 3: TH from Minor Street		
	WB	EB
Conflicting Flows: (vph)	753	748
Potential Capacity: (pcph)	439	442
Capacity Adjustment Factor due to Impeding Movements	0.92	0.92
Movement Capacity: (pcph)	405	407
Prob. of Queue-Free State:	0.66	0.69
Step 4: LT from Minor Street		
	WB	EB
Conflicting Flows: (vph)	763	774
Potential Capacity: (pcph)	383	377
Major LT, Minor TH Impedance Factor:	0.63	0.61
Adjusted Impedance Factor:	0.71	0.69
Capacity Adjustment Factor due to Impeding Movements	0.70	0.67
Movement Capacity: (pcph)	267	252

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	116	252		25.9	2.2	D	
EB T	128	407		12.9	1.4	C	17.8
EB R	23	947		3.9	0.0	A	
WB L	69	267		18.1	1.0	C	
WB T	139	405		13.5	1.6	C	13.4
WB R	35	994		3.8	0.0	A	
NB L	35	1125		3.3	0.0	A	0.3
SB L	58	1184		3.2	0.0	A	0.4

Intersection Delay = 5.9 sec/veh

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Streets: (N-S) SR 184 (E-W) Chase Ave  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information..... PM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes		720	100	50	750					30		30
PHF		.95	.95	.95	.95					.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		WB	EB
Conflicting Flows: (vph)		758	
Potential Capacity: (pcph)		572	
Movement Capacity: (pcph)		572	
Prob. of Queue-Free State:		0.94	
Step 2: LT from Major Street		SB	NB
Conflicting Flows: (vph)		863	
Potential Capacity: (pcph)		665	
Movement Capacity: (pcph)		665	
Prob. of Queue-Free State:		0.91	
Step 4: LT from Minor Street		WB	EB
Conflicting Flows: (vph)		1600	
Potential Capacity: (pcph)		125	
Major LT, Minor TH			
Impedance Factor:		0.91	
Adjusted Impedance Factor:		0.91	
Capacity Adjustment Factor			
due to Impeding Movements		0.91	
Movement Capacity: (pcph)		114	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	35	114		45.0	1.1	E	25.8
WB R	35	572		6.7	0.1	B	
SB L	58	665		5.9	0.2	B	0.4

Intersection Delay = 1.1 sec/veh

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Streets: (N-S) Vineland (E-W) SR184  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....PM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	200	1150	50	50	810	50	75	125	25	50	150	50
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	1211	853
Potential Capacity: (pcph)	337	512
Movement Capacity: (pcph)	337	512
Prob. of Queue-Free State:	0.91	0.89
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	1264	906
Potential Capacity: (pcph)	428	634
Movement Capacity: (pcph)	428	634
Prob. of Queue-Free State:	0.86	0.63
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	2381	2381
Potential Capacity: (pcph)	61	61
Capacity Adjustment Factor due to Impeding Movements	0.55	0.55
Movement Capacity: (pcph)	33	33
Prob. of Queue-Free State:	0.00	0.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	2434	2408
Potential Capacity: (pcph)	41	43
Major LT, Minor TH Impedance Factor:	0.00	0.00
Adjusted Impedance Factor:	0.00	0.00
Capacity Adjustment Factor due to Impeding Movements	0.00	0.00
Movement Capacity: (pcph)	0	0

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	87	0		*	*	F	
NB T	145	33		*	14.7	F	*
NB R	29	337		11.7	0.2	C	
SB L	58	0		*	*	F	
SB T	174	33		*	18.2	F	*
SB R	58	512		7.9	0.3	B	
EB L	232	634		8.9	1.8	B	1.3
WB L	58	428		9.7	0.5	B	0.5

Intersection Delay = \*

\* The calculated value was greater than 999.9.

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 Ph: (352) 392-0378

Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....AM 2020 WITH PROJECT  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	0	1	1
Stop/Yield			N			N						
Volumes	5	5	5	335	30	170	30	350	185		490	40
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95		.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10		1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	5	32
Potential Capacity: (pcph)	1377	1334
Movement Capacity: (pcph)	1377	1334
Prob. of Queue-Free State:	0.84	0.97
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	10	211
Potential Capacity: (pcph)	1696	1360
Movement Capacity: (pcph)	1696	1360
Prob. of Queue-Free State:	0.77	1.00
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	574	400
Potential Capacity: (pcph)	545	673
Capacity Adjustment Factor due to Impeding Movements	0.77	0.77
Movement Capacity: (pcph)	418	517
Prob. of Queue-Free State:	0.03	0.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	674	
Potential Capacity: (pcph)	431	
Major LT, Minor TH Impedance Factor:	0.00	
Adjusted Impedance Factor:	0.00	
Capacity Adjustment Factor due to Impeding Movements	0.00	
Movement Capacity: (pcph)	0	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	35	0		*	*	F	
NB T	405	418		63.3	10.4	F	*
NB R	215	1377		3.1	0.6	A	
SB T	568	517		91.9	16.5	F	85.2
SB R	46	1334		2.8	0.0	A	
EB L	6	1360		2.7	0.0	A	0.9
WB L	388	1696		2.8	1.0	A	1.7

Intersection Delay = \*



Center For Microcomputers In Transportation  
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 Ph: (352) 392-0378

Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....AM 2020 with project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	40	155	30	85	200	10	40	0	0	10	20	160
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	163	211
Potential Capacity: (pcph)	1145	1082
Movement Capacity: (pcph)	1145	1082
Prob. of Queue-Free State:	1.00	0.83
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	195	222
Potential Capacity: (pcph)	1384	1344
Movement Capacity: (pcph)	1384	1344
Prob. of Queue-Free State:	0.93	0.97
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	516	537
Potential Capacity: (pcph)	585	570
Capacity Adjustment Factor due to Impeding Movements	0.90	0.90
Movement Capacity: (pcph)	525	512
Prob. of Queue-Free State:	1.00	0.96
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	600	504
Potential Capacity: (pcph)	476	541
Major LT, Minor TH Impedance Factor:	0.86	0.90
Adjusted Impedance Factor:	0.89	0.92
Capacity Adjustment Factor due to Impeding Movements	0.74	0.92
Movement Capacity: (pcph)	351	498

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	46	351		11.8	0.4	C	
NB T	0	525		6.9	0.0	B	11.8
NB R	0	1145		3.1	0.0	A	
SB L	12	498		7.4	0.0	B	
SB T	23	512		7.4	0.0	B	4.5
SB R	185	1082		4.0	0.7	A	
EB L	46	1344		2.8	0.0	A	0.5
WB L	98	1384		2.8	0.1	A	0.8

Intersection Delay = 2.2 sec/veh

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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....AM 2020 with project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	1	1	1	0
Stop/Yield			N			N						
Volumes				40		145		600	40	110	380	
PHF				.95		.95		.95	.95	.95	.95	
Grade					0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10				1.10	1.10	1.10	1.10	

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	0	
Potential Capacity: (pcph)	1385	
Movement Capacity: (pcph)	1385	
Prob. of Queue-Free State:	0.97	
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)	0	
Potential Capacity: (pcph)	1714	
Movement Capacity: (pcph)	1714	
Prob. of Queue-Free State:	0.97	
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	195	42
Potential Capacity: (pcph)	839	1031
Capacity Adjustment Factor due to Impeding Movements	0.97	0.97
Movement Capacity: (pcph)	816	1003
Prob. of Queue-Free State:	0.15	0.56
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)		380
Potential Capacity: (pcph)		605
Major LT, Minor TH Impedance Factor:		0.14
Adjusted Impedance Factor:		0.28
Capacity Adjustment Factor due to Impeding Movements		0.27
Movement Capacity: (pcph)		161
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
NB T	695	816		24.0	9.7	D	22.7
NB R	46	1385		2.7	0.0	A	
SB L	128	161		76.9	4.4	F	
SB T	440	1003		6.4	2.4	B	22.2
WB L	46	1714		2.2	0.0	A	0.5

Intersection Delay = 19.4 sec/veh

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Streets: (N-S) ~~Vineland~~ <sup>9000A</sup> St (E-W) Panorama Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/10/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	0	0	1	< 0	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	25	435		190	20					5		30
PHF	.95	.95		.95	.95					.95		.95
Grade		0		0							0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10		

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

## Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			210
Potential Capacity: (pcph)			1084
Movement Capacity: (pcph)			1084
Prob. of Queue-Free State:			0.97
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			221
Potential Capacity: (pcph)			1345
Movement Capacity: (pcph)			1345
Prob. of Queue-Free State:			0.98
TH Saturation Flow Rate: (pcphpl)			1700
RT Saturation Flow Rate: (pcphpl)			
Major LT Shared Lane Prob. of Queue-Free State:			0.97
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			694
Potential Capacity: (pcph)			420
Major LT, Minor TH Impedance Factor:			0.97
Adjusted Impedance Factor:			0.97
Capacity Adjustment Factor due to Impeding Movements			0.97
Movement Capacity: (pcph)			408

## Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	6	408		9.0	0.0	B	4.2
SB R	35	1084		3.4	0.0	A	
EB L	29	1345		2.7	0.0	A	0.1

Intersection Delay = 0.3 sec/veh

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Streets: (N-S) Morning Dr (E-W) College St  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	70	135	50	50	170	45	15	25	10	10	25	15
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	WB	EB
Conflicting Flows: (vph)	142	179
Potential Capacity: (pcph)	1173	1124
Movement Capacity: (pcph)	1173	1124
Prob. of Queue-Free State:	0.98	0.99
Step 2: LT from Major Street		
	SB	NB
Conflicting Flows: (vph)	195	226
Potential Capacity: (pcph)	1384	1338
Movement Capacity: (pcph)	1384	1338
Prob. of Queue-Free State:	0.96	0.94
Step 3: TH from Minor Street		
	WB	EB
Conflicting Flows: (vph)	495	501
Potential Capacity: (pcph)	600	595
Capacity Adjustment Factor due to Impeding Movements	0.90	0.90
Movement Capacity: (pcph)	540	536
Prob. of Queue-Free State:	0.95	0.95
Step 4: LT from Minor Street		
	WB	EB
Conflicting Flows: (vph)	466	470
Potential Capacity: (pcph)	569	566
Major LT, Minor TH Impedance Factor:	0.85	0.85
Adjusted Impedance Factor:	0.89	0.89
Capacity Adjustment Factor due to Impeding Movements	0.88	0.87
Movement Capacity: (pcph)	499	494

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	18	494		7.6	0.0	B	
EB T	29	536		7.1	0.0	B	6.5
EB R	12	1124		3.2	0.0	A	
WB L	12	499		7.4	0.0	B	
WB T	29	540		7.0	0.0	B	5.9
WB R	18	1173		3.1	0.0	A	
NB L	81	1338		2.9	0.1	A	0.8
SB L	58	1384		2.7	0.0	A	0.5

Intersection Delay = 1.5 sec/veh



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Streets: (N-S) Vineland Road (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....AM 2010 with project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	100	360			600	20				35		195
PHF	.95	.95			.95	.95				.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)		316
Potential Capacity: (pcph)		958
Movement Capacity: (pcph)		958
Prob. of Queue-Free State:		0.76
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)		653
Potential Capacity: (pcph)		765
Movement Capacity: (pcph)		765
Prob. of Queue-Free State:		0.85
Step 4: LT from Minor Street	NB	SB
Conflicting Flows: (vph)		1116
Potential Capacity: (pcph)		205
Major LT, Minor TH		
Impedance Factor:		0.85
Adjusted Impedance Factor:		0.85
Capacity Adjustment Factor		
due to Impeding Movements		0.85
Movement Capacity: (pcph)		174

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	41	174		27.0	0.8	D	8.3
SB R	226	958		4.9	1.0	A	
EB L	116	765		5.5	0.6	B	1.2

Intersection Delay = 1.9 sec/veh

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Streets: (N-S) Vineland St (E-W) Knolls  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	1	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	30	170			205	60	95		25			
PHF	.95	.95			.95	.95	.95		.95			
Grade		0			0			0				
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10		1.10			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		WB	EB
Conflicting Flows: (vph)			216
Potential Capacity: (pcph)			1076
Movement Capacity: (pcph)			1076
Prob. of Queue-Free State:			0.97
Step 2: LT from Major Street		SB	NB
Conflicting Flows: (vph)			279
Potential Capacity: (pcph)			1262
Movement Capacity: (pcph)			1262
Prob. of Queue-Free State:			0.97
Step 4: LT from Minor Street		WB	EB
Conflicting Flows: (vph)			426
Potential Capacity: (pcph)			600
Major LT, Minor TH			
Impedance Factor:			0.97
Adjusted Impedance Factor:			0.97
Capacity Adjustment Factor			
due to Impeding Movements			0.97
Movement Capacity: (pcph)			583

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	110	583		7.6	0.7	B	6.7
EB R	29	1076		3.4	0.0	A	
NB L	35	1262		2.9	0.0	A	0.4

Intersection Delay = 1.5 sec/veh

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Streets: (N-S) Vineland St (E-W) SR184  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	140	760	30	55	650	45	45	85	20	40	100	80
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	816	708
Potential Capacity: (pcph)	534	606
Movement Capacity: (pcph)	534	606
Prob. of Queue-Free State:	0.96	0.85
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	832	731
Potential Capacity: (pcph)	688	769
Movement Capacity: (pcph)	688	769
Prob. of Queue-Free State:	0.91	0.79
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	1752	1744
Potential Capacity: (pcph)	131	133
Capacity Adjustment Factor due to Impeding Movements	0.72	0.72
Movement Capacity: (pcph)	94	95
Prob. of Queue-Free State:	0.00	0.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	1823	1784
Potential Capacity: (pcph)	93	98
Major LT, Minor TH Impedance Factor:	0.00	0.00
Adjusted Impedance Factor:	0.00	0.00
Capacity Adjustment Factor due to Impeding Movements	0.00	0.00
Movement Capacity: (pcph)	0	0

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	52	0 >					
NB T	98	94 >	0	*	*	F	*
NB R	23	534 >					
SB L	46	0 >					
SB T	116	95 >	0	*	*	F	*
SB R	92	606 >					
EB L	162	769		5.9	0.9	B	0.9
WB L	64	688		5.8	0.2	B	0.4

Intersection Delay = \*

\* The calculated value was greater than 999.9.

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Streets: (N-S) SR184 (E-W) Chase Ave  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	< 0	0	> 1	0	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes		720	60	35	740					20		30
PHF		.95	.95	.95	.95					.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40



Worksheet for TWSC Intersection

Step 1: RT from Minor Street WB EB

Conflicting Flows: (vph) 790  
 Potential Capacity: (pcph) 551  
 Movement Capacity: (pcph) 551  
 Prob. of Queue-Free State: 0.94

Step 2: LT from Major Street SB NB

Conflicting Flows: (vph) 821  
 Potential Capacity: (pcph) 696  
 Movement Capacity: (pcph) 696  
 Prob. of Queue-Free State: 0.94  
 TH Saturation Flow Rate: (pcphpl) 1700  
 RT Saturation Flow Rate: (pcphpl)  
 Major LT Shared Lane Prob. of Queue-Free State: 0.89

Step 4: LT from Minor Street WB EB

Conflicting Flows: (vph) 1606  
 Potential Capacity: (pcph) 124  
 Major LT, Minor TH  
 Impedance Factor: 0.89  
 Adjusted Impedance Factor: 0.89  
 Capacity Adjustment Factor due to Impeding Movements 0.89  
 Movement Capacity: (pcph) 111

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	23	111		40.7	0.6	E	20.5
WB R	35	551		7.0	0.1	B	
SB L	41	696		5.5	0.1	B	0.2

Intersection Delay = 0.8 sec/veh

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Streets: (N-S) Morning Dr (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	65	370	80	80	255	40	100	185	90	45	300	50
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	389	268
Potential Capacity: (pcph)	879	1013
Movement Capacity: (pcph)	879	1013
Prob. of Queue-Free State:	0.88	0.94
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	473	310
Potential Capacity: (pcph)	1020	1220
Movement Capacity: (pcph)	1020	1220
Prob. of Queue-Free State:	0.91	0.94
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	851	893
Potential Capacity: (pcph)	390	371
Capacity Adjustment Factor due to Impeding Movements	0.85	0.85
Movement Capacity: (pcph)	333	317
Prob. of Queue-Free State:	0.35	0.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	993	954
Potential Capacity: (pcph)	282	297
Major LT, Minor TH Impedance Factor:	0.00	0.30
Adjusted Impedance Factor:	0.00	0.44
Capacity Adjustment Factor due to Impeding Movements	0.00	0.38
Movement Capacity: (pcph)	0	114

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	116	0		*	*	F	
NB T	215	333		28.5	4.0	D	*
NB R	105	879		4.7	0.4	A	
SB L	52	114		55.7	1.7	F	
SB T	348	317		111.4	12.0	F	91.4
SB R	58	1013		3.8	0.0	A	
EB L	75	1220		3.1	0.1	A	0.4
WB L	92	1020		3.9	0.2	A	0.8

Intersection Delay = \*

\* The calculated value was greater than 999.9.

