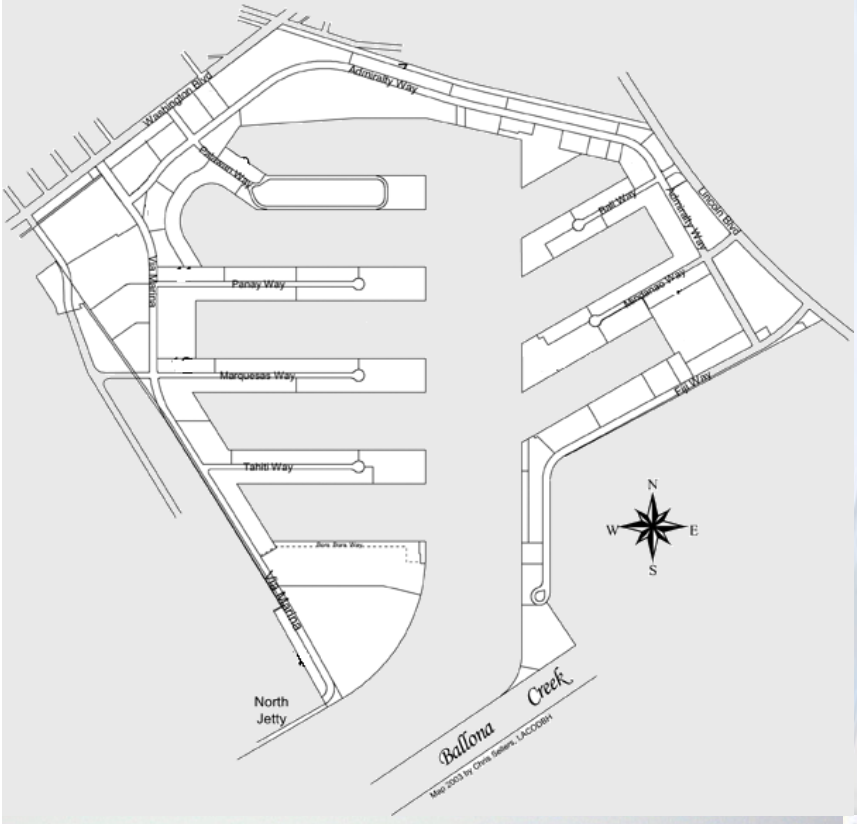
FINAL DRAFT
TRAFFIC STUDY
FOR THE MARINA DEL REY
LOCAL COASTAL PROGRAM AMENDMENT

VOLUME II - APPENDICES



Prepared for:

April 29, 2010

Submitted by :

RAJU Associates Inc

VOLUME II - APPENDICES

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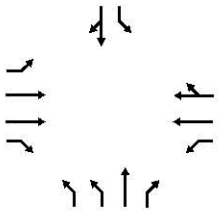
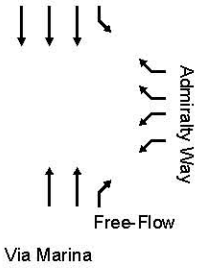
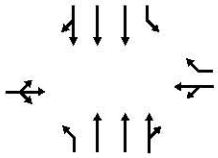
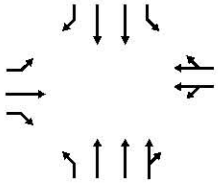
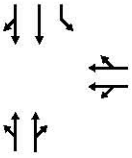
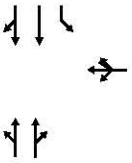
APPENDIX A

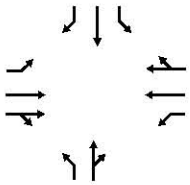
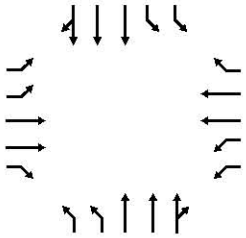
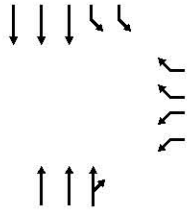
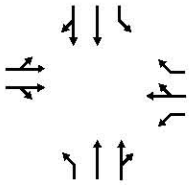
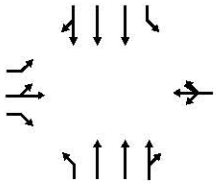
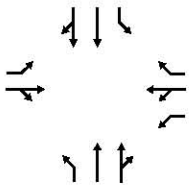
Intersection Lane Configurations

APPENDIX A
SUMMARY OF INTERSECTION LANE GEOMETRY - EXISTING CONDITIONS

	STREET	EXISTING (2009) CONDITIONS [1]
1	N/S: Via Marina-Ocean Av E/W: Washington Bl (Traffic Signal)	
2	N/S: Via Marina E/W: Admiralty Wy (Traffic Signal)	
3	N/S: Via Marina E/W: Panay Wy (Traffic Signal)	
4	N/S: Via Marina E/W: Marquesas Wy (Traffic Signal)	
5	N/S: Via Marina E/W: Tahiti Wy (Traffic Signal)	
6	N/S: Via Marina E/W: Bora Bora Wy (Stop-Controlled on minor approach)	

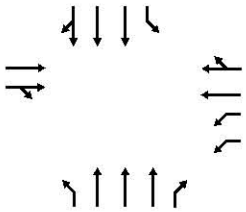
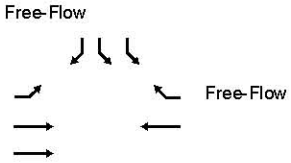
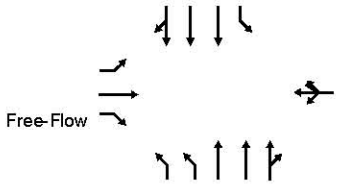
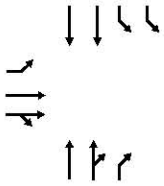
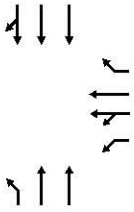
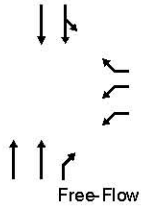
[1] All signalized intersections include ATSAC and ATCS credit of 0.10 for the 'Existing Conditions' scenario.

APPENDIX A
SUMMARY OF INTERSECTION LANE GEOMETRY - EXISTING CONDITIONS

	STREET	EXISTING (2009) CONDITIONS [1]
7	N/S: Palawan Wy E/W: Admiralty Wy (Traffic Signal)	
8	N/S: Lincoln Bl E/W: Washington Bl (Traffic Signal)	
9	N/S: Lincoln Bl E/W: SR-90 On/Off Ramps (Traffic Signal)	
10	N/S: Admiralty Wy E/W: Bali Wy (Traffic Signal)	
11	N/S: Lincoln Bl E/W: Bali Wy (Traffic Signal)	
12	N/S: Admiralty Wy E/W: Mindanao Wy (Traffic Signal)	

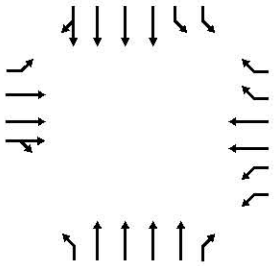
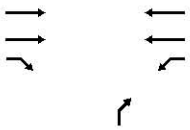
[1] All signalized intersections include ATSAC and ATCS credit of 0.10 for the 'Existing Conditions' scenario.

APPENDIX A
SUMMARY OF INTERSECTION LANE GEOMETRY - EXISTING CONDITIONS

	STREET	EXISTING (2009) CONDITIONS [1]
13	N/S: Lincoln Bl E/W: Mindanao Wy (Traffic Signal)	
14	N/S: Admiralty Wy E/W: Fiji Wy (Traffic Signal)	
15	N/S: Lincoln Bl E/W: Fiji Wy (Traffic Signal)	
16	N/S: Mindanao Wy E/W: Marina Expressway (SR-90) East (Traffic Signal)	
17	N/S: Mindanao Wy E/W: Marina Expressway (SR-90) West (Traffic Signal)	
18	N/S: Culver Bl E/W: Jefferson Bl (Traffic Signal)	

[1] All signalized intersections include ATSAC and ATCS credit of 0.10 for the 'Existing Conditions' scenario.

APPENDIX A
SUMMARY OF INTERSECTION LANE GEOMETRY - EXISTING CONDITIONS

	STREET	EXISTING (2009) CONDITIONS [1]
19	N/S: Lincoln Bl E/W: Jefferson Bl (Traffic Signal)	
20	N/S: Palawan Way E/W: Washington Bl	Stop-controlled 

[1] All signalized intersections include ATSAC and ATCS credit of 0.10 for the 'Existing Conditions' scenario.

APPENDIX B

Traffic Counts

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Washington Blvd DAY: THURSDAY PROJECT# 09-5215-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	1	1	1	1	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	74	64	60	7	12	2	2	68	35	12	46	4	386
7:15 AM	85	75	62	9	21	3	6	79	28	17	55	7	447
7:30 AM	110	88	82	8	23	3	11	114	32	24	99	6	600
7:45 AM	97	94	76	13	32	3	11	129	51	24	84	11	625
8:00 AM	79	103	112	12	20	6	11	153	53	31	97	10	687
8:15 AM	97	88	90	8	34	5	12	112	42	27	83	11	609
8:30 AM	87	92	66	10	29	5	13	131	64	27	84	6	614
8:45 AM	105	83	74	15	40	4	10	146	45	30	94	14	660
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 734	NT 687	NR 622	SL 82	ST 211	SR 31	EL 76	ET 932	ER 350	WL 192	WT 642	WR 69	TOTAL 4628

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	368	366	342	45	123	20	46	542	204	115	358	41	2570
PEAK HR. FACTOR:		0.915			0.797			0.912			0.931		0.935

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Washington Blvd DAY: THURSDAY PROJECT# 09-5215-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	1	1	1	1	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	70	55	43	27	77	10	7	123	82	36	128	9	667
4:15 PM	81	53	49	28	100	4	8	134	83	40	110	7	697
4:30 PM	90	51	49	29	101	12	5	127	87	34	130	14	729
4:45 PM	88	63	49	32	119	6	3	131	94	34	141	10	770
5:00 PM	99	57	64	26	99	9	12	130	96	36	128	5	761
5:15 PM	107	62	47	18	136	6	4	143	92	34	129	8	786
5:30 PM	108	76	71	24	113	8	10	133	94	42	144	8	831
5:45 PM	89	56	49	32	105	11	5	142	81	42	137	10	759
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	732	473	421	216	850	66	54	1063	709	298	1047	71	6000

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	402	258	231	100	467	29	29	537	376	146	542	31	3148
PEAK HR. FACTOR:		0.874			0.931			0.985			0.927		0.947

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Admiralty Way DAY: THURSDAY PROJECT# 09-5215-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	1	1	2	0	0	0	0	2	0	2	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		78	139	37	26					35		72	387
7:15 AM		83	146	42	29					68		143	511
7:30 AM		115	166	50	31					70		177	609
7:45 AM		106	175	68	48					76		186	659
8:00 AM		162	182	66	39					74		147	670
8:15 AM		109	192	90	45					82		154	672
8:30 AM		110	165	106	51					90		187	709
8:45 AM		110	202	77	64					90		187	730
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	0	873	1367	536	333	0	0	0	0	585	0	1253	4947

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	0	491	741	339	199	0	0	0	0	336	0	675	2781
PEAK HR. FACTOR:		0.895			0.857			0.000			0.912		0.952

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Admiralty Way DAY: THURSDAY PROJECT# 09-5215-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	1	1	2	0	0	0	0	2	0	2	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		69	107	107	66					99		97	545
4:15 PM		76	125	145	87					170		136	739
4:30 PM		63	161	138	78					184		138	762
4:45 PM		55	139	161	91					196		149	791
5:00 PM		88	149	135	79					206		128	785
5:15 PM		69	142	166	94					241		155	867
5:30 PM		104	147	154	100					198		147	850
5:45 PM		70	131	135	91					213		131	771
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	594	1101	1141	686	0	0	0	0	1507	0	1081	6110

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	0	316	577	616	364	0	0	0	0	841	0	579	3293
PEAK HR. FACTOR:		0.889			0.942			0.000			0.896		0.950

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Panay Way DAY: THURSDAY PROJECT# 09-5215-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	3	0	0	1	0	0	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	144	2	17	42	6	23	0	0	1	1	42	278
7:15 AM	0	173	1	18	58	4	28	0	1	1	1	29	314
7:30 AM	0	197	4	21	78	4	26	0	0	3	0	40	373
7:45 AM	1	207	3	34	75	3	32	0	1	3	0	36	395
8:00 AM	0	237	5	19	85	6	31	1	0	3	0	51	438
8:15 AM	0	226	5	27	75	4	31	0	1	3	0	37	409
8:30 AM	0	201	9	29	85	6	29	0	0	3	0	38	400
8:45 AM	0	220	3	41	101	7	28	0	1	10	0	44	455
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	1	1605	32	206	599	40	228	1	4	27	2	317	3062

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	0	884	22	116	346	23	119	1	2	19	0	170	1702
PEAK HR. FACTOR:		0.936			0.814			0.953			0.875		0.935

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Panay Way DAY: THURSDAY PROJECT# 09-5215-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	3	0	0	1	0	0	1	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	163	6	43	166	12	14	0	0	2	0	44	450
4:15 PM	1	130	7	54	196	12	11	0	1	6	1	27	446
4:30 PM	0	147	5	47	208	9	12	1	0	3	1	38	471
4:45 PM	0	125	7	54	203	15	13	0	0	3	0	35	455
5:00 PM	0	165	6	42	169	14	14	0	0	2	0	42	454
5:15 PM	0	136	8	56	185	9	11	1	1	6	1	30	444
5:30 PM	0	143	5	48	199	10	11	1	0	2	2	38	459
5:45 PM	0	126	7	53	198	16	13	0	0	3	0	36	452
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 1	NT 1135	NR 51	SL 397	ST 1524	SR 97	EL 99	ET 3	ER 2	WL 27	WT 5	WR 290	TOTAL 3631

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	1	567	25	197	776	50	50	1	1	14	2	142	1826
PEAK HR. FACTOR:		0.867			0.940			0.929			0.898		0.969

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Marquesas Way DAY: THURSDAY PROJECT# 09-5215-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	2	1	1	1	1	1	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	6	108	1	8	27	7	20	0	0	0	2	25	204
7:15 AM	9	108	0	8	49	4	21	2	0	1	6	27	235
7:30 AM	7	147	0	9	56	12	21	0	4	1	5	34	296
7:45 AM	10	146	0	12	58	7	27	1	4	1	6	39	311
8:00 AM	11	177	0	15	68	8	29	5	0	1	0	41	355
8:15 AM	8	164	1	19	55	13	23	2	3	1	2	23	314
8:30 AM	10	145	2	18	58	10	31	1	4	0	7	36	322
8:45 AM	11	168	4	13	83	11	23	1	5	0	6	26	351
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	72	1163	8	102	454	72	195	12	20	5	34	251	2388

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	40	654	7	65	264	42	106	9	12	2	15	126	1342
PEAK HR. FACTOR:		0.932			0.867			0.882			0.831		0.945

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Marquesas Way DAY: THURSDAY PROJECT# 09-5215-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	2	1	1	1	1	1	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	82	1	17	93	10	23	2	11	0	1	15	259
4:15 PM	3	109	4	24	140	22	13	3	9	3	3	17	350
4:30 PM	6	120	4	31	114	17	28	4	11	1	0	16	352
4:45 PM	6	99	3	28	128	14	21	7	12	0	2	25	345
5:00 PM	1	121	1	21	125	18	15	3	7	2	1	17	332
5:15 PM	2	86	2	30	158	21	28	4	6	2	2	23	364
5:30 PM	4	94	4	34	131	20	16	4	11	0	1	10	329
5:45 PM	2	89	3	33	160	14	17	3	12	2	2	24	361
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	28	800	22	218	1049	136	161	30	79	10	12	147	2692

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	15	426	10	110	525	70	92	18	36	5	5	81	1393
PEAK HR. FACTOR:		0.867			0.843			0.849			0.843		0.957

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Tahiti Way DAY: THURSDAY PROJECT# 09-5215-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	1	2	0	0	0	0	0	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	91	0	6	22	1				0	0	20	140
7:15 AM	1	104	0	14	38	5				1	0	22	185
7:30 AM	1	133	3	17	45	3				1	1	34	238
7:45 AM	0	128	1	26	28	4				1	0	29	217
8:00 AM	2	144	1	23	44	4				8	0	42	268
8:15 AM	0	143	1	14	37	1				6	0	40	242
8:30 AM	0	120	1	23	37	2				2	1	33	219
8:45 AM	4	157	2	22	67	4				3	1	37	297
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	8	1020	9	145	318	24	0	0	0	22	3	257	1806

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	6	564	5	82	185	11	0	0	0	19	2	152	1026
PEAK HR. FACTOR:		0.882			0.747			0.000			0.865		0.864

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Tahiti Way DAY: THURSDAY PROJECT# 09-5215-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	1	2	0	0	0	0	0	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	65	5	24	65	7				3	0	17	186
4:15 PM	1	88	4	31	107	3				1	1	16	252
4:30 PM	3	102	3	23	107	3				0	0	24	265
4:45 PM	0	76	2	33	93	4				0	0	19	227
5:00 PM	1	95	4	26	100	4				2	0	30	262
5:15 PM	0	71	2	33	111	10				1	0	17	245
5:30 PM	1	90	1	30	122	5				0	0	23	272
5:45 PM	0	79	4	34	105	4				3	0	14	243
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	6	666	25	234	810	40	0	0	0	10	1	160	1952

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	2	335	11	123	438	23	0	0	0	6	0	84	1022
PEAK HR. FACTOR:		0.870			0.930			0.000			0.703		0.939

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Tahiti Way DAY: THURSDAY PROJECT# 09-5215-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	1	2	0	0	0	0	0	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	91	0	6	22	1				0	0	20	140
7:15 AM	1	104	0	14	38	5				1	0	22	185
7:30 AM	1	133	3	17	45	3				1	1	34	238
7:45 AM	0	128	1	26	28	4				1	0	29	217
8:00 AM	2	144	1	23	44	4				8	0	42	268
8:15 AM	0	143	1	14	37	1				6	0	40	242
8:30 AM	0	120	1	23	37	2				2	1	33	219
8:45 AM	4	157	2	22	67	4				3	1	37	297
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	8	1020	9	145	318	24	0	0	0	22	3	257	1806

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	6	564	5	82	185	11	0	0	0	19	2	152	1026
PEAK HR. FACTOR:		0.882			0.747			0.000			0.865		0.864

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Via Marina DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Tahiti Way DAY: THURSDAY PROJECT# 09-5215-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	1	2	0	0	0	0	0	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	65	5	24	65	7				3	0	17	186
4:15 PM	1	88	4	31	107	3				1	1	16	252
4:30 PM	3	102	3	23	107	3				0	0	24	265
4:45 PM	0	76	2	33	93	4				0	0	19	227
5:00 PM	1	95	4	26	100	4				2	0	30	262
5:15 PM	0	71	2	33	111	10				1	0	17	245
5:30 PM	1	90	1	30	122	5				0	0	23	272
5:45 PM	0	79	4	34	105	4				3	0	14	243
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	6	666	25	234	810	40	0	0	0	10	1	160	1952

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	2	335	11	123	438	23	0	0	0	6	0	84	1022
PEAK HR. FACTOR:		0.870			0.930			0.000			0.703		0.939

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Palawan Way DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Admiralty Way DAY: THURSDAY PROJECT# 09-5215-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	1	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	5	15	9	21	3	10	12	156	1	4	109	7	352
7:15 AM	4	10	6	14	5	9	15	186	5	9	185	11	459
7:30 AM	5	9	7	20	3	12	26	173	1	4	207	14	481
7:45 AM	8	13	11	31	11	19	15	208	2	4	207	11	540
8:00 AM	1	12	7	28	7	12	25	183	2	9	178	15	479
8:15 AM	7	17	9	34	7	23	27	226	5	9	185	11	560
8:30 AM	7	11	12	30	5	22	15	228	5	7	203	22	567
8:45 AM	4	22	8	37	8	18	16	237	4	3	230	22	609
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	41	109	69	215	49	125	151	1597	25	49	1504	113	4047

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	19	62	36	129	27	75	83	874	16	28	796	70	2215
PEAK HR. FACTOR:		0.860			0.902			0.943			0.876		0.909

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Palawan Way DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Admiralty Way DAY: THURSDAY PROJECT# 09-5215-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	1	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5	8	12	78	10	19	10	203	6	22	206	17	596
4:15 PM	7	4	14	70	17	37	12	246	8	19	248	18	700
4:30 PM	4	5	14	53	22	22	17	282	12	26	262	31	750
4:45 PM	7	8	12	70	22	49	12	252	11	34	285	36	798
5:00 PM	5	10	20	81	15	39	24	281	6	27	268	24	800
5:15 PM	12	13	14	86	32	34	8	273	8	22	331	28	861
5:30 PM	5	11	11	79	19	58	26	266	2	20	322	29	848
5:45 PM	6	9	6	79	12	60	11	242	4	22	314	31	796
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	51	68	103	596	149	318	120	2045	57	192	2236	214	6149

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	29	42	57	316	88	180	70	1072	27	103	1206	117	3307
PEAK HR. FACTOR:		0.821			0.936			0.940			0.936		0.960

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Washington Blvd DAY: TUESDAY PROJECT# 09-5215-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	0	2	3	0	2	3	0	2	3	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	154	390	40	44	254	28	31	241	147	23	139	50	1541
7:15 AM	115	433	33	34	180	19	19	113	76	20	117	40	1199
7:30 AM	113	447	37	53	257	26	26	126	94	25	122	59	1385
7:45 AM	122	383	45	48	228	21	28	167	99	20	163	56	1380
8:00 AM	114	367	34	47	222	18	34	175	100	33	140	50	1334
8:15 AM	121	373	40	57	277	35	30	185	93	36	122	50	1419
8:30 AM	115	355	42	44	276	31	53	183	91	48	135	50	1423
8:45 AM	141	435	47	64	278	36	28	183	118	36	149	49	1564
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 995	NT 3183	NR 318	SL 391	ST 1972	SR 214	EL 249	ET 1373	ER 818	WL 241	WT 1087	WR 404	TOTAL 11245

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	491	1530	163	212	1053	120	145	726	402	153	546	199	5740
PEAK HR. FACTOR:		0.876			0.916			0.967			0.959		0.918

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Washington Blvd DAY: TUESDAY PROJECT# 09-5215-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	0	2	3	0	2	3	0	2	3	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	98	342	46	76	302	17	21	166	111	79	163	52	1473
4:15 PM	103	366	56	80	331	38	36	166	114	72	149	74	1585
4:30 PM	91	312	73	62	322	33	28	188	121	72	173	66	1541
4:45 PM	121	384	61	68	307	36	32	158	106	70	176	76	1595
5:00 PM	106	330	66	61	302	29	25	145	93	60	186	82	1485
5:15 PM	104	373	60	57	362	35	29	184	119	57	183	62	1625
5:30 PM	116	359	56	60	352	40	31	181	124	56	196	70	1641
5:45 PM	124	333	55	62	315	56	31	169	141	70	218	82	1656
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 863	NT 2799	NR 473	SL 526	ST 2593	SR 284	EL 233	ET 1357	ER 929	WL 536	WT 1444	WR 564	TOTAL 12601

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	450	1395	237	240	1331	160	116	679	477	243	783	296	6407
PEAK HR. FACTOR:		0.969			0.953			0.933			0.893		0.967

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Marina Expressway (SR-90) DAY: TUESDAY PROJECT# 09-5215-009

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	3	1	2	3	0	0	0	0	2	0	2	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		346	38	130	152					11		162	839
7:15 AM		408	37	146	186					39		151	967
7:30 AM		436	46	174	238					27		173	1094
7:45 AM		451	46	181	281					22		184	1165
8:00 AM		402	38	185	280					35		137	1077
8:15 AM		441	51	206	287					26		196	1207
8:30 AM		433	41	178	311					36		176	1175
8:45 AM		445	36	210	336					42		243	1312
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	0	3362	333	1410	2071	0	0	0	0	238	0	1422	8836

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	0	1721	166	779	1214	0	0	0	0	139	0	752	4771
PEAK HR. FACTOR:		0.959			0.913			0.000			0.782		0.909

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Marina Expressway (SR-90) DAY: TUESDAY PROJECT# 09-5215-009

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	3	1	2	3	0	0	0	0	2	0	2	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		412	46	153	389					44		187	1231
4:15 PM		388	50	176	408					26		166	1214
4:30 PM		383	52	170	402					41		191	1239
4:45 PM		355	49	200	365					41		224	1234
5:00 PM		376	74	178	379					39		201	1247
5:15 PM		358	48	204	416					31		228	1285
5:30 PM		381	39	220	417					30		233	1320
5:45 PM		387	39	177	376					55		203	1237
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	3040	397	1478	3152	0	0	0	0	307	0	1633	10007

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	0	1502	200	779	1588	0	0	0	0	155	0	865	5089
PEAK HR. FACTOR:		0.946			0.929			0.000			0.970		0.964

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Admiralty Way DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Bali Way DAY: THURSDAY PROJECT# 09-5215-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	.5	1	.5	1	.5	1.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	8	113	4	25	153	0	0	3	2	3	4	29	344
7:15 AM	2	179	9	31	159	1	4	5	0	2	3	41	436
7:30 AM	0	203	7	38	177	1	2	0	1	2	2	45	478
7:45 AM	6	226	7	34	203	1	1	2	2	3	2	31	518
8:00 AM	5	170	5	32	233	4	2	5	4	4	3	46	513
8:15 AM	2	224	9	39	263	1	2	5	0	2	8	68	623
8:30 AM	7	199	13	33	244	5	3	5	2	7	6	55	579
8:45 AM	8	204	12	48	234	5	2	8	6	6	5	62	600
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	38	1518	66	280	1666	18	16	33	17	29	33	377	4091

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	22	797	39	152	974	15	9	23	12	19	22	231	2315
PEAK HR. FACTOR:		0.913			0.941			0.688			0.872		0.929

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Admiralty Way DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Bali Way DAY: THURSDAY PROJECT# 09-5215-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	.5	1	.5	1	.5	1.5	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	216	29	44	241	4	4	7	7	10	9	59	634
4:15 PM	2	223	28	53	261	5	6	9	5	8	4	70	674
4:30 PM	3	193	34	55	255	1	5	10	5	11	10	67	649
4:45 PM	6	224	25	56	290	5	5	1	7	10	3	86	718
5:00 PM	6	237	43	48	281	7	10	19	9	14	5	69	748
5:15 PM	4	263	30	28	295	1	0	11	3	6	1	96	738
5:30 PM	2	276	36	38	288	2	2	2	5	9	6	83	749
5:45 PM	1	247	28	54	257	5	6	4	4	7	6	92	711
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 28	NT 1879	NR 253	SL 376	ST 2168	SR 30	EL 38	ET 63	ER 45	WL 75	WT 44	WR 622	TOTAL 5621

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	18	1000	134	170	1154	15	17	33	24	39	15	334	2953
PEAK HR. FACTOR:		0.917			0.954			0.487			0.942		0.986

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Bali Way DAY: TUESDAY PROJECT# 09-5215-011

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	2	0	1.5	.5	1	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	16	402	3	2	188	25	28	1	10	0		2	677
7:15 AM	20	453	5	4	214	30	31	2	9	1		1	770
7:30 AM	24	460	4	3	251	27	37	1	6	0		1	814
7:45 AM	15	434	4	3	241	27	34	1	8	0		1	768
8:00 AM	23	393	8	3	245	33	34	2	7	0		5	753
8:15 AM	33	400	7	8	280	40	39	0	12	1		2	822
8:30 AM	20	411	5	8	327	53	43	0	12	2		3	884
8:45 AM	35	429	11	8	311	43	57	0	9	0		3	906
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 186	NT 3382	NR 47	SL 39	ST 2057	SR 278	EL 303	ET 7	ER 73	WL 4	WT 0	WR 18	TOTAL 6394

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	111	1633	31	27	1163	169	173	2	40	3	0	13	3365
PEAK HR. FACTOR:		0.934			0.876			0.814			0.800		0.929

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Bali Way DAY: TUESDAY PROJECT# 09-5215-011

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	2	0	1.5	.5	1	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	18	332	5	1	343	58	71	0	15	1	1	8	853
4:15 PM	20	317	4	1	370	66	67	1	12	1	0	6	865
4:30 PM	25	353	3	0	359	66	68	0	22	1	0	4	901
4:45 PM	20	344	2	3	360	69	74	0	14	3	0	11	900
5:00 PM	29	382	5	1	340	66	80	1	21	1	0	7	933
5:15 PM	30	405	5	2	406	77	51	2	11	0	0	7	996
5:30 PM	38	346	0	1	366	52	60	0	15	2	0	8	888
5:45 PM	34	357	3	0	341	69	53	1	17	0	0	6	881
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	214	2836	27	9	2885	523	524	5	127	9	1	57	7217

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	104	1484	15	6	1465	278	273	3	68	5	0	29	3730
PEAK HR. FACTOR:		0.911			0.902			0.843			0.607		0.936

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Admiralty Way DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Mindanao Way DAY: THURSDAY PROJECT# 09-5215-012

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	.5	.5	1.5	.5	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	4	94	7	52	104	1	2	6	1	21	10	46	348
7:15 AM	2	136	6	61	98	0	3	3	3	18	9	70	409
7:30 AM	7	128	2	67	93	3	4	4	3	17	8	87	423
7:45 AM	8	148	3	81	109	2	7	4	10	26	11	117	526
8:00 AM	7	103	7	77	140	2	10	5	8	29	11	96	495
8:15 AM	4	154	11	94	146	6	4	6	9	32	7	113	586
8:30 AM	5	159	14	88	141	6	3	2	4	33	6	98	559
8:45 AM	11	158	17	85	155	5	4	5	3	34	10	112	599
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 48	NT 1080	NR 67	SL 605	ST 986	SR 25	EL 37	ET 35	ER 41	WL 210	WT 72	WR 739	TOTAL 3945

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	27	574	49	344	582	19	21	18	24	128	34	419	2239
PEAK HR. FACTOR:		0.874			0.960			0.685			0.931		0.934