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 Ph: (352) 392-0378

Streets: (N-S) ~~Vineland St~~ <sup>Queen St</sup> (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	65	370	50	20	280	0	30	0	10	20	0	40
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	389	295
Potential Capacity: (pcph)	879	981
Movement Capacity: (pcph)	879	981
Prob. of Queue-Free State:	0.99	0.95
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	442	295
Potential Capacity: (pcph)	1056	1240
Movement Capacity: (pcph)	1056	1240
Prob. of Queue-Free State:	0.98	0.94
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	773	826
Potential Capacity: (pcph)	429	402
Capacity Adjustment Factor due to Impeding Movements	0.92	0.92
Movement Capacity: (pcph)	394	369
Prob. of Queue-Free State:	1.00	1.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	794	778
Potential Capacity: (pcph)	367	375
Major LT, Minor TH Impedance Factor:	0.92	0.92
Adjusted Impedance Factor:	0.94	0.94
Capacity Adjustment Factor due to Impeding Movements	0.89	0.93
Movement Capacity: (pcph)	328	347

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	35	328		12.3	0.3	C	
NB T	0	394		9.1	0.0	B	10.2
NB R	12	879		4.2	0.0	A	
SB L	23	347		11.1	0.1	C	
SB T	0	369		9.8	0.0	B	6.3
SB R	46	981		3.9	0.0	A	
EB L	75	1240		3.1	0.1	A	0.4
WB L	23	1056		3.5	0.0	A	0.2

Intersection Delay = 1.2 sec/veh

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Streets: (N-S) Masterson St (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	50	300	50	110	240	0	30	0	10	0	0	0
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	316	253
Potential Capacity: (pcph)	958	1031
Movement Capacity: (pcph)	958	1031
Prob. of Queue-Free State:	0.99	1.00
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	369	253
Potential Capacity: (pcph)	1144	1299
Movement Capacity: (pcph)	1144	1299
Prob. of Queue-Free State:	0.89	0.96
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	738	791
Potential Capacity: (pcph)	447	419
Capacity Adjustment Factor due to Impeding Movements	0.85	0.85
Movement Capacity: (pcph)	379	356
Prob. of Queue-Free State:	1.00	1.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	738	744
Potential Capacity: (pcph)	396	393
Major LT, Minor TH Impedance Factor:	0.85	0.85
Adjusted Impedance Factor:	0.88	0.88
Capacity Adjustment Factor due to Impeding Movements	0.88	0.87
Movement Capacity: (pcph)	350	343

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	35	350		11.4	0.3	C	
NB T	0	379		9.5	0.0	B	9.5
NB R	12	958		3.8	0.0	A	
SB L	0	343		10.5	0.0	C	
SB T	0	356		10.1	0.0	C	0.0
SB R	0	1031		3.5	0.0	A	
EB L	58	1299		2.9	0.0	A	0.4
WB L	128	1144		3.5	0.4	A	1.1

Intersection Delay = 1.2 sec/veh



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Streets: (N-S) Morning Dr (E-W) Panorama Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/10/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	85	115	80	410	60	30	55	95	250	70	115	65
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	121	63
Potential Capacity: (pcph)	1202	1286
Movement Capacity: (pcph)	1202	1286
Prob. of Queue-Free State:	0.76	0.94
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	205	95
Potential Capacity: (pcph)	1369	1545
Movement Capacity: (pcph)	1369	1545
Prob. of Queue-Free State:	0.65	0.94
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	737	789
Potential Capacity: (pcph)	448	420
Capacity Adjustment Factor due to Impeding Movements	0.61	0.61
Movement Capacity: (pcph)	274	257
Prob. of Queue-Free State:	0.60	0.48
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	800	886
Potential Capacity: (pcph)	364	325
Major LT, Minor TH Impedance Factor:	0.30	0.37
Adjusted Impedance Factor:	0.43	0.49
Capacity Adjustment Factor due to Impeding Movements	0.40	0.37
Movement Capacity: (pcph)	147	122

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	64	147		42.1	1.8	E	
NB T	110	274		21.7	1.8	D	13.4
NB R	289	1202		3.9	1.1	A	
SB L	81	122		74.4	3.0	F	
SB T	133	257		28.1	2.6	D	34.6
SB R	75	1286		3.0	0.1	A	
EB L	98	1545		2.5	0.1	A	0.8
WB L	475	1369		4.0	1.8	A	3.3

Intersection Delay = 11.1 sec/veh

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Streets: (N-S) Morning Dr (E-W) Highland Knolls  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 With Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	20	165	30	30	185	35	60	65	15	40	75	20
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	WB	EB
Conflicting Flows: (vph)	174	195
Potential Capacity: (pcph)	1130	1103
Movement Capacity: (pcph)	1130	1103
Prob. of Queue-Free State:	0.98	0.98
Step 2: LT from Major Street		
	SB	NB
Conflicting Flows: (vph)	206	232
Potential Capacity: (pcph)	1367	1329
Movement Capacity: (pcph)	1367	1329
Prob. of Queue-Free State:	0.97	0.98
Step 3: TH from Minor Street		
	WB	EB
Conflicting Flows: (vph)	459	454
Potential Capacity: (pcph)	626	630
Capacity Adjustment Factor due to Impeding Movements	0.96	0.96
Movement Capacity: (pcph)	599	603
Prob. of Queue-Free State:	0.85	0.88
Step 4: LT from Minor Street		
	WB	EB
Conflicting Flows: (vph)	464	472
Potential Capacity: (pcph)	570	564
Major LT, Minor TH Impedance Factor:	0.84	0.82
Adjusted Impedance Factor:	0.88	0.86
Capacity Adjustment Factor due to Impeding Movements	0.86	0.84
Movement Capacity: (pcph)	491	475

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	69	475		8.9	0.5	B	
EB T	75	603		6.8	0.4	B	7.3
EB R	18	1103		3.3	0.0	A	
WB L	46	491		8.1	0.2	B	
WB T	87	599		7.0	0.5	B	6.8
WB R	23	1130		3.3	0.0	A	
NB L	23	1329		2.8	0.0	A	0.3
SB L	35	1367		2.7	0.0	A	0.3

Intersection Delay = 2.8 sec/veh

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Streets: (N-S) Fairfax Road (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information..... PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	10	10	10	560	50	285	50	645	310	50	240	65
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

## Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	11	53
Potential Capacity: (pcph)	1367	1302
Movement Capacity: (pcph)	1367	1302
Prob. of Queue-Free State:	0.74	0.94
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	22	353
Potential Capacity: (pcph)	1673	1164
Movement Capacity: (pcph)	1673	1164
Prob. of Queue-Free State:	0.61	0.99
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	964	675
Potential Capacity: (pcph)	340	483
Capacity Adjustment Factor due to Impeding Movements	0.61	0.61
Movement Capacity: (pcph)	206	293
Prob. of Queue-Free State:	0.00	0.05
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	824	1166
Potential Capacity: (pcph)	353	224
Major LT, Minor TH Impedance Factor:	0.03	0.00
Adjusted Impedance Factor:	0.12	0.00
Capacity Adjustment Factor due to Impeding Movements	0.11	0.00
Movement Capacity: (pcph)	38	0

## Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	58	38		494.4	4.5	F	
NB T	747	206		*	68.7	F	810.6
NB R	359	1367		3.6	1.2	A	
SB L	58	0		*	*	F	
SB T	278	293		74.1	8.3	F	*
SB R	75	1302		2.9	0.0	A	
EB L	12	1164		3.1	0.0	A	1.0
WB L	648	1673		3.5	2.1	A	2.2

Intersection Delay = \*

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Streets: (N-S) Alfred Harrell (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information..... PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	55	260	70	50	365	20	150	25	60	55	50	110
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	274	384
Potential Capacity: (pcph)	1006	885
Movement Capacity: (pcph)	1006	885
Prob. of Queue-Free State:	0.93	0.86
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)	348	405
Potential Capacity: (pcph)	1170	1099
Movement Capacity: (pcph)	1170	1099
Prob. of Queue-Free State:	0.95	0.94
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	790	843
Potential Capacity: (pcph)	420	394
Capacity Adjustment Factor due to Impeding Movements	0.90	0.90
Movement Capacity: (pcph)	376	353
Prob. of Queue-Free State:	0.92	0.84
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	854	813
Potential Capacity: (pcph)	339	358
Major LT, Minor TH Impedance Factor:	0.75	0.83
Adjusted Impedance Factor:	0.81	0.87
Capacity Adjustment Factor due to Impeding Movements	0.69	0.81
Movement Capacity: (pcph)	234	289
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	174	234		49.8	4.6	F	
NB T	29	376		10.4	0.2	C	33.8
NB R	69	1006		3.8	0.1	A	
SB L	64	289		16.0	0.8	C	
SB T	58	353		12.2	0.6	C	9.4
SB R	128	885		4.8	0.5	A	
EB L	64	1099		3.5	0.1	A	0.5
WB L	58	1170		3.2	0.0	A	0.4

Intersection Delay = 8.1 sec/veh



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 Ph: (352) 392-0378

Streets: (N-S) Morning Dr (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/10/0  
 Other Information.....PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	30	395	90	90	335	30	55	280	60	50	285	50
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	416	353
Potential Capacity: (pcph)	852	917
Movement Capacity: (pcph)	852	917
Prob. of Queue-Free State:	0.92	0.94
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	511	385
Potential Capacity: (pcph)	979	1124
Movement Capacity: (pcph)	979	1124
Prob. of Queue-Free State:	0.89	0.97
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	928	991
Potential Capacity: (pcph)	355	329
Capacity Adjustment Factor due to Impeding Movements	0.86	0.86
Movement Capacity: (pcph)	307	285
Prob. of Queue-Free State:	0.00	0.00
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	1072	1074
Potential Capacity: (pcph)	254	253
Major LT, Minor TH Impedance Factor:	0.00	0.00
Adjusted Impedance Factor:	0.00	0.00
Capacity Adjustment Factor due to Impeding Movements	0.00	0.00
Movement Capacity: (pcph)	0	0

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	64	0		*	*	F	
NB T	325	307		100.8	10.8	F	*
NB R	69	852		4.6	0.2	A	
SB L	58	0		*	*	F	
SB T	330	285		136.7	12.6	F	*
SB R	58	917		4.2	0.1	A	
EB L	35	1124		3.3	0.0	A	0.2
WB L	105	979		4.1	0.3	A	0.8

Intersection Delay = \*

Center For Microcomputers In Transportation  
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 512 Weil Hall  
 Gainesville, FL 32611-6585  
 Ph: (352) 392-0378

Streets: (N-S) Morning Dr (E-W) Highland-Knolls  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	30	320	55	60	390	75	105	110	20	65	125	35
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	WB	EB
-----		
Conflicting Flows: (vph)	337	411
Potential Capacity: (pcph)	934	857
Movement Capacity: (pcph)	934	857
Prob. of Queue-Free State:	0.96	0.97
-----		
Step 2: LT from Major Street	SB	NB
-----		
Conflicting Flows: (vph)	395	490
Potential Capacity: (pcph)	1111	1001
Movement Capacity: (pcph)	1111	1001
Prob. of Queue-Free State:	0.94	0.97
-----		
Step 3: TH from Minor Street	WB	EB
-----		
Conflicting Flows: (vph)	922	901
Potential Capacity: (pcph)	358	367
Capacity Adjustment Factor due to Impeding Movements	0.91	0.91
Movement Capacity: (pcph)	324	332
Prob. of Queue-Free State:	0.55	0.61
-----		
Step 4: LT from Minor Street	WB	EB
-----		
Conflicting Flows: (vph)	912	927
Potential Capacity: (pcph)	314	308
Major LT, Minor TH Impedance Factor:	0.56	0.50
Adjusted Impedance Factor:	0.65	0.61
Capacity Adjustment Factor due to Impeding Movements	0.64	0.58
Movement Capacity: (pcph)	199	179
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
EB L	122	179		54.8	3.6	F	
EB T	128	332		17.5	1.8	C	33.0
EB R	23	857		4.3	0.0	A	
WB L	75	199		28.6	1.6	D	
WB T	145	324		19.8	2.2	C	19.9
WB R	41	934		4.0	0.0	A	
NB L	35	1001		3.7	0.0	A	0.3
SB L	69	1111		3.5	0.1	A	0.4

Intersection Delay = 9.0 sec/veh

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Streets: (N-S) SR184 (E-W) Chase Ave  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information..... PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	1	1	0	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes		920	100	50	1000					30		45
PHF		.95	.95	.95	.95					.95		.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10		1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	968	
Potential Capacity: (pcph)	448	
Movement Capacity: (pcph)	448	
Prob. of Queue-Free State:	0.88	
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	1073	
Potential Capacity: (pcph)	528	
Movement Capacity: (pcph)	528	
Prob. of Queue-Free State:	0.89	
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	2074	
Potential Capacity: (pcph)	67	
Major LT, Minor TH		
Impedance Factor:	0.89	
Adjusted Impedance Factor:	0.89	
Capacity Adjustment Factor		
due to Impeding Movements	0.89	
Movement Capacity: (pcph)	60	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	35	60		122.9	1.8	F	54.6
WB R	52	448		9.1	0.4	B	
SB L	58	528		7.7	0.3	B	0.4

Intersection Delay = 2.1 sec/veh

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Streets: (N-S) ~~Vinsland St~~ **QUEEN ST** (E-W) Panorama Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information..... PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	0	0	1	< 0	0	0	0	1	0	1
Stop/Yield			N			N						
Volumes	95	550		460	50					10		50
PHF	.95	.95		.95	.95					.95		.95
Grade		0		0						0		
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10									1.10 1.10		

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)			510
Potential Capacity: (pcph)			764
Movement Capacity: (pcph)			764
Prob. of Queue-Free State:			0.92
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)			537
Potential Capacity: (pcph)			951
Movement Capacity: (pcph)			951
Prob. of Queue-Free State:			0.88
TH Saturation Flow Rate: (pcphpl)			1700
RT Saturation Flow Rate: (pcphpl)			
Major LT Shared Lane Prob. of Queue-Free State:			0.82
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			1190
Potential Capacity: (pcph)			217
Major LT, Minor TH Impedance Factor:			0.82
Adjusted Impedance Factor:			0.82
Capacity Adjustment Factor due to Impeding Movements			0.82
Movement Capacity: (pcph)			179

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
SB L	12	179		21.6	0.1	D	7.8
SB R	58	764		5.1	0.2	B	
EB L	110	951		4.3	0.4	A	0.6

Intersection Delay = 0.7 sec/veh



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Streets: (N-S) Morning Dr (E-W) Niles-SR184  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information..... PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	230	395	400	345	850	245	130	430	375	190	515	205
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street			NB	SB
Conflicting Flows: (vph)			416	895
Potential Capacity: (pcph)			852	487
Movement Capacity: (pcph)			852	487
Prob. of Queue-Free State:			0.49	0.51
Step 2: LT from Major Street			WB	EB
Conflicting Flows: (vph)			837	1153
Potential Capacity: (pcph)			684	484
Movement Capacity: (pcph)			684	484
Prob. of Queue-Free State:			0.42	0.45
Step 3: TH from Minor Street			NB	SB
Conflicting Flows: (vph)			2174	2337
Potential Capacity: (pcph)			79	65
Capacity Adjustment Factor due to Impeding Movements			0.19	0.19
Movement Capacity: (pcph)			15	12
Prob. of Queue-Free State:			0.00	0.00
Step 4: LT from Minor Street			NB	SB
Conflicting Flows: (vph)			2295	2340
Potential Capacity: (pcph)			50	47
Major LT, Minor TH Impedance Factor:			0.00	0.00
Adjusted Impedance Factor:			0.00	0.00
Capacity Adjustment Factor due to Impeding Movements			0.00	0.00
Movement Capacity: (pcph)			0	0

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	151	0		*	*	F	
NB T	498	15		*	60.5	F	*
NB R	435	852		8.5	3.1	B	
SB L	220	0		*	*	F	
SB T	596	12		*	73.1	F	*
SB R	238	487		14.3	2.7	C	
EB L	266	484		16.1	3.3	C	3.6
WB L	399	684		12.4	3.8	C	3.0

Intersection Delay = \*

\* The calculated value was greater than 999.9.

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Streets: (N-S) Vineland St (E-W) Knolls  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information..... PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	1	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	50	240			290	110	155		45			
PHF	.95	.95			.95	.95	.95		.95			
Grade		0			0			0				
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10			1.10		

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)		305
Potential Capacity: (pcph)		970
Movement Capacity: (pcph)		970
Prob. of Queue-Free State:		0.95
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)		421
Potential Capacity: (pcph)		1080
Movement Capacity: (pcph)		1080
Prob. of Queue-Free State:		0.95
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)		611
Potential Capacity: (pcph)		469
Major LT, Minor TH		
Impedance Factor:		0.95
Adjusted Impedance Factor:		0.95
Capacity Adjustment Factor		
due to Impeding Movements		0.95
Movement Capacity: (pcph)		444

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	179	444		13.5	2.0	C	11.3
EB R	52	970		3.9	0.0	A	
NB L	58	1080		3.5	0.0	A	0.6
Intersection Delay =				2.7 sec/veh			

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Streets: (N-S) Vineland St (E-W) SR184  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	260	1170	50	150	920	70	75	175	105	50	250	60
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	1232	968
Potential Capacity: (pcph)	329	448
Movement Capacity: (pcph)	329	448
Prob. of Queue-Free State:	0.63	0.85
-----		
Step 2: LT from Major Street	WB	EB
-----		
Conflicting Flows: (vph)	1285	1042
Potential Capacity: (pcph)	419	546
Movement Capacity: (pcph)	419	546
Prob. of Queue-Free State:	0.58	0.45
-----		
Step 3: TH from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	2706	2685
Potential Capacity: (pcph)	41	43
Capacity Adjustment Factor due to Impeding Movements	0.26	0.26
Movement Capacity: (pcph)	11	11
Prob. of Queue-Free State:	0.00	0.00
-----		
Step 4: LT from Minor Street	NB	SB
-----		
Conflicting Flows: (vph)	2795	2780
Potential Capacity: (pcph)	25	26
Major LT, Minor TH Impedance Factor:	0.00	0.00
Adjusted Impedance Factor:	0.00	0.00
Capacity Adjustment Factor due to Impeding Movements	0.00	0.00
Movement Capacity: (pcph)	0	0
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
NB L	87	0		*	*	F	
NB T	202	11		*	24.0	F	*
NB R	122	329		17.3	1.7	C	
SB L	58	0		*	*	F	
SB T	289	11		*	34.9	F	*
SB R	69	448		9.5	0.5	B	
EB L	301	546		14.4	3.3	C	2.5
WB L	174	419		14.6	2.1	C	1.9

Intersection Delay = \*

\* The calculated value was greater than 999.9.

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Streets: (N-S) Morning Dr (E-W) College  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	125	255	85	65	315	40	25	40	20	20	40	25
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

-----		
Step 1: RT from Minor Street	WB	EB
-----		
Conflicting Flows: (vph)	268	332
Potential Capacity: (pcph)	1013	940
Movement Capacity: (pcph)	1013	940
Prob. of Queue-Free State:	0.97	0.98
-----		
Step 2: LT from Major Street	SB	NB
-----		
Conflicting Flows: (vph)	357	374
Potential Capacity: (pcph)	1159	1137
Movement Capacity: (pcph)	1159	1137
Prob. of Queue-Free State:	0.94	0.87
-----		
Step 3: TH from Minor Street	WB	EB
-----		
Conflicting Flows: (vph)	842	889
Potential Capacity: (pcph)	394	373
Capacity Adjustment Factor due to Impeding Movements	0.82	0.82
Movement Capacity: (pcph)	322	304
Prob. of Queue-Free State:	0.86	0.85
-----		
Step 4: LT from Minor Street	WB	EB
-----		
Conflicting Flows: (vph)	831	834
Potential Capacity: (pcph)	350	348
Major LT, Minor TH Impedance Factor:	0.69	0.70
Adjusted Impedance Factor:	0.76	0.77
Capacity Adjustment Factor due to Impeding Movements	0.74	0.75
Movement Capacity: (pcph)	260	259
-----		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
-----							
EB L	29	259		15.6	0.3	C	
EB T	46	304		13.9	0.5	C	12.1
EB R	23	940		3.9	0.0	A	
WB L	23	260		15.2	0.2	C	
WB T	46	322		13.0	0.5	C	10.8
WB R	29	1013		3.7	0.0	A	
NB L	145	1137		3.6	0.4	A	1.0
SB L	75	1159		3.3	0.1	A	0.5

Intersection Delay = 2.5 sec/veh



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Streets: (N-S) Vineland (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/10/0  
 Other Information.....PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	20	330	45	150	275	50	120	100	120	25	185	40
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	347	289
Potential Capacity: (pcph)	924	988
Movement Capacity: (pcph)	924	988
Prob. of Queue-Free State:	0.85	0.95
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	394	342
Potential Capacity: (pcph)	1113	1178
Movement Capacity: (pcph)	1113	1178
Prob. of Queue-Free State:	0.84	0.98
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	868	862
Potential Capacity: (pcph)	382	385
Capacity Adjustment Factor due to Impeding Movements	0.83	0.83
Movement Capacity: (pcph)	316	318
Prob. of Queue-Free State:	0.63	0.32
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	934	930
Potential Capacity: (pcph)	305	306
Major LT, Minor TH Impedance Factor:	0.27	0.52
Adjusted Impedance Factor:	0.40	0.63
Capacity Adjustment Factor due to Impeding Movements	0.38	0.53
Movement Capacity: (pcph)	117	163

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	139	117		208.1	7.2	F	
NB T	116	316		17.9	1.7	C	80.3
NB R	139	924		4.6	0.6	A	
SB L	29	163		26.8	0.6	D	
SB T	215	318		32.0	4.3	E	27.0
SB R	46	988		3.8	0.0	A	
EB L	23	1178		3.1	0.0	A	0.2
WB L	174	1113		3.8	0.6	A	1.2

Intersection Delay = 23.8 sec/veh

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Streets: (N-S) Masterson St (E-W) Paladino Dr  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/10/0  
 Other Information..... PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Stop/Yield			N			N						
Volumes	10	290	170	60	225	60	60	110	30	10	150	40
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	305	237
Potential Capacity: (pcph)	970	1050
Movement Capacity: (pcph)	970	1050
Prob. of Queue-Free State:	0.96	0.96
Step 2: LT from Major Street		
	WB	EB
Conflicting Flows: (vph)	484	300
Potential Capacity: (pcph)	1008	1233
Movement Capacity: (pcph)	1008	1233
Prob. of Queue-Free State:	0.93	0.99
Step 3: TH from Minor Street		
	NB	SB
Conflicting Flows: (vph)	679	795
Potential Capacity: (pcph)	480	417
Capacity Adjustment Factor due to Impeding Movements	0.92	0.92
Movement Capacity: (pcph)	443	385
Prob. of Queue-Free State:	0.71	0.55
Step 4: LT from Minor Street		
	NB	SB
Conflicting Flows: (vph)	716	690
Potential Capacity: (pcph)	408	422
Major LT, Minor TH Impedance Factor:	0.51	0.66
Adjusted Impedance Factor:	0.61	0.73
Capacity Adjustment Factor due to Impeding Movements	0.58	0.71
Movement Capacity: (pcph)	238	298

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	69	238		21.2	1.2	D	
NB T	128	443		11.4	1.3	C	13.2
NB R	35	970		3.9	0.0	A	
SB L	12	298		12.6	0.0	C	
SB T	174	385		16.8	2.3	C	14.0
SB R	46	1050		3.6	0.0	A	
EB L	12	1233		2.9	0.0	A	0.1
WB L	69	1008		3.8	0.1	A	0.7

Intersection Delay = 4.7 sec/veh

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Streets: (N-S) Vineland St (E-W) Highland-Knolls  
 Major Street Direction.... NS  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137  
 Date of Analysis..... 3/9/0  
 Other Information.....AM 2020 Without Project  
 Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	0	0	1	1	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	30	120			135	50	85		25			
PHF	.95	.95			.95	.95	.95		.95			
Grade		0			0			0				
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10						1.10			1.10		

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		WB	EB
Conflicting Flows: (vph)			142
Potential Capacity: (pcph)			1173
Movement Capacity: (pcph)			1173
Prob. of Queue-Free State:			0.98
Step 2: LT from Major Street		SB	NB
Conflicting Flows: (vph)			195
Potential Capacity: (pcph)			1384
Movement Capacity: (pcph)			1384
Prob. of Queue-Free State:			0.97
TH Saturation Flow Rate: (pcphpl)			1700
Major LT Shared Lane Prob. of Queue-Free State:			0.97
Step 4: LT from Minor Street		WB	EB
Conflicting Flows: (vph)			300
Potential Capacity: (pcph)			710
Major LT, Minor TH Impedance Factor:			0.97
Adjusted Impedance Factor:			0.97
Capacity Adjustment Factor due to Impeding Movements			0.97
Movement Capacity: (pcph)			691

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	98	691		6.1	0.5	B	5.4
EB R	29	1173		3.1	0.0	A	
NB L	35	1384		2.7	0.0	A	0.5

Intersection Delay = 1.5 sec/veh

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: Wwc 9-137R File Name: AEBSRO20P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	1	2	0
Volumes	530		550					450	250	100	575	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			0						15			5
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right					*			
SB Right	*							
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		708	1770	0.788	0.400	11.8	B	5.8	B
	R		1583	1583	0.366	1.000	0.1	A		
NB	T		1739	3725	0.286	0.467	4.8	A	4.9	A
	R		739	1583	0.334	0.467	5.0	A		
SB	L		375	703	0.280	0.533	3.8	A	4.9	A
	T		1739	3725	0.365	0.467	5.0	A		

Intersection Delay = 5.3 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.561

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137R File Name: AWBSR20P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				230		50	200	620			385	530
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						25			100			265
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green	14.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.440	0.311	8.4	B	7.5	B
	R		1583	1583	0.017	1.000	0.0	A		
NB	L		541	974	0.401	0.556	4.0	A	3.7	A
	T		2070	3725	0.331	0.556	3.6	A		
SB	T		2070	3725	0.205	0.556	3.2	A	2.0	A
	R		1583	1583	0.176	1.000	0.0	A		

Intersection Delay = 3.6 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.415



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Streets: (N-S) SR 184-Masterson St (E-W) State Route 178  
 Major Street Direction.... EW  
 Length of Time Analyzed... 15 (min)  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information.....PM 2020 With Project  
 Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	1	1	2	0
Stop/Yield			N			N						
Volumes				150		80	600	100		145	500	
PHF				.95		.95	.95	.95		.95	.95	
Grade					0			0				0
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10			1.10	1.10		1.10	1.10	

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street		NB	SB
Conflicting Flows: (vph)		0	
Potential Capacity: (pcph)		1385	
Movement Capacity: (pcph)		1385	
Prob. of Queue-Free State:		0.92	
Step 2: LT from Major Street		WB	EB
Conflicting Flows: (vph)		0	
Potential Capacity: (pcph)		1714	
Movement Capacity: (pcph)		1714	
Prob. of Queue-Free State:		0.90	
Step 3: TH from Minor Street		NB	SB
Conflicting Flows: (vph)		242	158
Potential Capacity: (pcph)		787	882
Capacity Adjustment Factor due to Impeding Movements		0.90	0.90
Movement Capacity: (pcph)		707	792
Prob. of Queue-Free State:		0.02	0.27
Step 4: LT from Minor Street		NB	SB
Conflicting Flows: (vph)			526
Potential Capacity: (pcph)			488
Major LT, Minor TH Impedance Factor:			0.02
Adjusted Impedance Factor:			0.08
Capacity Adjustment Factor due to Impeding Movements			0.07
Movement Capacity: (pcph)			35

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB T	695	707		48.9	14.3	F	42.3
NB R	116	1385		2.8	0.2	A	
SB L	168	35		*	17.3	F	
SB T	579	792		15.8	6.4	C	447.1
WB L	174	1714		2.3	0.3	A	1.5

Intersection Delay = 202.1 sec/veh

\* The calculated value was greater than 999.9.

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Streets: (N-S) Morning Drive (E-W) Panorama Dr  
 Analyst..... WWC 9-137R  
 Date of Analysis..... 3/8/0  
 Other Information..... PM 2020 With Project  
 All-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Volumes	140	105	135	310	100	45	90	160	185	115	190	110
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95

Volume Summary and Capacity Analysis WorkSheet

	EB	WB	NB	SB
LT Flow Rate	147	326	95	121
RT Flow Rate	142	47	195	116
Approach Flow Rate	400	478	458	437
Proportion LT	0.37	0.68	0.21	0.28
Proportion RT	0.35	0.10	0.43	0.27
Opposing Approach Flow Rate	478	400	437	458
Conflicting Approaches Flow Rate	895	895	878	878
Proportion, Subject Approach Flow Rate	0.23	0.27	0.26	0.25
Proportion, Opposing Approach Flow Rate	0.27	0.23	0.25	0.26
Lanes on Subject Approach	3	3	3	3
Lanes on Opposing Approach	3	3	3	3
LT, Opposing Approach	326	147	121	95
RT, Opposing Approach	47	142	116	195
LT, Conflicting Approaches	216	216	473	473
RT, Conflicting Approaches	311	311	189	189
Proportion LT, Opposing Approach	0.68	0.37	0.28	0.21
Proportion RT, Opposing Approach	0.10	0.35	0.27	0.43
Proportion LT, Conflicting Approaches	0.24	0.24	0.54	0.54
Proportion RT, Conflicting Approaches	0.35	0.35	0.22	0.22
*Range limit(s) exceeded (see below)	*	*	*	*

Range Limit(s) Exceeded

Range limits from HCM Table 10-7 (p. 10-47), implementing HCM Range of Model Validity (p. 10-37).

Eastbound approach:

An intersection volume of 1773 has caused a range check to be made for this approach.

The following range limit(s) have been exceeded:

The number of lanes on the conflicting approach is 6.

This is outside the permitted range of 1 - 5.

The proportion of left turns on the opposing approach is 0.68.

This is outside the permitted range of 0.00 - 0.36.

Westbound approach:

An intersection volume of 1773 has caused a range check to be made for this approach.

The following range limit(s) have been exceeded:

The number of lanes on the conflicting approach is 6.

This is outside the permitted range of 1 - 5.

The proportion of left turns on the opposing approach is 0.37.

This is outside the permitted range of 0.00 - 0.36.

Northbound approach:

An intersection volume of 1773 has caused a range check to be made for this approach.

The following range limit(s) have been exceeded:

The number of lanes on the conflicting approach is 6.

This is outside the permitted range of 1 - 5.

Southbound approach:

An intersection volume of 1773 has caused a range check to be made for this approach.

The following range limit(s) have been exceeded:

The number of lanes on the conflicting approach is 6.

This is outside the permitted range of 1 - 5.

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: Wwc 9-137R File Name: AWMN10WP.HC9  
 Area Type: Other 3-8-0 AM Peak  
 Comment: 2010 Without Project AM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	5	50	90	80	120	5	150	5	55	5	20	5
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			40			2			25			2
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length: 45 secs Phase combination order: #1 #5								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	524	1311	0.010	0.400	5.3	B	5.4	B
	TR	1378	3446	0.081	0.400	5.4	B		
WB	L	550	1374	0.153	0.400	5.6	B	5.5	B
	TR	1485	3712	0.091	0.400	5.4	B		
NB	L	760	1628	0.208	0.467	4.6	A	4.5	A
	TR	1513	3242	0.026	0.467	4.2	A		
SB	LTR	761	1631	0.038	0.467	4.2	A	4.2	A

Intersection Delay = 5.1 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.183

Streets: (E-W) Auburn Street (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: FA10P.HC9  
 Area Type: Other 3-7-0 PM Peak  
 Comment: 2010 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	125	80	250	140	85	45	345	745	195	50	535	130
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			90			10			60			40
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru		*						
Right		*						
Peds								
WB Left		*						
Thru			*					
Right			*					
Peds								
NB Right					*			
SB Right						*		
Green	20.0A	12.0A			30.0A	32.0A		
Yellow/AR	0.0	3.0			0.0	3.0		
Cycle Length:	100 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	301	1770	0.439	0.170	24.7	C	28.2	D
	TR	402	3353	0.659	0.120	29.9	D		
WB	L	301	1770	0.489	0.170	25.3	D	25.7	D
	TR	428	3565	0.306	0.120	26.1	D		
NB	L	478	1770	0.760	0.270	26.5	D	24.8	C
	TR	1165	3640	0.835	0.320	24.2	C		
SB	L	478	1770	0.111	0.270	17.7	C	18.9	C
	TR	1166	3645	0.592	0.320	19.0	C		

Intersection Delay = 23.8 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.721

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: PF10P.HC9  
 Area Type: Other 3-7-0 PM Peak  
 Comment: 2010 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	45	115	210	250	140	35	255	305	275	30	270	30
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			75			10			80			10
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru		*						
Right		*						
Peds								
WB Left		*						
Thru			*					
Right			*					
Peds								
NB Right					*			
SB Right						*		
Green	17.0A	15.0A			15.0A	20.0A		
Yellow/AR	0.0	3.0			0.0	3.0		
Cycle Length:	73 secs	Phase combination order: #1 #2 #5 #6						

Intersection Performance Summary

Lane	Group:	Mvmts	Cap	Adj Sat	Flow	v/c	Ratio	g/C	Ratio	Delay	LOS	Approach:	
												Delay	LOS
EB	L	339	1770	0.138	0.192	15.8	C	16.3	C				
EB	TR	704	3424	0.392	0.205	16.4	C						
WB	L	339	1770	0.775	0.192	25.4	D	21.4	C				
WB	TR	748	3642	0.243	0.205	15.7	C						
NB	L	291	1770	0.921	0.164	42.9	E	24.4	C				
NB	TR	961	3508	0.574	0.274	15.4	C						
SB	L	291	1770	0.110	0.164	16.8	C	14.0	B				
SB	TR	1010	3687	0.317	0.274	13.7	B						

Intersection Delay = 20.5 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.644

HCM: SIGNALIZED INTERSECTION SUMMARY  
 Center For Microcomputers In Transportation

Version 2.4g

03-07-2000

Streets: (E-W) E/B State Route 178  
 Analyst: WWC 9-137R  
 Area Type: Other  
 Comment: 2010 With Project

(N-S) Oswell Street  
 File Name: OES010P.HC9  
 3-7-0 PM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	680		1035					1340	375		1080	40
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			400						200			15
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left			
Thru					Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left					SB Left			
Thru					Thru	*		
Right					Right	*		
Peds					Peds			
NB Right					EB Right	*		
SB Right		*			WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
EB	L	708	1770	1.012	0.400	37.6	D	19.5	C
	R	1583	1583	0.422	1.000	0.1	A		
NB	T	1739	3725	0.852	0.467	10.0	B	9.4	B
	R	739	1583	0.249	0.467	4.7	A		
SB	T	1739	3725	0.687	0.467	6.9	B	6.7	B
	R	1583	1583	0.016	1.000	0.0	A		

Intersection Delay = 11.9 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.926



Streets: (E-W) State Route 178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: FSR10P.HC9  
 Area Type: Other 3-7-0 PM Peak  
 Comment: 2010 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	< 0	2	2	< 0	1	2	1
Volumes	605	1240	580	70	795	150	300	575	310	100	525	330
Lane W (ft)	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vols			225			25			5			150
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*	*			*	*	
EB Thru			*	*		*	*	
EB Right			*	*		*	*	
EB Peds								
WB Left		*				*	*	
WB Thru			*				*	
WB Right			*				*	
WB Peds								
NB Right								
SB Right								
Green	7.0A	22.0A	10.0A		5.0A	17.0A	20.0A	
Yellow/AR	0.0	3.0	3.0		0.0	3.0	3.0	
Cycle Length:	93 secs Phase combination order: #1 #2 #3 #5 #6 #7							

Intersection Performance Summary

Lane	Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
EB	L	552	1770	1.154	0.312	*	*	*	*
	T	1402	3725	0.977	0.376	32.5	D		
	R	596	1583	0.628	0.376	16.8	C		
WB	L	76	1770	0.972	0.043	98.2	F	*	*
	TR	392	3649	2.592	0.108	*	*		
NB	L	837	3539	0.388	0.237	19.4	C	15.4	C
	TR	1519	3532	0.640	0.430	14.1	B		
SB	L	118	1770	0.890	0.237	59.0	E	28.0	D
	T	801	3725	0.725	0.215	24.2	C		
	R	341	1583	0.555	0.215	22.5	C		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137R File Name: WBSR10P.HC9  
 Area Type: Other 3-7-0 PM Peak  
 Comment: 2005 With Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				60		215	495	1620			985	345
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						70			100			150
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green	14.0A				Green 25.0A			
Yellow/AR	3.0				Yellow/AR 3.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
WB	L	551	1770	0.114	0.311	7.2	B	2.1	A
	R	1583	1583	0.096	1.000	0.0	A		
NB	L	833	1499	0.645	0.556	5.7	B	7.8	B
	T	2070	3725	0.865	0.556	8.5	B		
SB	T	2070	3725	0.526	0.556	4.3	A	3.6	A
	R	1583	1583	0.129	1.000	0.0	A		

Intersection Delay = 6.1 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.595

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: Wwc 9-137R File Name: AWBSR10P.HC9  
 Area Type: Other 3-7-0 AM Peak  
 Comment: 2010 With Project AM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				30		85	335	350			345	600
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						35			100			250
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					*			
Thru					*			
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*			*			
Green	14.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
WB	L	551	1770	0.058	0.311	7.0	B	2.7	A
	R	1583	1583	0.033	1.000	0.0	A		
NB	L	584	1052	0.623	0.556	5.9	B	4.5	A
	T	2070	3725	0.186	0.556	3.2	A		
SB	T	2070	3725	0.184	0.556	3.2	A	1.6	A
	R	1583	1583	0.233	1.000	0.0	A		
Intersection Delay =					3.0 sec/veh Intersection LOS = A				
Lost Time/Cycle, L =					6.0 sec Critical v/c(x) = 0.420				

Streets: (E-W) E/B Ramp SR178 (N-S) Masterson St  
 Analyst: Wwc 9-137R File Name: AESRMA20P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	420		125					640	30	125	175	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			60						15			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru						*		
Right	*					*		
Peds								
WB Left								
Thru						*		
Right								
Peds								
NB Right	*					*		
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		1388	3539	0.328	0.392	7.0	B	6.1	B
	R		1583	1583	0.044	1.000	0.0	A		
NB	T		1826	3725	0.388	0.490	5.4	B	5.2	B
	R		1583	1583	0.010	1.000	0.0	A		
SB	L		223	454	0.593	0.490	9.0	B	6.3	B
	T		1826	3725	0.106	0.490	4.5	A		

Intersection Delay = 5.8 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.475

Streets: (E-W) W/B Ramp SR178  
 Analyst: Wwc 9-137R  
 Area Type: Other  
 Comment: 2020 With Project

(N-S) Masterson Street  
 File Name: AWSRMA20P.HC9  
 3-9-0 AM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	2
Volumes				90		135	300	375			275	395
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						65			100			195
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green	14.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length: 45 secs Phase combination order: #1 #5								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
WB	L	551	1770	0.173	0.311	7.3	B	4.1	A
	R	1583	1583	0.047	1.000	0.0	A		
NB	L	699	1259	0.465	0.556	4.2	A	3.7	A
	T	2070	3725	0.201	0.556	3.2	A		
SB	T	2070	3725	0.146	0.556	3.1	A	1.8	A
	R	3167	3167	0.075	1.000	0.0	A		
Intersection Delay =					3.0 sec/veh	Intersection LOS = A			
Lost Time/Cycle, L =		6.0 sec	Critical v/c(x)		=	0.360			

Streets: (E-W) W/B Ramp SR178 (N-S) Vineland  
 Analyst: Wwc 9-137R File Name: AWBSRV20P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				25		30	50	370			230	90
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						15			100			45
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green	14.0A				Green 25.0A			
Yellow/AR	3.0				Yellow/AR 3.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.047	0.311	7.0	B	4.3	A
	R		1583	1583	0.010	1.000	0.0	A		
NB	L		587	1057	0.090	0.556	3.0	A	3.2	A
	T		2070	3725	0.197	0.556	3.2	A		
SB	T		2070	3725	0.123	0.556	3.1	A	2.6	A
	R		1583	1583	0.030	1.000	0.0	A		

Intersection Delay = 3.0 sec/veh Intersection LOS = A

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.143

Streets: (E-W) E/B Ramp SR178 (N-S) Vineland  
 Analyst: Wwc 9-137R File Name: AEBSRV20P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	285		60					185	120	45	210	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			30						50			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru						*		
Right		*				*		
Peds								
WB Left					SB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
NB Right		*			EB Right	*		
SB Right					WB Right			
Green	20.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length: 51 secs Phase combination order: #1 #5								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	1388	3539	0.223	0.392	6.7	B	6.1	B
	R	1583	1583	0.020	1.000	0.0	A		
NB	T	1826	3725	0.112	0.490	4.5	A	3.3	A
	R	1583	1583	0.046	1.000	0.0	A		
SB	L	565	1153	0.083	0.490	4.5	A	4.6	A
	T	1826	3725	0.127	0.490	4.6	A		
Intersection Delay =					4.8 sec/veh	Intersection LOS = A			
Lost Time/Cycle, L =					6.0 sec	Critical v/c(x) = 0.170			

Streets: (E-W) E/B Ramp SR178 (N-S) Morning Drive  
 Analyst: Wwc 9-137R File Name: AEBSRM20P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	175		80					190	120	110	245	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			40						60			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru						*		
Right		*				*		
Peds								
WB Left					SB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
NB Right	*				EB Right	*		
SB Right					WB Right			
Green	20.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length: 51 secs Phase combination order: #1 #5								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	1388	3539	0.137	0.392	6.4	B	5.3	B
	R	1583	1583	0.027	1.000	0.0	A		
NB	T	1826	3725	0.115	0.490	4.5	A	3.5	A
	R	1583	1583	0.040	1.000	0.0	A		
SB	L	560	1143	0.207	0.490	4.8	A	4.7	A
	T	1826	3725	0.148	0.490	4.6	A		

Intersection Delay = 4.5 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.176