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Admiralty Way DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Mindanao Way DAY: THURSDAY PROJECT# 09-5215-012

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	.5	.5	1.5	.5	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	148	25	75	173	12	7	8	8	90	16	93	659
4:15 PM	3	176	28	61	219	3	7	11	2	70	9	92	681
4:30 PM	4	154	37	81	223	5	7	8	3	83	19	94	718
4:45 PM	16	215	32	85	274	6	3	11	9	74	10	124	859
5:00 PM	6	198	34	100	232	3	6	4	6	76	15	87	767
5:15 PM	5	198	40	63	268	4	8	7	9	72	3	123	800
5:30 PM	12	219	33	81	244	2	17	11	4	75	18	124	840
5:45 PM	9	209	34	102	214	4	3	7	5	79	4	135	805
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	59	1517	263	648	1847	39	58	67	46	619	94	872	6129

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	39	830	139	329	1018	15	34	33	28	297	46	458	3266
PEAK HR. FACTOR:		0.955			0.933			0.742			0.923		0.951

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Mindanao Way DAY: TUESDAY PROJECT# 09-5215-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U - Turns	
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NL	SL
LANES:	1	3	1	1	3	0	0	2	0	2	1.5	.5			
6:00 AM															
6:15 AM															
6:30 AM															
6:45 AM															
7:00 AM	9	342	39	9	161	10		65	7	23	60	15	740	2	0
7:15 AM	24	462	59	17	157	5		85	6	31	63	13	922	0	3
7:30 AM	27	471	70	9	241	6		85	5	48	80	10	1052	1	3
7:45 AM	33	419	64	16	216	11		97	9	49	116	13	1043	2	3
8:00 AM	35	406	72	18	211	8		107	6	43	90	24	1020	2	7
8:15 AM	21	398	76	22	238	15		132	14	50	120	26	1112	1	5
8:30 AM	31	406	77	28	258	15		131	17	45	102	21	1131	1	2
8:45 AM	30	429	70	19	251	16		120	13	60	104	24	1136	1	4
9:00 AM															
9:15 AM															
9:30 AM															
9:45 AM															
10:00 AM															
10:15 AM															
10:30 AM															
10:45 AM															
11:00 AM															
11:15 AM															
11:30 AM															
11:45 AM															
TOTAL VOLUMES =	210	3333	527	138	1733	86	0	822	77	349	735	146	8156	10	27

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	117	1639	295	87	958	54	0	490	50	198	416	95	4399
PEAK HR. FACTOR:		0.969			0.913			0.912			0.904		0.968

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Mindanao Way DAY: TUESDAY PROJECT# 09-5215-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U - Turns	
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NL	SL
LANES:	1	3	1	1	3	0	0	2	0	2	1.5	.5			
1:00 PM															
1:15 PM															
1:30 PM															
1:45 PM															
2:00 PM															
2:15 PM															
2:30 PM															
2:45 PM															
3:00 PM															
3:15 PM															
3:30 PM															
3:45 PM															
4:00 PM	20	319	68	33	300	29		120	30	82	131	19	1151	2	2
4:15 PM	23	306	60	34	352	22		126	36	77	94	19	1149	1	2
4:30 PM	21	341	75	41	348	25		112	24	84	127	18	1216	2	5
4:45 PM	19	333	51	25	328	28		114	34	73	138	17	1160	2	5
5:00 PM	20	365	71	54	341	21		134	28	103	122	27	1286	3	2
5:15 PM	19	386	66	50	384	17		106	36	89	144	26	1323	3	4
5:30 PM	18	347	57	45	354	22		107	32	92	134	20	1228	0	5
5:45 PM	27	348	75	43	326	20		134	34	88	153	16	1264	5	4
6:00 PM															
6:15 PM															
6:30 PM															
6:45 PM															
TOTAL VOLUMES =	NL 167	NT 2745	NR 523	SL 325	ST 2733	SR 184	EL 0	ET 953	ER 254	WL 688	WT 1043	WR 162	TOTAL 9777	18	29

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	84	1446	269	192	1405	80	0	481	130	372	553	89	5101
PEAK HR. FACTOR:		0.955			0.930			0.909			0.979		0.964

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Admiralty Way DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Fiji Way DAY: THURSDAY PROJECT# 09-5215-014

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	2	0	1	1	2	0	0	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				77		14	13	20			29	72	225
7:15 AM				83		10	16	21			28	87	245
7:30 AM				81		9	24	11			30	139	294
7:45 AM				118		14	9	32			22	133	328
8:00 AM				146		14	14	15			17	104	310
8:15 AM				152		18	18	19			17	151	375
8:30 AM				124		21	18	32			17	153	365
8:45 AM				127		32	17	23			25	133	357
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 908	ST 0	SR 132	EL 129	ET 173	ER 0	WL 0	WT 185	WR 972	TOTAL 2499

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	0	0	0	549	0	85	67	89	0	0	76	541	1407
PEAK HR. FACTOR:		0.000			0.932			0.780			0.907		0.938

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Admiralty Way DATE: 5/28/2009 LOCATION: City of Marina Del Rey

E-W STREET: Fiji Way DAY: THURSDAY PROJECT# 09-5215-014

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	2	0	1	1	2	0	0	1	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				113		14	13	64			30	85	319
4:15 PM				149		23	10	33			35	88	338
4:30 PM				181		28	18	48			32	87	394
4:45 PM				162		31	19	41			28	109	390
5:00 PM				192		27	10	48			45	101	423
5:15 PM				233		39	13	37			39	115	476
5:30 PM				239		25	21	42			37	122	486
5:45 PM				173		30	17	33			41	110	404
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 1442	ST 0	SR 217	EL 121	ET 346	ER 0	WL 0	WT 287	WR 817	TOTAL 3230

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	0	0	0	837	0	121	61	160	0	0	162	448	1789
PEAK HR. FACTOR:		0.000			0.881			0.877			0.959		0.920

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Fiji Way DAY: TUESDAY PROJECT# 09-5215-015

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	0	1	3	0	1	1	1	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	109	390	9	2	168	10	16	2	84	3	2	3	798
7:15 AM	119	514	5	5	179	10	9	5	90	3	6	6	951
7:30 AM	152	549	6	4	265	12	7	0	94	2	2	10	1103
7:45 AM	140	444	11	14	256	10	23	7	121	7	6	5	1044
8:00 AM	134	424	6	8	236	11	22	3	134	2	2	14	996
8:15 AM	142	441	6	11	279	19	29	5	138	4	2	10	1086
8:30 AM	139	427	10	5	304	8	25	5	130	5	6	5	1069
8:45 AM	131	424	11	15	327	11	17	3	132	4	3	10	1088
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 1066	NT 3613	NR 64	SL 64	ST 2014	SR 91	EL 148	ET 30	ER 923	WL 30	WT 29	WR 63	TOTAL 8135

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	546	1716	33	39	1146	49	93	16	534	15	13	39	4239
PEAK HR. FACTOR:		0.974			0.874			0.935			0.931		0.974

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Fiji Way DAY: TUESDAY PROJECT# 09-5215-015

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	0	1	3	0	1	1	1	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	99	293	13	16	358	13	34	5	128	7	5	7	978
4:15 PM	122	324	6	16	401	26	15	5	160	8	9	1	1093
4:30 PM	107	356	9	13	405	26	23	4	192	6	7	7	1155
4:45 PM	111	333	9	16	365	23	13	2	202	14	2	8	1098
5:00 PM	153	382	5	20	443	25	24	2	216	10	5	7	1292
5:15 PM	165	430	8	15	489	24	14	2	254	11	3	10	1425
5:30 PM	217	402	5	29	457	16	13	1	282	9	8	9	1448
5:45 PM	158	456	5	23	421	19	15	3	178	10	6	12	1306
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	1132	2976	60	148	3339	172	151	24	1612	75	45	61	9795

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	693	1670	23	87	1810	84	66	8	930	40	22	38	5471
PEAK HR. FACTOR:		0.956			0.938			0.848			0.893		0.945

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mindanao Way DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Marina Expressway EB DAY: TUESDAY PROJECT# 09-5215-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1.5	1.5	1	2	0	1	2	0	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		47	124	57	129		3	165	0				525
7:15 AM		46	114	76	115		2	179	3				535
7:30 AM		79	151	56	159		0	215	2				662
7:45 AM		68	161	91	187		4	218	3				732
8:00 AM		70	146	99	178		1	224	1				719
8:15 AM		77	188	108	206		1	245	6				831
8:30 AM		100	144	89	196		2	218	1				750
8:45 AM		88	151	95	190		5	237	4				770
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	0	575	1179	671	1360	0	18	1701	20	0	0	0	5524

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	0	335	629	391	770	0	9	924	12	0	0	0	3070
PEAK HR. FACTOR:		0.909			0.924			0.938			0.000		0.924

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mindanao Way DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Marina Expressway EB DAY: TUESDAY PROJECT# 09-5215-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1.5	1.5	1	2	0	1	2	0	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		126	145	110	216		1	199	5				802
4:15 PM		107	113	118	229		4	226	3				800
4:30 PM		106	126	136	220		6	212	4				810
4:45 PM		97	107	124	248		5	233	8				822
5:00 PM		125	153	159	245		0	244	11				937
5:15 PM		109	151	176	231		1	246	7				921
5:30 PM		94	139	197	205		4	241	12				892
5:45 PM		131	129	210	206		2	200	9				887
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	895	1063	1230	1800	0	23	1801	59	0	0	0	6871

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	0	459	572	742	887	0	7	931	39	0	0	0	3637
PEAK HR. FACTOR:		0.927			0.979			0.950			0.000		0.970

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mindanao Way DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Marina Expressway WB DAY: TUESDAY PROJECT# 09-5215-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	3	1	0	0	0	1.5	1.5	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	43			103	6				79	166	90	489
7:15 AM	1	51			105	2				92	190	110	551
7:30 AM	4	71			112	2				99	193	171	652
7:45 AM	3	72			153	1				129	207	142	707
8:00 AM	1	67			139	3				133	165	113	621
8:15 AM	1	80			176	8				143	207	83	698
8:30 AM	4	96			162	8				122	207	102	701
8:45 AM	5	90			152	1				134	280	127	789
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	21	570	0	0	1102	31	0	0	0	931	1615	938	5208

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	11	333	0	0	629	20	0	0	0	532	859	425	2809
PEAK HR. FACTOR:		0.860			0.882			0.000			0.839		0.890

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mindanao Way DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: Marina Expressway WB DAY: TUESDAY PROJECT# 09-5215-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	3	1	0	0	0	1.5	1.5	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	7	115			232	16				106	216	70	762
4:15 PM	5	111			245	14				108	171	82	736
4:30 PM	5	104			239	13				113	218	75	767
4:45 PM	2	104			238	10				138	251	99	842
5:00 PM	4	117			284	11				123	226	96	861
5:15 PM	4	109			268	20				140	243	94	878
5:30 PM	3	93			247	9				156	259	123	890
5:45 PM	6	129			267	17				150	241	116	926
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	36	882	0	0	2020	110	0	0	0	1034	1825	755	6662

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	17	448	0	0	1066	57	0	0	0	569	969	429	3555
PEAK HR. FACTOR:		0.861			0.952			0.000			0.914		0.960

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Culver Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: W Jefferson Blvd DAY: TUESDAY PROJECT# 09-5215-018

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	1	0	2	0	0	0	0	2	0	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		490	60	0	70					45		0	665
7:15 AM		598	90	0	89					74		0	851
7:30 AM		608	100	1	95					85		0	889
7:45 AM		503	103	10	102					115		2	835
8:00 AM		557	133	12	94					86		0	882
8:15 AM		573	109	8	90					81		1	862
8:30 AM		644	145	5	80					120		2	996
8:45 AM		566	149	3	107					90		1	916
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 4539	NR 889	SL 39	ST 727	SR 0	EL 0	ET 0	ER 0	WL 696	WT 0	WR 6	TOTAL 6896

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	0	2340	536	28	371	0	0	0	0	377	0	4	3656
PEAK HR. FACTOR:		0.911			0.907			0.000			0.781		0.918

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Culver Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: W Jefferson Blvd DAY: TUESDAY PROJECT# 09-5215-018

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	1	0	2	0	0	0	0	2	0	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		207	47	12	196					195		1	658
4:15 PM		221	62	5	236					225		0	749
4:30 PM		193	56	10	237					228		0	724
4:45 PM		199	54	17	251					214		2	737
5:00 PM		213	57	16	312					277		0	875
5:15 PM		207	49	10	342					278		1	887
5:30 PM		207	67	18	324					333		1	950
5:45 PM		243	41	18	323					303		1	929
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	1690	433	106	2221	0	0	0	0	2053	0	6	6509

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	0	870	214	62	1301	0	0	0	0	1191	0	3	3641
PEAK HR. FACTOR:		0.954			0.968			0.000			0.894		0.958

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: W Jefferson Blvd DAY: TUESDAY PROJECT# 09-5215-019

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	1	2	2	1	1	2	0	2	2	2	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	393	46	53	168	37	26	36	1	33	11	53	858
7:15 AM	0	539	99	37	167	45	34	55	4	46	26	95	1147
7:30 AM	5	580	140	55	266	56	42	61	0	73	30	99	1407
7:45 AM	10	397	150	72	253	67	24	75	16	94	24	122	1304
8:00 AM	19	386	148	74	222	43	50	89	6	92	21	110	1260
8:15 AM	2	401	116	81	265	51	33	78	5	69	26	134	1261
8:30 AM	3	275	111	96	247	76	36	103	14	59	46	112	1178
8:45 AM	2	371	109	109	249	66	39	106	4	68	19	124	1266
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	42	3342	919	577	1837	441	284	603	50	534	203	849	9681

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	36	1764	554	282	1006	217	149	303	27	328	101	465	5232
PEAK HR. FACTOR:		0.812			0.948			0.826			0.931		0.930

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Lincoln Blvd DATE: 5/26/2009 LOCATION: City of Marina Del Rey

E-W STREET: W Jefferson Blvd DAY: TUESDAY PROJECT# 09-5215-019

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	1	2	2	1	1	2	0	2	2	2	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	9	338	69	103	340	120	13	41	10	92	72	133	1340
4:15 PM	11	290	67	101	342	143	12	43	7	88	65	128	1297
4:30 PM	5	353	68	97	408	158	21	41	7	105	66	129	1458
4:45 PM	6	348	73	103	355	143	19	39	9	120	66	123	1404
5:00 PM	0	383	40	104	376	162	2	56	12	119	116	136	1506
5:15 PM	5	361	79	121	444	189	9	32	14	131	84	149	1618
5:30 PM	12	348	59	119	367	218	8	71	11	124	104	130	1571
5:45 PM	10	336	66	100	356	184	11	31	12	126	110	150	1492
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 58	NT 2757	NR 521	SL 848	ST 2988	SR 1317	EL 95	ET 354	ER 82	WL 905	WT 683	WR 1078	TOTAL 11686

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	27	1428	244	444	1543	753	30	190	49	500	414	565	6187
PEAK HR. FACTOR:		0.954			0.908			0.747			0.958		0.956

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Palawan Wy DATE: 01/28/2010 LOCATION: City of Marina Del Rey

E-W STREET: Washington Blvd DAY: THURSDAY PROJECT# 10-5040-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	1	0	0	0	0	3	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM			13					139	3	30	88		273
7:15 AM			39					148	9	14	80		290
7:30 AM			58					172	2	32	83		347
7:45 AM			42					215	13	23	115		408
8:00 AM			61					266	13	36	149		525
8:15 AM			52					227	19	68	146		512
8:30 AM			44					218	19	37	151		469
8:45 AM			44					187	15	27	138		411
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 353	SL 0	ST 0	SR 0	EL 0	ET 1572	ER 93	WL 267	WT 950	WR 0	TOTAL 3235

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	0	0	201	0	0	0	0	898	66	168	584	0	1917
PEAK HR. FACTOR:		0.824			0.000			0.864			0.879		0.913

CONTROL: 1-way stop (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Palawan Wy DATE: 01/28/2010 LOCATION: City of Marina Del Rey

E-W STREET: Washington Blvd DAY: THURSDAY PROJECT# 10-5040-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	1	0	0	0	0	3	0	1	2	0	
4:00 PM			32					156	34	68	169		459
4:15 PM			37					195	29	76	150		487
4:30 PM			36					182	30	89	171		508
4:45 PM			32					167	22	73	182		476
5:00 PM			37					162	32	95	176		502
5:15 PM			37					195	28	89	187		536
5:30 PM			27					188	25	85	174		499
5:45 PM			51					191	26	86	179		533
TOTAL VOLUMES =	NL 0	NT 0	NR 289	SL 0	ST 0	SR 0	EL 0	ET 1436	ER 226	WL 661	WT 1388	WR 0	TOTAL 4000

PM Peak Hr Begins at: 500 PM

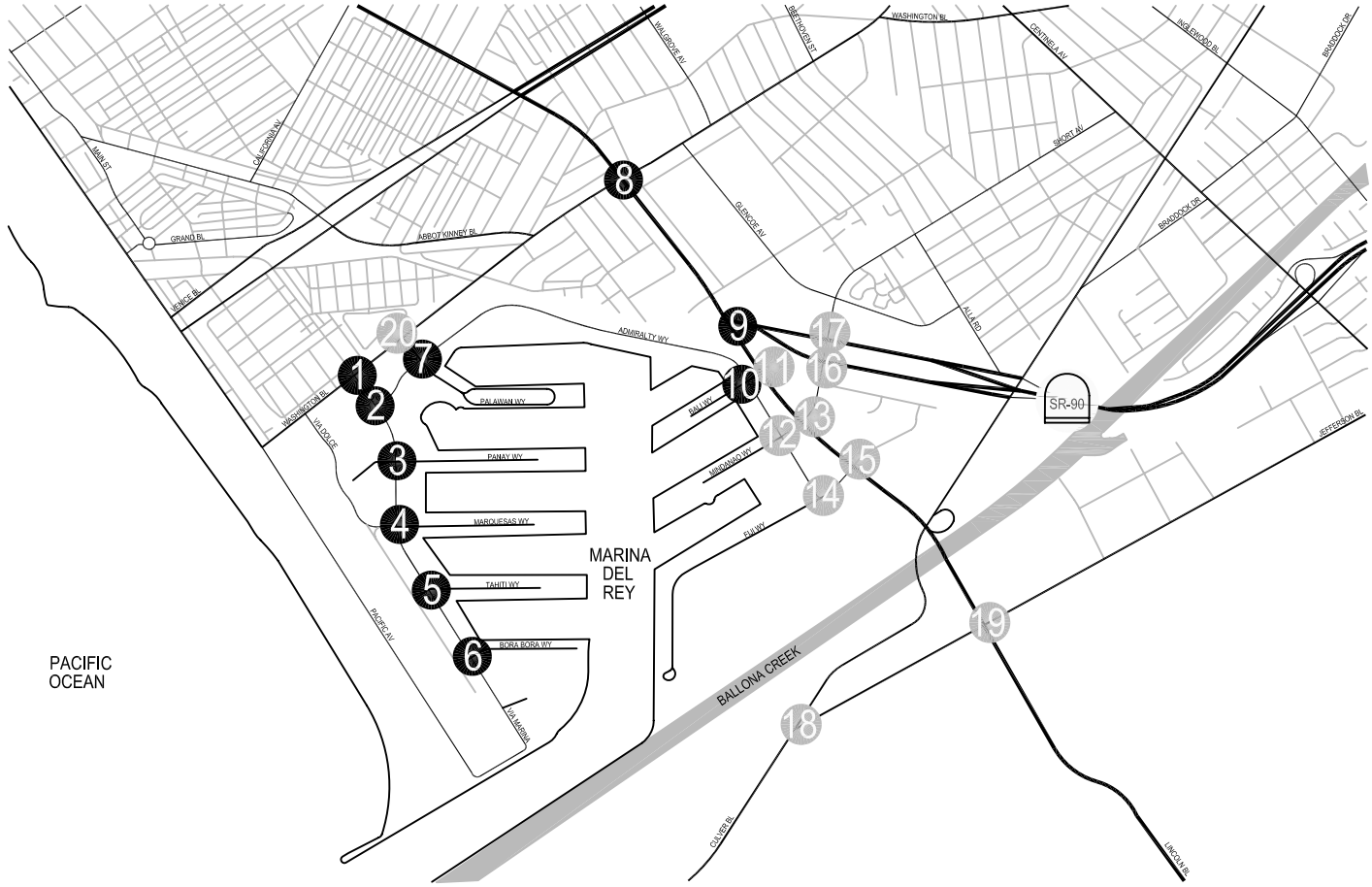
PEAK VOLUMES =	0	0	152	0	0	0	0	736	111	355	716	0	2070
PEAK HR. FACTOR:		0.745			0.000			0.950			0.970		0.965

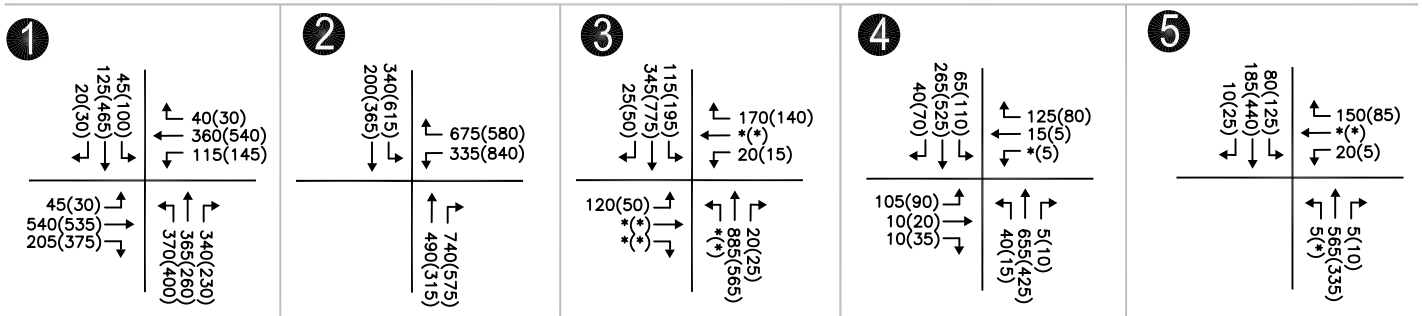
CONTROL: 1-way stop (NB)

APPENDIX C

Existing (2009) Conditions Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

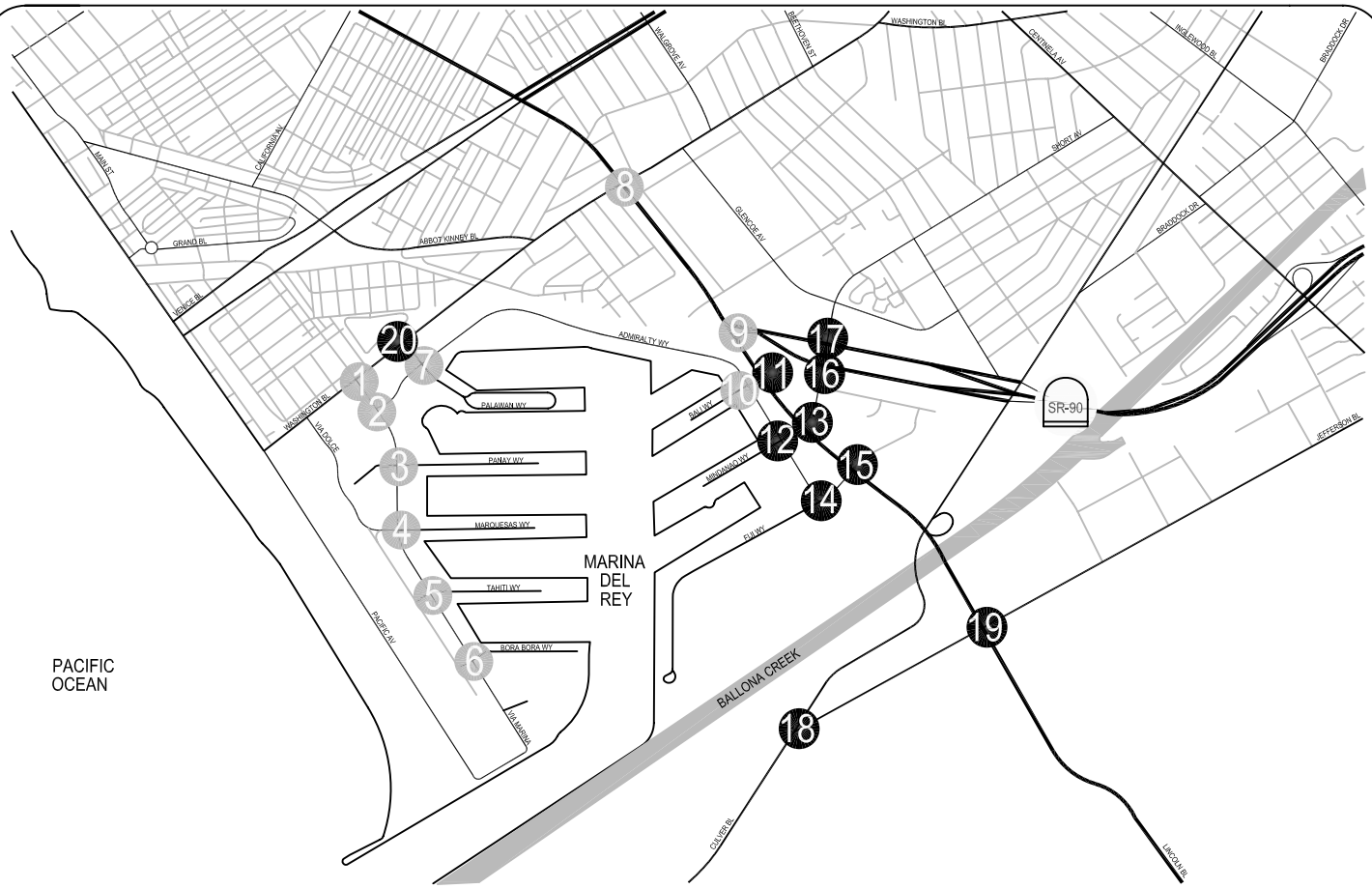
- STUDY INTERSECTION

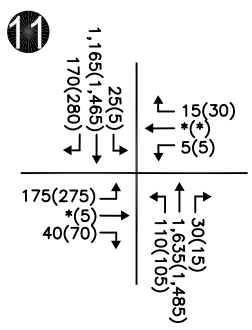
* - NEGLIGIBLE VOLUME

N
Not to scale

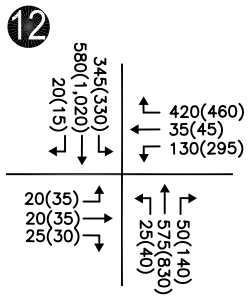
APPENDIX C-1
EXISTING (2009) CONDITIONS TRAFFIC VOLUMES

RAJU Associates, Inc.