Streets: (E-W) W/B Ramp SR178 (N-S) Morning Drive  
 Analyst: Wwc 9-137R File Name: AWBSRM20P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				125		105	65	300			260	120
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						50			100			60
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green	14.0A				Green 25.0A			
Yellow/AR	3.0				Yellow/AR 3.0			
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.240	0.311	7.5	B	5.2	B
	R		1583	1583	0.037	1.000	0.0	A		
NB	L		555	999	0.122	0.556	3.1	A	3.1	A
	T		2070	3725	0.160	0.556	3.2	A		
SB	T		2070	3725	0.139	0.556	3.1	A	2.6	A
	R		1583	1583	0.040	1.000	0.0	A		

Intersection Delay = 3.3 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.189

Streets: (E-W) Auburn Street (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: AFA20P.HC9  
 Area Type: Other 3-8-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Volumes	15	25	110	40	90	185	260	340	70	70	525	100
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vols			35			15			35			40
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				*			
Thru		*				*		
Right		*				*		
Peds								
WB Left		*			*			
Thru			*			*		
Right			*			*		
Peds								
NB Right								
SB Right								
Green	22.0A	15.0A			25.0A	30.0A		
Yellow/AR	0.0	3.0			0.0	3.0		
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Delay	LOS	
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	343	1770	0.047	0.194	20.8	C	23.4	C
	T	570	3725	0.047	0.153	22.9	C		
	R	242	1583	0.326	0.153	24.2	C		
WB	L	343	1770	0.122	0.194	21.1	C	28.6	D
	T	570	3725	0.175	0.153	23.3	C		
	R	242	1583	0.739	0.153	33.2	D		
NB	L	397	1770	0.690	0.224	26.0	D	20.5	C
	T	1140	3725	0.330	0.306	17.0	C		
	R	485	1583	0.076	0.306	15.6	C		
SB	L	397	1770	0.186	0.224	19.9	C	18.3	C
	T	1140	3725	0.509	0.306	18.4	C		
	R	485	1583	0.130	0.306	15.9	C		

Intersection Delay = 21.3 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.510

Streets: (E-W) E/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: EBSRF20P.HC9  
 Area Type: Other 3-8-0 PM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	0	1	1
Volumes	620		550					620	125		40	320
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			260						60			150
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length: 51 secs Phase combination order: #1 #5								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	1388	3539	0.485	0.392	7.7	B	5.3	B
	R	1583	1583	0.193	1.000	0.0	A		
NB	T	1826	3725	0.376	0.490	5.3	B	4.8	A
	R	1583	1583	0.044	1.000	0.0	A		
SB	T	913	1863	0.046	0.490	4.4	A	4.8	A
	R	776	1583	0.231	0.490	4.9	A		
Intersection Delay =					5.1 sec/veh Intersection LOS = B				
Lost Time/Cycle, L =					6.0 sec Critical v/c(x) = 0.424				

Streets: (E-W) W/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: WBSRF20P.HC9  
 Area Type: Other 3-8-0 PM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	1	0	2	1
Volumes				130		50		250	370		390	285
Lane W (ft)				12.0		12.0		12.0	12.0		12.0	12.0
RTOR Vols						25			180			0
Lost Time				3.00		3.00		3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	*		
Right					Right	*		
Peds					Peds			
WB Left	*				SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green	14.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.249	0.311	7.5	B	6.3	B
	R		1583	1583	0.017	1.000	0.0	A		
NB	T		2070	3725	0.133	0.556	3.1	A	3.2	A
	R		880	1583	0.227	0.556	3.3	A		
SB	T		2070	3725	0.209	0.556	3.3	A	1.9	A
	R		1583	1583	0.189	1.000	0.0	A		

Intersection Delay = 2.9 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.235

Streets: (E-W) Highland-Knolls (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: AMHK20WP.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	60	65	15	40	75	20	20	165	30	30	185	35
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			8			10			15			20
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
EB Thru		*			NB Thru		*	
EB Right		*			NB Right		*	
EB Peds					NB Peds			
WB Left		*			SB Left	*		
WB Thru			*		SB Thru		*	
WB Right			*		SB Right		*	
WB Peds					SB Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0A	15.0A			Green	25.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
									Delay	LOS
EB	L	343	1770	0.184	0.194	21.4	C	22.4	C	
	TR	561	3667	0.143	0.153	23.2	C			
WB	L	343	1770	0.122	0.194	21.1	C	22.6	C	
	TR	561	3663	0.166	0.153	23.3	C			
NB	L	397	1770	0.053	0.224	19.3	C	16.4	C	
	TR	1126	3678	0.177	0.306	16.1	C			
SB	L	397	1770	0.081	0.224	19.4	C	16.6	C	
	TR	1127	3683	0.197	0.306	16.2	C			

Intersection Delay = 18.7 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.159

Streets: (E-W) College Ave (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: AMC20WP.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	10	25	10	10	25	10	70	125	50	40	150	35
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			5			5			25			20
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				*			
Thru						*		
Right			*			*		
Peds								
WB Left		*			*			
Thru						*		
Right			*			*		
Peds								
NB Right								
SB Right								
Green	22.0A	15.0A			25.0A	30.0A		
Yellow/AR	0.0	3.0			0.0	3.0		
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		343	1770	0.032	0.194	20.7	C	22.4	C
	TR		554	3621	0.061	0.153	22.9	C		
WB	L		343	1770	0.032	0.194	20.7	C	22.4	C
	TR		554	3621	0.061	0.153	22.9	C		
NB	L		397	1770	0.186	0.224	19.9	C	17.2	C
	TR		1111	3631	0.150	0.306	16.0	C		
SB	L		397	1770	0.106	0.224	19.5	C	16.7	C
	TR		1125	3674	0.163	0.306	16.0	C		

Intersection Delay = 17.8 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.122

Streets: (E-W) E/B Ramp SR178 (N-S) Masterson St  
 Analyst: WWC 9-137R File Name: AESRMA20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	285		90					530	30	25	10	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			45						15			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length: 51 secs Phase combination order: #1 #5								

Intersection Performance Summary

Lane	Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
EB	L	1388	3539	0.223	0.392	6.7	B	5.8	B
	R	1583	1583	0.030	1.000	0.0	A		
NB	T	1826	3725	0.321	0.490	5.1	B	5.0	A
	R	1583	1583	0.010	1.000	0.0	A		
SB	L	294	600	0.088	0.490	4.5	A	4.4	A
	T	1826	3725	0.007	0.490	4.3	A		
Intersection Delay = 5.2 sec/veh Intersection LOS = B									
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.277									

Streets: (E-W) W/B Ramp SR178 (N-S) Masterson Street  
 Analyst: WWC 9-137R File Name: AWRMA20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	2
Volumes				90		85	75	100			15	70
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						40			100			35
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green	14.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length: 45 secs Phase combination order: #1 #5								

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
WB	L	551	1770	0.173	0.311	7.3	B	4.9	A
	R	1583	1583	0.030	1.000	0.0	A		
NB	L	1740	3132	0.047	0.556	2.9	A	3.0	A
	T	2070	3725	0.053	0.556	3.0	A		
SB	T	2070	3725	0.008	0.556	2.9	A	0.8	A
	R	3167	3167	0.013	1.000	0.0	A		
Intersection Delay =						3.3 sec/veh	Intersection LOS = A		
Lost Time/Cycle, L =			6.0 sec	Critical v/c(x)		=	0.096		



Streets: (E-W) W/B Ramp SR178 (N-S) Vineland  
 Analyst: WWC 9-137R File Name: AWBSRV20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				25		5	50	370			5	5
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						3			100			3
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green	14.0A				Green 25.0A			
Yellow/AR	3.0				Yellow/AR 3.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Delay	LOS	
Mvmts	Cap	Flow	Ratio	Ratio					
WB	L	551	1770	0.047	0.311	7.0	B	6.5	B
	R	1583	1583	0.001	1.000	0.0	A		
NB	L	973	1751	0.054	0.556	3.0	A	3.2	A
	T	2070	3725	0.197	0.556	3.2	A		
SB	T	2070	3725	0.002	0.556	2.9	A	2.1	A
	R	1583	1583	0.001	1.000	0.0	A		
Intersection Delay =					3.4 sec/veh	Intersection LOS = A			
Lost Time/Cycle, L =			6.0 sec	Critical v/c(x) =		0.143			

Streets: (E-W) E/B Ramp SR178 (N-S) Vineland  
 Analyst: WWC 9-137R File Name: AEBSRV20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	5		285				5		30	10	5	
Lane W (ft)	12.0		12.0				12.0		12.0	12.0		
RTOR Vols			140						15	0		
Lost Time	3.00		3.00				3.00		3.00	3.00		

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right		*						
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right		*						
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs Phase combination order: #1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	1388	3539	0.004	0.392	6.1	B	0.2	A
	R	1583	1583	0.097	1.000	0.0	A		
NB	T	1826	3725	0.003	0.490	4.3	A	1.0	A
	R	1583	1583	0.010	1.000	0.0	A		
SB	L	858	1751	0.013	0.490	4.3	A	4.3	A
	T	1826	3725	0.003	0.490	4.3	A		
Intersection Delay =					0.6 sec/veh Intersection LOS = A				
Lost Time/Cycle, L =					0.0 sec Critical v/c(x) = 0.097				

Streets: (E-W) E/B Ramp SR178 (N-S) Morning Drive  
 Analyst: WWC 9-137R File Name: AEBSRM20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	145		80					150	110	100	135	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			40						55			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length: 51 secs Phase combination order: #1 #5								

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		1388	3539	0.114	0.392	6.4	B	5.0	A
	R		1583	1583	0.027	1.000	0.0	A		
NB	T		1826	3725	0.091	0.490	4.5	A	3.3	A
	R		1583	1583	0.037	1.000	0.0	A		
SB	L		606	1236	0.173	0.490	4.7	A	4.6	A
	T		1826	3725	0.082	0.490	4.5	A		
Intersection Delay =						4.3 sec/veh	Intersection LOS = A			
Lost Time/Cycle, L =			6.0 sec	Critical v/c(x) =		0.147				

Streets: (E-W) W/B Ramp SR178 (N-S) Morning Drive  
 Analyst: WWC 9-137R File Name: AWBSRM20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				40		80	65	230			225	120
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						40			100			60
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green		14.0A			Green	25.0A		
Yellow/AR		3.0			Yellow/AR	3.0		
Cycle Length:	45 secs				Phase combination order: #1 #5			

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
WB	L	551	1770	0.076	0.311	7.1	B	3.5	A
	R	1583	1583	0.027	1.000	0.0	A		
NB	L	592	1066	0.115	0.556	3.1	A	3.1	A
	T	2070	3725	0.123	0.556	3.1	A		
SB	T	2070	3725	0.120	0.556	3.1	A	2.5	A
	R	1583	1583	0.040	1.000	0.0	A		
Intersection Delay =						2.9 sec/veh		Intersection LOS = A	
Lost Time/Cycle, L =			6.0 sec		Critical v/c(x) =		0.106		

Streets: (E-W) W/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: AWBSRF20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				40		40	860	365			390	285
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						20			180			140
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left								
Thru								
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*						
Green		14.0A				25.0A		
Yellow/AR		3.0				3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat			Delay	LOS	Approach:		
			Cap	Flow	v/c			Ratio	Ratio	Delay
WB	L		551	1770	0.076	0.311	7.1	B	4.7	A
	R		1583	1583	0.013	1.000	0.0	A		
NB	L		448	806	2.022	0.556	*	*	*	*
	T		2070	3725	0.195	0.556	3.2	A		
SB	T		2070	3725	0.209	0.556	3.3	A	2.4	A
	R		1583	1583	0.097	1.000	0.0	A		

Intersection Delay = \* (sec/veh)      Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) E/B Ramp SR178  
 Analyst: WWC 9-137R  
 Area Type: Other  
 Comment: 2020 Without Project

(N-S) Fairfax Road  
 File Name: AEBSRF20W.HC9  
 3-8-0 AM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	1	0
Volumes	610		550					610	85	40	320	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			225						40			150
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A					25.0A		
Yellow/AR	3.0					3.0		
Cycle Length:	51 secs							

Phase combination order: #1 #5

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/c	Delay	Approach:		
							LOS	Delay	LOS
	Mvmts	Cap	Flow	Ratio	Ratio				
EB	L	1388	3539	0.476	0.392	7.7	B	5.1	B
	R	1583	1583	0.216	1.000	0.0	A		
NB	T	1826	3725	0.369	0.490	5.3	B	4.9	A
	R	1583	1583	0.030	1.000	0.0	A		
SB	L	240	490	0.175	0.490	4.7	A	5.3	B
	T	913	1863	0.369	0.490	5.3	B		

Intersection Delay = 5.1 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.417

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-09-2000  
 Center For Microcomputers In Transportation

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: WWC 9-137 File Name: AWBSRO20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				215		40	200	610			385	530
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						20			100			215
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right			*		WB Right *			
Green		14.0A			Green 25.0A			
Yellow/AR		3.0			Yellow/AR 3.0			
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
WB	L	551	1770	0.411	0.311	8.2	B	7.5	B
	R	1583	1583	0.013	1.000	0.0	A		
NB	L	541	974	0.401	0.556	4.0	A	3.6	A
	T	2070	3725	0.326	0.556	3.5	A		
SB	T	2070	3725	0.205	0.556	3.2	A	1.8	A
	R	1583	1583	0.210	1.000	0.0	A		
Intersection Delay =					3.4 sec/veh Intersection LOS = A				
Lost Time/Cycle, L =					6.0 sec Critical v/c(x) = 0.405				

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: WWC 9-137 File Name: AEBSRO20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	525		550					450	240		575	100
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			225						120			50
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right					*			
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Cap	Flow	Ratio
EB	L	708	1770	0.781	0.400	11.5	B	7.1	B
	R	1583	1583	0.216	1.000	0.0	A		
NB	T	1739	3725	0.286	0.467	4.8	A	4.7	A
	R	739	1583	0.172	0.467	4.5	A		
SB	T	1739	3725	0.365	0.467	5.0	A	4.7	A
	R	1583	1583	0.033	1.000	0.0	A		
Intersection Delay =					5.7 sec/veh Intersection LOS = B				
Lost Time/Cycle, L =					6.0 sec Critical v/c(x) = 0.557				



Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: Wwc 9-137r File Name: AWMN20WP.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	130	225	240	190	480	140	75	360	195	110	285	115
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			120			120			100			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green 20.0A			
Yellow/AR	4.0				Yellow/AR 4.0			
Cycle Length:	45 secs				Phase combination order: #1 #5			

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		244	610	0.561	0.400	8.9	B	6.7	B
	TR		1412	3531	0.270	0.400	5.9	B		
WB	L		343	858	0.583	0.400	8.7	B	6.9	B
	TR		1481	3703	0.373	0.400	6.2	B		
NB	L		282	605	0.280	0.467	4.9	A	4.8	A
	TR		1684	3609	0.299	0.467	4.8	A		
SB	LTR		554	1186	0.865	0.467	16.4	C	16.4	C

Intersection Delay = 8.3 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.735

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: APF20WP.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 Without Project AM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	15	70	120	125	70	25	210	275	20	95	325	65
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			60			12			10			32
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	81 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		371	1770	0.043	0.210	16.5	C	18.0	C
	TR		642	3469	0.224	0.185	18.2	C		
WB	L		371	1770	0.355	0.210	17.9	C	17.9	C
	TR		674	3642	0.135	0.185	17.8	C		
NB	L		371	1770	0.595	0.210	20.5	C	18.0	C
	TR		915	3707	0.343	0.247	16.3	C		
SB	L		371	1770	0.269	0.210	17.4	C	17.0	C
	TR		907	3675	0.435	0.247	16.8	C		

Intersection Delay = 17.6 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.409

Streets: (E-W) SR 184 (N-S) Vineland  
 Analyst: Wwc 9-137R File Name: ASR184V20WP.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	120	690	30	30	410	30	95	75	15	30	90	30
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			15			15			8			15
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru	*							
Right	*							
Peds								
WB Left	*							
Thru	*							
Right	*							
Peds								
NB Right								
SB Right								
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat			Delay	LOS	Approach:		
			Cap	Flow	v/c			Ratio	g/C	Delay
EB	L		287	717	0.439	0.400	7.1	B	6.9	B
	TR		1485	3713	0.524	0.400	6.9	B		
WB	L		166	414	0.193	0.400	5.7	B	6.0	B
	TR		1482	3706	0.317	0.400	6.0	B		
NB	L		626	1340	0.160	0.467	4.5	A	4.4	A
	TR		1715	3674	0.053	0.467	4.2	A		
SB	LTR		731	1567	0.196	0.467	4.6	A	4.6	A
Intersection Delay =					6.2 sec/veh		Intersection LOS = B			
Lost Time/Cycle, L =					6.0 sec		Critical v/c(x) =		0.347	

Streets: (E-W) E/B Ramp SR178 (N-S) Vineland  
 Analyst: WWC 9-137R File Name: EBSRV20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	20		200					245	200	50	60	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			100						100			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat			g/C	Delay	LOS	Approach:		
			Mvmts	Cap	Flow				v/c	Ratio	Delay
EB	L		1388		3539	0.016	0.392	6.1	B	1.1	A
	R		1583		1583	0.067	1.000	0.0	A		
NB	T		1826		3725	0.148	0.490	4.6	A	3.3	A
	R		1583		1583	0.067	1.000	0.0	A		
SB	L		504		1027	0.105	0.490	4.5	A	4.4	A
	T		1826		3725	0.036	0.490	4.4	A		
			Intersection Delay =			3.1 sec/veh			Intersection LOS = A		
Lost Time/Cycle, L =			6.0 sec			Critical v/c(x) =			0.089		

Streets: (E-W) W/B Ramp SR178 (N-S) Vineland  
 Analyst: WWC 9-137R File Name: WBSRV20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				20		50	100	145			50	25
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						25				100		10
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green		14.0A			Green	25.0A		
Yellow/AR		3.0			Yellow/AR	3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.038	0.311	7.0	B	3.1	A
	R		1583	1583	0.017	1.000	0.0	A		
NB	L		860	1547	0.122	0.556	3.1	A	3.0	A
	T		2070	3725	0.078	0.556	3.0	A		
SB	T		2070	3725	0.027	0.556	2.9	A	2.3	A
	R		1583	1583	0.009	1.000	0.0	A		
Intersection Delay =						2.9 sec/veh		Intersection LOS = A		
Lost Time/Cycle, L =			6.0 sec		Critical v/c(x) =		0.092			

Streets: (E-W) W/B Ramp SR178 (N-S) Masterson Street  
 Analyst: WWC 9-137R File Name: WSRMA20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	2
Volumes				150		60	20	430			125	20
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						30			100			10
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					*			
Thru					*			
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*						
Green		14.0A				25.0A		
Yellow/AR		3.0				3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat		v/c	g/C	Delay	LOS	Approach:	
			Cap	Flow					Ratio	Ratio
WB	L		551	1770	0.287	0.311	7.7	B	6.4	B
	R		1583	1583	0.020	1.000	0.0	A		
NB	L		1102	1983	0.020	0.556	2.9	A	3.3	A
	T		2070	3725	0.230	0.556	3.3	A		
SB	T		2070	3725	0.067	0.556	3.0	A	2.8	A
	R		3167	3167	0.003	1.000	0.0	A		
Intersection Delay = 3.9 sec/veh Intersection LOS = A										
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.250										

Streets: (E-W) E/B Ramp SR178 (N-S) Masterson St  
 Analyst: WWC 9-137R File Name: ESRMA20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	50		160					400	50	200	75	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			80						25			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		1388	3539	0.040	0.392	6.2	B	2.4	A
	R		1583	1583	0.053	1.000	0.0	A		
NB	T		1826	3725	0.242	0.490	4.9	A	4.6	A
	R		1583	1583	0.017	1.000	0.0	A		
SB	L		379	773	0.557	0.490	7.3	B	6.5	B
	T		1826	3725	0.045	0.490	4.4	A		
Intersection Delay =						4.9 sec/veh	Intersection LOS = A			
Lost Time/Cycle, L =						6.0 sec	Critical v/c(x) = 0.327			