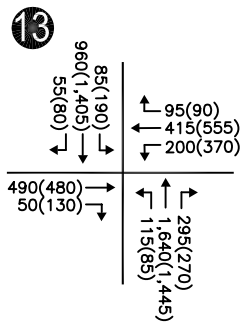




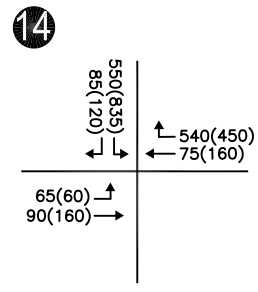
LINCOLN BL &
BALI WY



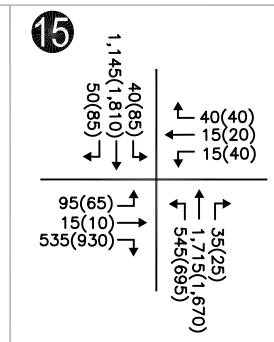
ADMIRALTY WY &
MINDANAO WY



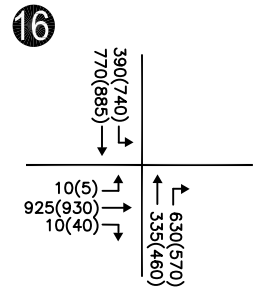
LINCOLN BL &
MINDANAO WY



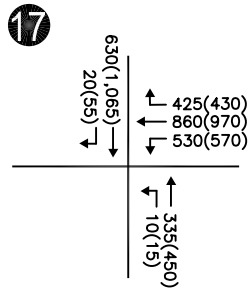
ADMIRALTY WY &
FIJI WY



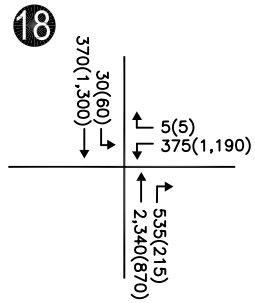
LINCOLN BL &
FIJI WY



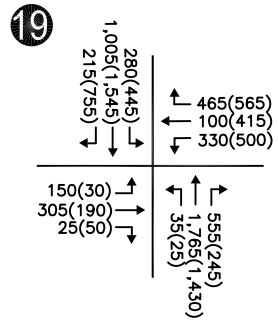
MINDANAO WY &
SR-90 EB RAMPS



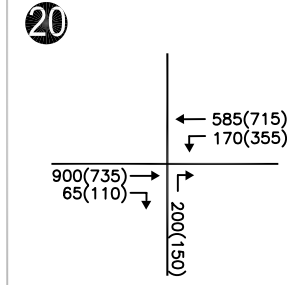
MINDANAO WY &
SR-90 WB RAMPS



CULVER BL &
JEFFERSON BL



LINCOLN BL &
JEFFERSON BL



PALAWAN WY &
WASHINGTON BL

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX C-2
EXISTING (2009) CONDITIONS TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	368	366	342	45	123	20	115	358	41	46	542	204
AMBIENT												
RELATED												
PROJECT												
TOTAL	368	366	342	45	123	20	115	358	41	46	542	204
LANE	2 0	1 0	0 1 0	1 0	0 0	1 0 0	1 0	1 0	1 0 0	1 0	2 0	0 1 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 143
B: 45

EastBound
A: 271
B: 46

WestBound
A: 200
B: 115

NorthBound
A: 366
B: 202

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{366 + 143 + 115 + 271}{*1425} = 0.558$$

LOS = A

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March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	491	741	339	199	0	336	0	675	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	491	741	339	199	0	336	0	675	0	0	0
LANE	0 0	2 0	0 1 0	1 0	3 0	0 0 0	2 0	0 0	0 2 0	0 0	0 0	0 0 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 66
B: 339

EastBound
A: 0
B: 0

WestBound
A: 32
B: 185

NorthBound
A: 246
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{246 + 339 + 185 + 0}{*1425} = 0.470$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	884	22	116	346	23	19	0	170	119	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	884	22	116	346	23	19	0	170	119	1	2
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound A: 123 B: 116

EastBound A: 122 B: 119

WestBound A: 170 B: 19

NorthBound A: 302 B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{302 + 116 + 170 + 119}{*1500} = 0.401$$

LOS = A

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March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	40	654	7	65	264	42	2	15	126	106	9	12
AMBIENT												
RELATED												
PROJECT												
TOTAL	40	654	7	65	264	42	2	15	126	106	9	12
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound A: 132 B: 65

EastBound A: 12 B: 106

WestBound A: 126 B: 2

NorthBound A: 220 B: 40

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{220 + 65 + 126 + 106}{*1500} = 0.275$$

LOS = A

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March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	564	5	82	185	11	19	2	152	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	564	5	82	185	11	19	2	152	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 98
B: 82

EastBound
A: 0
B: 0

WestBound
A: 152
B: 19

NorthBound
A: 288
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{288 + 82 + 152 + 0}{*1500} = 0.278$$

LOS = A

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March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	348	9	57	147	9	6	1	155	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	348	9	57	147	9	6	1	155	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto				

Critical Movements Diagram

SouthBound
A: 78
B: 57

EastBound
A: 0
B: 0

WestBound
A: 162
B: 6

NorthBound
A: 181
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{181 + 57 + 162 + 0}{1200} = 0.333$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	19	62	36	129	27	75	28	796	70	83	874	16
AMBIENT												
RELATED												
PROJECT												
TOTAL	19	62	36	129	27	75	28	796	70	83	874	16
LANE	1 0 0 0 1 0 0			1 0 1 0 0 1 0			1 0 1 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 75
B: 129

EastBound
A: 445
B: 83

WestBound
A: 433
B: 28

NorthBound
A: 98
B: 19

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{98 + 129 + 433 + 83}{*1500} = 0.425$$

LOS = A

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EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	491	1530	163	212	1053	120	153	546	199	145	726	402
AMBIENT												
RELATED												
PROJECT												
TOTAL	491	1530	163	212	1053	120	153	546	199	145	726	402
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 391
B: 117

EastBound
A: 363
B: 80

WestBound
A: 273
B: 84

NorthBound
A: 564
B: 270

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{564 + 117 + 84 + 363}{*1375} = 0.750$$

LOS = C

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EXISTAM

CalcaDB

April 21, 2010 ,Wednesday 12:58:46 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

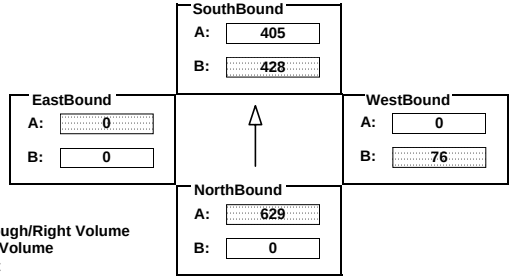
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1721	166	779	1214	0	139	0	752	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1721	166	779	1214	0	139	0	752	0	0	0
LANE	0	0	2	0	1	0	0	2	0	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{629 + 428 + 76 + 0}{*1425} = 0.725$$

LOS = C

Developed by Chun Wong, 12/94

EXISTAM

CalcaDB

April 21, 2010 ,Wednesday 12:58:46 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

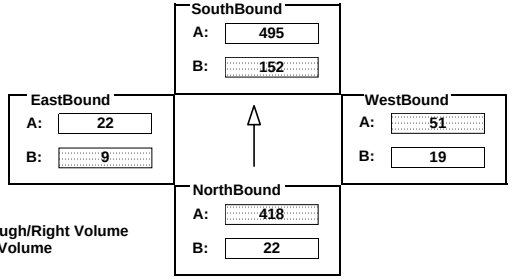
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	22	797	39	152	974	15	19	22	231	9	23	12
AMBIENT									-152			
RELATED												
PROJECT												
TOTAL	22	797	39	152	974	15	19	22	79	9	23	12
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	0	1	0	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{418 + 152 + 51 + 9}{*1425} = 0.372$$

LOS = A

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EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

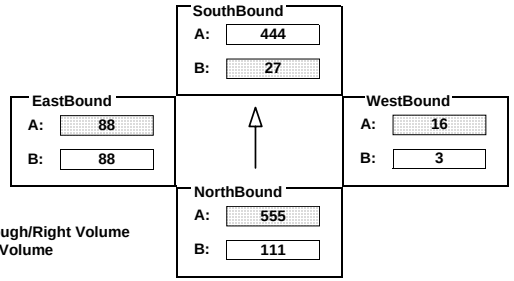
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	111	1633	31	27	1163	169	3	0	13	173	2	40
AMBIENT												
RELATED												
PROJECT												
TOTAL	111	1633	31	27	1163	169	3	0	13	173	2	40
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{555 + 27 + 16 + 88}{*1375} = 0.429$$

LOS = A

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EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

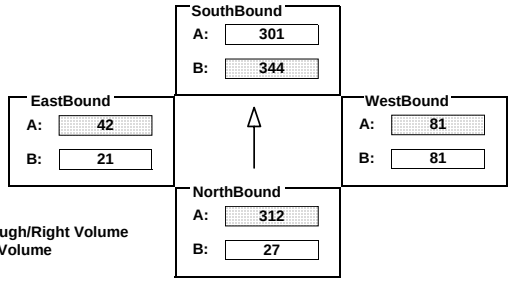
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	27	574	49	344	582	19	128	34	419	21	18	24
AMBIENT												
RELATED												
PROJECT												
TOTAL	27	574	49	344	582	19	128	34	419	21	18	24
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{312 + 344 + 81 + 42}{*1375} = 0.497$$

LOS = A

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EXISTAM

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March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

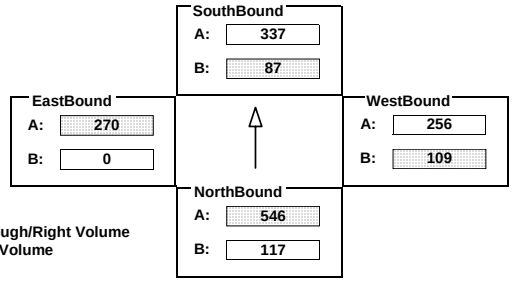
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	117	1639	295	87	958	54	198	416	95	0	490	50
AMBIENT												
RELATED												
PROJECT												
TOTAL	117	1639	295	87	958	54	198	416	95	0	490	50
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{546 + 87 + 109 + 270}{*1375} = 0.666$$

LOS = B

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EXISTAM

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March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

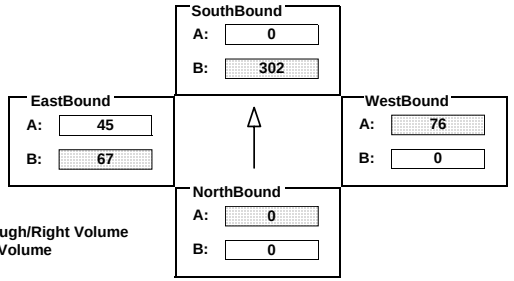
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	549	0	85	0	76	541	67	89	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	549	0	85	0	76	541	67	89	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 302 + 76 + 67}{*1500} = 0.227$$

LOS = A

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EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

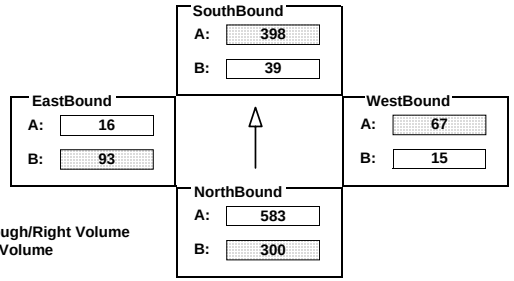
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	546	1716	33	39	1146	49	15	13	39	93	16	534
AMBIENT												
RELATED												
PROJECT												
TOTAL	546	1716	33	39	1146	49	15	13	39	93	16	534
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{300 + 398 + 67 + 93}{*1425} = 0.532$$

LOS = A

Developed by Chun Wong, 12/94

EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

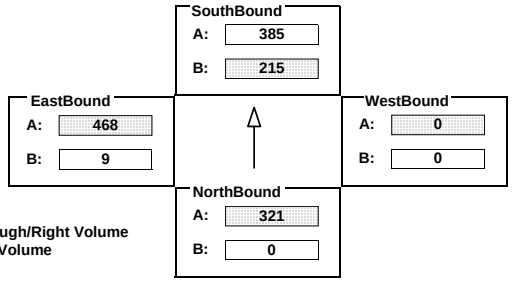
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	335	629	391	770	0	0	0	0	9	924	12
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	335	629	391	770	0	0	0	0	9	924	12
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{321 + 215 + 0 + 468}{*1425} = 0.635$$

LOS = B

Developed by Chun Wong, 12/94

EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

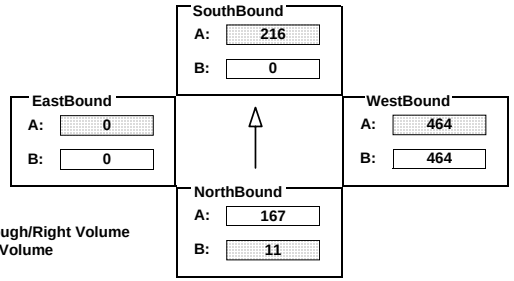
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	11	333	0	0	629	20	532	859	425	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	11	333	0	0	629	20	532	859	425	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{11 + 216 + 464 + 0}{*1425} = 0.415$$

LOS = A

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EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

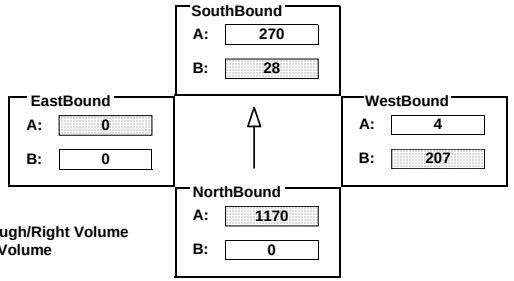
AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2340	536	28	371	0	377	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2340	536	28	371	0	377	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1170 + 28 + 207 + 0}{*1500} = 0.867$$

LOS = D

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EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	36	1764	554	282	1006	217	328	101	465	149	303	27
AMBIENT												
RELATED												
PROJECT												
TOTAL	36	1764	554	282	1006	217	328	101	465	149	303	27
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram

SouthBound
A: 306
B: 155

EastBound
A: 110
B: 149

WestBound
A: 101
B: 180

NorthBound
A: 441
B: 36

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{441 + 155 + 180 + 110}{*1375} = 0.574$$

LOS = A

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EXISTAM

CalcaDB

March 10, 2010 ,Wednesday 11:41:29 AM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	201	0	0	0	168	584	0	0	898	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	201	0	0	0	168	584	0	0	898	66
LANE	0 0 0 0 0 1 0			0 0 0 0 0 0 0			1 0 2 0 0 0 0			0 0 2 0 0 1 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 449
B: 0

WestBound
A: 292
B: 168

NorthBound
A: 201
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{201 + 0 + 168 + 449}{1200} = 0.682$$

LOS = B

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	402	258	231	100	467	29	146	542	31	29	537	376
AMBIENT												
RELATED												
PROJECT												
TOTAL	402	258	231	100	467	29	146	542	31	29	537	376
LANE	2 0	1 0	0 1 0	1 0	0 0 1	0 0	1 0	1 0	1 0 0	1 0	2 0	0 1 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 496
B: 100

EastBound
A: 269
B: 29

WestBound
A: 287
B: 146

NorthBound
A: 258
B: 221

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{258 + 496 + 146 + 269}{*1425} = 0.750$$

LOS = C

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EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	316	577	616	364	0	841	0	579	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	316	577	616	364	0	841	0	579	0	0	0
LANE	0 0	2 0	0 1 0	1 0	3 0	0 0 0	2 0	0 0	0 2 0	0 0	0 0	0 0 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 121
B: 616

EastBound
A: 0
B: 0

WestBound
A: 0
B: 463

NorthBound
A: 158
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{158 + 616 + 463 + 0}{*1425} = 0.798$$

LOS = C

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	567	25	197	776	50	14	2	142	50	1	1
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	567	25	197	776	50	14	2	142	50	1	1
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 275
B: 197

EastBound
A: 52
B: 50

WestBound
A: 142
B: 14

NorthBound
A: 197
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{197 + 197 + 142 + 50}{*1500} = 0.321$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	15	426	10	110	525	70	5	5	81	92	18	36
AMBIENT												
RELATED												
PROJECT												
TOTAL	15	426	10	110	525	70	5	5	81	92	18	36
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 263
B: 110

EastBound
A: 36
B: 92

WestBound
A: 81
B: 5

NorthBound
A: 145
B: 15

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{15 + 263 + 81 + 92}{*1500} = 0.231$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	335	11	123	438	23	6	0	84	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	335	11	123	438	23	6	0	84	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 231
B: 123

EastBound
A: 0
B: 0

WestBound
A: 84
B: 6

NorthBound
A: 175
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{175 + 123 + 84 + 0}{*1500} = 0.185$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	250	5	150	299	19	1	0	86	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	250	5	150	299	19	1	0	86	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 159
B: 150

EastBound
A: 0
B: 0

WestBound
A: 87
B: 1

NorthBound
A: 131
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{131 + 150 + 87 + 0}{1200} = 0.307$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	42	57	316	88	180	103	1206	117	70	1072	27
AMBIENT												
RELATED												
PROJECT												
TOTAL	29	42	57	316	88	180	103	1206	117	70	1072	27
LANE	1 0 0 0 1 0 0			1 0 1 0 0 1 0			1 0 1 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 180
B: 316

EastBound
A: 550
B: 70

WestBound
A: 662
B: 103

NorthBound
A: 99
B: 29

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{99 + 316 + 662 + 70}{*1500} = 0.695$$

LOS = B

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	450	1395	237	240	1331	160	243	783	296	116	679	477
AMBIENT												
RELATED												
PROJECT												
TOTAL	450	1395	237	240	1331	160	243	783	296	116	679	477
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 497
B: 132

EastBound
A: 340
B: 64

WestBound
A: 392
B: 134

NorthBound
A: 544
B: 248

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{248 + 497 + 134 + 340}{*1375} = 0.817$$

LOS = D

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

April 21, 2010 ,Wednesday 12:59:49 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1502	200	779	1588	0	155	0	865	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1502	200	779	1588	0	155	0	865	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 529
B: 428

EastBound
A: 0
B: 0

WestBound
A: 47
B: 85

NorthBound
A: 567
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{567 + 428 + 85 + 0}{*1425} = 0.688$$

LOS = B

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

April 21, 2010 ,Wednesday 12:59:49 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	1000	134	170	1154	15	39	15	334	17	33	24
AMBIENT									-170			
RELATED												
PROJECT												
TOTAL	18	1000	134	170	1154	15	39	15	164	17	33	24
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 585
B: 170

EastBound
A: 37
B: 17

WestBound
A: 90
B: 39

NorthBound
A: 567
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{567 + 170 + 90 + 17}{*1425} = 0.522$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: PM Comments: EXISTING (2009)

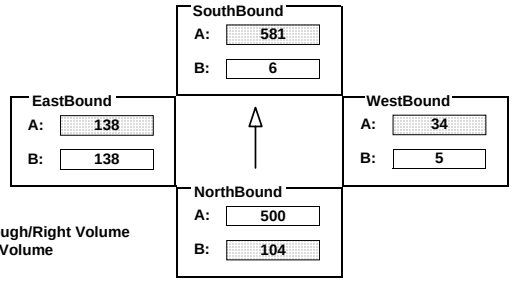
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	104	1484	15	6	1465	278	5	0	29	273	3	68
AMBIENT												
RELATED												
PROJECT												
TOTAL	104	1484	15	6	1465	278	5	0	29	273	3	68
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{104 + 581 + 34 + 138}{*1375} = 0.553$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: PM Comments: EXISTING (2009)

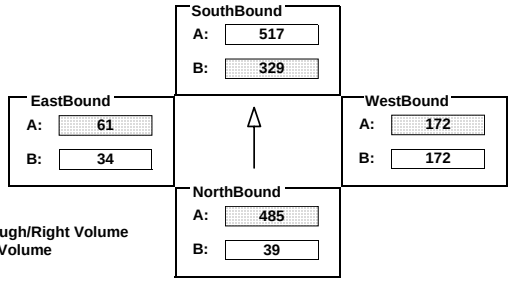
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	39	830	139	329	1018	15	297	46	458	34	33	28
AMBIENT												
RELATED												
PROJECT												
TOTAL	39	830	139	329	1018	15	297	46	458	34	33	28
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Split	OLA	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{485 + 329 + 172 + 61}{*1375} = 0.691$$

LOS = B

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	84	1446	269	192	1405	80	372	553	89	0	481	130
AMBIENT												
RELATED												
PROJECT												
TOTAL	84	1446	269	192	1405	80	372	553	89	0	481	130
LANE	1 0 3 0 0 1			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 495
B: 192

EastBound
A: 306
B: 0

WestBound
A: 321
B: 205

NorthBound
A: 482
B: 84

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{482 + 192 + 205 + 306}{*1375} = 0.792$$

LOS = C

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	837	0	121	0	162	448	61	160	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	837	0	121	0	162	448	61	160	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 460

EastBound
A: 80
B: 61

WestBound
A: 162
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 460 + 162 + 61}{*1500} = 0.385$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	693	1670	23	87	1810	84	40	22	38	66	8	930
AMBIENT												
RELATED												
PROJECT												
TOTAL	693	1670	23	87	1810	84	40	22	38	66	8	930
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Free

Critical Movements Diagram

SouthBound
A: 631
B: 87

EastBound
A: 8
B: 66

WestBound
A: 100
B: 40

NorthBound
A: 564
B: 381

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{381 + 631 + 100 + 66}{*1425} = 0.757$$

LOS = C

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	459	572	742	887	0	0	0	0	7	931	39
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	459	572	742	887	0	0	0	0	7	931	39
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	<none>	<none>	Split	Auto

Critical Movements Diagram

SouthBound
A: 444
B: 408

EastBound
A: 485
B: 7

WestBound
A: 0
B: 0

NorthBound
A: 344
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{344 + 408 + 0 + 485}{*1425} = 0.798$$

LOS = C

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	17	448	0	0	1066	57	569	969	429	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	17	448	0	0	1066	57	569	969	429	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 374
B: 0

EastBound
A: 0
B: 0

WestBound
A: 513
B: 513

NorthBound
A: 224
B: 17

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{17 + 374 + 513 + 0}{*1425} = 0.564$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	870	214	62	1301	0	1191	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	870	214	62	1301	0	1191	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 837
B: 62

EastBound
A: 0
B: 0

WestBound
A: 3
B: 655

NorthBound
A: 435
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 837 + 655 + 0}{*1500} = 0.925$$

LOS = E

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

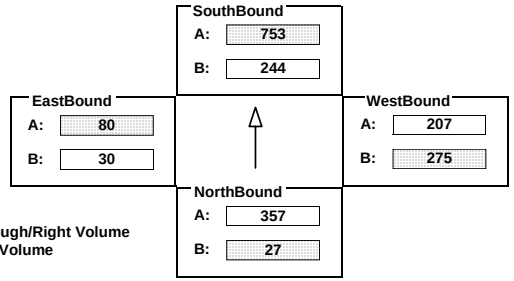
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	27	1428	244	444	1543	753	500	414	565	30	190	49
AMBIENT												
RELATED												
PROJECT												
TOTAL	27	1428	244	444	1543	753	500	414	565	30	190	49

LANE																															
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	1	0	0			

SIGNAL	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{27 + 753 + 275 + 80}{*1375} = 0.755$$

LOS = C

Developed by Chun Wong, 12/94

EXISTPM

CalcaDB

March 10, 2010 ,Wednesday 11:50:00 AM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: EXISTING (2009)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

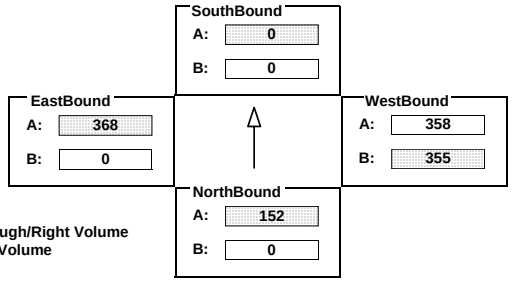
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	152	0	0	0	355	716	0	0	736	111
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	152	0	0	0	355	716	0	0	736	111

LANE																															
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0			

SIGNAL	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{152 + 0 + 355 + 368}{1200} = 0.729$$

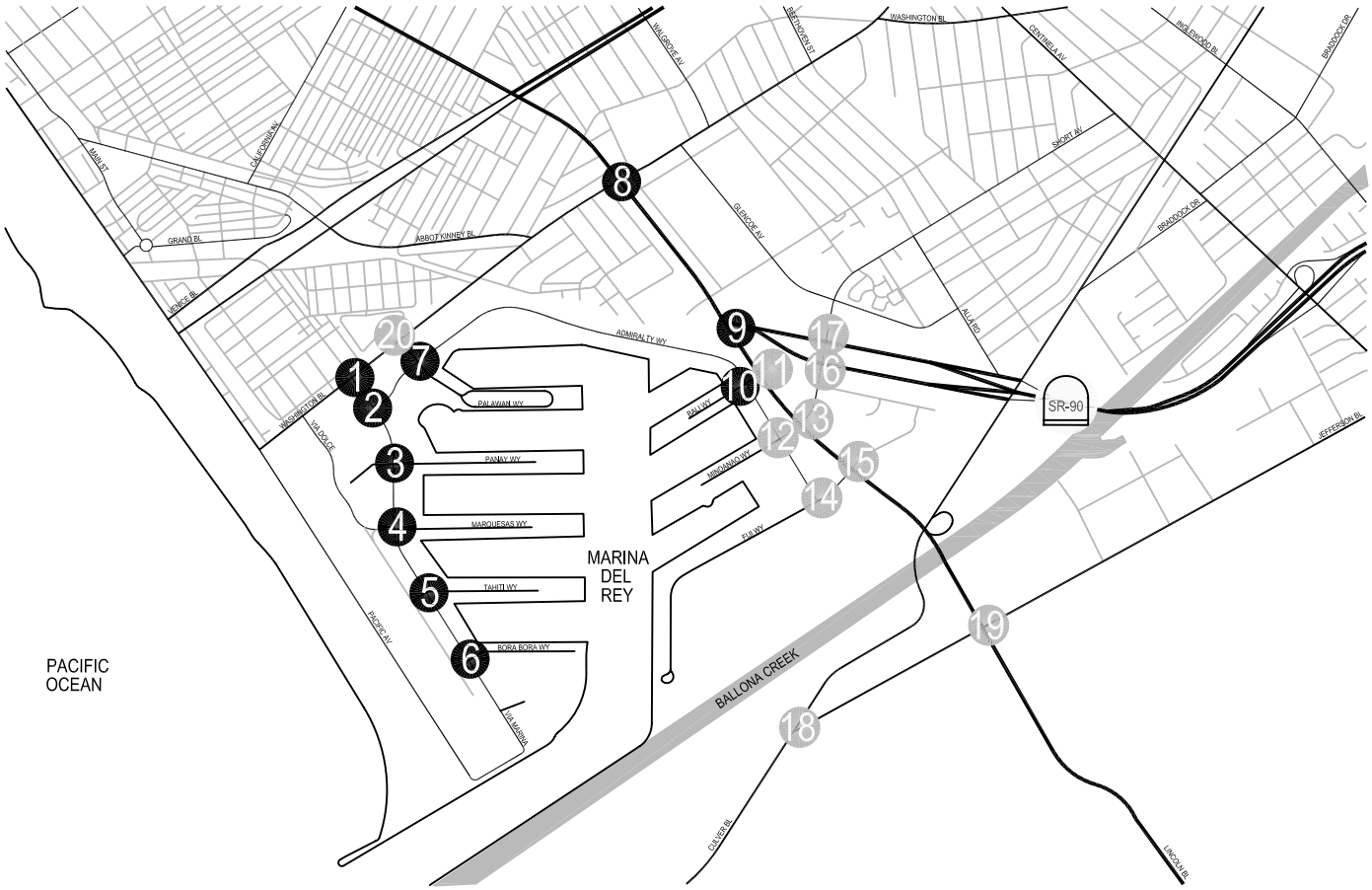
LOS = C

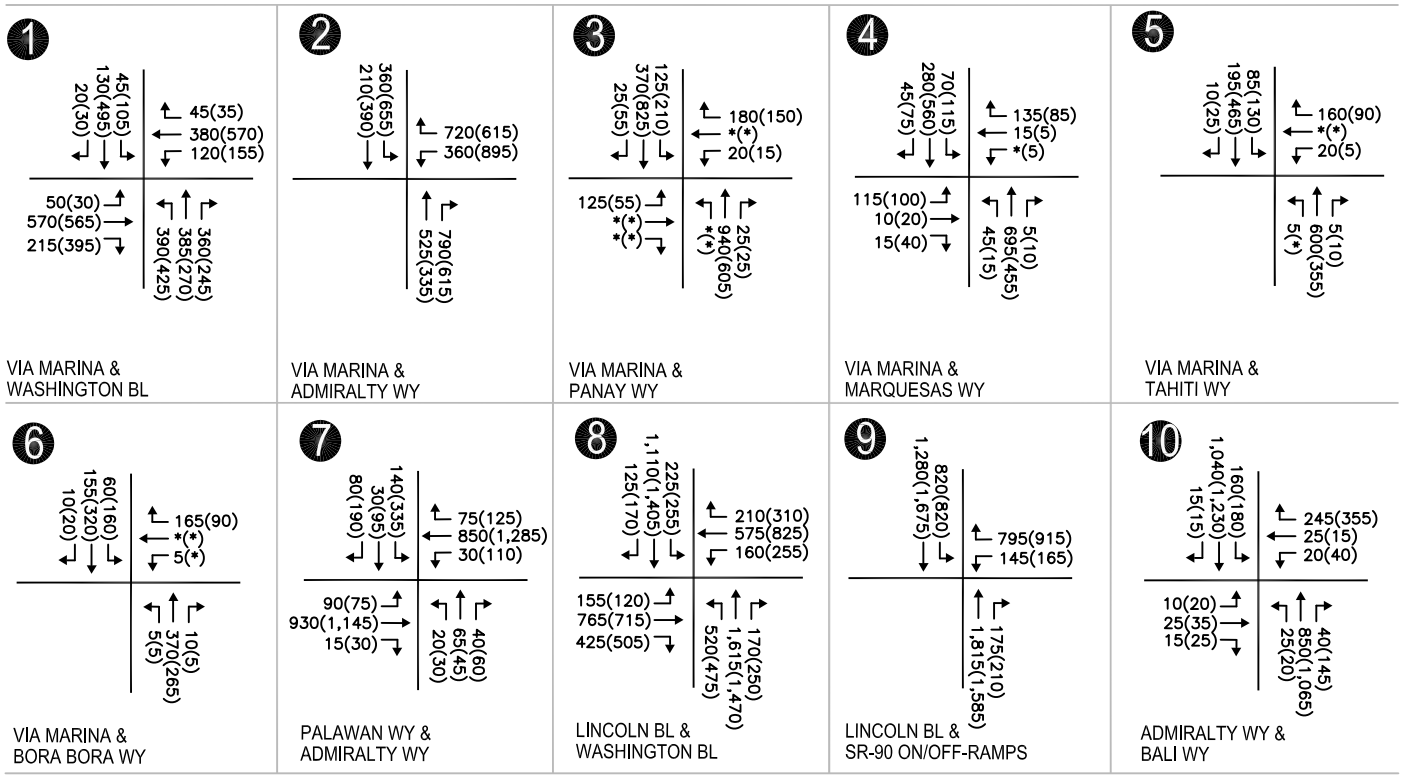
Developed by Chun Wong, 12/94

APPENDIX D

Future (2020) with Ambient Growth Conditions Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

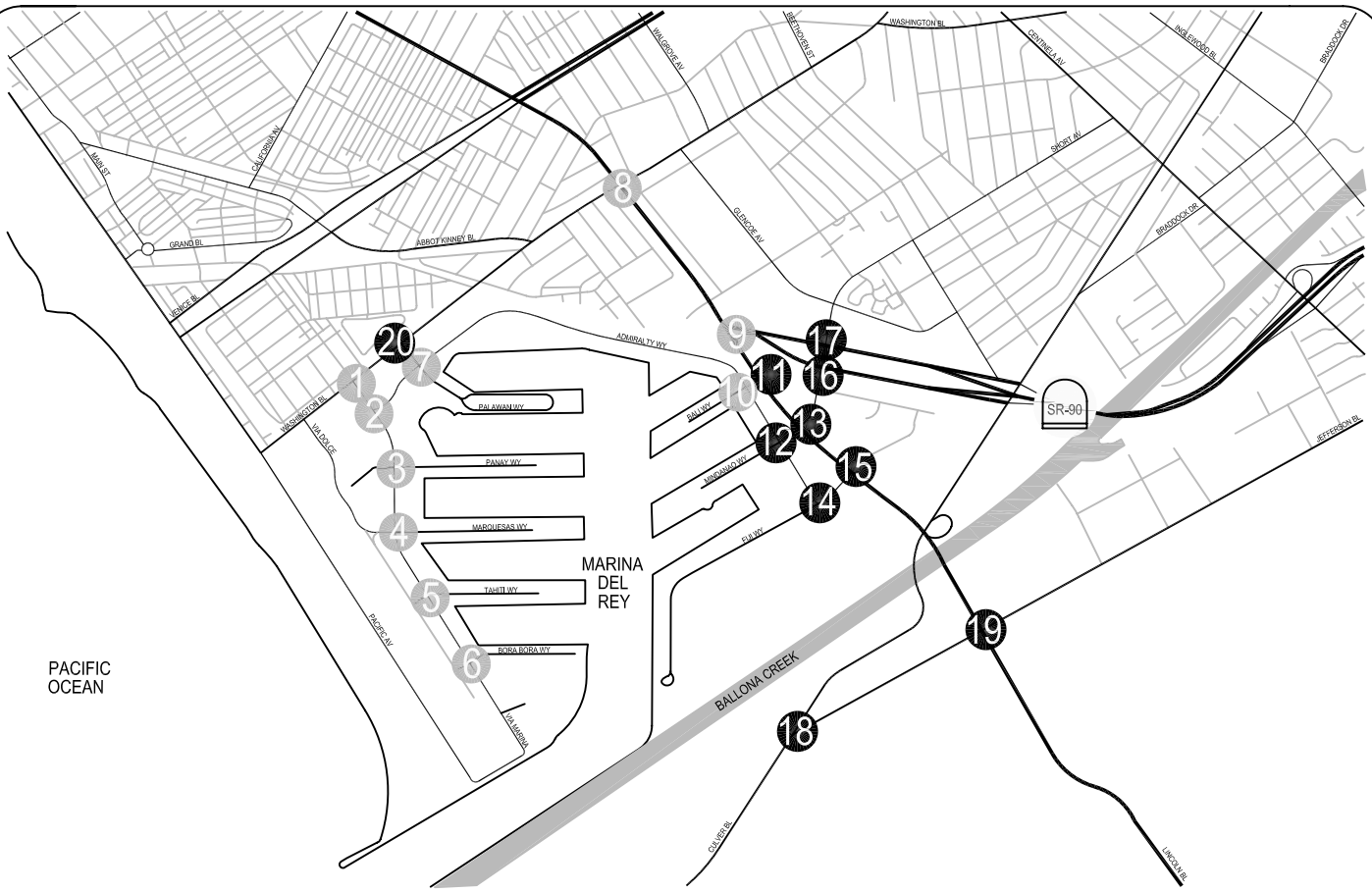
- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX D-1
FUTURE (2020) WITH AMBIENT GROWTH CONDITIONS
TRAFFIC VOLUMES

RAJU Associates, Inc.



11 LINCOLN BL & BALI WY

30(5)		15(30)
1,225(1,545)		*(*)
180(295)		5(5)
185(290)		35(15)
*(5)		1,725(1,565)
40(70)		115(110)

12 ADMIRALTY WY & MINDANAO WY

365(350)		445(490)
620(1,085)		35(50)
20(15)		135(315)
20(35)		50(150)
20(35)		610(885)
25(30)		30(40)

13 LINCOLN BL & MINDANAO WY

90(205)		100(95)
1,010(1,480)		440(585)
55(85)		210(390)
515(505)		310(285)
55(135)		1,730(1,525)
		125(90)

14 ADMIRALTY WY & FIJI WY

585(890)		
90(130)		575(480)
		80(175)
70(65)		
95(170)		

15 LINCOLN BL & FIJI WY

40(90)		40(40)
1,210(1,910)		15(25)
50(90)		15(40)
100(70)		35(25)
15(10)		1,810(1,760)
565(980)		575(730)

16 MINDANAO WY & SR-90 EB RAMPS

415(785)		
810(935)		
10(5)		665(605)
975(980)		355(485)
15(40)		

17 MINDANAO WY & SR-90 WB RAMPS

665(1,125)		450(455)
20(60)		905(1,020)
		560(600)
		350(475)
		10(20)

18 CULVER BL & JEFFERSON BL

30(65)		5(5)
390(1,375)		400(1,255)
		565(225)
		2,470(920)

19 LINCOLN BL & JEFFERSON BL

300(470)		490(595)
1,060(1,630)		105(435)
230(795)		345(530)
155(30)		585(255)
320(200)		1,860(1,505)
30(50)		40(30)

20 PALAWAN WY & WASHINGTON BL

		615(755)
		175(375)
945(775)		
70(115)		210(160)

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX D-2
FUTURE (2020) WITH AMBIENT GROWTH CONDITIONS
TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

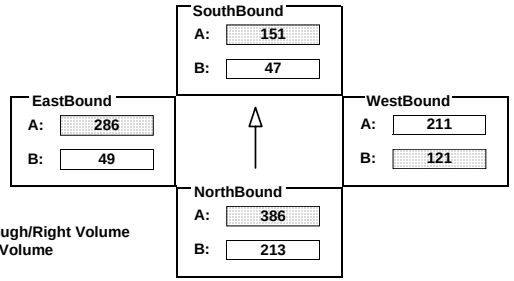
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	388	386	361	47	130	21	121	378	43	49	572	215
AMBIENT												
RELATED												
PROJECT												
TOTAL	388	386	361	47	130	21	121	378	43	49	572	215
LANE	2	0	1	0	0	1	0	1	0	0	0	1	0	0	1	0	0	1	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{386 + 151 + 121 + 286}{*1425} = 0.592$$

LOS = A

Developed by Chun Wong, 12/94

AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

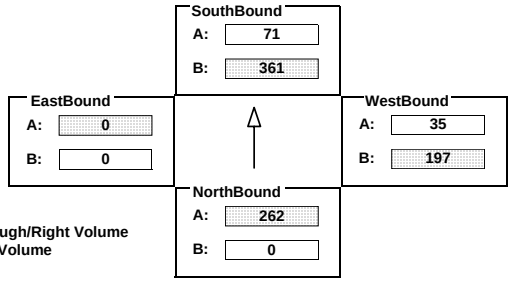
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	523	790	361	212	0	358	0	720	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	523	790	361	212	0	358	0	720	0	0	0
LANE	0	0	2	0	0	1	0	1	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{262 + 361 + 197 + 0}{*1425} = 0.505$$

LOS = A

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AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	942	23	124	369	25	20	0	181	127	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	942	23	124	369	25	20	0	181	127	1	2
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 131
B: 124

EastBound
A: 130
B: 127

WestBound
A: 181
B: 20

NorthBound
A: 322
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{322 + 124 + 181 + 127}{*1500} = 0.433$$

LOS = A

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AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	697	7	69	281	45	2	16	134	113	10	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	697	7	69	281	45	2	16	134	113	10	13
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 141
B: 69

EastBound
A: 13
B: 113

WestBound
A: 134
B: 2

NorthBound
A: 235
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{235 + 69 + 134 + 113}{*1500} = 0.297$$

LOS = A

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AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	601	5	87	197	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	601	5	87	197	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 105
B: 87

EastBound
A: 0
B: 0

WestBound
A: 162
B: 20

NorthBound
A: 306
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{306 + 87 + 162 + 0}{*1500} = 0.300$$

LOS = A

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AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	371	10	61	157	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	371	10	61	157	10	6	1	165	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 84
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 193
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{193 + 61 + 172 + 0}{1200} = 0.355$$

LOS = A

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AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

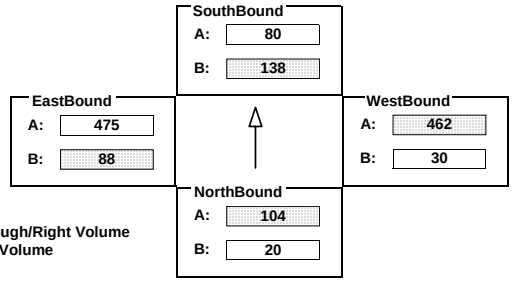
AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	20	66	38	138	29	80	30	849	75	88	932	17
AMBIENT												
RELATED												
PROJECT												
TOTAL	20	66	38	138	29	80	30	849	75	88	932	17
LANE	1 0 0 0 1 0 0			1 0 1 0 0 1 0			1 0 1 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{104 + 138 + 462 + 88}{*1500} = 0.458$$

LOS = A

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AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

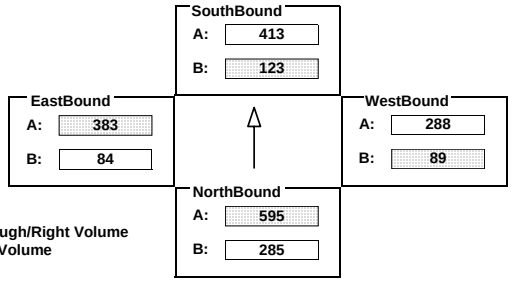
AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	518	1614	172	224	1111	127	161	576	210	153	766	424
AMBIENT												
RELATED												
PROJECT												
TOTAL	518	1614	172	224	1111	127	161	576	210	153	766	424
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{595 + 123 + 89 + 383}{*1375} = 0.795$$

LOS = C

Developed by Chun Wong, 12/94

AMBNTAM

CalcaDB

April 21, 2010 ,Wednesday 01:04:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1816	175	822	1281	0	147	0	793	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1816	175	822	1281	0	147	0	793	0	0	0

LANE																														
	0	0	2	0	1	0	0	2	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram

SouthBound
A: 427
B: 452

EastBound
A: 0
B: 0

WestBound
A: 0
B: 81

NorthBound
A: 664
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{664 + 452 + 81 + 0}{*1425} = 0.770$$

LOS = C

Developed by Chun Wong, 12/94

AMBNTAM

CalcaDB

April 21, 2010 ,Wednesday 01:04:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	23	850	42	162	1038	16	20	23	246	10	25	13
AMBIENT									-162			
RELATED												
PROJECT												
TOTAL	23	850	42	162	1038	16	20	23	84	10	25	13

LANE																														
	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	OLA	Perm	Auto

Critical Movements Diagram

SouthBound
A: 527
B: 162

EastBound
A: 24
B: 10

WestBound
A: 54
B: 20

NorthBound
A: 446
B: 23

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{446 + 162 + 54 + 10}{*1425} = 0.402$$

LOS = A

Developed by Chun Wong, 12/94

AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	117	1723	33	28	1227	178	3	0	14	183	2	42
AMBIENT												
RELATED												
PROJECT												
TOTAL	117	1723	33	28	1227	178	3	0	14	183	2	42
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Split	Auto	Split	Auto

Critical Movements Diagram

SouthBound
A: 468
B: 28

EastBound
A: 93
B: 93

WestBound
A: 17
B: 3

NorthBound
A: 585
B: 117

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{585 + 28 + 17 + 93}{*1375} = 0.456$$

LOS = A

Developed by Chun Wong, 12/94

AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	612	52	367	620	20	136	36	447	22	19	26
AMBIENT												
RELATED												
PROJECT												
TOTAL	29	612	52	367	620	20	136	36	447	22	19	26
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Split	OLA	Split	Auto

Critical Movements Diagram

SouthBound
A: 320
B: 367

EastBound
A: 45
B: 22

WestBound
A: 86
B: 86

NorthBound
A: 332
B: 29

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{332 + 367 + 86 + 45}{*1375} = 0.534$$

LOS = A

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AMBNTAM

CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

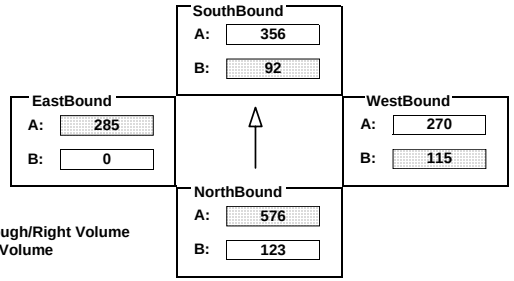
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	123	1729	311	92	1011	57	209	439	100	0	517	53
AMBIENT												
RELATED												
PROJECT												
TOTAL	123	1729	311	92	1011	57	209	439	100	0	517	53
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{576 + 92 + 115 + 285}{*1375} = 0.707$$

LOS = C

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CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

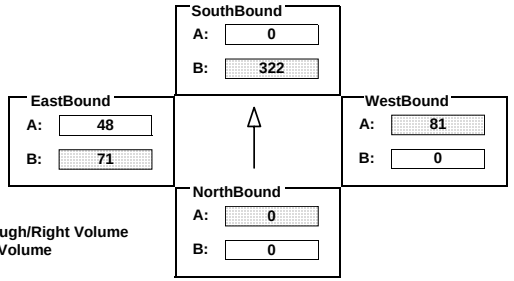
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	585	0	91	0	81	577	71	95	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	585	0	91	0	81	577	71	95	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Free	Perm	Free	Perm	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 322 + 81 + 71}{*1500} = 0.246$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	576	1810	35	41	1209	52	16	14	41	98	17	563
AMBIENT												
RELATED												
PROJECT												
TOTAL	576	1810	35	41	1209	52	16	14	41	98	17	563
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Free

Critical Movements Diagram

SouthBound
A: 420
B: 41

EastBound
A: 17
B: 98

WestBound
A: 71
B: 16

NorthBound
A: 615
B: 317

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{317 + 420 + 71 + 98}{*1425} = 0.566$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	353	664	413	812	0	0	0	0	9	975	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	353	664	413	812	0	0	0	0	9	975	13
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	<none>	<none>	Split	Auto

Critical Movements Diagram

SouthBound
A: 406
B: 227

EastBound
A: 494
B: 9

WestBound
A: 0
B: 0

NorthBound
A: 339
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{339 + 227 + 0 + 494}{*1425} = 0.674$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	351	0	0	664	21	561	906	448	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	351	0	0	664	21	561	906	448	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 228
B: 0

EastBound
A: 0
B: 0

WestBound
A: 489
B: 489

NorthBound
A: 176
B: 12

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 228 + 489 + 0}{*1425} = 0.442$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2469	565	30	391	0	398	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2469	565	30	391	0	398	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 286
B: 30

EastBound
A: 0
B: 0

WestBound
A: 4
B: 219

NorthBound
A: 1235
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1235 + 30 + 219 + 0}{*1500} = 0.919$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

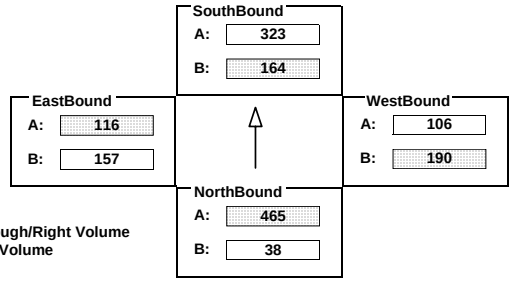
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	38	1861	584	298	1061	229	346	107	491	157	320	28
AMBIENT												
RELATED												
PROJECT												
TOTAL	38	1861	584	298	1061	229	346	107	491	157	320	28

LANE																															
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	1	0	0			

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{465 + 164 + 190 + 116}{*1375} = 0.610$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 11:53:11 AM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

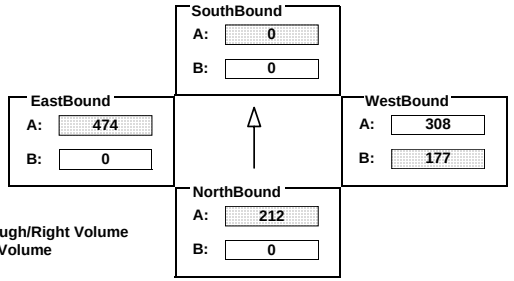
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	212	0	0	0	177	616	0	0	947	70
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	212	0	0	0	177	616	0	0	947	70

LANE																															
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0			

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{212 + 0 + 177 + 474}{1200} = 0.719$$

LOS = C

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

AMBNTPM

CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	424	272	244	106	493	31	154	572	33	31	567	397
AMBIENT												
RELATED												
PROJECT												
TOTAL	424	272	244	106	493	31	154	572	33	31	567	397
LANE	2 0	1 0	0 1 0	1 0	0 0 1 0 0		1 0	1 0	1 0 0	1 0	2 0	0 1 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 524
B: 106

EastBound
A: 284
B: 31

WestBound
A: 303
B: 154

NorthBound
A: 272
B: 233

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{272 + 524 + 154 + 284}{*1425} = 0.796$$

LOS = C

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	337	615	657	388	0	897	0	617	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	337	615	657	388	0	897	0	617	0	0	0
LANE	0 0	2 0	0 1 0	1 0	3 0 0 0 0		2 0	0 0	0 2 0	0 0	0 0	0 0 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 129
B: 657

EastBound
A: 0
B: 0

WestBound
A: 0
B: 493

NorthBound
A: 169
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{169 + 657 + 493 + 0}{*1425} = 0.856$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	604	27	210	827	53	15	2	151	53	1	1
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	604	27	210	827	53	15	2	151	53	1	1
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 293
B: 210

EastBound
A: 55
B: 53

WestBound
A: 151
B: 15

NorthBound
A: 210
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{210 + 210 + 151 + 53}{*1500} = 0.346$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	16	454	11	117	560	75	5	5	86	98	19	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	16	454	11	117	560	75	5	5	86	98	19	38
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 280
B: 117

EastBound
A: 38
B: 98

WestBound
A: 86
B: 5

NorthBound
A: 155
B: 16

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{16 + 280 + 86 + 98}{*1500} = 0.250$$

LOS = A

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AMBNTPM

CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	357	12	131	467	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	357	12	131	467	25	6	0	90	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 246
B: 131

EastBound
A: 0
B: 0

WestBound
A: 90
B: 6

NorthBound
A: 187
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{187 + 131 + 90 + 0}{*1500} = 0.202$$

LOS = A

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AMBNTPM

CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	267	5	160	319	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	267	5	160	319	20	1	0	92	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 170
B: 160

EastBound
A: 0
B: 0

WestBound
A: 93
B: 1

NorthBound
A: 139
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{139 + 160 + 93 + 0}{1200} = 0.327$$

LOS = A

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March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	31	45	61	337	94	192	110	1286	125	75	1143	29
AMBIENT												
RELATED												
PROJECT												
TOTAL	31	45	61	337	94	192	110	1286	125	75	1143	29
LANE	1 0 0 0 1 0 0			1 0 1 0 0 1 0			1 0 1 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 192
B: 337

EastBound
A: 586
B: 75

WestBound
A: 706
B: 110

NorthBound
A: 106
B: 31

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{106 + 337 + 706 + 75}{*1500} = 0.746$$

LOS = C

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	475	1472	250	253	1404	169	256	826	312	122	716	503
AMBIENT												
RELATED												
PROJECT												
TOTAL	475	1472	250	253	1404	169	256	826	312	122	716	503
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 524
B: 139

EastBound
A: 358
B: 67

WestBound
A: 413
B: 141

NorthBound
A: 574
B: 261

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{261 + 524 + 141 + 358}{*1375} = 0.864$$

LOS = D

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CalcaDB

April 21, 2010 ,Wednesday 01:04:38 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1585	211	822	1675	0	164	0	913	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1585	211	822	1675	0	164	0	913	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 558
B: 452

EastBound
A: 0
B: 0

WestBound
A: 50
B: 90

NorthBound
A: 599
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{599 + 452 + 90 + 0}{*1425} = 0.731$$

LOS = C

Developed by Chun Wong, 12/94

AMBNTPM

CalcaDB

April 21, 2010 ,Wednesday 01:04:38 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	19	1066	143	181	1230	16	42	16	356	18	35	26
AMBIENT									-181			
RELATED												
PROJECT												
TOTAL	19	1066	143	181	1230	16	42	16	175	18	35	26
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 623
B: 181

EastBound
A: 40
B: 18

WestBound
A: 96
B: 42

NorthBound
A: 605
B: 19

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{605 + 181 + 96 + 18}{*1425} = 0.562$$

LOS = A

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March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

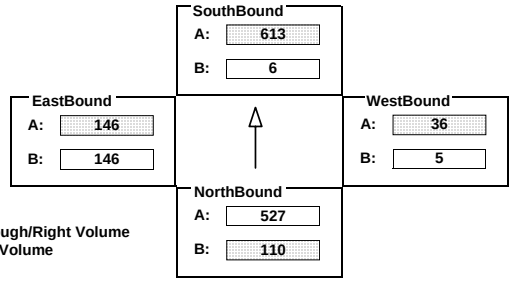
AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	110	1566	16	6	1546	293	5	0	31	288	3	72
AMBIENT												
RELATED												
PROJECT												
TOTAL	110	1566	16	6	1546	293	5	0	31	288	3	72
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{110 + 613 + 36 + 146}{*1375} = 0.588$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

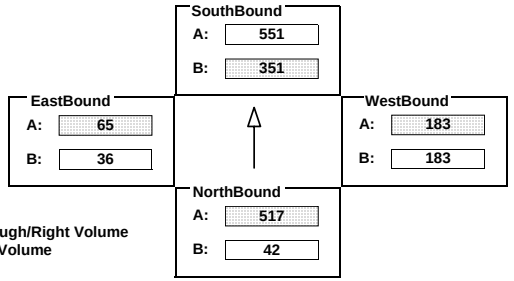
AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	42	885	148	351	1085	16	317	49	488	36	35	30
AMBIENT												
RELATED												
PROJECT												
TOTAL	42	885	148	351	1085	16	317	49	488	36	35	30
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{517 + 351 + 183 + 65}{*1375} = 0.742$$

LOS = C

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March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	89	1526	284	203	1482	84	392	583	94	0	507	137
AMBIENT												
RELATED												
PROJECT												
TOTAL	89	1526	284	203	1482	84	392	583	94	0	507	137

LANE																															
	1	0	3	0	0	1	0	1	0	2	0	1	0	0	0	2	0	1	0	1	0	0	0	0	1	0	1	0	0	1	0

SIGNAL	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 522
B: 203

EastBound
A: 322
B: 0

WestBound
A: 339
B: 216

NorthBound
A: 509
B: 89

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{509 + 203 + 216 + 322}{*1375} = 0.839$$

LOS = D

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March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	892	0	129	0	173	478	65	171	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	892	0	129	0	173	478	65	171	0

LANE																															
	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	0	2	0	0	0			

SIGNAL	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
	<none>	<none>	Split	Free	Perm	Free	Perm	<none>

Critical Movements Diagram

SouthBound
A: 0
B: 491

EastBound
A: 86
B: 65

WestBound
A: 173
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 491 + 173 + 65}{*1500} = 0.416$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	731	1762	24	92	1910	89	42	23	40	70	8	981
AMBIENT												
RELATED												
PROJECT												
TOTAL	731	1762	24	92	1910	89	42	23	40	70	8	981
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Free

Critical Movements Diagram

SouthBound
A: 666
B: 92

EastBound
A: 8
B: 70

WestBound
A: 105
B: 42

NorthBound
A: 595
B: 402

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{402 + 666 + 105 + 70}{*1425} = 0.802$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	484	603	783	936	0	0	0	0	7	982	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	484	603	783	936	0	0	0	0	7	982	41
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	<none>	<none>	Split	Auto

Critical Movements Diagram

SouthBound
A: 468
B: 431

EastBound
A: 512
B: 7

WestBound
A: 0
B: 0

NorthBound
A: 362
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{362 + 431 + 0 + 512}{*1425} = 0.846$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	473	0	0	1125	60	600	1022	453	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	473	0	0	1125	60	600	1022	453	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 395
B: 0

EastBound
A: 0
B: 0

WestBound
A: 541
B: 541

NorthBound
A: 237
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 395 + 541 + 0}{*1425} = 0.599$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	918	226	65	1373	0	1257	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	918	226	65	1373	0	1257	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 882
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 691

NorthBound
A: 459
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 882 + 691 + 0}{*1500} = 0.979$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

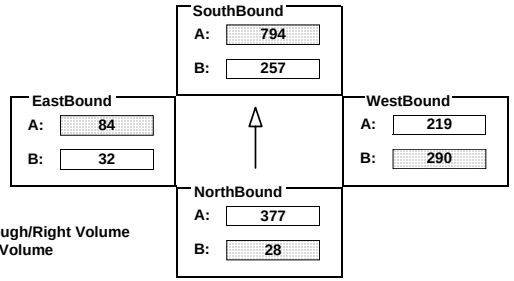
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	28	1507	257	468	1628	794	528	437	596	32	200	52
AMBIENT												
RELATED												
PROJECT												
TOTAL	28	1507	257	468	1628	794	528	437	596	32	200	52

LANE																															
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	1	0	0			

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{28 + 794 + 290 + 84}{*1375} = 0.800$$

LOS = C

Developed by Chun Wong, 12/94

AMBNTPM

CalcaDB

March 10, 2010 ,Wednesday 11:53:34 AM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: AMBIENT (2020) CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

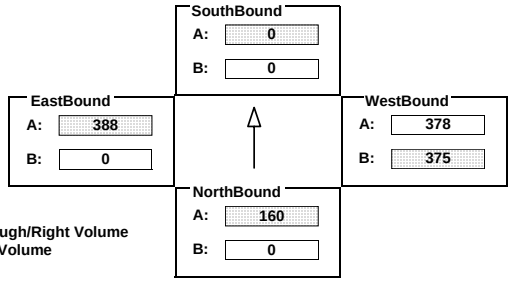
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	160	0	0	0	375	755	0	0	776	117
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	160	0	0	0	375	755	0	0	776	117

LANE																															
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0			

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{160 + 0 + 375 + 388}{1200} = 0.769$$

LOS = C

Developed by Chun Wong, 12/94

APPENDIX E

Approved LCP Development and
Proposed LCP Amendment Development Information

TABLE E-1
COMPARISON OF APPROVED LCP DEVELOPMENT AND PROPOSED LCP AMENDMENT DEVELOPMENT

			APPROVED DEVELOPMENT				PROPOSED LCP AMENDMENT	
DZ#	**DZ Name**	**Parcels in DZ**	**Redevelopment Permitted in LCP**	**Redevelopment Granted**	**Redevelopment Remaining**	**Redevelopment Remaining + Not Built**	**Redevelopment Proposed - Pipeline Projects Only**	**PROPOSED LCP BUILDOUT (including Pipeline Projects)**
1	Bora Bora	1, 3, 112, 113,BR	610 DUs	**P112** - 120 DUs	490 DUs	393 DUs	None	281 DUs
2	Tahiti	7,8,9,111	275 DUs 288 Hotel Rooms 76 Slips	None	275 DUs 288 Hotel Rooms 76 Slips	275 DUs 288 Hotel Rooms 76 Slips	None	288 Hotel Rooms
3	Marquesas	10,12,13, FF	320 DUs 15 KSF Retail 76 Slips	**P12** - 317 DUs **P12** - 2 KSF Retail	3 DUs 13 KSF Retail 76 Slips	3 DUs 13 KSF Retail 76 Slips	**P10/FF [1]** - 390 Dus	390 DUs 13 KSF Retail
4	Panay	15,18,20,21, 22,GR	347 DUs 75 Congregate Care Units (CCUs) 10 KSF Retail 76 Slips	**P15** - 297 DUs **P18** - 68 DUs **P20** - 99 DUs **P18** - 60 CCUs **P15** - 8 KSF Retail	(20) DUs 15 CCUs 2 KSF Retail 76 Slips	**P15** - 297 DUs 15 CCUs 2 KSF Retail 76 Slips **P15** - 8 KSF Retail	None	297 DUs 15 CCUs 10 KSF Retail
5	Palawan/Beach	27,28,30,33, 91,97,140, 141,145,IR,H, JS,NR	180 DUs 200 Hotel Rooms 42 KSF Retail 410 Restaurant Seats	**P140** - 108 DUs **P27** - 69 Hotel Rooms	72 DUs 131 Hotel Rooms 42 KSF Retail 410 Restaurant Seats	72 DUs 131 Hotel Rooms 42 KSF Retail 410 Restaurant Seats	**P33/NR [2]** - 292 Dus 32.4 KSF commercial 323 Restaurant Seats	292 DUs 217 Hotel Rooms 37 KSF Retail 410 Restaurant Seats
6	Oxford	125,128,129 OT,P,Q,RR	Fire Station Expansion	None	Fire Stn Expansion	Fire Stn Expansion	**P-OT [3]**- 114 Sr. Facility and 5 KSF Retail	Fire Stn Expansion 114 Room Sr. Facility 5 KSF Retail
7	Admiralty	40,94,130, 131,132, 133,134,SS	200 Hotel Rooms 275 Restaurant Seats 32 KSF Office 3 KSF Library	None	200 Hotel Rooms 275 Restaurant Seats 32 KSF Office 3 KSF Library	200 Hotel Rooms 275 Restaurant Seats 32 KSF Office 3 KSF Library	None	223 Restaurant Seats 3 KSF Library
8	Bali	41,42,43,44, 75,76,150, UR	382 Hotel Rooms 40 KSF Conference Center 75 KSF Visitor Serving Commercial (VSC) 3 KSF Marine Science 500 Restaurant Seats Ferry Terminal Site 86 Slips	None	382 Hotel Rooms 40 KSF Conference 75 KSF VSC 3 KSF Marine Science 500 Restaurant Seats Ferry Terminal Site 86 Slips	382 Hotel Rooms 40 KSF Conference 75 KSF VSC 3 KSF Marine Science 500 Restaurant Seats Ferry Terminal Site 86 Slips	None	40.246 KSF VSC
9	Mindanao	47,48,49,50, 52,53, 54,77,83, EE,GG	14.5 KSF Retail 26 KSF Office	**P50** - 6.448 KSF	8.052 KSF Retail 26 KSF Office	8.052 KSF Retail 26 KSF Office	**P49** - Opt. 1. - 135 KSF VSC Opt. 2. - 116.495 KSF VSC & 255 Dus Opt. 3 - up to 26 KSF DBH Adm. Bldg. w/ either Opt1 or Opt 2. **P52/GG [4]** - 375 Dry Stack Spaces, 3.08 KSF Office and 3.35 KSF Sheriff Boatwright	116.495 KSF VSC 255 DUs 26 KSF Office 375 Dry Stack Spaces
10	Village	55,56,61, BB,W	20 KSF Retail 350 Restaurant Seats Ferry Terminal Site	Existing at **P55/56/W** 15 KSF Retail 651 Restaurant Seats	20 KSF Retail 350 Restaurant Seats Ferry Terminal Site	20 KSF Retail 350 Restaurant Seats Ferry Terminal Site	None	20 KSF Retail (net) 350 Restaurant Seats (net) Ferry Teminal Site
11	Harbor Gateway	62,64,65	255 DUs 34 Slips	None	255 DUs 34 Slips	255 DUs 34 Slips	None	None
12	Via Marina	95,100,101,102, 103, 104, DS, LLS, AL-1, K-6	530 DUs 30 KSF Retail 340 Restaurant Seats	**P100/101** - 342 DUs	188 DUs 30 KSF Retail 340 Restaurant Seats	188 DUs 30 KSF Retail 340 Restaurant Seats **P100/101** - 342 DUs	None	529 DUs 30 KSF Retail 340 Restaurant Seats
13	North Shore	XT	None	None	None	None	None	None
14	Fiji Way	51,200	2 KSF Retail	None	2 KSF Retail	2 KSF Retail	None	2 KSF Retail

[1] Parcel FF proposed to become Parcel 14.
[2] Parcel NR proposed to be merged into Parcel 33.
[3] Parcel OT proposed to become Parcel 147.
[4] Parcel GG proposed to be merged into Parcel 52.