Streets: (E-W) E/B State Route 178      (N-S) Oswell Street  
 Analyst: WWC 9-137      File Name: EBSRO20WP.HC9  
 Area Type: Other      3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	600		915					745	270		955	150
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			450						135			75
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right		*						
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right								*
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	708	1770	0.893	0.400	17.9	C	10.1	B
	R	1583	1583	0.309	1.000	0.0	A		
NB	T	1739	3725	0.473	0.467	5.5	B	5.3	B
	R	739	1583	0.192	0.467	4.6	A		
SB	T	1739	3725	0.607	0.467	6.2	B	5.8	B
	R	1583	1583	0.050	1.000	0.0	A		
Intersection Delay =					7.2 sec/veh				
Lost Time/Cycle, L =					6.0 sec		Critical v/c(x) = 0.739		



Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: WWC 9-137 File Name: WBSRO20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				165		65	310	1035			610	305
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						30				100		150
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					*			
Thru					*			
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*						
Green		14.0A				25.0A		
Yellow/AR		3.0				3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.316	0.311	7.8	B	6.4	B
	R		1583	1583	0.023	1.000	0.0	A		
NB	L		605	1089	0.555	0.556	5.0	A	4.5	A
	T		2070	3725	0.552	0.556	4.4	A		
SB	T		2070	3725	0.326	0.556	3.5	A	2.9	A
	R		1583	1583	0.103	1.000	0.0	A		
Intersection Delay =						4.1 sec/veh	Intersection LOS = A			
Lost Time/Cycle, L =						6.0 sec	Critical v/c(x)		= 0.469	

Streets: (E-W) Highland-Knolls (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: MHK20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	100	110	20	60	120	30	30	270	50	50	310	55
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			10			15			25			27
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0A	15.0A			Green	25.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	343	1770	0.306	0.194	22.0	C	22.9	C
	TR	563	3681	0.234	0.153	23.6	C		
WB	L	343	1770	0.184	0.194	21.4	C	23.0	C
	TR	561	3663	0.266	0.153	23.7	C		
NB	L	397	1770	0.081	0.224	19.4	C	17.0	C
	TR	1126	3677	0.291	0.306	16.8	C		
SB	L	397	1770	0.133	0.224	19.6	C	17.4	C
	TR	1126	3678	0.332	0.306	17.0	C		

Intersection Delay = 19.3 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.264

Streets: (E-W) College Ave (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: MC20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	20	40	20	20	40	10	20	210	85	60	245	55
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			10			5			42			27
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				*			
Thru		*				*		
Right		*				*		
Peds								
WB Left		*			*			
Thru			*			*		
Right			*			*		
Peds								
NB Right								
SB Right								
Green	22.0A	15.0A			25.0A	30.0A		
Yellow/AR	0.0	3.0			0.0	3.0		
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
EB	L	343	1770	0.061	0.194	20.8	C	22.4	C
	TR	554	3618	0.099	0.153	23.1	C		
WB	L	343	1770	0.061	0.194	20.8	C	22.4	C
	TR	560	3656	0.089	0.153	23.0	C		
NB	L	397	1770	0.053	0.224	19.3	C	16.7	C
	TR	1112	3631	0.251	0.306	16.5	C		
SB	L	397	1770	0.159	0.224	19.8	C	17.2	C
	TR	1123	3667	0.269	0.306	16.6	C		

Intersection Delay = 18.0 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.165

Streets: (E-W) SR 184 (N-S) Vineland  
 Analyst: Wwc 9-137R File Name: SR184V2.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	200	1150	50	50	810	50	75	125	25	50	150	50
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			25			25			12			25
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Cap	Flow	Ratio
EB	L	166	414	1.274	0.400	*	*	*	*
	TR	1485	3713	0.875	0.400	12.5	B		
WB	L	166	414	0.320	0.400	6.4	B	7.5	B
	TR	1483	3708	0.623	0.400	7.6	B		
NB	L	489	1048	0.162	0.467	4.5	A	4.4	A
	TR	1715	3675	0.089	0.467	4.3	A		
SB	LTR	702	1504	0.339	0.467	5.0	A	5.0	A

Intersection Delay = \* (sec/veh)      Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) Chase Ave (N-S) SR-184  
 Analyst: Wwc 9-137R File Name: SR184C20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	0	1	1	0
Volumes				30		30		720	100	50	750	
Lane W (ft)				12.0		12.0		12.0		12.0	12.0	
RTOR Vols						15			50			15
Lost Time				3.00		3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left								
Thru								
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right								
Green		17.0A				20.0A		
Yellow/AR		4.0				4.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		708	1770	0.045	0.400	5.3	B	5.3	B
	R		633	1583	0.025	0.400	5.3	B		
NB	TR		1722	3690	0.494	0.467	5.6	B	5.6	B
SB	L		166	355	0.320	0.467	5.3	B	15.9	C
	T		869	1863	0.908	0.467	16.7	C		
Intersection Delay = 10.6 sec/veh Intersection LOS = B										
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.510										

Streets: (E-W) E/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: EBSRF20WP.HC9  
 Area Type: Other 3-8-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	1	0
Volumes	985		920					1020	55	55	405	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			450						25			150
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat			g/C	Delay	LOS	Approach:	
			Cap	Flow	v/c				Ratio	Delay
EB	L		1388	3539	0.769	0.392	10.6	B	7.3	B
	R		1583	1583	0.312	1.000	0.0	A		
NB	T		1826	3725	0.618	0.490	6.6	B	6.4	B
	R		1583	1583	0.020	1.000	0.0	A		
SB	L		146	298	0.397	0.490	6.3	B	5.9	B
	T		913	1863	0.467	0.490	5.8	B		
			Intersection Delay =			6.8 sec/veh		Intersection LOS = B		
Lost Time/Cycle, L =			6.0 sec		Critical v/c(x)		= 0.685			

Streets: (E-W) W/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: WBSRF20W.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				115		80	300	480			460	640
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						40			180			320
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left	*				SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right	*				WB Right	*		
Green	14.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.220	0.311	7.4	B	5.5	B
	R		1583	1583	0.027	1.000	0.0	A		
NB	L		397	714	0.796	0.556	12.6	B	6.8	B
	T		2070	3725	0.256	0.556	3.4	A		
SB	T		2070	3725	0.245	0.556	3.3	A	2.0	A
	R		1583	1583	0.213	1.000	0.0	A		

Intersection Delay = 4.5 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.589

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: PF20WP.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 Without Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	20	30	200	240	120	40	350	360	55	130	840	110
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			100			20			27			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	81 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	371	1770	0.057	0.210	16.5	C	18.0	C
	TR	610	3296	0.238	0.185	18.2	C		
WB	L	371	1770	0.681	0.210	22.5	C	20.9	C
	TR	675	3646	0.228	0.185	18.2	C		
NB	L	371	1770	0.991	0.210	54.1	E	34.2	D
	TR	910	3685	0.471	0.247	17.1	C		
SB	L	371	1770	0.369	0.210	18.0	C	*	*
	TR	911	3691	1.085	0.247	*	*		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.



Streets: (E-W) Panorama Drive  
 Analyst: WWC 9-137R  
 Area Type: Other  
 Comment: 2020 Without Project PM

(N-S) Fairfax Road  
 File Name: APF20P.HC9  
 3-10-0 PM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	20	30	200	240	120	40	350	360	55	130	840	110
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			100			20			25			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	25.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	86 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		350	1770	0.060	0.198	18.1	C	19.6	C
	TR		575	3296	0.252	0.174	19.9	C		
WB	L		350	1770	0.723	0.198	25.8	D	23.5	C
	TR		636	3646	0.242	0.174	19.8	C		
NB	L		350	1770	1.052	0.198	75.4	F	43.3	E
	TR		1070	3682	0.404	0.291	16.0	C		
SB	L		350	1770	0.392	0.198	19.8	C	27.3	D
	TR		1073	3691	0.922	0.291	28.3	D		

Intersection Delay = 31.3 sec/veh Intersection LOS = D  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.770

Streets: (E-W) E/B Ramp SR178      (N-S) Morning Drive  
 Analyst: WWC 9-137R      File Name: EBSRM20WP.HC9  
 Area Type: Other      3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	100		135					250	150	160	280	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			65						75			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:			
							Mvmts	Cap	Flow	Ratio
EB	L	1388	3539	0.078	0.392	6.3	B	3.7	A	
	R	1583	1583	0.047	1.000	0.0	A			
NB	T	1826	3725	0.151	0.490	4.6	A	3.6	A	
	R	1583	1583	0.050	1.000	0.0	A			
SB	L	500	1019	0.336	0.490	5.3	B	4.9	A	
	T	1826	3725	0.170	0.490	4.7	A			
Intersection Delay =					4.2 sec/veh					
Lost Time/Cycle, L =					6.0 sec		Critical v/c(x) = 0.221			

Streets: (E-W) W/B Ramp SR178 (N-S) Morning Drive  
 Analyst: WWC 9-137R File Name: WBSRM20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 With <sup>out</sup> Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				120		145	175	500			160	285
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						70			100			140
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations									
Phase Combination	1	2	3	4	5	6	7	8	
EB Left					*				
Thru					*				
Right									
Peds									
WB Left		*							
Thru									
Right		*							
Peds									
NB Right									
SB Right			*						
Green		14.0A				25.0A			
Yellow/AR		3.0				3.0			
Cycle Length:	45 secs Phase combination order: #1 #5								

Intersection Performance Summary									
Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
WB	L	551	1770	0.229	0.311	7.5	B	4.6	A
	R	1583	1583	0.050	1.000	0.0	A		
NB	L	675	1214	0.273	0.556	3.4	A	3.4	A
	T	2070	3725	0.267	0.556	3.4	A		
SB	T	2070	3725	0.085	0.556	3.0	A	1.6	A
	R	1583	1583	0.097	1.000	0.0	A		
Intersection Delay =					3.1 sec/veh Intersection LOS = A				
Lost Time/Cycle, L =					6.0 sec Critical v/c(x) = 0.257				

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: APF20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project AM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	15	80	120	160	80	30	210	275	20	95	320	65
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			60			15			10			32
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*			NB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	81 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		371	1770	0.043	0.210	16.5	C	18.0	C
	TR		646	3486	0.239	0.185	18.2	C		
WB	L		371	1770	0.452	0.210	18.7	C	18.4	C
	TR		673	3636	0.156	0.185	17.9	C		
NB	L		371	1770	0.595	0.210	20.5	C	18.0	C
	TR		915	3707	0.343	0.247	16.3	C		
SB	L		371	1770	0.269	0.210	17.4	C	16.9	C
	TR		907	3674	0.430	0.247	16.8	C		

Intersection Delay = 17.7 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.434

Streets: (E-W) Chase Ave (N-S) SR-184  
 Analyst: Wwc 9-137R File Name: ASRC20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	< 0	1	1	0
Volumes				20		30		720	60	35	740	
Lane W (ft)				12.0		12.0		12.0		12.0	12.0	
RTOR Vols						15			30			15
Lost Time				3.00		3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	*		
Right					Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru					Thru	*		
Right		*			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		17.0A			Green	20.0A		
Yellow/AR		4.0			Yellow/AR	4.0		
Cycle Length: 45 secs Phase combination order: #1 #5								

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		708	1770	0.030	0.400	5.3	B	5.3	B
	R		633	1583	0.025	0.400	5.3	B		
NB	TR		1728	3704	0.479	0.467	5.5	B	5.5	B
SB	L		166	355	0.223	0.467	4.7	A	15.1	C
	T		869	1863	0.896	0.467	15.6	C		

Intersection Delay = 10.2 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.496

Streets: (E-W) SR 184 (N-S) Vineland  
 Analyst: Wwc 9-137R File Name: ASRV20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	140	760	30	55	650	95	45	85	20	40	100	80
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			15			45			10			40
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
							Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio				
EB	L	166	414	0.888	35.6	D	11.4	B
	TR	1486	3715	0.577	7.2	B		
WB	L	166	414	0.350	6.6	B	6.9	B
	TR	1474	3685	0.525	6.9	B		
NB	L	558	1195	0.084	4.3	A	4.3	A
	TR	1712	3669	0.061	4.3	A		
SB	LTR	711	1524	0.266	4.8	A	4.8	A

Intersection Delay = 8.6 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.553

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: WWC 9-137R File Name: AWMN20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	140	245	240	235	670	160	75	410	255	115	195	120
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			120			130			125			60
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru		*			Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		17.0A			Green	20.0A		
Yellow/AR		4.0			Yellow/AR	4.0		
Cycle Length:	45 secs				Phase combination order:	#1 #5		

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	166	414	0.888	0.400	35.6	D	13.8	B
	TR	1416	3541	0.285	0.400	5.9	B		
WB	L	329	822	0.751	0.400	13.8	B	8.6	B
	TR	1481	3702	0.522	0.400	6.9	B		
NB	L	362	776	0.218	0.467	4.7	A	5.0	A
	TR	1676	3592	0.356	0.467	5.0	A		
SB	LTR	481	1031	0.809	0.467	13.5	B	13.5	B
Intersection Delay =					9.5 sec/veh Intersection LOS = B				
Lost Time/Cycle, L =					6.0 sec Critical v/c(x) = 0.845				

Streets: (E-W) College Ave (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: AMC20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	15	25	10	10	25	15	70	135	50	50	170	45
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			5			7			25			22
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*			NB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		22.0A	15.0A		Green	25.0A	30.0A	
Yellow/AR		0.0	3.0		Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		343	1770	0.047	0.194	20.8	C	22.2	C
	TR		554	3621	0.061	0.153	22.9	C		
WB	L		343	1770	0.032	0.194	20.7	C	22.4	C
	TR		548	3582	0.067	0.153	22.9	C		
NB	L		397	1770	0.186	0.224	19.9	C	17.2	C
	TR		1113	3636	0.159	0.306	16.0	C		
SB	L		397	1770	0.133	0.224	19.6	C	16.9	C
	TR		1120	3659	0.190	0.306	16.2	C		

Intersection Delay = 17.9 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.136



Streets: (E-W) Highland-Knolls (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: AMHK20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	70	65	15	40	75	30	20	185	30	40	245	45
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			8			15			15			22
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0A	15.0A			Green	25.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length: 98 secs Phase combination order: #1 #2 #5 #6								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	343	1770	0.216	0.194	21.5	C	22.4	C
	TR	561	3667	0.143	0.153	23.2	C		
WB	L	343	1770	0.122	0.194	21.1	C	22.7	C
	TR	556	3631	0.180	0.153	23.4	C		
NB	L	397	1770	0.053	0.224	19.3	C	16.5	C
	TR	1127	3683	0.197	0.306	16.2	C		
SB	L	397	1770	0.106	0.224	19.5	C	17.0	C
	TR	1126	3678	0.263	0.306	16.6	C		

Intersection Delay = 18.7 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.198

Streets: (E-W) W/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: AWBSRF2P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				130		50	370	250			390	285
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						25			180			140
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green		14.0A			Green	25.0A		
Yellow/AR		3.0			Yellow/AR	3.0		
Cycle Length: 45 secs Phase combination order: #1 #5								

Intersection Performance Summary

	Lane	Group:	Adj Sat		v/c	g/C	Delay	LOS	Approach:	
			Mvmts	Cap					Flow	Ratio
WB	L		551	1770	0.249	0.311	7.5	B	6.3	B
	R		1583	1583	0.017	1.000	0.0	A		
NB	L		448	806	0.869	0.556	17.1	C	11.3	B
	T		2070	3725	0.133	0.556	3.1	A		
SB	T		2070	3725	0.209	0.556	3.3	A	2.4	A
	R		1583	1583	0.097	1.000	0.0	A		

Intersection Delay = 7.0 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.646

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: WWC 9-137R File Name: AWMN20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	140	245	240	235	670	160	75	410	255	115	295	120
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			120			130			125			60
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	166	414	0.888	0.400	35.6	D	13.8	B
	TR	1416	3541	0.285	0.400	5.9	B		
WB	L	329	822	0.751	0.400	13.8	B	8.6	B
	TR	1481	3702	0.522	0.400	6.9	B		
NB	L	274	586	0.289	0.467	4.9	A	5.0	A
	TR	1676	3592	0.356	0.467	5.0	A		
SB	LTR	521	1116	0.950	0.467	27.5	D	27.5	D

Intersection Delay = 12.2 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.921

Streets: (E-W) E/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: AEBSRF20P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	1	0
Volumes	620		550					620	125	40	320	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			260						60			150
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru						*		
Right	*					*		
Peds								
WB Left						*		
Thru						*		
Right								
Peds								
NB Right	*					*		
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		1388	3539	0.485	0.392	7.7	B	5.3	B
	R		1583	1583	0.193	1.000	0.0	A		
NB	T		1826	3725	0.376	0.490	5.3	B	4.8	A
	R		1583	1583	0.044	1.000	0.0	A		
SB	L		234	477	0.180	0.490	4.7	A	5.3	B
	T		913	1863	0.369	0.490	5.3	B		
Intersection Delay =						5.1 sec/veh Intersection LOS = B				
Lost Time/Cycle, L =						6.0 sec		Critical v/c(x) = 0.424		

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: PF20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	30	130	200	270	135	45	350	400	30	155	840	110
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			100			22			15			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		20.0A	15.0A		Green	20.0A	20.0A	
Yellow/AR		0.0	3.0		Yellow/AR	0.0	3.0	
Cycle Length: 81 secs Phase combination order: #1 #2 #5 #6								

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		371	1770	0.086	0.210	16.6	C	18.7	C
	TR		645	3482	0.395	0.185	19.0	C		
WB	L		371	1770	0.765	0.210	25.7	D	22.9	C
	TR		675	3645	0.258	0.185	18.3	C		
NB	L		371	1770	0.991	0.210	54.1	E	33.7	D
	TR		915	3705	0.502	0.247	17.3	C		
SB	L		371	1770	0.439	0.210	18.5	C	*	*
	TR		911	3691	1.085	0.247	*	*		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: WWC 9-137R File Name: WMN20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	230	395	400	345	850	245	130	430	375	190	515	205
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			200			220			185			100
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		166	414	1.462	0.400	*	*	*	*
	TR		1415	3538	0.464	0.400	6.6	B		
WB	L		191	478	1.899	0.400	*	*	*	*
	TR		1484	3710	0.652	0.400	7.8	B		
NB	L		183	392	0.749	0.467	16.8	C	7.1	B
	TR		1659	3554	0.414	0.467	5.2	B		
SB	LTR		411	880	2.078	0.467	*	*	*	*

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) College Ave (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: MC20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	25	40	20	20	40	25	125	255	85	65	315	40
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			10			12			42			20
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*			NB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		22.0A	15.0A		Green	25.0A	30.0A	
Yellow/AR		0.0	3.0		Yellow/AR	0.0	3.0	
Cycle Length: 98 secs Phase combination order: #1 #2 #5 #6								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	343	1770	0.076	0.194	20.9	C	22.4	C
	TR	554	3618	0.099	0.153	23.1	C		
WB	L	343	1770	0.061	0.194	20.8	C	22.5	C
	TR	550	3593	0.105	0.153	23.1	C		
NB	L	397	1770	0.332	0.224	20.8	C	17.9	C
	TR	1116	3645	0.295	0.306	16.8	C		
SB	L	397	1770	0.171	0.224	19.8	C	17.4	C
	TR	1130	3692	0.328	0.306	17.0	C		

Intersection Delay = 18.4 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.235

Streets: (E-W) Highland-Knolls (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: MHK20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	105	110	20	65	125	35	30	320	55	60	390	75
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			10			17			27			37
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*			NB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		22.0A	15.0A		Green	25.0A	30.0A	
Yellow/AR		0.0	3.0		Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		343	1770	0.324	0.194	22.1	C	22.9	C
	TR		563	3681	0.234	0.153	23.6	C		
WB	L		343	1770	0.198	0.194	21.4	C	23.1	C
	TR		559	3655	0.284	0.153	23.8	C		
NB	L		397	1770	0.081	0.224	19.4	C	17.3	C
	TR		1126	3680	0.342	0.306	17.1	C		
SB	L		397	1770	0.159	0.224	19.8	C	17.9	C
	TR		1125	3676	0.421	0.306	17.7	C		