TABLE E-2
CORRESPONDENCE BETWEEN APPROVED LCP DZ AND PROPOSED LCP AMENDMENT MDZ

APPROVED LCP DEVELOPMENT ZONES (DZs)

DZ#	DZ Name	Parcels in DZ
1	Bora Bora	1, 3, 112, 113, BR
2	Tahiti	7, 8, 9, 111
3	Marquesas	10, 12, 13, FF
4	Panay	15, 18, 20, 21, 22, GR
5	Palawan/Beach	27, 28, 30, 33, 91, 97, 140, 141, 145 IR, H, JS, NR
6	Oxford	125, 128, 129, OT, P, Q, RR
7	Admiralty	40, 94, 130, 131, 132, 133, 134, SS
8	Bali	41, 42, 43, 44, 75, 76, 150, UR
9	Mindanao	47,48,49,50, 52, 53, 54, 77, 83, EE, GG
10	Fisherman's Village	55, 56, 61, BB, W
11	Harbor Gateway	62, 64, 65
12	Via Marina	95,100,101,102, 103, 104, DS, LLS, AL-1, K-6
13	North Shore	XT
14	Fiji Way	51,200

PROPOSED LCP AMENDMENT MAJOR DEVELOPMENT ZONES (MDZs)

MDZ#	Parcels in MDZ**
1	1, 3, 112, 113,BR,7,8,9,111 10,12,13,FF,15,18,20,95, 100,101,102,103,104,DS, LLS, AL-1, K-6
2	21,22,GR,27,28,30,33,91, 97,140,141,145,IR,H,JS,NR 125,128,129,OT,P,Q,RR
3	40,94,130,131,132,133,134 SS,41,42,43,44,75,76,150 UR,47,48,49,50,52,53,54, 77,83,EE,GG,55,56,61,BB, W,62,64,65,XT,51,200

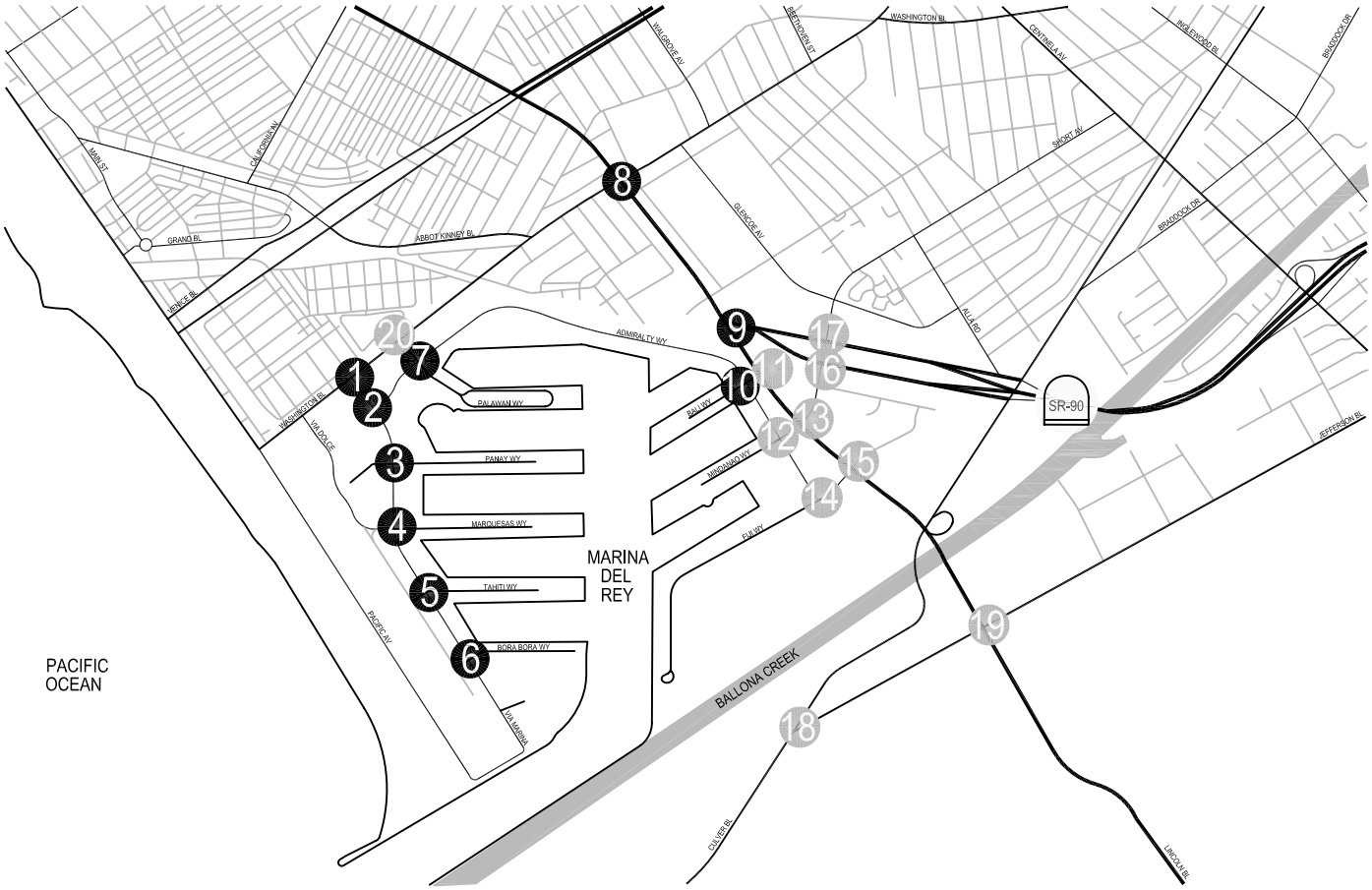
MDZ#	Parcels in MDZ**	DZ # From Approved LCP
1	1, 3, 112, 113,BR,7,8,9,111 10,12,13,FF,15,18,20,95, 100,101,102,103,104,DS, LLS, AL-1, K-6	1, 2, 3, 4*, 12
2	21,22,GR,27,28,30,33,91, 97,140,141,145,IR,H,JS,NR 125,128,129,OT,P,Q,RR	4*, 5, 6
3	40,94,130,131,132,133,134 SS,41,42,43,44,75,76,150 UR,47,48,49,50,52,53,54, 77,83,EE,GG,55,56,61,BB, W,62,64,65,XT,51,200	7, 8, 9, 10, 11, 13, 14

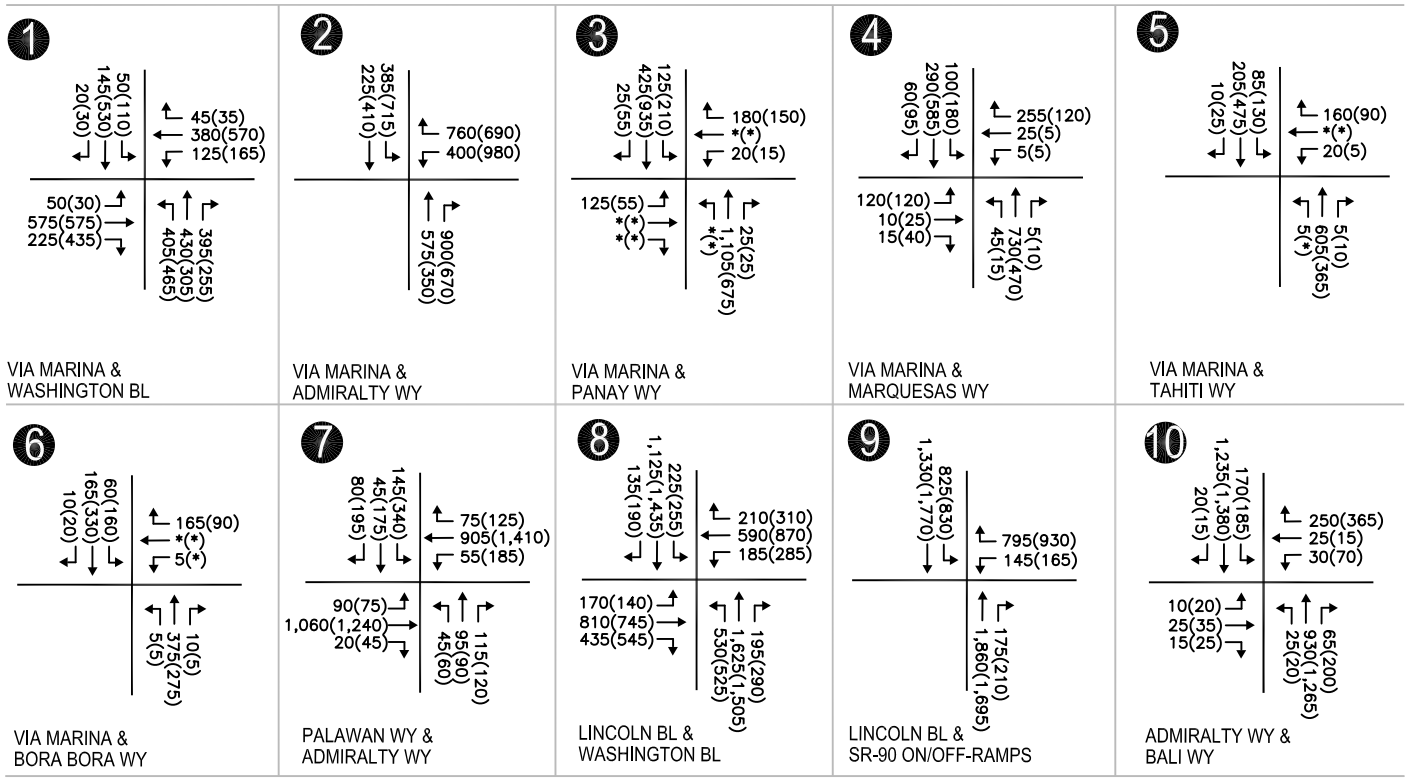
Notes:
* Portions of these are shared between two MDZs.
**Parcel FF proposed to become Parcel 14.
**Parcel NR proposed to be merged into Parcel 33.
**Parcel OT proposed to become Parcel 147.
**Parcel GG proposed to be merged into Parcel 52.

APPENDIX F

Ambient (2020) Conditions with Pipeline Projects Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

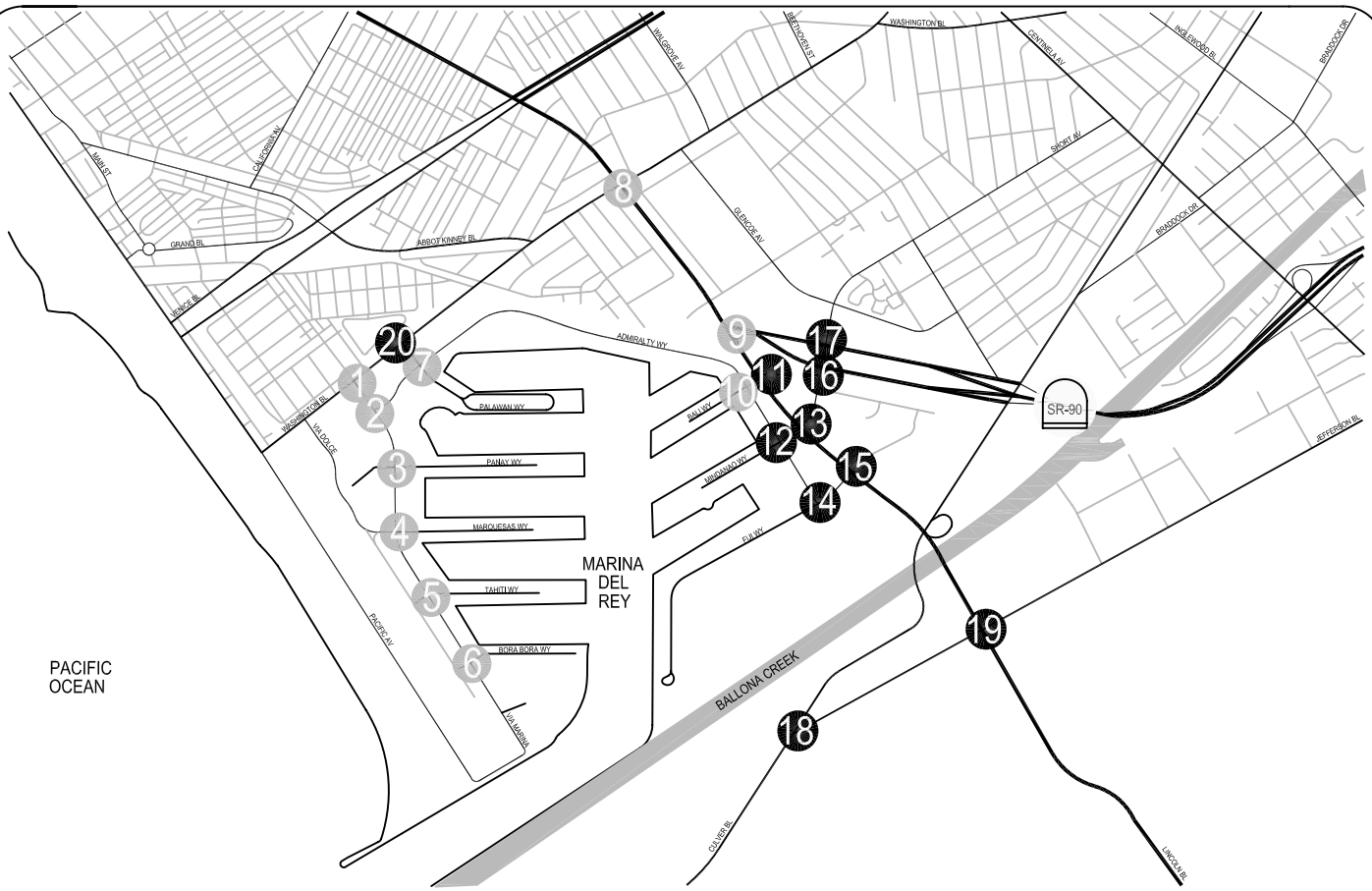
- STUDY INTERSECTION

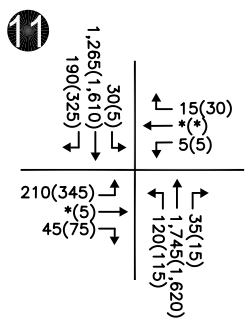
* - NEGLIGIBLE VOLUME

N
Not to scale

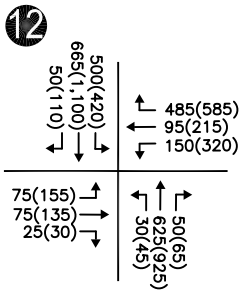
APPENDIX F-1
AMBIENT (2020) CONDITIONS WITH PIPELINE PROJECTS
TRAFFIC VOLUMES

RAJU Associates, Inc.

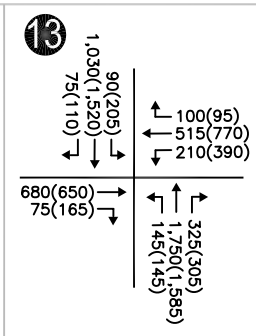




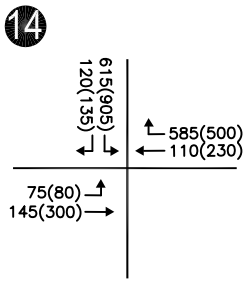
LINCOLN BL &
BALI WY



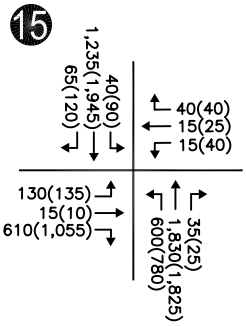
ADMIRALTY WY &
MINDANAO WY



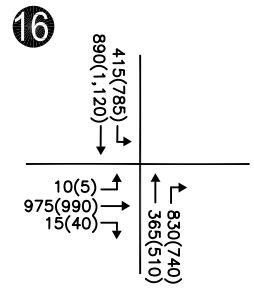
LINCOLN BL &
MINDANAO WY



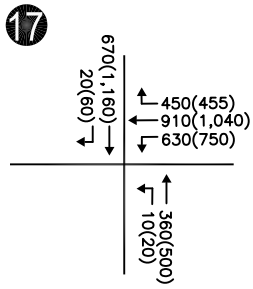
ADMIRALTY WY &
FIJI WY



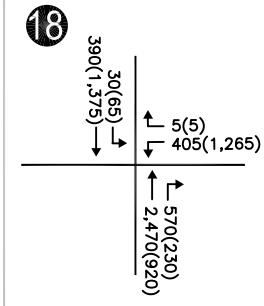
LINCOLN BL &
FIJI WY



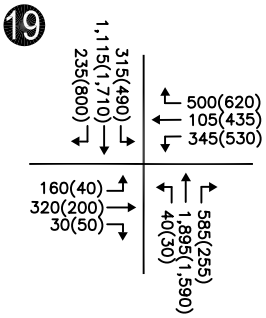
MINDANAO WY &
SR-90 EB RAMPS



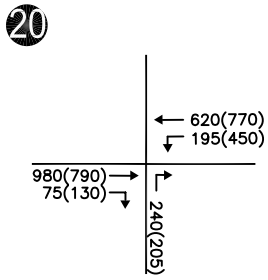
MINDANAO WY &
SR-90 WB RAMPS



CULVER BL &
JEFFERSON BL



LINCOLN BL &
JEFFERSON BL



PALAWAN WY &
WASHINGTON BL

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX F-2
AMBIENT (2020) CONDITIONS WITH PIPELINE PROJECTS
TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

APIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	407	428	393	49	146	21	127	378	43	49	575	227
AMBIENT												
RELATED												
PROJECT												
TOTAL	407	428	393	49	146	21	127	378	43	49	575	227
LANE	2 0	1 0	0 1 0	1 0	0 0	1 0 0	1 0	1 0	1 0 0	1 0	2 0	0 1 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 167
B: 49

EastBound
A: 288
B: 49

WestBound
A: 211
B: 127

NorthBound
A: 428
B: 224

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{428 + 167 + 127 + 288}{*1425} = 0.639$$

LOS = B

Developed by Chun Wong, 12/94

APIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	576	899	384	223	0	402	0	760	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	576	899	384	223	0	402	0	760	0	0	0
LANE	0 0	2 0	0 1 0	1 0	3 0	0 0 0	2 0	0 0	0 2 0	0 0	0 0	0 0 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 74
B: 384

EastBound
A: 0
B: 0

WestBound
A: 34
B: 221

NorthBound
A: 288
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{288 + 384 + 221 + 0}{*1425} = 0.557$$

LOS = A

Developed by Chun Wong, 12/94

APIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1103	23	124	424	25	20	0	181	127	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1103	23	124	424	25	20	0	181	127	1	2
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 150
B: 124

EastBound
A: 130
B: 127

WestBound
A: 181
B: 20

NorthBound
A: 375
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{375 + 124 + 181 + 127}{*1500} = 0.468$$

LOS = A

Developed by Chun Wong, 12/94

APIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	731	7	99	292	59	3	24	253	121	12	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	731	7	99	292	59	3	24	253	121	12	13
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 146
B: 99

EastBound
A: 13
B: 121

WestBound
A: 253
B: 3

NorthBound
A: 246
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{246 + 99 + 253 + 121}{*1500} = 0.409$$

LOS = A

Developed by Chun Wong, 12/94

APIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	605	5	87	203	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	605	5	87	203	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Split	Auto	<none>	<none>

Critical Movements Diagram

SouthBound
A: 108
B: 87

EastBound
A: 0
B: 0

WestBound
A: 162
B: 20

NorthBound
A: 308
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{308 + 87 + 162 + 0}{*1500} = 0.301$$

LOS = A

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March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	375	10	61	163	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	375	10	61	163	10	6	1	165	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	<none>	<none>

Critical Movements Diagram

SouthBound
A: 87
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 195
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{195 + 61 + 172 + 0}{1200} = 0.357$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

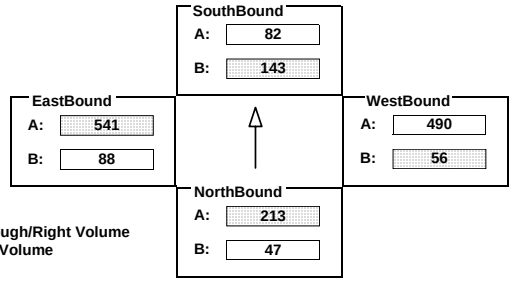
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	47	96	117	143	47	82	56	905	75	88	1059	22
AMBIENT												
RELATED												
PROJECT												
TOTAL	47	96	117	143	47	82	56	905	75	88	1059	22
LANE	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{213 + 143 + 56 + 541}{*1500} = 0.565$$

LOS = A

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March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

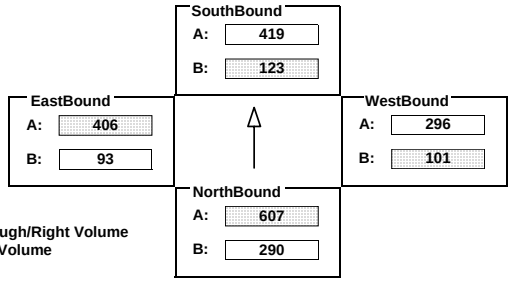
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	528	1625	196	224	1124	134	183	591	210	169	811	436
AMBIENT												
RELATED												
PROJECT												
TOTAL	528	1625	196	224	1124	134	183	591	210	169	811	436
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{607 + 123 + 101 + 406}{*1375} = 0.830$$

LOS = D

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April 21, 2010 ,Wednesday 01:06:12 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1862	175	824	1328	0	147	0	797	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1862	175	824	1328	0	147	0	797	0	0	0
LANE	0 0	2 0	1 0 0	2 0	3 0 0 0 0		2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 443
B: 453

EastBound
A: 0
B: 0

WestBound
A: 0
B: 81

NorthBound
A: 679
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{679 + 453 + 81 + 0}{*1425} = 0.781$$

LOS = C

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APIPEAM

CalcaDB

April 21, 2010 ,Wednesday 01:06:12 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	24	930	64	168	1234	19	30	23	248	11	25	13
AMBIENT									-168			
RELATED												
PROJECT												
TOTAL	24	930	64	168	1234	19	30	23	80	11	25	13
LANE	1 0	1 0	1 0 0	1 0	1 0 1 0 0		1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 627
B: 168

EastBound
A: 25
B: 11

WestBound
A: 52
B: 30

NorthBound
A: 497
B: 24

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{497 + 168 + 52 + 11}{*1425} = 0.441$$

LOS = A

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March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	118	1744	33	28	1263	189	3	0	14	208	2	45
AMBIENT												
RELATED												
PROJECT												
TOTAL	118	1744	33	28	1263	189	3	0	14	208	2	45
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 484
B: 28

EastBound
A: 105
B: 105

WestBound
A: 17
B: 3

NorthBound
A: 592
B: 118

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{592 + 28 + 17 + 105}{*1375} = 0.470$$

LOS = A

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March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	625	52	498	664	51	151	97	486	74	75	27
AMBIENT												
RELATED												
PROJECT												
TOTAL	29	625	52	498	664	51	151	97	486	74	75	27
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 358
B: 498

EastBound
A: 102
B: 74

WestBound
A: 124
B: 124

NorthBound
A: 339
B: 29

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{339 + 498 + 124 + 102}{*1375} = 0.703$$

LOS = C

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March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	143	1752	323	92	1030	77	209	515	100	0	682	76
AMBIENT												
RELATED												
PROJECT												
TOTAL	143	1752	323	92	1030	77	209	515	100	0	682	76
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 369
B: 92

EastBound
A: 379
B: 0

WestBound
A: 308
B: 115

NorthBound
A: 584
B: 143

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{584 + 92 + 115 + 379}{*1375} = 0.781$$

LOS = C

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March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	616	0	119	0	111	586	75	143	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	616	0	119	0	111	586	75	143	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 339

EastBound
A: 72
B: 75

WestBound
A: 111
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 339 + 111 + 75}{*1500} = 0.280$$

LOS = A

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March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	600	1832	35	41	1236	67	16	14	41	130	17	610
AMBIENT												
RELATED												
PROJECT												
TOTAL	600	1832	35	41	1236	67	16	14	41	130	17	610
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	1	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Free

Critical Movements Diagram

SouthBound
A: 434
B: 41

EastBound
A: 17
B: 130

WestBound
A: 71
B: 16

NorthBound
A: 622
B: 330

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{330 + 434 + 71 + 130}{*1425} = 0.607$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	363	832	413	888	0	0	0	0	9	977	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	363	832	413	888	0	0	0	0	9	977	13
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	<none>	<none>	Split	Auto

Critical Movements Diagram

SouthBound
A: 444
B: 227

EastBound
A: 495
B: 9

WestBound
A: 0
B: 0

NorthBound
A: 458
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{458 + 227 + 0 + 495}{*1425} = 0.758$$

LOS = C

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CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	361	0	0	669	21	632	910	448	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	361	0	0	669	21	632	910	448	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 230
B: 0

EastBound
A: 0
B: 0

WestBound
A: 514
B: 514

NorthBound
A: 181
B: 12

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 230 + 514 + 0}{*1425} = 0.461$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2469	568	30	391	0	403	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2469	568	30	391	0	403	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 286
B: 30

EastBound
A: 0
B: 0

WestBound
A: 4
B: 222

NorthBound
A: 1235
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1235 + 30 + 222 + 0}{*1500} = 0.921$$

LOS = E

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APIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	38	1895	584	313	1115	234	346	107	500	160	320	28
AMBIENT												
RELATED												
PROJECT												
TOTAL	38	1895	584	313	1115	234	346	107	500	160	320	28

LANE	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	0	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram

SouthBound
A: 337
B: 172

EastBound
A: 116
B: 160

WestBound
A: 103
B: 190

NorthBound
A: 474
B: 38

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{474 + 172 + 190 + 116}{*1375} = 0.622$$

LOS = B

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APIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:38:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	242	0	0	0	197	622	0	0	980	74
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	242	0	0	0	197	622	0	0	980	74

LANE	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 490
B: 0

WestBound
A: 311
B: 197

NorthBound
A: 242
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{242 + 0 + 197 + 490}{1200} = 0.774$$

LOS = C

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	467	306	253	112	528	31	166	572	33	31	577	433
AMBIENT												
RELATED												
PROJECT												
TOTAL	467	306	253	112	528	31	166	572	33	31	577	433
LANE	2 0	1 0	0 1 0	1 0	0 0 1 0 0		1 0	1 0	1 0 0	1 0	2 0	0 1 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 559
B: 112

EastBound
A: 305
B: 31

WestBound
A: 303
B: 166

NorthBound
A: 306
B: 257

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{306 + 559 + 166 + 305}{*1425} = 0.868$$

LOS = D

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APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	352	672	717	411	0	982	0	689	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	352	672	717	411	0	982	0	689	0	0	0
LANE	0 0	2 0	0 1 0	1 0	3 0 0 0 0		2 0	0 0	0 2 0	0 0	0 0	0 0 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 137
B: 717

EastBound
A: 0
B: 0

WestBound
A: 0
B: 540

NorthBound
A: 176
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{176 + 717 + 540 + 0}{*1425} = 0.936$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	676	27	210	935	53	15	2	151	53	1	1
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	676	27	210	935	53	15	2	151	53	1	1

LANE																															
	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 329
B: 210

EastBound
A: 55
B: 53

WestBound
A: 151
B: 15

NorthBound
A: 234
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{234 + 210 + 151 + 53}{*1500} = 0.362$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	16	472	12	179	586	95	5	7	119	120	23	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	16	472	12	179	586	95	5	7	119	120	23	38

LANE																															
	1	0	2	0	1	0	0	1	0	2	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	0	1	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 293
B: 179

EastBound
A: 38
B: 120

WestBound
A: 119
B: 5

NorthBound
A: 161
B: 16

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{161 + 179 + 119 + 120}{*1500} = 0.316$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	367	12	131	477	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	367	12	131	477	25	6	0	90	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 251
B: 131

EastBound
A: 0
B: 0

WestBound
A: 90
B: 6

NorthBound
A: 192
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{192 + 131 + 90 + 0}{*1500} = 0.205$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	277	5	160	329	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	277	5	160	329	20	1	0	92	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 175
B: 160

EastBound
A: 0
B: 0

WestBound
A: 93
B: 1

NorthBound
A: 144
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{144 + 160 + 93 + 0}{1200} = 0.331$$

LOS = A

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APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

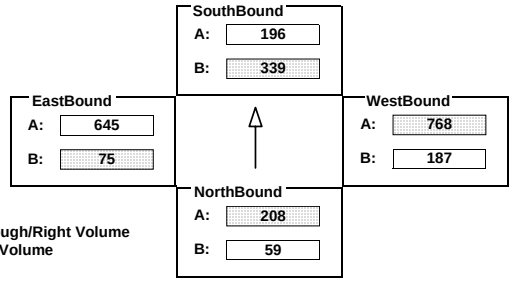
AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	59	89	119	339	176	196	187	1410	125	75	1242	47
AMBIENT												
RELATED												
PROJECT												
TOTAL	59	89	119	339	176	196	187	1410	125	75	1242	47
LANE	1 0 0 0 1 0 0			1 0 1 0 0 1 0			1 0 1 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{208 + 339 + 768 + 75}{*1500} = 0.857$$

LOS = D

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APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