Intersection Delay = 19.4 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.309



Streets: (E-W) Chase Ave (N-S) SR-184  
 Analyst: Wwc 9-137R File Name: SRC20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	< 0	1	1	0
Volumes				30		45		920	100	50	1000	
Lane W (ft)				12.0		12.0		12.0		12.0	12.0	
RTOR Vols						22			50			15
Lost Time				3.00		3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	*		
Right					Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru					Thru	*		
Right		*			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		17.0A			Green	20.0A		
Yellow/AR		4.0			Yellow/AR	4.0		
Cycle Length: 45 secs Phase combination order: #1 #5								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Cap	Flow	Ratio
WB	L	708	1770	0.045	0.400	5.3	B	5.3	B
	R	633	1583	0.038	0.400	5.3	B		
NB	TR	1725	3697	0.621	0.467	6.3	B	6.3	B
SB	L	166	355	0.320	0.467	5.3	B	*	*
	T	869	1863	1.211	0.467	*	*		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: APF20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	15	80	120	160	80	30	210	275	20	95	325	65
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			60			15			10			30
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*			NB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		20.0A	15.0A		Green	20.0A	25.0A	
Yellow/AR		0.0	3.0		Yellow/AR	0.0	3.0	
Cycle Length:	86 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Mvmts	Cap
EB	L	350	1770	0.046	0.198	18.0	C	19.7	C
	TR	608	3486	0.253	0.174	19.9	C		
WB	L	350	1770	0.480	0.198	20.6	C	20.2	C
	TR	634	3636	0.166	0.174	19.5	C		
NB	L	350	1770	0.632	0.198	23.0	C	18.5	C
	TR	1078	3707	0.291	0.291	15.3	C		
SB	L	350	1770	0.286	0.198	19.1	C	16.4	C
	TR	1068	3672	0.372	0.291	15.8	C		

Intersection Delay = 18.2 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.432

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: PF20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	30	130	200	270	135	45	350	400	30	155	840	110
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			100			22			15			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	25.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length: 86 secs Phase combination order: #1 #2 #5 #6								

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	350	1770	0.091	0.198	18.2	C	20.4	C
	TR	607	3482	0.420	0.174	20.7	C		
WB	L	350	1770	0.812	0.198	30.6	D	26.5	D
	TR	636	3645	0.274	0.174	19.9	C		
NB	L	350	1770	1.052	0.198	75.4	F	42.5	E
	TR	1077	3705	0.426	0.291	16.1	C		
SB	L	350	1770	0.466	0.198	20.4	C	27.2	D
	TR	1073	3691	0.922	0.291	28.3	D		

Intersection Delay = 31.0 sec/veh Intersection LOS = D  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.825

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Knolls, Morning to Vineland  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 345  
 ACTUAL FLOW RATE: 345

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... SR184 Morning to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	60
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 2665  
 ACTUAL FLOW RATE: 2665

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: E

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning Niles to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 905  
 ACTUAL FLOW RATE: 905

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CODITIONS: c

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning SR178to Auburn  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	50
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 840  
 ACTUAL FLOW RATE: 840

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: c

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Morning SR178 to Panorama  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 750  
 ACTUAL FLOW RATE: 750

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: c



1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Morning SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 60 / 40  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.94	.98
B	2.2	2	2.5	1	.94	.98
C	2.2	2	2.5	1	.94	.98
D	2	1.6	1.6	1	.94	.98
E	2	1.6	1.6	1	.94	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 680  
 ACTUAL FLOW RATE: 680

LOS	SERVICE FLOW RATE	V/C
A	310	.12
B	617	.24
C	1002	.39
D	1600	.62
E	2580	1

LOS FOR GIVEN CIONDITIONS: c

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Alfred Harrel, SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 65 / 35  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.92	.98
B	2.2	2	2.5	1	.92	.98
C	2.2	2	2.5	1	.92	.98
D	2	1.6	1.6	1	.92	.98
E	2	1.6	1.6	1	.92	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 255  
 ACTUAL FLOW RATE: 255

LOS	SERVICE FLOW RATE	V/C
A	301	.12
B	600	.24
C	976	.39
D	1557	.62
E	2512	1

LOS FOR GIVEN CONDITIONS: A

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Vineland, SR184 to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 615  
 ACTUAL FLOW RATE: 615

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Masterson SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 455  
 ACTUAL FLOW RATE: 455

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... SR184 Morning to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	60
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

---

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 3145  
 ACTUAL FLOW RATE: 3145

---

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: F

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Morning, Niles to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 1055  
 ACTUAL FLOW RATE: 1055

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS : C

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION... Morning, Panorama to ~~Paladino~~ SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	60
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 810 1010  
 ACTUAL FLOW RATE: 810

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Vineland, SR184 to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 60 / 40  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.94	.98
B	2.2	2	2.5	1	.94	.98
C	2.2	2	2.5	1	.94	.98
D	2	1.6	1.6	1	.94	.98
E	2	1.6	1.6	1	.94	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 710  
 ACTUAL FLOW RATE: 710

LOS	SERVICE FLOW RATE	V/C
A	310	.12
B	617	.24
C	1002	.39
D	1600	.62
E	2580	1

LOS FOR GIVEN CONDITIONS: C



1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Vineland, Panorama to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 495  
 ACTUAL FLOW RATE: 495

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Knolls, Morning to Vineland  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 405  
 ACTUAL FLOW RATE: 405

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Alfred Harrell, SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 65 / 35  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.92	.98
B	2.2	2	2.5	1	.92	.98
C	2.2	2	2.5	1	.92	.98
D	2	1.6	1.6	1	.92	.98
E	2	1.6	1.6	1	.92	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 315  
 ACTUAL FLOW RATE: 315

LOS	SERVICE FLOW RATE	V/C
A	301	.12
B	600	.24
C	976	.39
D	1557	.62
E	2512	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Paladino, Fairfax to Morning  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	60
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 1085  
 ACTUAL FLOW RATE: 1085

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: D

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Paladino, Morning to Vineland  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 870  
 ACTUAL FLOW RATE: 870

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Paladino, Vineland to Masterson  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 875  
 ACTUAL FLOW RATE: 875

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Panorama, Fairfax to Morning  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 770  
 ACTUAL FLOW RATE: 770

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Panorama, Morning to Vineland  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 1010  
 ACTUAL FLOW RATE: 1010

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C



1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning, Auburn to Panorama  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 1095  
 ACTUAL FLOW RATE: 1095

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: D

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION... Morning, SR178 to Auburn  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	60
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

---

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

---

INPUT VOLUME(vph): 1125  
 ACTUAL FLOW RATE: 1125

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: D

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... mASTERSON, SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 70 / 30  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.89	.98
B	2.2	2	2.5	1	.89	.98
C	2.2	2	2.5	1	.89	.98
D	2	1.6	1.6	1	.89	.98
E	2	1.6	1.6	1	.89	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 995  
 ACTUAL FLOW RATE: 995

LOS	SERVICE FLOW RATE	V/C
A	293	.12
B	584	.24
C	949	.39
D	1515	.62
E	2443	1

LOS FOR GIVEN CONDITIONS: D

Streets: (E-W) College Ave (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: AMC20WP.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	10	25	10	10	25	10	70	125	50	40	150	35
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			5			5			25			20
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*				*		
Thru			*				*	
Right			*				*	
Peds								
WB Left		*				*		
Thru			*				*	
Right			*				*	
Peds								
NB Right								
SB Right								
Green		22.0A 15.0A				25.0A 30.0A		
Yellow/AR		0.0 3.0				0.0 3.0		
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
EB	L	343	1770	0.032	0.194	20.7	C	22.4	C
	TR	554	3621	0.061	0.153	22.9	C		
WB	L	343	1770	0.032	0.194	20.7	C	22.4	C
	TR	554	3621	0.061	0.153	22.9	C		
NB	L	397	1770	0.186	0.224	19.9	C	17.2	C
	TR	1111	3631	0.150	0.306	16.0	C		
SB	L	397	1770	0.106	0.224	19.5	C	16.7	C
	TR	1125	3674	0.163	0.306	16.0	C		

Intersection Delay = 17.8 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.122

Streets: (E-W) E/B Ramp SR178 (N-S) Masterson St  
 Analyst: WWC 9-137R File Name: AESRMA20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	285		90					530	30	25	10	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			45						15			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat			g/C	Delay	LOS	Approach:		
			Mvmts	Cap	Flow				v/c	Ratio	Ratio
EB	L		1388		3539	0.223	0.392	6.7	B	5.8	B
	R		1583		1583	0.030	1.000	0.0	A		
NB	T		1826		3725	0.321	0.490	5.1	B	5.0	A
	R		1583		1583	0.010	1.000	0.0	A		
SB	L		294		600	0.088	0.490	4.5	A	4.4	A
	T		1826		3725	0.007	0.490	4.3	A		

Intersection Delay = 5.2 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.277

Streets: (E-W) W/B Ramp SR178 (N-S) Masterson Street  
 Analyst: WWC 9-137R File Name: AWSRMA20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	2
Volumes				90		85	75	100			15	70
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						40			100			35
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green		14.0A			Green	25.0A		
Yellow/AR		3.0			Yellow/AR	3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
WB	L	551	1770	0.173	0.311	7.3	B	4.9	A
	R	1583	1583	0.030	1.000	0.0	A		
NB	L	1740	3132	0.047	0.556	2.9	A	3.0	A
	T	2070	3725	0.053	0.556	3.0	A		
SB	T	2070	3725	0.008	0.556	2.9	A	0.8	A
	R	3167	3167	0.013	1.000	0.0	A		
Intersection Delay =						3.3 sec/veh Intersection LOS = A			
Lost Time/Cycle, L =						6.0 sec Critical v/c(x) = 0.096			

Streets: (E-W) W/B Ramp SR178 (N-S) Vineland  
 Analyst: WWC 9-137R File Name: AWBSRV20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				25		5	50	370			5	5
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						3			100			3
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					*			
Thru					*			
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*						
Green	14.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.047	0.311	7.0	B	6.5	B
	R		1583	1583	0.001	1.000	0.0	A		
NB	L		973	1751	0.054	0.556	3.0	A	3.2	A
	T		2070	3725	0.197	0.556	3.2	A		
SB	T		2070	3725	0.002	0.556	2.9	A	2.1	A
	R		1583	1583	0.001	1.000	0.0	A		
Intersection Delay =						3.4 sec/veh Intersection LOS = A				
Lost Time/Cycle, L =			6.0 sec		Critical v/c(x) =		0.143			

Streets: (E-W) E/B Ramp SR178 (N-S) Vineland  
 Analyst: WWC 9-137R File Name: AEBSRV20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	5			285			5 30			10 5		
Lane W (ft)	12.0		12.0				12.0 12.0		12.0 12.0			
RTOR Vols			140						15		0	
Lost Time	3.00		3.00				3.00 3.00		3.00 3.00			

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
EB	L	1388	3539	0.004	0.392	6.1	B	0.2	A
	R	1583	1583	0.097	1.000	0.0	A		
NB	T	1826	3725	0.003	0.490	4.3	A	1.0	A
	R	1583	1583	0.010	1.000	0.0	A		
SB	L	858	1751	0.013	0.490	4.3	A	4.3	A
	T	1826	3725	0.003	0.490	4.3	A		
Intersection Delay =						0.6 sec/veh		Intersection LOS = A	
Lost Time/Cycle, L =						0.0 sec		Critical v/c(x) = 0.097	



Streets: (E-W) E/B Ramp SR178 (N-S) Morning Drive  
 Analyst: WWC 9-137R File Name: AEBSRM20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	145		80					150	110	100	135	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			40						55			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length: 51 secs Phase combination order: #1 #5								

Intersection Performance Summary

Lane	Group:	Mvmts	Cap	Adj Sat	Flow	v/c	Ratio	g/C	Ratio	Delay	LOS	Approach:	
												Delay	LOS
EB	L	1388		3539		0.114		0.392		6.4	B	5.0	A
	R	1583		1583		0.027		1.000		0.0	A		
NB	T	1826		3725		0.091		0.490		4.5	A	3.3	A
	R	1583		1583		0.037		1.000		0.0	A		
SB	L	606		1236		0.173		0.490		4.7	A	4.6	A
	T	1826		3725		0.082		0.490		4.5	A		
Intersection Delay = 4.3 sec/veh Intersection LOS = A													
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.147													

Streets: (E-W) W/B Ramp SR178 (N-S) Morning Drive  
 Analyst: WWC 9-137R File Name: AWBSRM20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				40		80	65	230			225	120
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						40			100			60
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right		*	
Green		14.0A			Green		25.0A	
Yellow/AR		3.0			Yellow/AR		3.0	
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.076	0.311	7.1	B	3.5	A
	R		1583	1583	0.027	1.000	0.0	A		
NB	L		592	1066	0.115	0.556	3.1	A	3.1	A
	T		2070	3725	0.123	0.556	3.1	A		
SB	T		2070	3725	0.120	0.556	3.1	A	2.5	A
	R		1583	1583	0.040	1.000	0.0	A		

Intersection Delay = 2.9 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.106

Streets: (E-W) W/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: AWBSRF20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				40		40	860	365			390	285
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						20			180			140
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					*			
Thru					*			
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*						
Green		14.0A				25.0A		
Yellow/AR		3.0				3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.076	0.311	7.1	B	4.7	A
	R		1583	1583	0.013	1.000	0.0	A		
NB	L		448	806	2.022	0.556	*	*	*	*
	T		2070	3725	0.195	0.556	3.2	A		
SB	T		2070	3725	0.209	0.556	3.3	A	2.4	A
	R		1583	1583	0.097	1.000	0.0	A		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) E/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: AEBSRF20W.HC9  
 Area Type: Other 3-8-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	1	0
Volumes	610		550					610	85	40	320	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			225						40			150
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
EB Thru								
EB Right	*							
EB Peds								
WB Left								
WB Thru								
WB Right								
WB Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		1388	3539	0.476	0.392	7.7	B	5.1	B
	R		1583	1583	0.216	1.000	0.0	A		
NB	T		1826	3725	0.369	0.490	5.3	B	4.9	A
	R		1583	1583	0.030	1.000	0.0	A		
SB	L		240	490	0.175	0.490	4.7	A	5.3	B
	T		913	1863	0.369	0.490	5.3	B		
Intersection Delay =						5.1 sec/veh	Intersection LOS = B			
Lost Time/Cycle, L =						6.0 sec	Critical v/c(x)		= 0.417	

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: WWC 9-137 File Name: AWBSRO20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				215		40	200	610			385	530
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						20			100			215
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					*			
Thru					*			
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*			*			
Green		14.0A			25.0A			
Yellow/AR		3.0			3.0			
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
WB	L	551	1770	0.411	0.311	8.2	B	7.5	B
	R	1583	1583	0.013	1.000	0.0	A		
NB	L	541	974	0.401	0.556	4.0	A	3.6	A
	T	2070	3725	0.326	0.556	3.5	A		
SB	T	2070	3725	0.205	0.556	3.2	A	1.8	A
	R	1583	1583	0.210	1.000	0.0	A		
Intersection Delay =						3.4 sec/veh	Intersection LOS = A		
Lost Time/Cycle, L =			6.0 sec	Critical v/c(x) =		0.405			

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: WWC 9-137 File Name: AEBSRO20W.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	525		550					450	240		575	100
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			225						120			50
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right					*			
SB Right	*							
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Mvmts	Cap	Flow
EB	L	708	1770	0.781	0.400	11.5	B	7.1	B
	R	1583	1583	0.216	1.000	0.0	A		
NB	T	1739	3725	0.286	0.467	4.8	A	4.7	A
	R	739	1583	0.172	0.467	4.5	A		
SB	T	1739	3725	0.365	0.467	5.0	A	4.7	A
	R	1583	1583	0.033	1.000	0.0	A		
Intersection Delay =					5.7 sec/veh	Intersection LOS = B			
Lost Time/Cycle, L =					6.0 sec	Critical v/c(x) = 0.557			

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: Wwc 9-137r File Name: AWMN20WP.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	130	225	240	190	480	140	75	360	195	110	285	115
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			120			120			100			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	244	610	0.561	0.400	8.9	B	6.7	B
	TR	1412	3531	0.270	0.400	5.9	B		
WB	L	343	858	0.583	0.400	8.7	B	6.9	B
	TR	1481	3703	0.373	0.400	6.2	B		
NB	L	282	605	0.280	0.467	4.9	A	4.8	A
	TR	1684	3609	0.299	0.467	4.8	A		
SB	LTR	554	1186	0.865	0.467	16.4	C	16.4	C

Intersection Delay = 8.3 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.735

Streets: (E-W) Panorama Drive  
 Analyst: WWC 9-137R  
 Area Type: Other  
 Comment: 2020 Without Project AM

(N-S) Fairfax Road  
 File Name: APF20WP.HC9  
 3-10-0 AM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	15	70	120	125	70	25	210	275	20	95	325	65
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			60			12			10			32
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	81 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		371	1770	0.043	0.210	16.5	C	18.0	C
	TR		642	3469	0.224	0.185	18.2	C		
WB	L		371	1770	0.355	0.210	17.9	C	17.9	C
	TR		674	3642	0.135	0.185	17.8	C		
NB	L		371	1770	0.595	0.210	20.5	C	18.0	C
	TR		915	3707	0.343	0.247	16.3	C		
SB	L		371	1770	0.269	0.210	17.4	C	17.0	C
	TR		907	3675	0.435	0.247	16.8	C		

Intersection Delay = 17.6 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.409



Streets: (E-W) SR 184 (N-S) Vineland  
 Analyst: Wwc 9-137R File Name: ASR184V2OWP.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	120	690	30	30	410	30	95	75	15	30	90	30
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			15			15			8			15
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left		*			SB Left		*	
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
EB	L	287	717	0.439	0.400	7.1	B	6.9	B
	TR	1485	3713	0.524	0.400	6.9	B		
WB	L	166	414	0.193	0.400	5.7	B	6.0	B
	TR	1482	3706	0.317	0.400	6.0	B		
NB	L	626	1340	0.160	0.467	4.5	A	4.4	A
	TR	1715	3674	0.053	0.467	4.2	A		
SB	LTR	731	1567	0.196	0.467	4.6	A	4.6	A

Intersection Delay = 6.2 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.347

Streets: (E-W) E/B Ramp SR178 (N-S) Vineland  
 Analyst: WWC 9-137R File Name: EBSRV20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	20		200					245	200	50	60	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			100						100			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
EB	L	1388	3539	0.016	0.392	6.1	B	1.1	A
	R	1583	1583	0.067	1.000	0.0	A		
NB	T	1826	3725	0.148	0.490	4.6	A	3.3	A
	R	1583	1583	0.067	1.000	0.0	A		
SB	L	504	1027	0.105	0.490	4.5	A	4.4	A
	T	1826	3725	0.036	0.490	4.4	A		
Intersection Delay =						3.1 sec/veh	Intersection LOS = A		
Lost Time/Cycle, L =			6.0 sec	Critical v/c(x)		=	0.089		

Streets: (E-W) W/B Ramp SR178 (N-S) Vineland  
 Analyst: WWC 9-137R File Name: WBSRV20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				20		50	100	145			50	25
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						25			100			10
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					*			
Thru					*			
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*						
Green		14.0A				25.0A		
Yellow/AR		3.0				3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.038	0.311	7.0	B	3.1	A
	R		1583	1583	0.017	1.000	0.0	A		
NB	L		860	1547	0.122	0.556	3.1	A	3.0	A
	T		2070	3725	0.078	0.556	3.0	A		
SB	T		2070	3725	0.027	0.556	2.9	A	2.3	A
	R		1583	1583	0.009	1.000	0.0	A		
Intersection Delay =						2.9 sec/veh		Intersection LOS = A		
Lost Time/Cycle, L =						6.0 sec		Critical v/c(x) = 0.092		