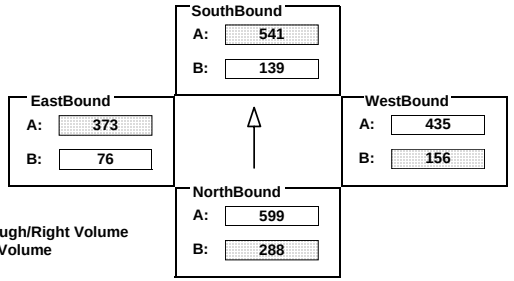
AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	524	1506	290	253	1433	191	283	870	312	138	746	543
AMBIENT												
RELATED												
PROJECT												
TOTAL	524	1506	290	253	1433	191	283	870	312	138	746	543
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{288 + 541 + 156 + 373}{*1375} = 0.918$$

LOS = E

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APIPEPM

CalcaDB

April 21, 2010 ,Wednesday 01:06:42 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1696	211	829	1769	0	164	0	930	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1696	211	829	1769	0	164	0	930	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 590
B: 456

EastBound
A: 0
B: 0

WestBound
A: 56
B: 90

NorthBound
A: 636
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{636 + 456 + 90 + 0}{*1425} = 0.759$$

LOS = C

Developed by Chun Wong, 12/94

APIPEPM

CalcaDB

April 21, 2010 ,Wednesday 01:06:42 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	19	1263	200	185	1379	17	70	16	364	19	35	27
AMBIENT									-185			
RELATED												
PROJECT												
TOTAL	19	1263	200	185	1379	17	70	16	179	19	35	27
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 698
B: 185

EastBound
A: 41
B: 19

WestBound
A: 98
B: 70

NorthBound
A: 732
B: 19

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{732 + 185 + 98 + 19}{*1425} = 0.656$$

LOS = B

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APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	115	1618	16	6	1610	324	5	0	31	347	3	74
AMBIENT												
RELATED												
PROJECT												
TOTAL	115	1618	16	6	1610	324	5	0	31	347	3	74
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 645
B: 6

EastBound
A: 175
B: 175

WestBound
A: 36
B: 5

NorthBound
A: 545
B: 115

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{115 + 645 + 36 + 175}{*1375} = 0.636$$

LOS = B

Developed by Chun Wong, 12/94

APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	923	64	420	1102	109	321	213	587	154	134	30
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	923	64	420	1102	109	321	213	587	154	134	30
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 606
B: 420

EastBound
A: 164
B: 154

WestBound
A: 267
B: 267

NorthBound
A: 494
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{494 + 420 + 267 + 164}{*1375} = 0.908$$

LOS = E

Developed by Chun Wong, 12/94

APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	144	1583	303	203	1521	110	392	769	94	0	649	163
AMBIENT												
RELATED												
PROJECT												
TOTAL	144	1583	303	203	1521	110	392	769	94	0	649	163

LANE																															
	1	0	3	0	0	1	0	1	0	2	0	0	2	0	1	0	1	0	0	0	0	1	0	1	0	0					

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 544
B: 203

EastBound
A: 406
B: 0

WestBound
A: 432
B: 216

NorthBound
A: 528
B: 144

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{528 + 203 + 216 + 406}{*1375} = 0.914$$

LOS = E

Developed by Chun Wong, 12/94

APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	905	0	137	0	229	501	81	298	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	905	0	137	0	229	501	81	298	0

LANE																															
	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	1	0	0	1	0	2	0	0	0						

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Free	Perm	Free	Perm	<none>

Critical Movements Diagram

SouthBound
A: 0
B: 498

EastBound
A: 149
B: 81

WestBound
A: 229
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 498 + 229 + 81}{*1500} = 0.469$$

LOS = A

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APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

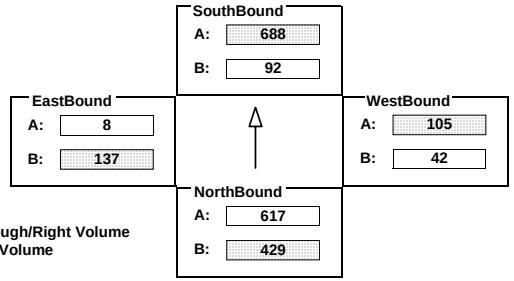
AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	780	1826	24	92	1945	119	42	23	40	137	8	1054
AMBIENT												
RELATED												
PROJECT												
TOTAL	780	1826	24	92	1945	119	42	23	40	137	8	1054
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{429 + 688 + 105 + 137}{*1425} = 0.884$$

LOS = D

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APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

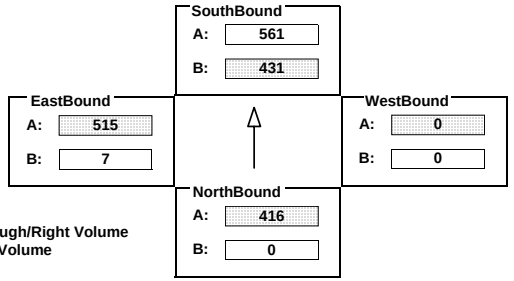
AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	511	738	783	1122	0	0	0	0	7	989	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	511	738	783	1122	0	0	0	0	7	989	41
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{416 + 431 + 0 + 515}{*1425} = 0.886$$

LOS = D

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APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	500	0	0	1162	60	749	1039	453	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	500	0	0	1162	60	749	1039	453	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 407
B: 0

EastBound
A: 0
B: 0

WestBound
A: 596
B: 596

NorthBound
A: 250
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 407 + 596 + 0}{*1425} = 0.646$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	918	232	65	1373	0	1264	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	918	232	65	1373	0	1264	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 882
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 695

NorthBound
A: 459
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 882 + 695 + 0}{*1500} = 0.981$$

LOS = E

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APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	28	1591	257	489	1708	801	528	437	618	38	200	52
AMBIENT												
RELATED												
PROJECT												
TOTAL	28	1591	257	489	1708	801	528	437	618	38	200	52
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	Auto	

Critical Movements Diagram

SouthBound
A: 801
B: 269

EastBound
A: 84
B: 38

WestBound
A: 219
B: 290

NorthBound
A: 398
B: 28

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{28 + 801 + 290 + 84}{*1375} = 0.805$$

LOS = D

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APIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:39:01 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: AMBIENT (2020) WITH LCP-PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	205	0	0	0	451	768	0	0	788	130
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	205	0	0	0	451	768	0	0	788	130
LANE	0 0 0 0 0 1 0			0 0 0 0 0 0 0			1 0 2 0 0 0 0			0 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		<none>	<none>		Perm	<none>		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 394
B: 0

WestBound
A: 384
B: 451

NorthBound
A: 205
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{205 + 0 + 451 + 394}{1200} = 0.875$$

LOS = D

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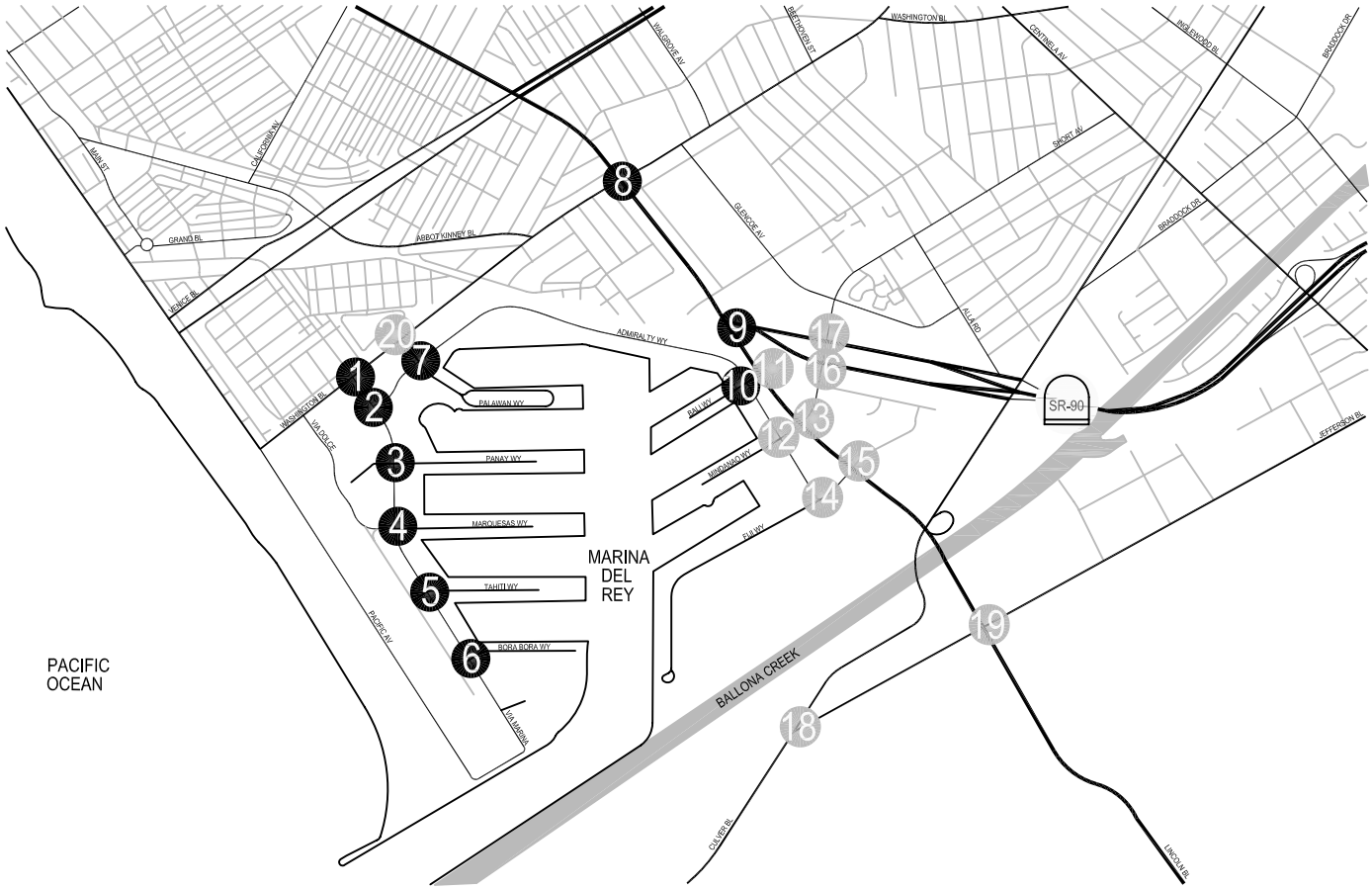
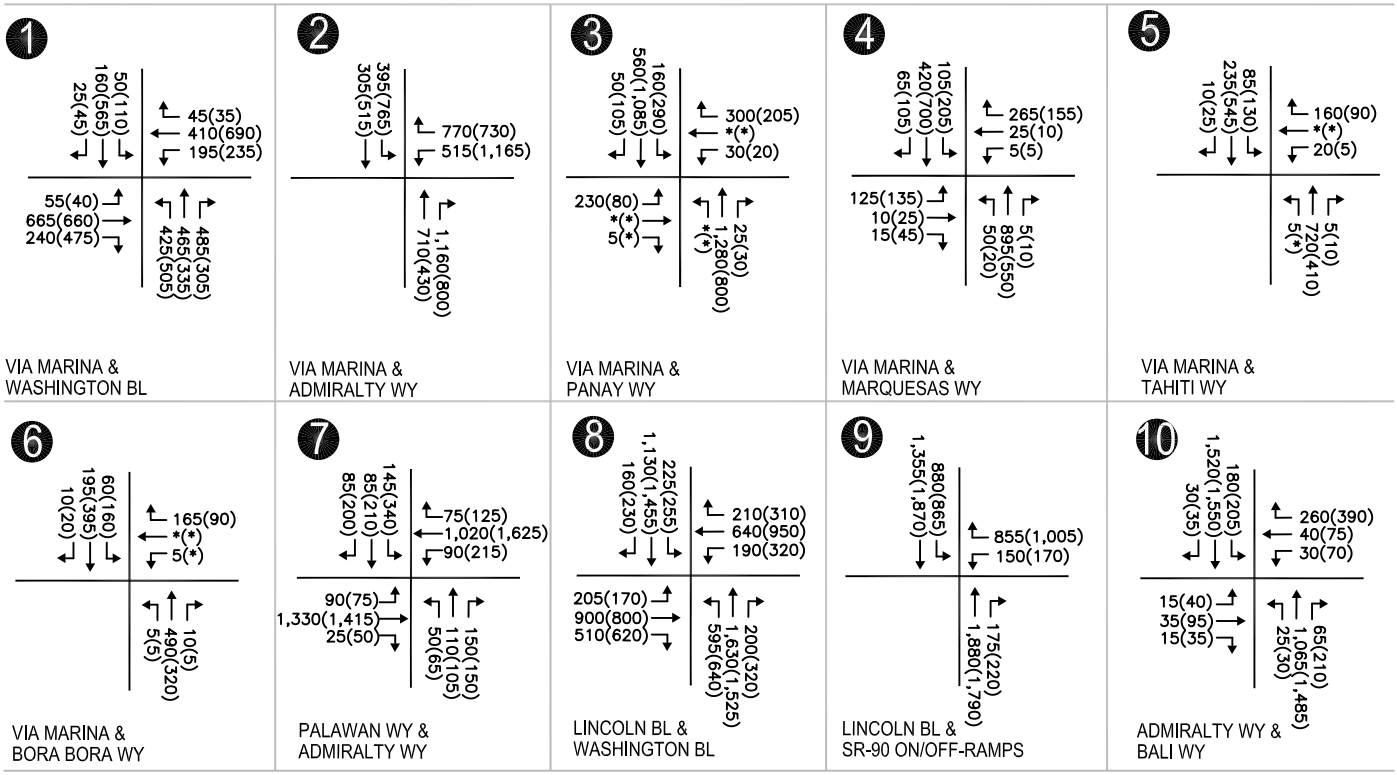
APPENDIX G

Ambient (2020) Conditions with Proposed LCP Buildout (including Pipeline Projects) Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

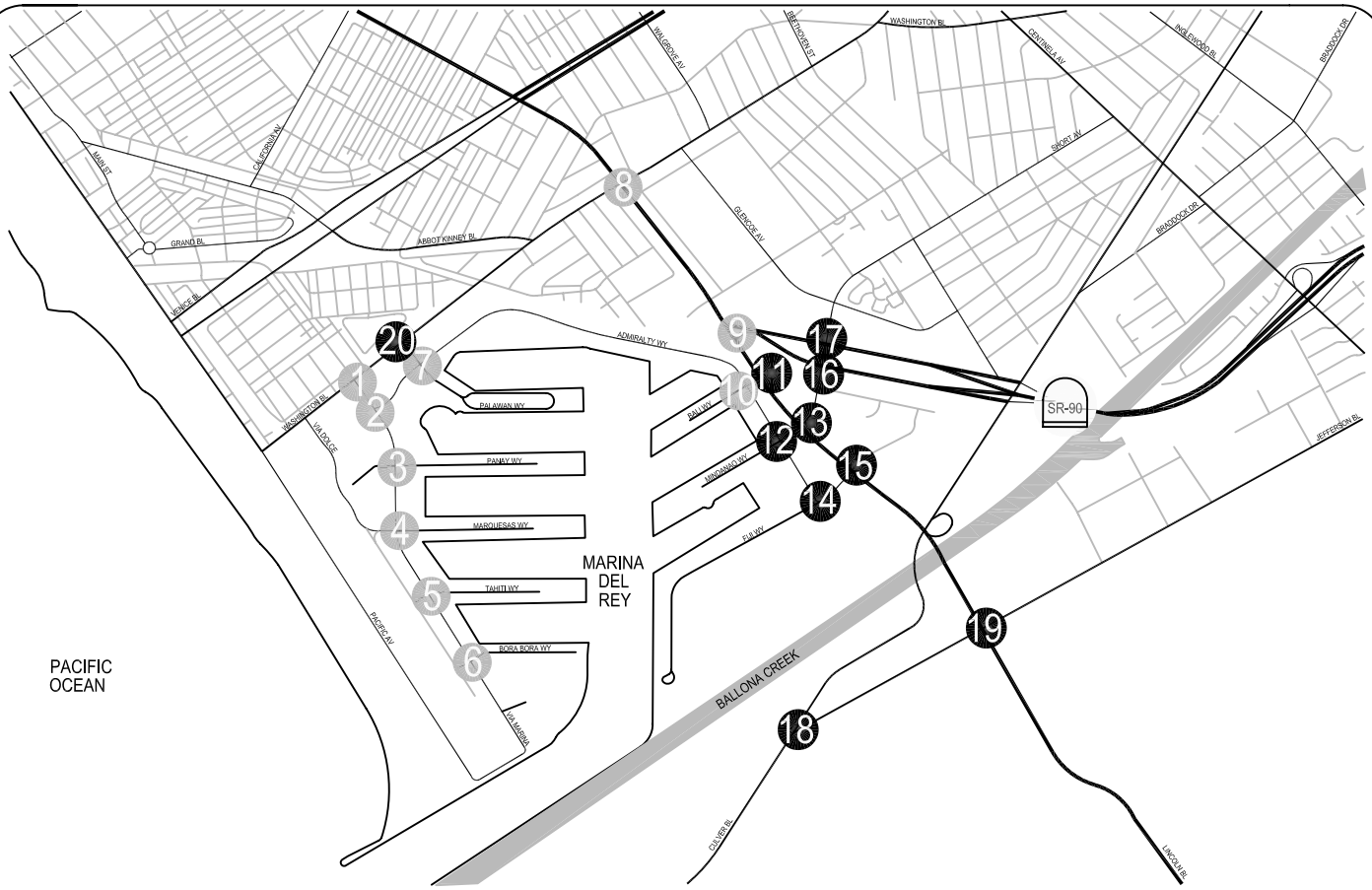
- STUDY INTERSECTION

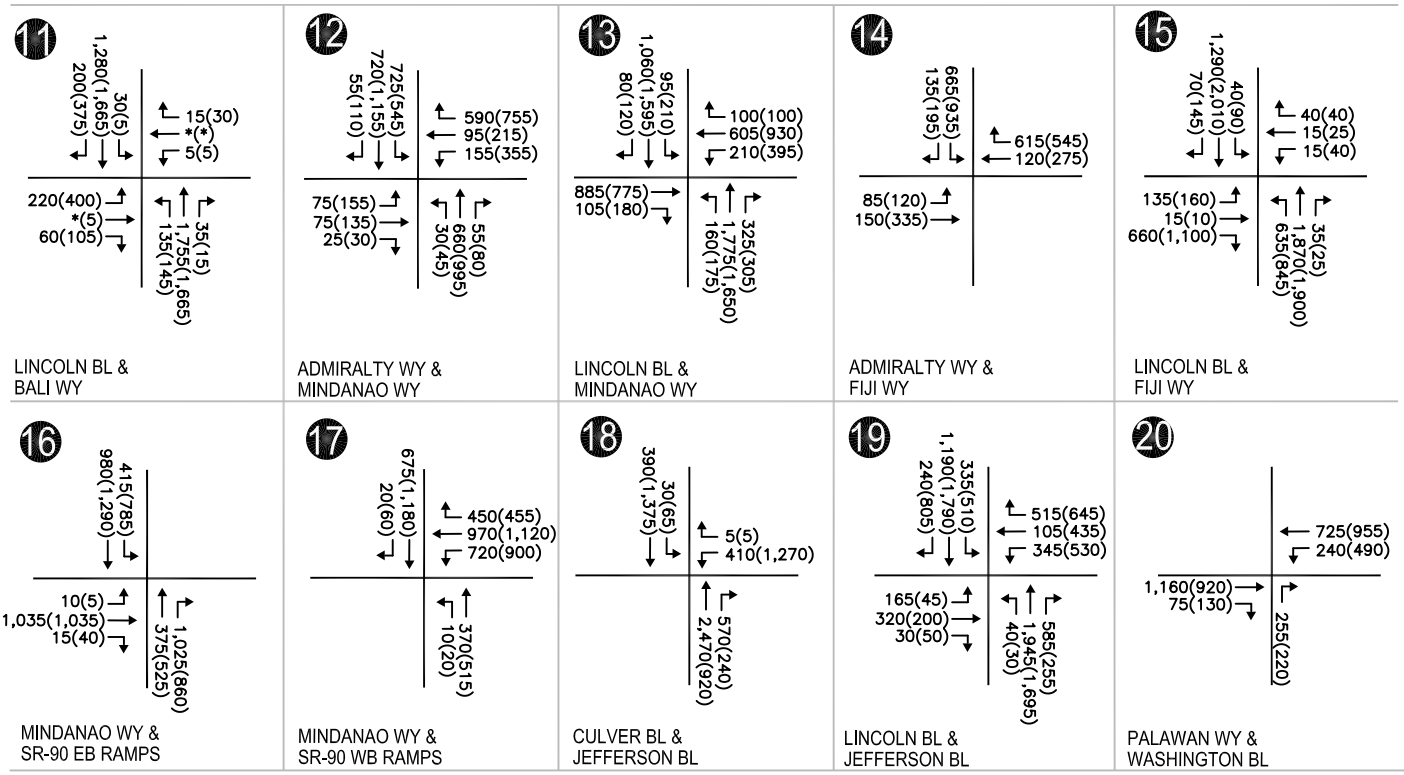
* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX G-1
AMBIENT (2020) CONDITIONS WITH PROPOSED LCP BUILDOUT (INCLUDING PIPELINE PROJECTS) TRAFFIC VOLUMES

RAJU Associates, Inc.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX G-2
AMBIENT (2020) CONDITIONS WITH PROPOSED LCP BUILDOUT (INCLUDING PIPELINE PROJECTS) TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

APROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

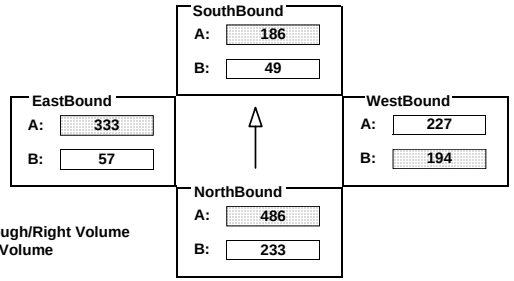
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	423	463	486	49	161	25	194	411	43	57	665	240
AMBIENT												
RELATED												
PROJECT												
TOTAL	423	463	486	49	161	25	194	411	43	57	665	240
LANE	2	0	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	0	1	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{486 + 186 + 194 + 333}{*1425} = 0.771$$

LOS = C

Developed by Chun Wong, 12/94

APROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

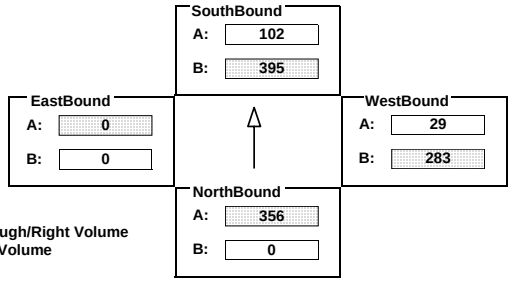
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	711	1162	395	307	0	514	0	770	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	711	1162	395	307	0	514	0	770	0	0	0
LANE	0	0	2	0	0	1	0	1	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{356 + 395 + 283 + 0}{*1425} = 0.656$$

LOS = B

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APROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	1282	25	159	559	51	28	0	298	230	1	4
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	1282	25	159	559	51	28	0	298	230	1	4
LANE	1 0	2 0	1 0	0	1 0	2 0	1 0	0	0 1	0 0	0 1	0 0	0	1 0	0 0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR				
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto				

Critical Movements Diagram

SouthBound
A: 203
B: 159

EastBound
A: 235
B: 230

WestBound
A: 298
B: 28

NorthBound
A: 436
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{436 + 159 + 298 + 230}{*1500} = 0.679$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	49	894	7	107	422	67	3	24	267	125	12	15
AMBIENT												
RELATED												
PROJECT												
TOTAL	49	894	7	107	422	67	3	24	267	125	12	15
LANE	1 0	2 0	1 0	0	1 0	2 0	0 1	0	0 1	0 0	1 0	1 0	0	1 0	0 0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR				
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto				

Critical Movements Diagram

SouthBound
A: 211
B: 107

EastBound
A: 15
B: 125

WestBound
A: 267
B: 3

NorthBound
A: 300
B: 49

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{300 + 107 + 267 + 125}{*1500} = 0.463$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	721	5	87	236	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	721	5	87	236	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Split	Auto	<none>	<none>

Critical Movements Diagram

SouthBound
A: 124
B: 87

EastBound
A: 0
B: 0

WestBound
A: 162
B: 20

NorthBound
A: 366
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{366 + 87 + 162 + 0}{*1500} = 0.340$$

LOS = A

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March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	491	10	61	196	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	491	10	61	196	10	6	1	165	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	<none>	<none>

Critical Movements Diagram

SouthBound
A: 103
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 253
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{253 + 61 + 172 + 0}{1200} = 0.405$$

LOS = A

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March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

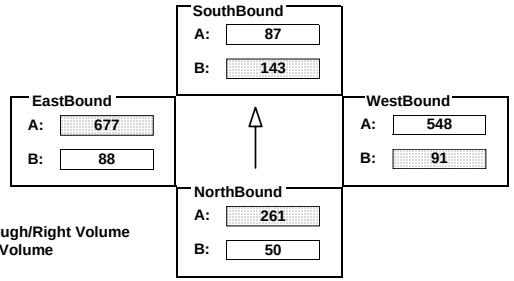
AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	50	109	152	143	87	85	91	1020	75	88	1331	23
AMBIENT												
RELATED												
PROJECT												
TOTAL	50	109	152	143	87	85	91	1020	75	88	1331	23
LANE	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{261 + 143 + 91 + 677}{*1500} = 0.711$$

LOS = C

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CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

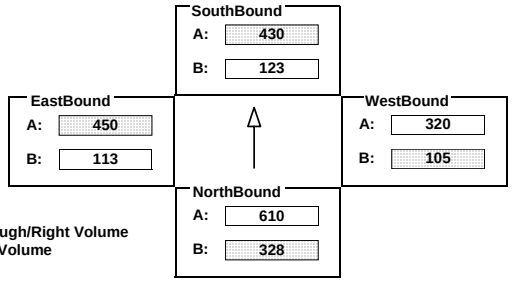
AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	597	1629	201	224	1129	161	190	640	210	206	900	509
AMBIENT												
RELATED												
PROJECT												
TOTAL	597	1629	201	224	1129	161	190	640	210	206	900	509
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{328 + 430 + 105 + 450}{*1375} = 0.885$$

LOS = D

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CalcaDB

April 21, 2010 ,Wednesday 01:08:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

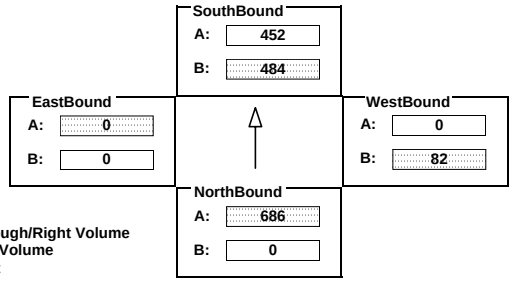
AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1882	176	880	1356	0	149	0	856	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1882	176	880	1356	0	149	0	856	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{686 + 484 + 82 + 0}{*1425} = 0.809$$

LOS = D

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APROJAM

CalcaDB

April 21, 2010 ,Wednesday 01:08:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

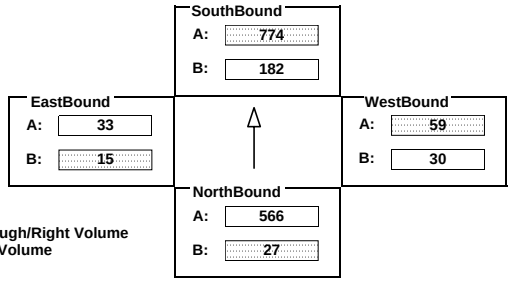
AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	27	1067	65	182	1519	28	30	39	260	15	36	15
AMBIENT									-182			
RELATED												
PROJECT												
TOTAL	27	1067	65	182	1519	28	30	39	78	15	36	15
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{27 + 774 + 59 + 15}{*1425} = 0.544$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	134	1754	33	28	1280	201	3	0	14	219	2	59
AMBIENT												
RELATED												
PROJECT												
TOTAL	134	1754	33	28	1280	201	3	0	14	219	2	59
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 494
B: 28

EastBound
A: 111
B: 111

WestBound
A: 17
B: 3

NorthBound
A: 596
B: 134

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{134 + 494 + 17 + 111}{*1375} = 0.480$$

LOS = A

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March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	660	55	724	720	55	157	97	591	75	75	27
AMBIENT												
RELATED												
PROJECT												
TOTAL	29	660	55	724	720	55	157	97	591	75	75	27
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 388
B: 724

EastBound
A: 102
B: 75

WestBound
A: 127
B: 127

NorthBound
A: 358
B: 29

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{358 + 724 + 127 + 102}{*1375} = 0.883$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	159	1775	323	93	1059	78	209	607	102	0	883	104
AMBIENT												
RELATED												
PROJECT												
TOTAL	159	1775	323	93	1059	78	209	607	102	0	883	104
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 379
B: 93

EastBound
A: 494
B: 0

WestBound
A: 355
B: 115

NorthBound
A: 592
B: 159

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{592 + 93 + 115 + 494}{*1375} = 0.871$$

LOS = D

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March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	664	0	134	0	119	616	83	149	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	664	0	134	0	119	616	83	149	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 365

EastBound
A: 75
B: 83

WestBound
A: 119
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 365 + 119 + 83}{*1500} = 0.308$$

LOS = A

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March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	634	1868	35	41	1289	71	16	14	41	135	17	660
AMBIENT												
RELATED												
PROJECT												
TOTAL	634	1868	35	41	1289	71	16	14	41	135	17	660
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Free

Critical Movements Diagram

SouthBound
A: 453
B: 41

EastBound
A: 17
B: 135

WestBound
A: 71
B: 16

NorthBound
A: 634
B: 349

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{349 + 453 + 71 + 135}{*1425} = 0.637$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	374	1023	413	982	0	0	0	0	9	1034	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	374	1023	413	982	0	0	0	0	9	1034	13
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	<none>	<none>	Split	Auto

Critical Movements Diagram

SouthBound
A: 491
B: 227

EastBound
A: 524
B: 9

WestBound
A: 0
B: 0

NorthBound
A: 563
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{563 + 227 + 0 + 524}{*1425} = 0.852$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