Streets: (E-W) W/B Ramp SR178 (N-S) Masterson Street  
 Analyst: WWC 9-137R File Name: WSRMA20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	2
Volumes				150		60	20	430			125	20
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						30			100			10
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right			*		Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green		14.0A			Green	25.0A		
Yellow/AR		3.0			Yellow/AR	3.0		
Cycle Length:	45 secs				Phase combination order: #1 #5			

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.287	0.311	7.7	B	6.4	B
	R		1583	1583	0.020	1.000	0.0	A		
NB	L		1102	1983	0.020	0.556	2.9	A	3.3	A
	T		2070	3725	0.230	0.556	3.3	A		
SB	T		2070	3725	0.067	0.556	3.0	A	2.8	A
	R		3167	3167	0.003	1.000	0.0	A		

Intersection Delay = 3.9 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.250

Streets: (E-W) E/B Ramp SR178 (N-S) Masterson St  
 Analyst: WWC 9-137R File Name: ESRMA20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	50		160					400	50	200	75	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			80						25			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length: 51 secs Phase combination order: #1 #5								

Intersection Performance Summary

Lane	Group:	Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
									Delay	LOS
EB	L	1388		3539	0.040	0.392	6.2	B	2.4	A
	R	1583		1583	0.053	1.000	0.0	A		
NB	T	1826		3725	0.242	0.490	4.9	A	4.6	A
	R	1583		1583	0.017	1.000	0.0	A		
SB	L	379		773	0.557	0.490	7.3	B	6.5	B
	T	1826		3725	0.045	0.490	4.4	A		
Intersection Delay = 4.9 sec/veh Intersection LOS = A										
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.327										

Streets: (E-W) E/B State Route 178 (N-S) Oswell Street  
 Analyst: WWC 9-137 File Name: EBSRO20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	1	0	2	1
Volumes	600		915					745	270		955	150
Lane W (ft)	12.0		12.0					12.0	12.0		12.0	12.0
RTOR Vols			450						135			75
Lost Time	3.00		3.00					3.00	3.00		3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right		*						
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right					*			
SB Right		*						
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
EB	L	708	1770	0.893	0.400	17.9	C	10.1	B
	R	1583	1583	0.309	1.000	0.0	A		
NB	T	1739	3725	0.473	0.467	5.5	B	5.3	B
	R	739	1583	0.192	0.467	4.6	A		
SB	T	1739	3725	0.607	0.467	6.2	B	5.8	B
	R	1583	1583	0.050	1.000	0.0	A		
Intersection Delay =						7.2 sec/veh	Intersection LOS = B		
Lost Time/Cycle, L =						6.0 sec	Critical v/c(x) = 0.739		

Streets: (E-W) W/B Ramp SR178 (N-S) Oswell Street  
 Analyst: WWC 9-137 File Name: WBSRO20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	2	2	0	0	2	1
Volumes				165		65	310	1035			610	305
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						30			100			150
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					*			
Thru					*			
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right		*						
Green		14.0A				25.0A		
Yellow/AR		3.0				3.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.316	0.311	7.8	B	6.4	B
	R		1583	1583	0.023	1.000	0.0	A		
NB	L		605	1089	0.555	0.556	5.0	A	4.5	A
	T		2070	3725	0.552	0.556	4.4	A		
SB	T		2070	3725	0.326	0.556	3.5	A	2.9	A
	R		1583	1583	0.103	1.000	0.0	A		

Intersection Delay = 4.1 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.469

Streets: (E-W) Highland-Knolls (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: MHK20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	100	110	20	60	120	30	30	270	50	50	310	55
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			10			15			25			27
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru						*		
Right			*			*		
Peds								
WB Left		*						
Thru				*			*	
Right			*			*		
Peds								
NB Right								
SB Right								
Green		22.0A	15.0A			25.0A	30.0A	
Yellow/AR		0.0	3.0			0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		343	1770	0.306	0.194	22.0	C	22.9	C
	TR		563	3681	0.234	0.153	23.6	C		
WB	L		343	1770	0.184	0.194	21.4	C	23.0	C
	TR		561	3663	0.266	0.153	23.7	C		
NB	L		397	1770	0.081	0.224	19.4	C	17.0	C
	TR		1126	3677	0.291	0.306	16.8	C		
SB	L		397	1770	0.133	0.224	19.6	C	17.4	C
	TR		1126	3678	0.332	0.306	17.0	C		

Intersection Delay = 19.3 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.264



HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g  
 Center For Microcomputers In Transportation

03-09-2000

Streets: (E-W) College Ave  
 Analyst: WWC 9-137R  
 Area Type: Other  
 Comment: 2020 Without Project

(N-S) Morning Dr  
 File Name: MC20WP.HC9  
 3-9-0 PM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	20	40	20	20	40	10	20	210	85	60	245	55
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			10			5			42			27
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru		*					*	
Right		*					*	
Peds								
WB Left		*						
Thru			*				*	
Right			*				*	
Peds								
NB Right								
SB Right								
Green	22.0A	15.0A			25.0A	30.0A		
Yellow/AR	0.0	3.0			0.0	3.0		
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Delay	LOS	
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	343	1770	0.061	0.194	20.8	C	22.4	C
	TR	554	3618	0.099	0.153	23.1	C		
WB	L	343	1770	0.061	0.194	20.8	C	22.4	C
	TR	560	3656	0.089	0.153	23.0	C		
NB	L	397	1770	0.053	0.224	19.3	C	16.7	C
	TR	1112	3631	0.251	0.306	16.5	C		
SB	L	397	1770	0.159	0.224	19.8	C	17.2	C
	TR	1123	3667	0.269	0.306	16.6	C		

Intersection Delay = 18.0 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.165

Streets: (E-W) SR 184 (N-S) Vineland  
 Analyst: Wwc 9-137R File Name: SR184V2.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	200	1150	50	50	810	50	75	125	25	50	150	50
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			25			25			12			25
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru		*			Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	166	414	1.274	0.400	*	*	*	*
	TR	1485	3713	0.875	0.400	12.5	B		
WB	L	166	414	0.320	0.400	6.4	B	7.5	B
	TR	1483	3708	0.623	0.400	7.6	B		
NB	L	489	1048	0.162	0.467	4.5	A	4.4	A
	TR	1715	3675	0.089	0.467	4.3	A		
SB	LTR	702	1504	0.339	0.467	5.0	A	5.0	A

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) Chase Ave (N-S) SR-184  
 Analyst: Wwc 9-137R File Name: SR184C20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	< 0	1	1	0
Volumes				30		30		720	100	50	750	
Lane W (ft)				12.0		12.0		12.0		12.0	12.0	
RTOR Vols						15			50			15
Lost Time				3.00		3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left								
Thru								
Right								
Peds								
WB Left		*						
Thru								
Right		*						
Peds								
NB Right								
SB Right								
Green	17.0A				20.0A			
Yellow/AR	4.0				4.0			
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Mvmts	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Cap	Flow
WB	L	708	1770	0.045	0.400	5.3	B	5.3	B
	R	633	1583	0.025	0.400	5.3	B		
NB	TR	1722	3690	0.494	0.467	5.6	B	5.6	B
SB	L	166	355	0.320	0.467	5.3	B	15.9	C
	T	869	1863	0.908	0.467	16.7	C		
Intersection Delay = 10.6 sec/veh Intersection LOS = B									
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.510									

Streets: (E-W) E/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: EBSRF20WP.HC9  
 Area Type: Other 3-8-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	1	0
Volumes	985		920					1020	55	55	405	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			450						25			150
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length:	51 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		1388	3539	0.769	0.392	10.6	B	7.3	B
	R		1583	1583	0.312	1.000	0.0	A		
NB	T		1826	3725	0.618	0.490	6.6	B	6.4	B
	R		1583	1583	0.020	1.000	0.0	A		
SB	L		146	298	0.397	0.490	6.3	B	5.9	B
	T		913	1863	0.467	0.490	5.8	B		
Intersection Delay =						6.8 sec/veh	Intersection LOS = B			
Lost Time/Cycle, L =						6.0 sec	Critical v/c(x) = 0.685			

Streets: (E-W) W/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: WBSRF20W.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				115		80	300	480			460	640
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						40			180			320
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right	*		
Green	14.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length: 45 secs Phase combination order: #1 #5								

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.220	0.311	7.4	B	5.5	B
	R		1583	1583	0.027	1.000	0.0	A		
NB	L		397	714	0.796	0.556	12.6	B	6.8	B
	T		2070	3725	0.256	0.556	3.4	A		
SB	T		2070	3725	0.245	0.556	3.3	A	2.0	A
	R		1583	1583	0.213	1.000	0.0	A		
Intersection Delay = 4.5 sec/veh Intersection LOS = A										
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.589										

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: PF20WP.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 Without Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	20	30	200	240	120	40	350	360	55	130	840	110
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			100			20			27			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru		*			Thru *			
Right		*			Right *			
Peds					Peds			
WB Left		*			SB Left *			
Thru		*			Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green 20.0A 20.0A			
Yellow/AR	0.0	3.0			Yellow/AR 0.0 3.0			
Cycle Length:	81 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	371	1770	0.057	0.210	16.5	C	18.0	C
	TR	610	3296	0.238	0.185	18.2	C		
WB	L	371	1770	0.681	0.210	22.5	C	20.9	C
	TR	675	3646	0.228	0.185	18.2	C		
NB	L	371	1770	0.991	0.210	54.1	E	34.2	D
	TR	910	3685	0.471	0.247	17.1	C		
SB	L	371	1770	0.369	0.210	18.0	C	*	*
	TR	911	3691	1.085	0.247	*	*		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) Panorama Drive  
 Analyst: WWC 9-137R  
 Area Type: Other  
 Comment: 2020 Without Project PM

(N-S) Fairfax Road  
 File Name: APF20P.HC9  
 3-10-0 PM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	20	30	200	240	120	40	350	360	55	130	840	110
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			100			20			25			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	25.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	86 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	350	1770	0.060	0.198	18.1	C	19.6	C
	TR	575	3296	0.252	0.174	19.9	C		
WB	L	350	1770	0.723	0.198	25.8	D	23.5	C
	TR	636	3646	0.242	0.174	19.8	C		
NB	L	350	1770	1.052	0.198	75.4	F	43.3	E
	TR	1070	3682	0.404	0.291	16.0	C		
SB	L	350	1770	0.392	0.198	19.8	C	27.3	D
	TR	1073	3691	0.922	0.291	28.3	D		

Intersection Delay = 31.3 sec/veh Intersection LOS = D  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.770

Streets: (E-W) E/B Ramp SR178 (N-S) Morning Drive  
 Analyst: WWC 9-137R File Name: EBSRM20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 Without Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	2	0
Volumes	100		135					250	150	160	280	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			65						75			0
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right		*						
SB Right								
Green	20.0A					25.0A		
Yellow/AR	3.0					3.0		
Cycle Length:	51 secs							
Phase combination order:	#1	#5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		1388	3539	0.078	0.392	6.3	B	3.7	A
	R		1583	1583	0.047	1.000	0.0	A		
NB	T		1826	3725	0.151	0.490	4.6	A	3.6	A
	R		1583	1583	0.050	1.000	0.0	A		
SB	L		500	1019	0.336	0.490	5.3	B	4.9	A
	T		1826	3725	0.170	0.490	4.7	A		
Intersection Delay =						4.2 sec/veh	Intersection LOS = A			
Lost Time/Cycle, L =			6.0 sec	Critical v/c(x)		=	0.221			



Streets: (E-W) W/B Ramp SR178 (N-S) Morning Drive  
 Analyst: WWC 9-137R File Name: WBSRM20WP.HC9  
 Area Type: Other 3-9-0 PM Peak  
 Comment: 2020 With <sup>act</sup> Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				120		145	175	500			160	285
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						70			100			140
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	*		
Thru					Thru	*		
Right					Right			
Peds					Peds			
WB Left	*				SB Left			
Thru					Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right	*				WB Right	*		
Green	14.0A				Green	25.0A		
Yellow/AR	3.0				Yellow/AR	3.0		
Cycle Length: 45 secs Phase combination order: #1 #5								

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.229	0.311	7.5	B	4.6	A
	R		1583	1583	0.050	1.000	0.0	A		
NB	L		675	1214	0.273	0.556	3.4	A	3.4	A
	T		2070	3725	0.267	0.556	3.4	A		
SB	T		2070	3725	0.085	0.556	3.0	A	1.6	A
	R		1583	1583	0.097	1.000	0.0	A		

Intersection Delay = 3.1 sec/veh Intersection LOS = A  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.257

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: APF20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project AM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	15	80	120	160	80	30	210	275	20	95	320	65
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			60			15			10			32
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	81 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
EB	L	371	1770	0.043	0.210	16.5	C	18.0	C
	TR	646	3486	0.239	0.185	18.2	C		
WB	L	371	1770	0.452	0.210	18.7	C	18.4	C
	TR	673	3636	0.156	0.185	17.9	C		
NB	L	371	1770	0.595	0.210	20.5	C	18.0	C
	TR	915	3707	0.343	0.247	16.3	C		
SB	L	371	1770	0.269	0.210	17.4	C	16.9	C
	TR	907	3674	0.430	0.247	16.8	C		

Intersection Delay = 17.7 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.434

Streets: (E-W) Chase Ave (N-S) SR-184  
 Analyst: Wwc 9-137R File Name: ASRC20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	< 0	1	1	0
Volumes				20		30		720	60	35	740	
Lane W (ft)				12.0		12.0		12.0		12.0	12.0	
RTOR Vols						15			30			15
Lost Time				3.00		3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	*		
Right					Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru					Thru	*		
Right		*			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		17.0A			Green	20.0A		
Yellow/AR		4.0			Yellow/AR	4.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	
								Mvmts	Cap
WB	L		708	1770	0.030	0.400	5.3	B	5.3 B
	R		633	1583	0.025	0.400	5.3	B	
NB	TR		1728	3704	0.479	0.467	5.5	B	5.5 B
SB	L		166	355	0.223	0.467	4.7	A	15.1 C
	T		869	1863	0.896	0.467	15.6	C	

Intersection Delay = 10.2 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.496

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-10-2000  
 Center For Microcomputers In Transportation

Streets: (E-W) SR 184 (N-S) Vineland  
 Analyst: Wwc 9-137R File Name: ASRV20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	140	760	30	55	650	95	45	85	20	40	100	80
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			15			45			10			40
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs				Phase combination order:	#1 #5		

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	166	414	0.888	35.6	D		11.4	B
	TR	1486	3715	0.577	7.2	B			
WB	L	166	414	0.350	6.6	B		6.9	B
	TR	1474	3685	0.525	6.9	B			
NB	L	558	1195	0.084	4.3	A		4.3	A
	TR	1712	3669	0.061	4.3	A			
SB	LTR	711	1524	0.266	4.8	A		4.8	A

Intersection Delay = 8.6 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.553

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: WWC 9-137R File Name: AWMN20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	140	245	240	235	670	160	75	410	255	115	195	120
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			120			130			125			60
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru		*			Thru	*		
Right		*			Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		17.0A			Green	20.0A		
Yellow/AR		4.0			Yellow/AR	4.0		
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	166	414	0.888	0.400	35.6	D	13.8	B
	TR	1416	3541	0.285	0.400	5.9	B		
WB	L	329	822	0.751	0.400	13.8	B	8.6	B
	TR	1481	3702	0.522	0.400	6.9	B		
NB	L	362	776	0.218	0.467	4.7	A	5.0	A
	TR	1676	3592	0.356	0.467	5.0	A		
SB	LTR	481	1031	0.809	0.467	13.5	B	13.5	B

Intersection Delay = 9.5 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.845

Streets: (E-W) College Ave (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: AMC20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	15	25	10	10	25	15	70	135	50	50	170	45
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			5			7			25			22
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru		*			Thru	*		
Right		*			Right	*		
Peds					Peds			
WB Left		*			SB Left *			
Thru			*		Thru	*		
Right			*		Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0A	15.0A			Green	25.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		343	1770	0.047	0.194	20.8	C	22.2	C
	TR		554	3621	0.061	0.153	22.9	C		
WB	L		343	1770	0.032	0.194	20.7	C	22.4	C
	TR		548	3582	0.067	0.153	22.9	C		
NB	L		397	1770	0.186	0.224	19.9	C	17.2	C
	TR		1113	3636	0.159	0.306	16.0	C		
SB	L		397	1770	0.133	0.224	19.6	C	16.9	C
	TR		1120	3659	0.190	0.306	16.2	C		

Intersection Delay = 17.9 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.136

Streets: (E-W) Highland-Knolls (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: AMHK20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	70	65	15	40	75	30	20	185	30	40	245	45
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			8			15			15			22
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				*			
Thru		*				*		
Right		*				*		
Peds								
WB Left		*			*			
Thru			*			*		
Right			*			*		
Peds								
NB Right								
SB Right								
Green	22.0A	15.0A			25.0A	30.0A		
Yellow/AR	0.0	3.0			0.0	3.0		
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
							Delay	LOS	
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	343	1770	0.216	0.194	21.5	C	22.4	C
	TR	561	3667	0.143	0.153	23.2	C		
WB	L	343	1770	0.122	0.194	21.1	C	22.7	C
	TR	556	3631	0.180	0.153	23.4	C		
NB	L	397	1770	0.053	0.224	19.3	C	16.5	C
	TR	1127	3683	0.197	0.306	16.2	C		
SB	L	397	1770	0.106	0.224	19.5	C	17.0	C
	TR	1126	3678	0.263	0.306	16.6	C		

Intersection Delay = 18.7 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.198

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-11-2000  
 Center For Microcomputers In Transportation

Streets: (E-W) W/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: AWBSRF2P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
Volumes				130		50	370	250			390	285
Lane W (ft)				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vols						25			180			140
Lost Time				3.00		3.00	3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru					Thru *			
Right					Right			
Peds					Peds			
WB Left		*			SB Left			
Thru					Thru *			
Right		*			Right *			
Peds					Peds			
NB Right					EB Right			
SB Right		*			WB Right *			
Green		14.0A			Green 25.0A			
Yellow/AR		3.0			Yellow/AR 3.0			
Cycle Length:	45 secs Phase combination order: #1 #5							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		551	1770	0.249	0.311	7.5	B	6.3	B
	R		1583	1583	0.017	1.000	0.0	A		
NB	L		448	806	0.869	0.556	17.1	C	11.3	B
	T		2070	3725	0.133	0.556	3.1	A		
SB	T		2070	3725	0.209	0.556	3.3	A	2.4	A
	R		1583	1583	0.097	1.000	0.0	A		

Intersection Delay = 7.0 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.646



Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: WWC 9-137R File Name: AWMN20P.HC9  
 Area Type: Other 3-10-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	140	245	240	235	670	160	75	410	255	115	295	120
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			120			130			125			60
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		166	414	0.888	0.400	35.6	D	13.8	B
	TR		1416	3541	0.285	0.400	5.9	B		
WB	L		329	822	0.751	0.400	13.8	B	8.6	B
	TR		1481	3702	0.522	0.400	6.9	B		
NB	L		274	586	0.289	0.467	4.9	A	5.0	A
	TR		1676	3592	0.356	0.467	5.0	A		
SB	LTR		521	1116	0.950	0.467	27.5	D	27.5	D

Intersection Delay = 12.2 sec/veh Intersection LOS = B  
 Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.921

Streets: (E-W) E/B Ramp SR178 (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: AEBSRF20P.HC9  
 Area Type: Other 3-9-0 AM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	0	2	1	1	1	0
Volumes	620		550					620	125	40	320	
Lane W (ft)	12.0		12.0					12.0	12.0	12.0	12.0	
RTOR Vols			260						60			150
Lost Time	3.00		3.00					3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*							
Thru								
Right	*							
Peds								
WB Left								
Thru								
Right								
Peds								
NB Right	*							
SB Right								
Green	20.0A				25.0A			
Yellow/AR	3.0				3.0			
Cycle Length: 51 secs Phase combination order: #1 #5								

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		1388	3539	0.485	0.392	7.7	B	5.3	B
	R		1583	1583	0.193	1.000	0.0	A		
NB	T		1826	3725	0.376	0.490	5.3	B	4.8	A
	R		1583	1583	0.044	1.000	0.0	A		
SB	L		234	477	0.180	0.490	4.7	A	5.3	B
	T		913	1863	0.369	0.490	5.3	B		
Intersection Delay = 5.1 sec/veh Intersection LOS = B										
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.424										

Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: PF20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	30	130	200	270	135	45	350	400	30	155	840	110
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			100			22			15			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		*			NB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	20.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	81 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio			Delay	LOS	
EB	L	371	1770	0.086	0.210	16.6	C	18.7	C
	TR	645	3482	0.395	0.185	19.0	C		
WB	L	371	1770	0.765	0.210	25.7	D	22.9	C
	TR	675	3645	0.258	0.185	18.3	C		
NB	L	371	1770	0.991	0.210	54.1	E	33.7	D
	TR	915	3705	0.502	0.247	17.3	C		
SB	L	371	1770	0.439	0.210	18.5	C	*	*
	TR	911	3691	1.085	0.247	*	*		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) Niles Street (N-S) Weedpatch-Morning  
 Analyst: WWC 9-137R File Name: WMN20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	0	> 1	< 0
Volumes	230	395	400	345	850	245	130	430	375	190	515	205
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vols			200			220			185			100
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	20.0A		
Yellow/AR	4.0				Yellow/AR	4.0		
Cycle Length:	45 secs	Phase combination order: #1 #5						

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	166	414	1.462	0.400	*	*	*	*
	TR	1415	3538	0.464	0.400	6.6	B		
WB	L	191	478	1.899	0.400	*	*	*	*
	TR	1484	3710	0.652	0.400	7.8	B		
NB	L	183	392	0.749	0.467	16.8	C	7.1	B
	TR	1659	3554	0.414	0.467	5.2	B		
SB	LTR	411	880	2.078	0.467	*	*	*	*

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 03-10-2000  
 Center For Microcomputers In Transportation

Streets: (E-W) College Ave (N-S) Morning Dr  
 Analyst: WWC 9-137R File Name: MC20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	25	40	20	20	40	25	125	255	85	65	315	40
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			10			12			42			20
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0A	15.0A			Green	25.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		343	1770	0.076	0.194	20.9	C	22.4	C
	TR		554	3618	0.099	0.153	23.1	C		
WB	L		343	1770	0.061	0.194	20.8	C	22.5	C
	TR		550	3593	0.105	0.153	23.1	C		
NB	L		397	1770	0.332	0.224	20.8	C	17.9	C
	TR		1116	3645	0.295	0.306	16.8	C		
SB	L		397	1770	0.171	0.224	19.8	C	17.4	C
	TR		1130	3692	0.328	0.306	17.0	C		

Intersection Delay = 18.4 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.235

Streets: (E-W) Highland-Knolls  
 Analyst: WWC 9-137R  
 Area Type: Other  
 Comment: 2020 With Project

(N-S) Morning Dr  
 File Name: MHK20P.HC9  
 3-10-0 PM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	105	110	20	65	125	35	30	320	55	60	390	75
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			10			17			27			37
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru					Thru		*	
Right			*		Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru				*	Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.0A	15.0A			Green	25.0A	30.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	98 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach:	
								Delay	LOS
EB	L	343	1770	0.324	0.194	22.1	C	22.9	C
	TR	563	3681	0.234	0.153	23.6	C		
WB	L	343	1770	0.198	0.194	21.4	C	23.1	C
	TR	559	3655	0.284	0.153	23.8	C		
NB	L	397	1770	0.081	0.224	19.4	C	17.3	C
	TR	1126	3680	0.342	0.306	17.1	C		
SB	L	397	1770	0.159	0.224	19.8	C	17.9	C
	TR	1125	3676	0.421	0.306	17.7	C		

Intersection Delay = 19.4 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.309

Streets: (E-W) Chase Ave  
 Analyst: Wwc 9-137R  
 Area Type: Other  
 Comment: 2020 With Project

(N-S) SR-184  
 File Name: SRC20P.HC9  
 3-10-0 PM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	0	2	< 0	1	1	0
Volumes				30		45		920	100	50	1000	
Lane W (ft)				12.0		12.0		12.0		12.0	12.0	
RTOR Vols						22			50			15
Lost Time				3.00		3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	*		
Right					Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru					Thru	*		
Right		*			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		17.0A			Green	20.0A		
Yellow/AR		4.0			Yellow/AR	4.0		
Cycle Length:		45 secs			Phase combination order:	#1 #5		

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
WB	L		708	1770	0.045	0.400	5.3	B	5.3	B
	R		633	1583	0.038	0.400	5.3	B		
NB	TR		1725	3697	0.621	0.467	6.3	B	6.3	B
SB	L		166	355	0.320	0.467	5.3	B	*	*
	T		869	1863	1.211	0.467	*	*		

Intersection Delay = \* (sec/veh) Intersection LOS = \*  
 (g/C)\*(V/c) is greater than one. Calculation of D1 is infeasible.

Streets: (E-W) Panorama Drive  
 Analyst: WWC 9-137R  
 Area Type: Other  
 Comment: 2020 With Project PM

(N-S) Fairfax Road  
 File Name: APF20P.HC9  
 3-10-0 PM Peak

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	15	80	120	160	80	30	210	275	20	95	325	65
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			60			15			10			30
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru		*			Thru		*	
Right		*			Right		*	
Peds					Peds			
WB Left		*			SB Left	*		
Thru			*		Thru		*	
Right			*		Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	25.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	86 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

	Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:		
								Mvmts	Cap	Flow
EB	L		350	1770	0.046	0.198	18.0	C	19.7	C
	TR		608	3486	0.253	0.174	19.9	C		
WB	L		350	1770	0.480	0.198	20.6	C	20.2	C
	TR		634	3636	0.166	0.174	19.5	C		
NB	L		350	1770	0.632	0.198	23.0	C	18.5	C
	TR		1078	3707	0.291	0.291	15.3	C		
SB	L		350	1770	0.286	0.198	19.1	C	16.4	C
	TR		1068	3672	0.372	0.291	15.8	C		

Intersection Delay = 18.2 sec/veh Intersection LOS = C  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.432



Streets: (E-W) Panorama Drive (N-S) Fairfax Road  
 Analyst: WWC 9-137R File Name: PF20P.HC9  
 Area Type: Other 3-10-0 PM Peak  
 Comment: 2020 With Project PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	< 0	1	2	< 0	1	2	< 0	1	2	< 0
Volumes	30	130	200	270	135	45	350	400	30	155	840	110
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vols			100			22			15			55
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
EB Thru		*			EB Thru		*	
EB Right		*			EB Right		*	
EB Peds					EB Peds			
WB Left		*			SB Left	*		
WB Thru			*		SB Thru		*	
WB Right			*		SB Right		*	
WB Peds					SB Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0A	15.0A			Green	20.0A	25.0A	
Yellow/AR	0.0	3.0			Yellow/AR	0.0	3.0	
Cycle Length:	86 secs Phase combination order: #1 #2 #5 #6							

Intersection Performance Summary

Lane	Group:	Adj Sat	v/c	g/C	Delay	LOS	Approach:	Delay	LOS
Mvmts	Cap	Flow	Ratio	Ratio					
EB	L	350	1770	0.091	0.198	18.2	C	20.4	C
	TR	607	3482	0.420	0.174	20.7	C		
WB	L	350	1770	0.812	0.198	30.6	D	26.5	D
	TR	636	3645	0.274	0.174	19.9	C		
NB	L	350	1770	1.052	0.198	75.4	F	42.5	E
	TR	1077	3705	0.426	0.291	16.1	C		
SB	L	350	1770	0.466	0.198	20.4	C	27.2	D
	TR	1073	3691	0.922	0.291	28.3	D		

Intersection Delay = 31.0 sec/veh Intersection LOS = D  
 Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.825

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Knolls, Morning to Vineland  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 345  
 ACTUAL FLOW RATE: 345

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... SR184 Morning to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 2665  
 ACTUAL FLOW RATE: 2665

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: E

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Morning Niles to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	50
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 905  
 ACTUAL FLOW RATE: 905

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CODITIONS: c

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Morning SR178to Auburn  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 840  
 ACTUAL FLOW RATE: 840

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: c

1985 HCM:TWO-LANE HIGHWAYS

\*\*\*\*\*

FACILITY LOCATION.... Morning SR178 to Panorama  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 750  
 ACTUAL FLOW RATE: 750

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: c

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 60 / 40  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.94	.98
B	2.2	2	2.5	1	.94	.98
C	2.2	2	2.5	1	.94	.98
D	2	1.6	1.6	1	.94	.98
E	2	1.6	1.6	1	.94	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 680  
 ACTUAL FLOW RATE: 680

LOS	SERVICE FLOW RATE	V/C
A	310	.12
B	617	.24
C	1002	.39
D	1600	.62
E	2580	1

LOS FOR GIVEN CIONDITIONS: c

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Alfred Harrel, SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 65 / 35  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.92	.98
B	2.2	2	2.5	1	.92	.98
C	2.2	2	2.5	1	.92	.98
D	2	1.6	1.6	1	.92	.98
E	2	1.6	1.6	1	.92	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 255  
 ACTUAL FLOW RATE: 255

LOS	SERVICE FLOW RATE	V/C
A	301	.12
B	600	.24
C	976	.39
D	1557	.62
E	2512	1

LOS FOR GIVEN CONDITIONS: A



1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Vineland, SR184 to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 615  
 ACTUAL FLOW RATE: 615

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Masterson SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... peak hour  
 DATE OF ANALYSIS..... 03-10-2000  
 OTHER INFORMATION.... 2020 Without Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 455  
 ACTUAL FLOW RATE: 455

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... SR184 Morning to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 3145  
 ACTUAL FLOW RATE: 3145

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: F

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning, Niles to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 1055  
 ACTUAL FLOW RATE: 1055

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS : C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION... Morning, Panorama to ~~Paladino~~ SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	60
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 810 / 010  
 ACTUAL FLOW RATE: 810

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Vineland, SR184 to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 60 / 40  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.94	.98
B	2.2	2	2.5	1	.94	.98
C	2.2	2	2.5	1	.94	.98
D	2	1.6	1.6	1	.94	.98
E	2	1.6	1.6	1	.94	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 710  
 ACTUAL FLOW RATE: 710

LOS	SERVICE FLOW RATE	V/C
A	310	.12
B	617	.24
C	1002	.39
D	1600	.62
E	2580	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Vineland, Panorama to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	60
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----

INPUT VOLUME(vph): 495  
 ACTUAL FLOW RATE: 495

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Knolls, Morning to Vineland  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 405  
 ACTUAL FLOW RATE: 405

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B



1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Alfred Harrell, SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 65 / 35  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.92	.98
B	2.2	2	2.5	1	.92	.98
C	2.2	2	2.5	1	.92	.98
D	2	1.6	1.6	1	.92	.98
E	2	1.6	1.6	1	.92	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 315  
 ACTUAL FLOW RATE: 315

LOS	SERVICE FLOW RATE	V/C
A	301	.12
B	600	.24
C	976	.39
D	1557	.62
E	2512	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Paladino, Fairfax to Morning  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	60
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 1085  
 ACTUAL FLOW RATE: 1085

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: D

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Paladino, Morning to Vineland  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 870  
 ACTUAL FLOW RATE: 870

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Paladino, Vineland to Masterson  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 875  
 ACTUAL FLOW RATE: 875

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Panorama, Fairfax to Morning  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 770  
 ACTUAL FLOW RATE: 770

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Panorama, Morning to Vineland  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 1010  
 ACTUAL FLOW RATE: 1010

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning, Auburn to Panorama  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 1095  
 ACTUAL FLOW RATE: 1095

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: D

TYPE: TWO-LANE HIGHWAYS

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STUDY LOCATION... Morning, SR178 to Auburn  
 DISTRICT... 9-137  
 TYPE OF ANALYSIS... Peak Hour  
 DATE OF ANALYSIS... 03-11-2000  
 PROJECT INFORMATION... 2020 WITH Project

ADJUSTMENT FACTORS

PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 TRAFFIC DISTRIBUTION (UP/DOWN)..... 50 / 50  
 ROAD WIDTH (FT)..... 12  
 AVAILABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

0

SECTION FACTORS

LEVEL TERRAIN

E T	E B	E R	f w	f d	f HV
2	1.8	2.2	1	1	.98
2.2	2	2.5	1	1	.98
2.2	2	2.5	1	1	.98
2	1.6	1.6	1	1	.98
2	1.6	1.6	1	1	.98

LEVEL OF SERVICE RESULTS

TOTAL VOLUME(vph): 1125  
 DESIGN FLOW RATE: 1125

SERVICE FLOW RATE	V/C
329	.12
656	.24
1066	.39
1702	.62
2745	1

LOS FOR GIVEN CONDITIONS: D



1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Auburn, Fairfax to Morning  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-11-2000  
 OTHER INFORMATION.... 2020 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 60  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 65 / 35  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.92	.98
B	2.2	2	2.5	1	.92	.98
C	2.2	2	2.5	1	.92	.98
D	2	1.6	1.6	1	.92	.98
E	2	1.6	1.6	1	.92	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 670  
 ACTUAL FLOW RATE: 670

LOS	SERVICE FLOW RATE	V/C
A	301	.12
B	600	.24
C	976	.39
D	1557	.62
E	2512	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... SR184, Niles to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITHOUT Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	50
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

---

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

---

INPUT VOLUME(vph): 485  
 ACTUAL FLOW RATE: 485

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Alfred Harrell, SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITHOUT Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	50
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 225  
 ACTUAL FLOW RATE: 225

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: A

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Masterson, SR178 to Paladino  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITHOUT Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 50  
 ACTUAL FLOW RATE: 50

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: A

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning, Paladino to Panorama  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITHOUT Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 20  
 ACTUAL FLOW RATE: 20  
 SERVICE

LOS	FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1



LOS FOR GIVEN CONDITIONS: A

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Fairfax, Paladino to Panorama  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITHOUT Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	50
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

---

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

---

INPUT VOLUME(vph): 485  
 ACTUAL FLOW RATE: 485

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Fairfax, Panorama to Auburn  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITHOUT Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 1450  
 ACTUAL FLOW RATE: 1450

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: D

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Faifax, Auburn to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITHOUT Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	50
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

---

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

---

INPUT VOLUME(vph): 2100  
 ACTUAL FLOW RATE: 2100

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: E

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Panorama, Fairfax to Morning  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITHOUT Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 460  
 ACTUAL FLOW RATE: 460

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1



LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Auburn, Fairfax to Morning  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITHOUT Project

A) ADJUSTMENT FACTORS

---

PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	50
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	50 / 50
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

---

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

---

INPUT VOLUME(vph): 330  
 ACTUAL FLOW RATE: 330

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Fiarfax, Paladino to Panorama  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 500  
 ACTUAL FLOW RATE: 500

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Panorama, Fairfax to Morning  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 590  
 ACTUAL FLOW RATE: 590

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Panorama, Morning to Vineland  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 560  
 ACTUAL FLOW RATE: 560

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B



1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning, Paladino to Panorama  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 65  
 ACTUAL FLOW RATE: 65

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: A

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning, Panorama to Auburn  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

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PERCENTAGE OF TRUCKS.....	2
PERCENTAGE OF BUSES.....	0
PERCENTAGE OF RECREATIONAL VEHICLES.....	0
DESIGN SPEED (MPH).....	50
PEAK HOUR FACTOR.....	1
DIRECTIONAL DISTRIBUTION (UP/DOWN).....	60 / 40
LANE WIDTH (FT).....	12
USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)...	6
PERCENT NO PASSING ZONES.....	20

B) CORRECTION FACTORS

LEVEL TERRAIN

---

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.94	.98
B	2.2	2	2.5	1	.94	.98
C	2.2	2	2.5	1	.94	.98
D	2	1.6	1.6	1	.94	.98
E	2	1.6	1.6	1	.94	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 750  
 ACTUAL FLOW RATE: 750

---

LOS	SERVICE FLOW RATE	V/C
A	310	.12
B	617	.24
C	1002	.39
D	1600	.62
E	2580	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Morning, Auburn to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 60 / 40  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.94	.98
B	2.2	2	2.5	1	.94	.98
C	2.2	2	2.5	1	.94	.98
D	2	1.6	1.6	1	.94	.98
E	2	1.6	1.6	1	.94	.98

C) LEVEL OF SERVICE RESULTS

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 INPUT VOLUME(vph): 825  
 ACTUAL FLOW RATE: 825

LOS	SERVICE FLOW RATE	V/C
A	310	.12
B	617	.24
C	1002	.39
D	1600	.62
E	2580	1

LOS FOR GIVEN CONDITIONS: C

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... <sup>Queen St</sup> ~~Vineland~~, Paladino to Panorama  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

INPUT VOLUME(vph): 165  
 ACTUAL FLOW RATE: 165

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: A



1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Masterson, Paladino to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 50 / 50  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	1	.98
B	2.2	2	2.5	1	1	.98
C	2.2	2	2.5	1	1	.98
D	2	1.6	1.6	1	1	.98
E	2	1.6	1.6	1	1	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 530  
 ACTUAL FLOW RATE: 530

LOS	SERVICE FLOW RATE	V/C
A	329	.12
B	656	.24
C	1066	.39
D	1702	.62
E	2745	1

LOS FOR GIVEN CONDITIONS: B

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... Alfred Harrell, Paladino to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 60 / 40  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

-----  
 LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.94	.98
B	2.2	2	2.5	1	.94	.98
C	2.2	2	2.5	1	.94	.98
D	2	1.6	1.6	1	.94	.98
E	2	1.6	1.6	1	.94	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 195  
 ACTUAL FLOW RATE: 195

LOS	SERVICE FLOW RATE	V/C
A	310	.12
B	617	.24
C	1002	.39
D	1600	.62
E	2580	1

LOS FOR GIVEN CONDITIONS: A

1985 HCM:TWO-LANE HIGHWAYS

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FACILITY LOCATION.... SR184, Niles to SR178  
 ANALYST..... 9-137  
 TIME OF ANALYSIS..... Peak Hour  
 DATE OF ANALYSIS..... 03-12-2000  
 OTHER INFORMATION.... 2010 WITH Project

A) ADJUSTMENT FACTORS

-----  
 PERCENTAGE OF TRUCKS..... 2  
 PERCENTAGE OF BUSES..... 0  
 PERCENTAGE OF RECREATIONAL VEHICLES..... 0  
 DESIGN SPEED (MPH)..... 50  
 PEAK HOUR FACTOR..... 1  
 DIRECTIONAL DISTRIBUTION (UP/DOWN)..... 60 / 40  
 LANE WIDTH (FT)..... 12  
 USABLE SHOULDER WIDTH (AVG. WIDTH IN FT.)... 6  
 PERCENT NO PASSING ZONES..... 20

B) CORRECTION FACTORS

LEVEL TERRAIN

LOS	E T	E B	E R	f w	f d	f HV
A	2	1.8	2.2	1	.94	.98
B	2.2	2	2.5	1	.94	.98
C	2.2	2	2.5	1	.94	.98
D	2	1.6	1.6	1	.94	.98
E	2	1.6	1.6	1	.94	.98

C) LEVEL OF SERVICE RESULTS

-----  
 INPUT VOLUME(vph): 630  
 ACTUAL FLOW RATE: 630

LOS	SERVICE FLOW RATE	V/C
A	310	.12
B	617	.24
C	1002	.39
D	1600	.62
E	2580	1

LOS FOR GIVEN CONDITIONS: C