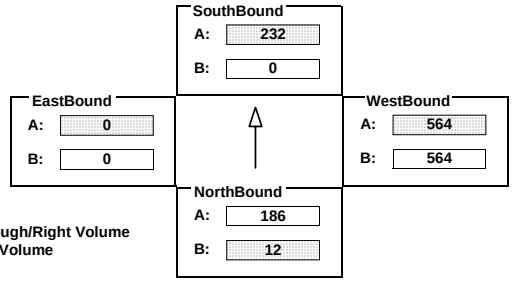
AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	372	0	0	674	21	721	971	448	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	372	0	0	674	21	721	971	448	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 232 + 564 + 0}{*1425} = 0.497$$

LOS = A

Developed by Chun Wong, 12/94

APROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

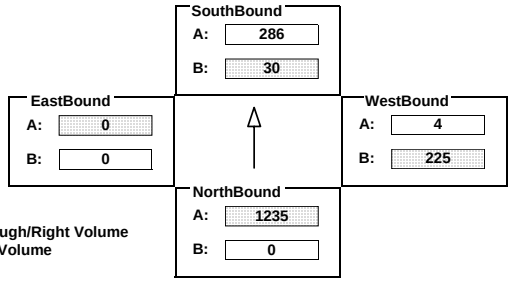
AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2469	572	30	391	0	409	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2469	572	30	391	0	409	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1235 + 30 + 225 + 0}{*1500} = 0.923$$

LOS = E

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APROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

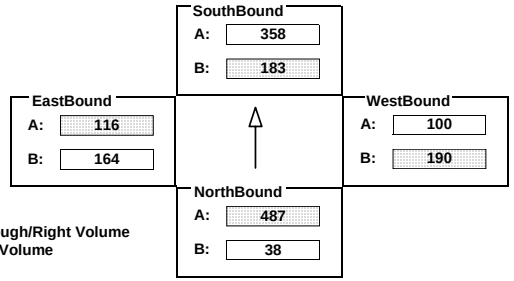
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	38	1947	584	333	1191	240	346	107	514	164	320	28
AMBIENT												
RELATED												
PROJECT												
TOTAL	38	1947	584	333	1191	240	346	107	514	164	320	28

LANE																								
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{487 + 183 + 190 + 116}{*1375} = 0.640$$

LOS = B

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APROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:41:10 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

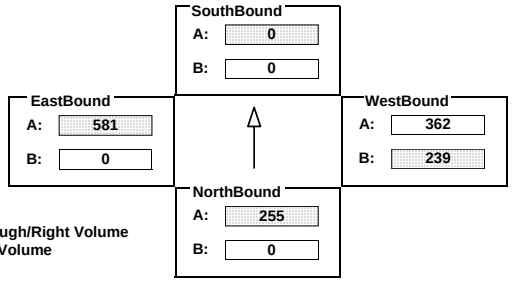
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	255	0	0	0	239	723	0	0	1162	75
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	255	0	0	0	239	723	0	0	1162	75

LANE																								
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{255 + 0 + 239 + 581}{1200} = 0.896$$

LOS = D

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	506	334	307	112	566	47	237	688	33	42	660	475
AMBIENT												
RELATED												
PROJECT												
TOTAL	506	334	307	112	566	47	237	688	33	42	660	475
LANE	2 0	1 0	0 1 0	1 0	0 0	1 0 0	1 0	1 0	1 0 0	1 0	2 0	0 1 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 613
B: 112

EastBound
A: 336
B: 42

WestBound
A: 361
B: 237

NorthBound
A: 334
B: 278

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{334 + 613 + 237 + 336}{*1425} = 0.997$$

LOS = E

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	429	800	766	514	0	1164	0	732	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	429	800	766	514	0	1164	0	732	0	0	0
LANE	0 0	2 0	0 1 0	1 0	3 0	0 0 0	2 0	0 0	0 2 0	0 0	0 0	0 0 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 171
B: 766

EastBound
A: 0
B: 0

WestBound
A: 0
B: 640

NorthBound
A: 215
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{215 + 766 + 640 + 0}{*1425} = 1.068$$

LOS = F

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

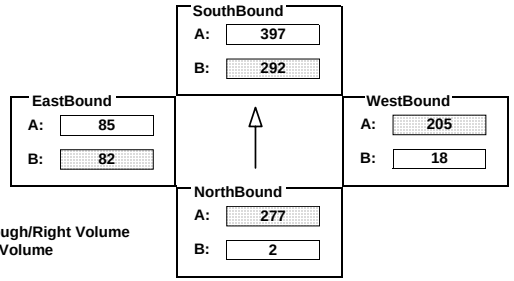
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	798	32	292	1084	107	18	2	205	82	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	798	32	292	1084	107	18	2	205	82	1	2
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{277 + 292 + 205 + 82}{*1500} = 0.501$$

LOS = A

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

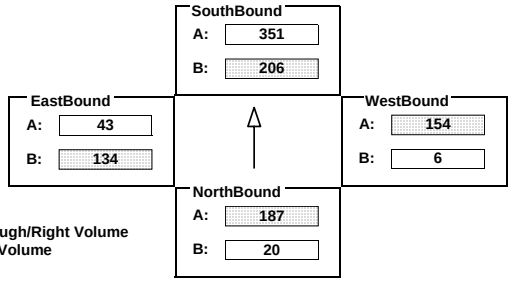
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	20	550	12	206	702	106	6	8	154	134	24	43
AMBIENT												
RELATED												
PROJECT												
TOTAL	20	550	12	206	702	106	6	8	154	134	24	43
LANE	1	0	2	0	1	0	0	1	0	2	0	0	1	0	0	1	0	0	0	1	0	1	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{187 + 206 + 154 + 134}{*1500} = 0.384$$

LOS = A

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	409	12	131	545	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	409	12	131	545	25	6	0	90	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 285
B: 131

EastBound
A: 0
B: 0

WestBound
A: 90
B: 6

NorthBound
A: 213
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{213 + 131 + 90 + 0}{*1500} = 0.219$$

LOS = A

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	319	5	160	397	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	319	5	160	397	20	1	0	92	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 209
B: 160

EastBound
A: 0
B: 0

WestBound
A: 93
B: 1

NorthBound
A: 165
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{165 + 160 + 93 + 0}{1200} = 0.348$$

LOS = A

Developed by Chun Wong, 12/94

APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

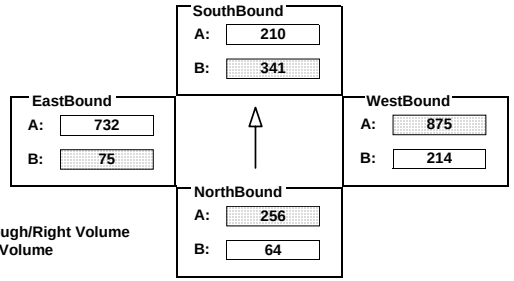
AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	64	104	152	341	210	202	214	1624	126	75	1413	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	64	104	152	341	210	202	214	1624	126	75	1413	51
LANE	1 0 0 0 1 0 0			1 0 1 0 0 1 0			1 0 1 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{256 + 341 + 875 + 75}{*1500} = 0.961$$

LOS = E

Developed by Chun Wong, 12/94

APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

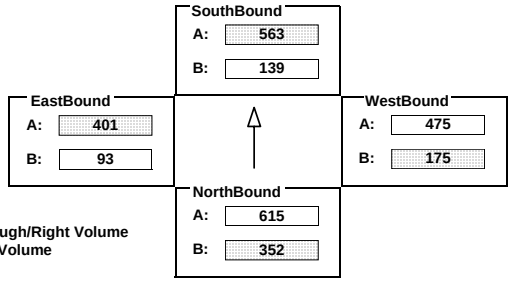
AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	640	1525	320	253	1457	232	319	949	312	169	802	620
AMBIENT												
RELATED												
PROJECT												
TOTAL	640	1525	320	253	1457	232	319	949	312	169	802	620
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{352 + 563 + 175 + 401}{*1375} = 1.014$$

LOS = F

Developed by Chun Wong, 12/94

APROJPM

CalcaDB

April 21, 2010 ,Wednesday 01:08:45 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1788	218	867	1870	0	170	0	1003	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1788	218	867	1870	0	170	0	1003	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 623
B: 477

EastBound
A: 0
B: 0

WestBound
A: 75
B: 94

NorthBound
A: 669
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{669 + 477 + 94 + 0}{*1425} = 0.800$$

LOS = D

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APROJPM

CalcaDB

April 21, 2010 ,Wednesday 01:08:45 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	31	1483	208	203	1552	37	70	74	388	41	97	37
AMBIENT									-203			
RELATED												
PROJECT												
TOTAL	31	1483	208	203	1552	37	70	74	185	41	97	37
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 795
B: 203

EastBound
A: 88
B: 41

WestBound
A: 130
B: 70

NorthBound
A: 846
B: 31

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{846 + 203 + 130 + 41}{*1425} = 0.786$$

LOS = C

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	147	1663	16	6	1666	375	5	0	31	402	3	106
AMBIENT												
RELATED												
PROJECT												
TOTAL	147	1663	16	6	1666	375	5	0	31	402	3	106
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 680
B: 6

EastBound
A: 203
B: 203

WestBound
A: 36
B: 5

NorthBound
A: 560
B: 147

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{147 + 680 + 36 + 203}{*1375} = 0.705$$

LOS = C

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	993	80	547	1156	110	355	213	753	156	134	30
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	993	80	547	1156	110	355	213	753	156	134	30
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 633
B: 547

EastBound
A: 164
B: 156

WestBound
A: 284
B: 284

NorthBound
A: 537
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{537 + 547 + 284 + 164}{*1375} = 1.044$$

LOS = F

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CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	173	1652	306	209	1594	120	393	931	101	0	775	180
AMBIENT												
RELATED												
PROJECT												
TOTAL	173	1652	306	209	1594	120	393	931	101	0	775	180

LANE																															
	1	0	3	0	0	1	0	1	0	2	0	0		2	0	1	0	1	0	0	0	0	1	0	1	0	0				

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 571
B: 209

EastBound
A: 478
B: 0

WestBound
A: 516
B: 216

NorthBound
A: 551
B: 173

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{551 + 209 + 216 + 478}{*1375} = 0.987$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	937	0	194	0	276	546	122	333	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	937	0	194	0	276	546	122	333	0

LANE																															
	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	1	0	0	1	0	2	0	0	0						

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Free	Perm	Free	Perm	<none>

Critical Movements Diagram

SouthBound
A: 0
B: 515

EastBound
A: 167
B: 122

WestBound
A: 276
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 515 + 276 + 122}{*1500} = 0.539$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	845	1902	24	92	2009	146	42	23	40	161	8	1100
AMBIENT												
RELATED												
PROJECT												
TOTAL	845	1902	24	92	2009	146	42	23	40	161	8	1100
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0
	Phasing	RTOR														
SIGNAL	Prot-Fix	Auto														
	Prot-Fix	Auto														
	Perm	Auto														
	Perm	Free														

Critical Movements Diagram

SouthBound
A: 718
B: 92

EastBound
A: 8
B: 161

WestBound
A: 105
B: 42

NorthBound
A: 642
B: 465

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{465 + 718 + 105 + 161}{*1425} = 0.947$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	524	859	783	1292	0	0	0	0	7	1034	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	524	859	783	1292	0	0	0	0	7	1034	41
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR														
SIGNAL	Perm	Auto														
	Prot-Fix	<none>														
	<none>	<none>														
	Split	Auto														

Critical Movements Diagram

SouthBound
A: 646
B: 431

EastBound
A: 538
B: 7

WestBound
A: 0
B: 0

NorthBound
A: 461
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{461 + 431 + 0 + 538}{*1425} = 0.934$$

LOS = E

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	513	0	0	1179	60	901	1118	453	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	513	0	0	1179	60	901	1118	453	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 413
B: 0

EastBound
A: 0
B: 0

WestBound
A: 673
B: 673

NorthBound
A: 257
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 413 + 673 + 0}{*1425} = 0.705$$

LOS = C

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	918	240	65	1373	0	1269	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	918	240	65	1373	0	1269	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 882
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 698

NorthBound
A: 459
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 882 + 698 + 0}{*1500} = 0.983$$

LOS = E

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APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

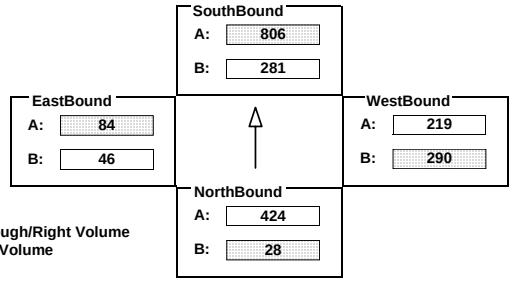
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	28	1696	257	510	1789	806	528	437	647	46	200	52
AMBIENT												
RELATED												
PROJECT												
TOTAL	28	1696	257	510	1789	806	528	437	647	46	200	52

LANE																															
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	1	0	0			

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{28 + 806 + 290 + 84}{*1375} = 0.809$$

LOS = D

Developed by Chun Wong, 12/94

APROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:42:03 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: AMBIENT (2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

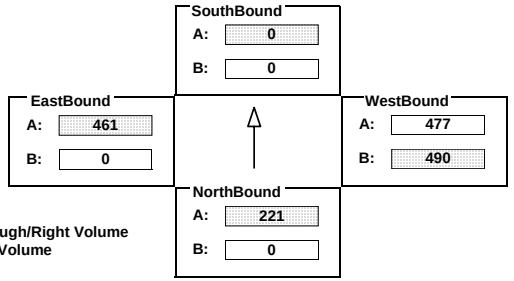
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	221	0	0	0	490	954	0	0	922	132
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	221	0	0	0	490	954	0	0	922	132

LANE																															
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0			

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{221 + 0 + 490 + 461}{1200} = 0.977$$

LOS = E

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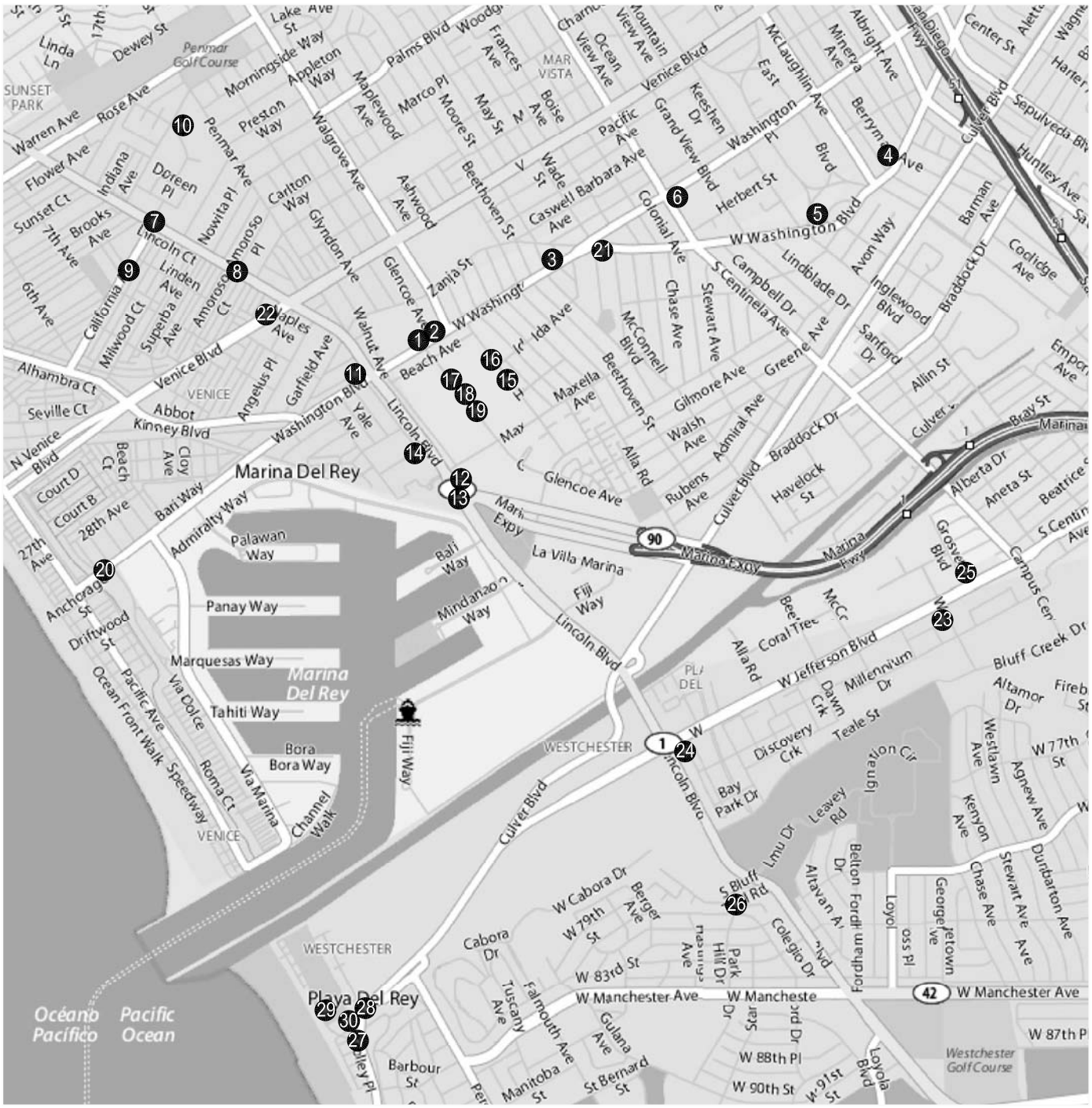
APPENDIX H

Related Projects Information

TABLE H-1
LIST OF RELATED PROJECTS

Map No.	Project Name	Location	Description
1	Glencoe/Washington Mixed-Use Project [1]	13365 Washington Boulevard	Retail 4,183 s.f., Condominium 19 units
2	Live/Work Units [1]	13340 Washington Boulevard	41 unit condominium development with 6 live/work condominium units in Culver City and 35 Units in Los Angeles
3	Baldwin Site [1]	12803 W. Washington Boulevard	New three-story commercial (office and retalil) condominium building (retail ground floor) totaling 37,308 s.f.
4	FAYNSOD Family Trust [1]	11501-11509 Washington Boulevard	6,411 g.s.f. mixed-use project consisting of three retail spaces and three apartment units on the second floor.
5	11957 Washington Bl Office Project [1]	11957 Washington Boulevard	73,569 s.f. three-story office building
6	Washington Place Office Project [1]	12402 Washington Place	Office 30,400 s.f., Specialty Retail 9,300 s.f.
7	Mixed-Use Project [2]	1400 Lincoln Boulevard (assumed 50% complete)	Apartment 280 units, Shopping Center 188,600 s.f.
8	Gas Station w/Convenience Store [2]	2005 Lincoln Boulevard	Service Station w/Convenience Store 6 pumps
9	Charter High School [2]	841 California Avenue	Charter High School 420 students
10	Lincoln Place Project [2]	1077 Elkgrove Avenue	Condominium 99 units
11	Mixed-Use Project [2]	4004 S. Lincoln Boulevard	Condominium 98 units, Retail 6,020 s.f.
12	Via Marina Project [2]	4350 Lincoln Boulevard	Condominium 244 units, Shopping Center 9,000 s.f.; To be removed: Shopping Center -21,038 s.f
13	Mixed-Use Project [2]	4363 Lincoln Boulevard	Condominium 158 units, Shopping Center 3,178 s.f., To be removed: Car Rental Facility -48,000 s.f.
14	Mixed-Use Project [2]	NWC Princeton Drive/ Carter Ave	Apartments 298 units; To be removed: Light Manufacturing -24,000 s.f., Office -21,600 s.f., Auto Service/Repair -40,000 s.f.
15	Condominium Project [2]	4155 Redwood Ave	Condominium 118 units
16	Condominium Project [2]	4055, 4063, 4071 S Redwood Avenue	Condominiums 140 units
17	Apartment Project [2]	4080 Glencoe Avenue	Apartment 64 units
18	Del Rey Lofts [2]	4115 Glencoe Avenue and 4133 Redwood Avenue	Condominium 49 units, Apartment 52 units
19	Condominium Project [2]	4131 Glencoe Avenue	Condominium 117 units
20	Apartment Project [2]	330 W Washington Boulevard	Apartment 123 units
21	Condominium Project [1]	4025 Wade Street	Condominiums 4 units
22	Mixed-Use Development Project [2]	1020 Venice Boulevard	Apartment 40 units, 5,000 s.f. Specialty Retail Center
23	The Village at Playa Vista [2]	S/o Jefferson Boulevard/Westlawn Avenue	Office 1,750,000 s.f., Apartment 2600 units, Retail 150,000 s.f., Community Serving Uses 40,000 s.f.
24	Playa Vista Phase 1 [2]	S/o Jefferson Boulevard Boulevard, E/o Lincoln Boulevard (portions assumed completed and occupied)	Includes 3,246 d.u., 2,142,050 s.f. of office use, 25,000 s.f. of retail use, 1,129,900 s.f of production and staging support, and 65,000 s.f. of community serving use.
25	Mixed-Use Project	5550 Grosvenor Boulevard	Apartment 218 units; To be removed: Church - 38,987 s.f.
26	Single Family Residential [2]	7400 80th Street (assumed 15 % completed and occupied)	Single Family Residential 120 units
27	Condominium Project [2]	Trolley Place and Vista Del Mar	Condominium 46 units
28	Mixed-Use Project [2]	220 Culver Boulevard	Apartment 63 units, Retail 6,000 s.f.; To be removed: Restaurant -4,000 s.f.
29	Mixed-Use Project [2]	6819 Pacific Avenue	Apartment 29 units, Restaurant 3,000 s.f., Retail 1,000 s.f.
30	Mixed-Use Project [2]	138 Culver Boulevard	Condominium 63 units, Retail 10,051 s.f.
31	LAX Expansion [2]	Los Angeles International Airport	Airport Expansion, 78 MAP

[1] Source: List of related projects provided by City of Culver City
[2] Source: List of related projects provided by Los Angeles Department of Transportation (LADOT)



LEGEND:

- LOCATION OF RELATED PROJECTS

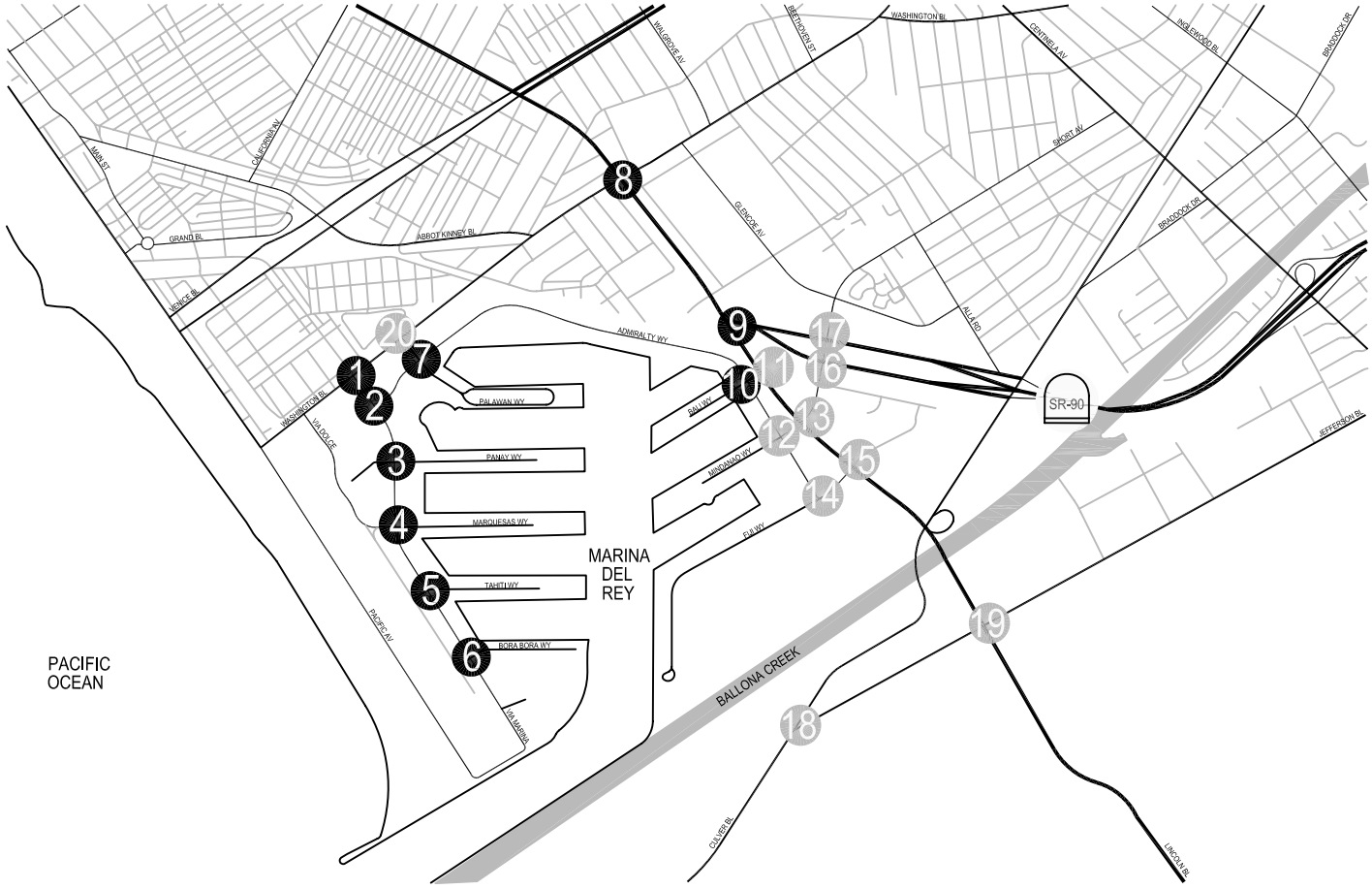
LAX EXPANSION → 31

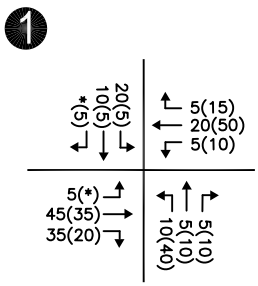
N
Not to scale

MAP SOURCE: YAHOO MAPS 2009

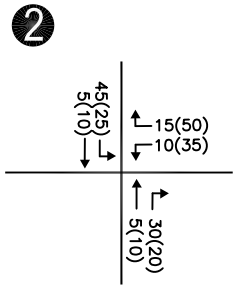
APPENDIX H-1
LOCATION OF RELATED PROJECTS

RAJU Associates, Inc.

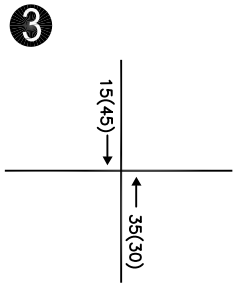




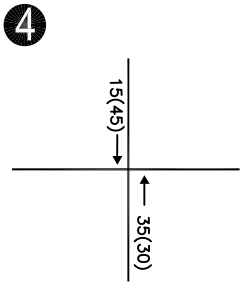
VIA MARINA & WASHINGTON BL



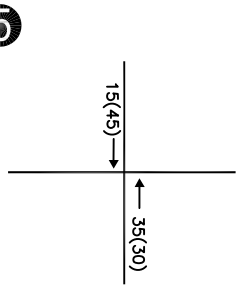
VIA MARINA & ADMIRALTY WY



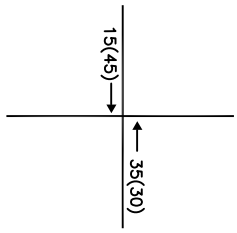
VIA MARINA & PANAY WY



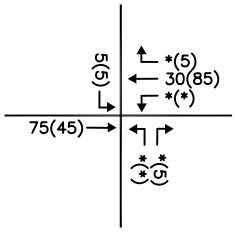
VIA MARINA & MARQUESAS WY



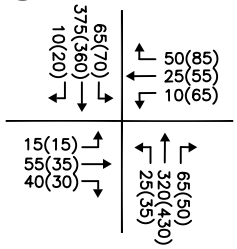
VIA MARINA & TAHITI WY



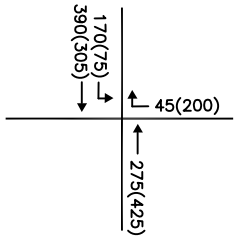
VIA MARINA & BORA BORA WY



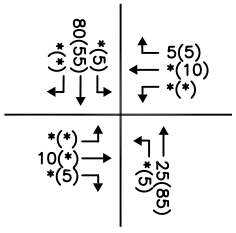
PALAWAN WY & ADMIRALTY WY



LINCOLN BL & WASHINGTON BL



LINCOLN BL & SR-90 ON/OFF-RAMPS



ADMIRALTY WY & BALI WY

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

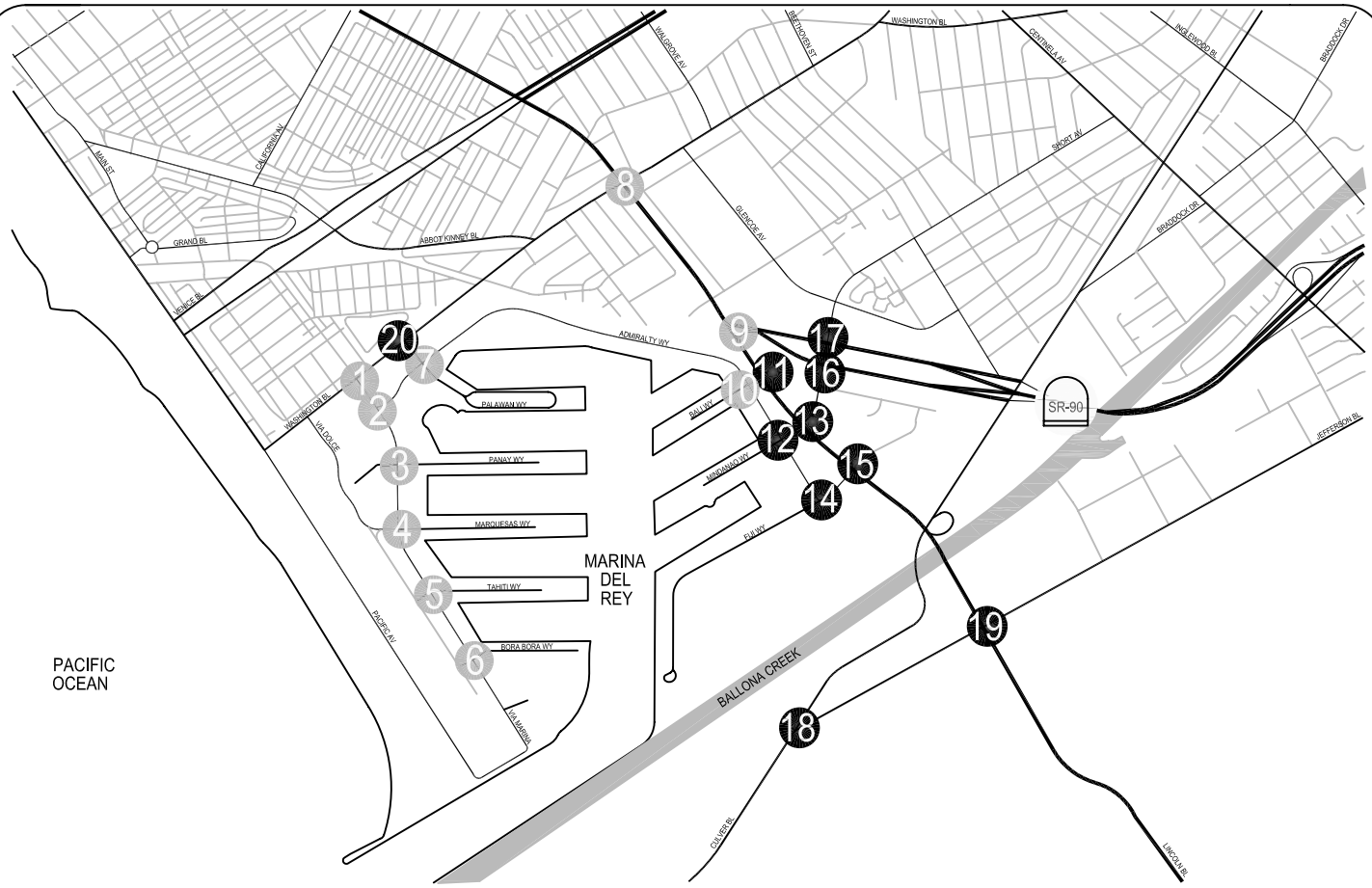
- STUDY INTERSECTION

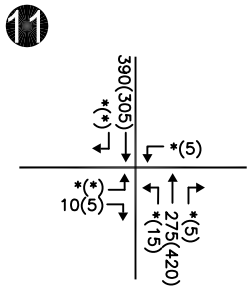
* - NEGLIGIBLE VOLUME

N
Not to scale

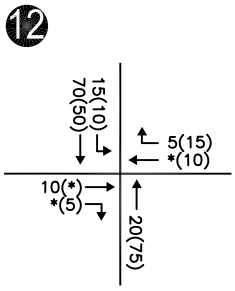
APPENDIX H-2
RELATED PROJECTS PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

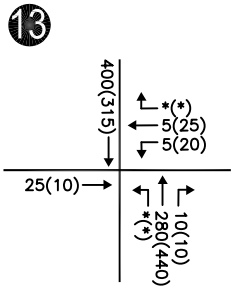




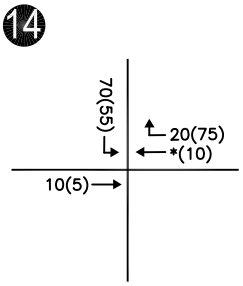
LINCOLN BL &
BALI WY



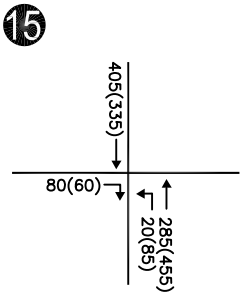
ADMIRALTY WY &
MINDANAO WY



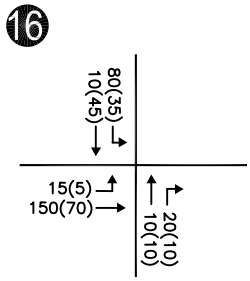
LINCOLN BL &
MINDANAO WY



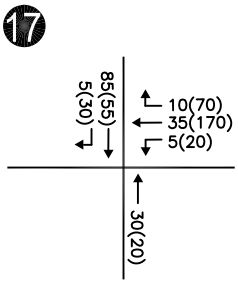
ADMIRALTY WY &
FIJI WY



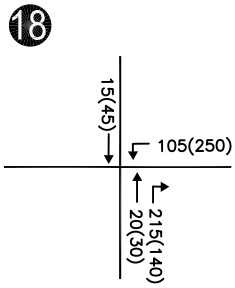
LINCOLN BL &
FIJI WY



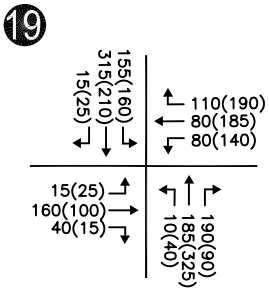
MINDANAO WY &
SR-90 EB RAMPS



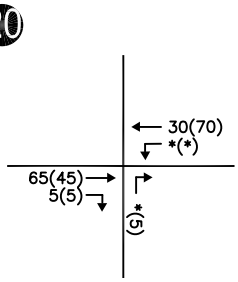
MINDANAO WY &
SR-90 WB RAMPS



CULVER BL &
JEFFERSON BL



LINCOLN BL &
JEFFERSON BL



PALAWAN WY &
WASHINGTON BL

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

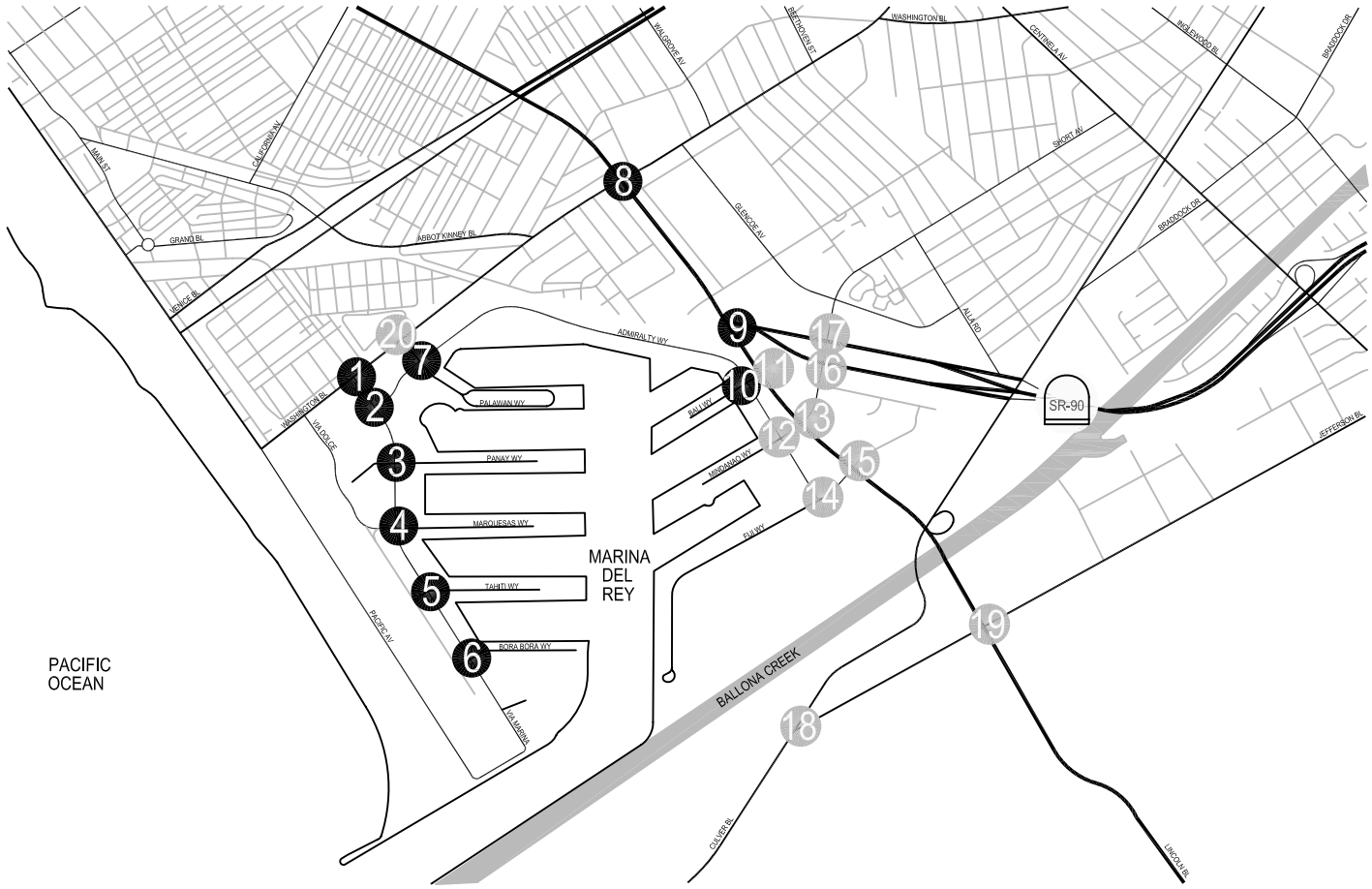
APPENDIX H-3
RELATED PROJECTS PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

APPENDIX I

Cumulative (2020) Conditions Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.



1 VIA MARINA & WASHINGTON BL

65(115)		45(50)
140(500)		400(620)
20(35)		125(160)
50(35)		365(250)
620(600)		395(280)
250(420)		400(460)

2 VIA MARINA & ADMIRALTY WY

405(685)		735(665)
220(395)		370(930)
		820(635)
		530(345)

3 VIA MARINA & PANAY WY

125(210)		180(150)
385(870)		*(*)
25(55)		20(15)
125(55)		25(25)
*(*)		980(630)
*(*)		*(*)

4 VIA MARINA & MARQUESAS WY

70(115)		135(85)
295(605)		15(5)
45(75)		*(5)
115(100)		5(10)
10(20)		735(480)
15(40)		45(15)

5 VIA MARINA & TAHITI WY

85(130)		160(90)
215(510)		*(*)
10(25)		20(5)
		5(10)
		635(385)
		5(*)

6 VIA MARINA & BORA BORA WY

60(160)		165(90)
175(360)		*(*)
10(20)		5(*)
		10(5)
		405(295)
		5(5)

7 PALAWAN WY & ADMIRALTY WY

145(340)		75(130)
30(95)		875(1,370)
80(190)		30(110)
90(75)		40(65)
1,010(1,190)		65(45)
15(30)		20(30)

8 LINCOLN BL & WASHINGTON BL

290(325)		260(400)
1,485(1,765)		600(885)
135(190)		175(320)
170(135)		235(300)
820(750)		1,935(1,900)
465(530)		540(510)

9 LINCOLN BL & SR-90 ON/OFF-RAMPS

990(895)		835(1,110)
1,670(1,980)		145(165)
		175(210)
		2,090(2,010)

10 ADMIRALTY WY & BALI WY

160(185)		250(360)
1,120(1,285)		25(25)
15(15)		20(40)
10(20)		40(145)
35(35)		875(1,155)
15(30)		25(20)

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

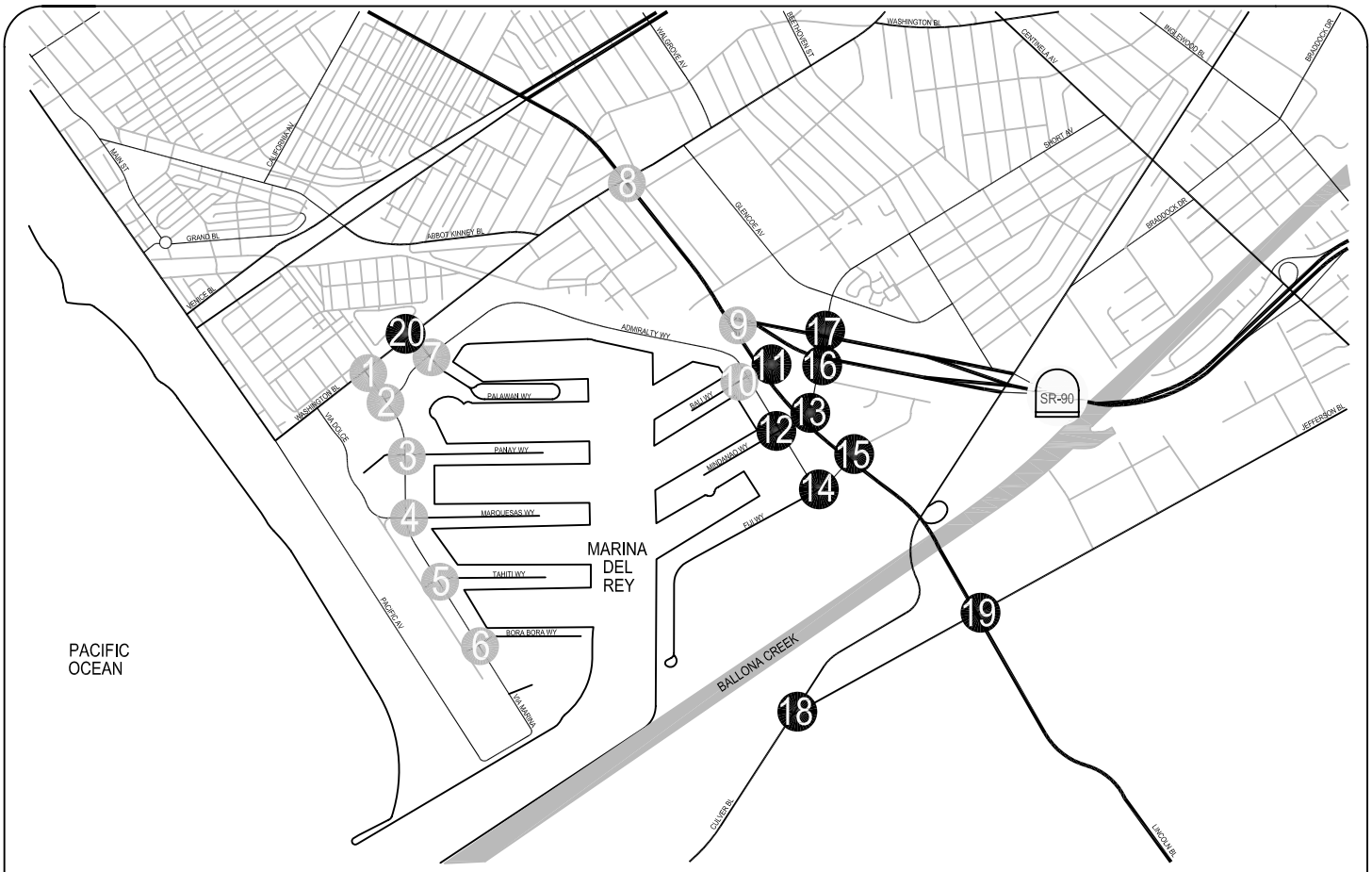
- STUDY INTERSECTION

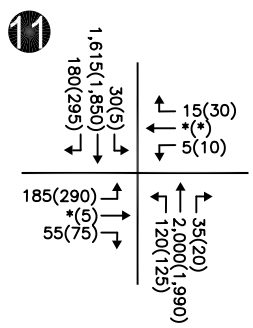
* - NEGLIGIBLE VOLUME

N
Not to scale

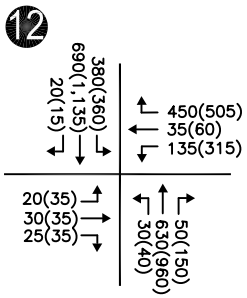
APPENDIX I-1
CUMULATIVE (2020) CONDITIONS TRAFFIC VOLUMES

RAJU Associates, Inc.

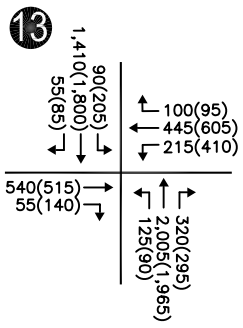




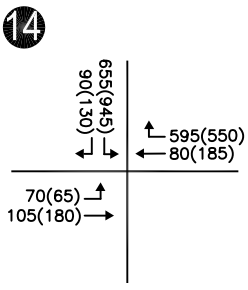
LINCOLN BL &
BALI WY



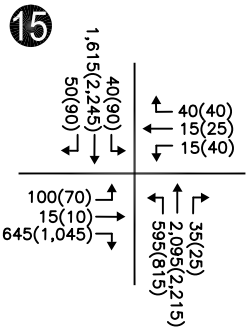
ADMIRALTY WY &
MINDANAO WY



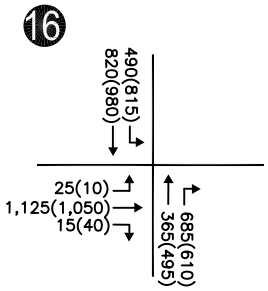
LINCOLN BL &
MINDANAO WY



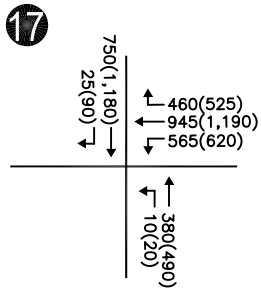
ADMIRALTY WY &
FIJI WY



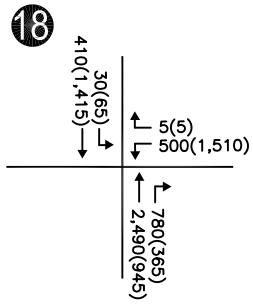
LINCOLN BL &
FIJI WY



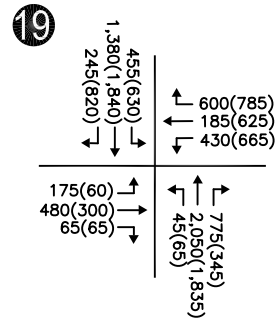
MINDANAO WY &
SR-90 EB RAMPS



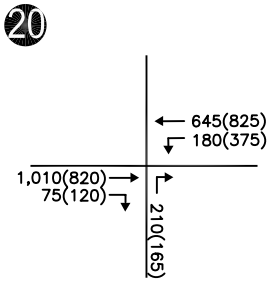
MINDANAO WY &
SR-90 WB RAMPS



CULVER BL &
JEFFERSON BL



LINCOLN BL &
JEFFERSON BL



PALAWAN WY &
WASHINGTON BL

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX I-2
CUMULATIVE (2020) CONDITIONS TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

CBASEAM

CalcaDB

March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	398	393	366	65	140	22	127	398	47	52	619	250
AMBIENT												
RELATED												
PROJECT												
TOTAL	398	393	366	65	140	22	127	398	47	52	619	250
LANE	2 0	1 0	0 1 0	1 0	0 0	1 0 0	1 0	1 0	1 0 0	1 0	2 0	0 1 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 162
B: 65

EastBound
A: 310
B: 52

WestBound
A: 223
B: 127

NorthBound
A: 393
B: 219

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{393 + 162 + 127 + 310}{*1425} = 0.626$$

LOS = B

Developed by Chun Wong, 12/94

CBASEAM

CalcaDB

March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	528	821	407	218	0	369	0	737	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	528	821	407	218	0	369	0	737	0	0	0
LANE	0 0	2 0	0 1 0	1 0	3 0	0 0 0	2 0	0 0	0 2 0	0 0	0 0	0 0 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 73
B: 407

EastBound
A: 0
B: 0

WestBound
A: 0
B: 203

NorthBound
A: 264
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{264 + 407 + 203 + 0}{*1425} = 0.543$$

LOS = A

Developed by Chun Wong, 12/94

CBASEAM

CalcaDB

March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	978	23	124	385	25	20	0	181	127	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	978	23	124	385	25	20	0	181	127	1	2
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 137
B: 124

EastBound
A: 130
B: 127

WestBound
A: 181
B: 20

NorthBound
A: 334
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{334 + 124 + 181 + 127}{*1500} = 0.441$$

LOS = A

Developed by Chun Wong, 12/94

CBASEAM

CalcaDB

March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	733	7	69	297	45	2	16	134	113	10	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	733	7	69	297	45	2	16	134	113	10	13
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 149
B: 69

EastBound
A: 13
B: 113

WestBound
A: 134
B: 2

NorthBound
A: 247
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{247 + 69 + 134 + 113}{*1500} = 0.305$$

LOS = A

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March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	637	5	87	213	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	637	5	87	213	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 113
B: 87

EastBound
A: 0
B: 0

WestBound
A: 162
B: 20

NorthBound
A: 324
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{324 + 87 + 162 + 0}{*1500} = 0.312$$

LOS = A

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March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	407	10	61	173	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	407	10	61	173	10	6	1	165	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 92
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 211
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{211 + 61 + 172 + 0}{1200} = 0.370$$

LOS = A

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March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

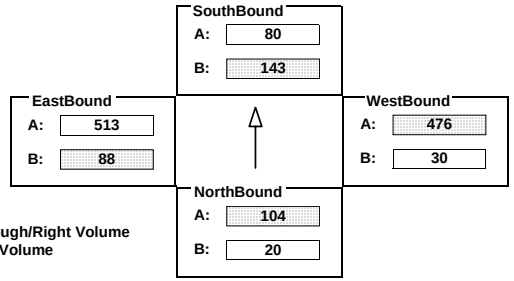
AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	20	66	38	143	29	80	30	877	75	88	1009	17
AMBIENT												
RELATED												
PROJECT												
TOTAL	20	66	38	143	29	80	30	877	75	88	1009	17
LANE	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{104 + 143 + 476 + 88}{*1500} = 0.471$$

LOS = A

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March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

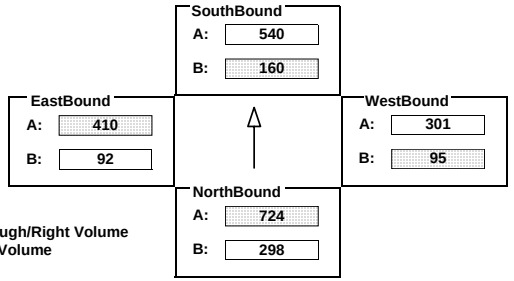
AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	542	1934	237	290	1486	135	173	601	262	168	820	463
AMBIENT												
RELATED												
PROJECT												
TOTAL	542	1934	237	290	1486	135	173	601	262	168	820	463
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{724 + 160 + 95 + 410}{*1375} = 0.940$$

LOS = E

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April 21, 2010 ,Wednesday 01:09:48 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

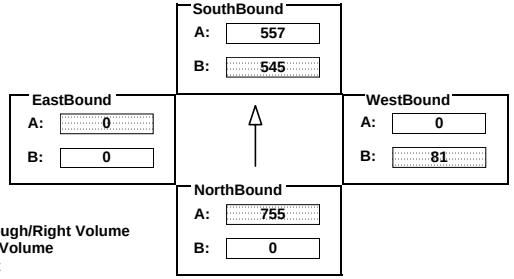
AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2091	175	991	1672	0	147	0	836	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2091	175	991	1672	0	147	0	836	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{755 + 545 + 81 + 0}{*1425} = 0.899$$

LOS = D

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CalcaDB

April 21, 2010 ,Wednesday 01:09:48 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

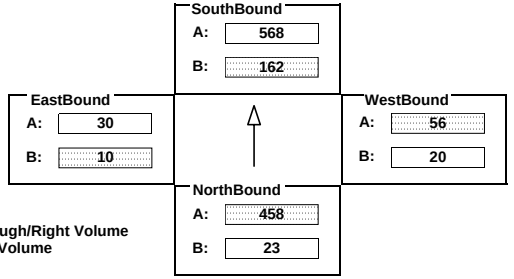
AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	23	874	42	162	1120	16	20	24	249	10	37	13
AMBIENT									-162			
RELATED												
PROJECT												
TOTAL	23	874	42	162	1120	16	20	24	87	10	37	13
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{458 + 162 + 56 + 10}{*1425} = 0.411$$

LOS = A

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March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

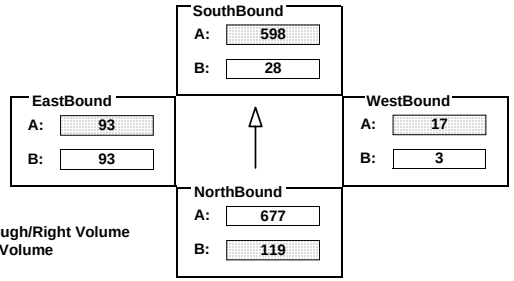
AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	119	1999	33	28	1615	180	3	0	14	183	2	54
AMBIENT												
RELATED												
PROJECT												
TOTAL	119	1999	33	28	1615	180	3	0	14	183	2	54
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0
	Phasing	RTOR					Phasing	RTOR					Phasing	RTOR					Phasing	RTOR				
SIGNAL	Prot-Fix	Auto					Prot-Fix	Auto					Split	Auto					Split	Auto				

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{119 + 598 + 17 + 93}{*1375} = 0.531$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

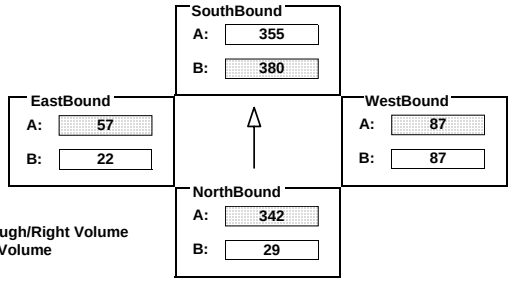
AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	632	52	380	690	20	136	37	451	22	31	26
AMBIENT												
RELATED												
PROJECT												
TOTAL	29	632	52	380	690	20	136	37	451	22	31	26
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	1	0	1	0	0	0	1	0	0
	Phasing	RTOR					Phasing	RTOR					Phasing	RTOR					Phasing	RTOR				
SIGNAL	Prot-Fix	Auto					Prot-Fix	Auto					Split	OLA					Split	Auto				

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{342 + 380 + 87 + 57}{*1375} = 0.560$$

LOS = A

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March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

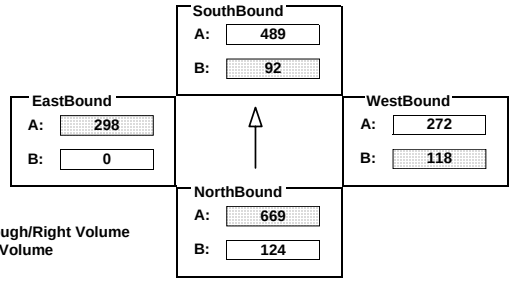
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	124	2007	319	92	1411	57	214	443	100	0	542	53
AMBIENT												
RELATED												
PROJECT												
TOTAL	124	2007	319	92	1411	57	214	443	100	0	542	53
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{669 + 92 + 118 + 298}{*1375} = 0.786$$

LOS = C

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March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

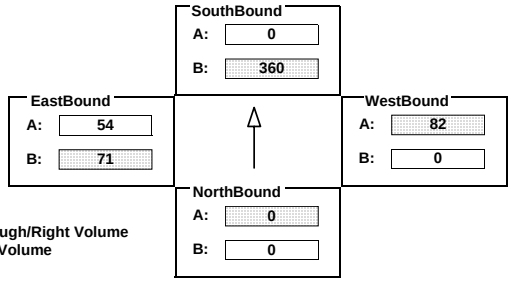
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	655	0	91	0	82	597	71	107	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	655	0	91	0	82	597	71	107	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Free	Perm	Free	Perm	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 360 + 82 + 71}{*1500} = 0.272$$

LOS = A

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March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	597	2097	35	41	1615	52	16	14	41	98	17	645
AMBIENT												
RELATED												
PROJECT												
TOTAL	597	2097	35	41	1615	52	16	14	41	98	17	645
LANE	2	0 2	0 1	0 0	1	0 2	0 1	0 0	0	0 0	1	0 1	0 0	1	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Perm	Auto			Perm	Free		

Critical Movements Diagram

SouthBound A: 556 B: 41

EastBound A: 17 B: 98

WestBound A: 71 B: 16

NorthBound A: 711 B: 328

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{328 + 556 + 71 + 98}{*1425} = 0.669$$

LOS = B

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March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	364	686	492	821	0	0	0	0	26	1127	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	364	686	492	821	0	0	0	0	26	1127	13
LANE	0	0 1	0 1	1	0	2	0 2	0 0	0 0	0	0 0	0 0	0	0	0	1	0 1	0 1	0	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Perm	Auto			Prot-Fix	<none>			<none>	<none>			Split	Auto		

Critical Movements Diagram

SouthBound A: 411 B: 271

EastBound A: 570 B: 26

WestBound A: 0 B: 0

NorthBound A: 350 B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{350 + 271 + 0 + 570}{*1425} = 0.766$$

LOS = C

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CBASEAM

CalcaDB

March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	379	0	0	748	26	565	943	460	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	379	0	0	748	26	565	943	460	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 258
B: 0

EastBound
A: 0
B: 0

WestBound
A: 503
B: 503

NorthBound
A: 190
B: 12

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 258 + 503 + 0}{*1425} = 0.472$$

LOS = A

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CBASEAM

CalcaDB

March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2491	780	30	408	0	502	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2491	780	30	408	0	502	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 294
B: 30

EastBound
A: 0
B: 0

WestBound
A: 4
B: 276

NorthBound
A: 1246
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1246 + 30 + 276 + 0}{*1500} = 0.965$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	46	2048	773	453	1378	245	428	187	602	174	480	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	46	2048	773	453	1378	245	428	187	602	174	480	66
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	Auto	

Critical Movements Diagram

SouthBound
A: 406
B: 249

EastBound
A: 182
B: 174

WestBound
A: 94
B: 235

NorthBound
A: 538
B: 46

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{538 + 249 + 235 + 182}{*1375} = 0.806$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 12:48:07 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	212	0	0	0	178	645	0	0	1012	74
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	212	0	0	0	178	645	0	0	1012	74
LANE	0 0 0 0 0 1 0			0 0 0 0 0 0 0			1 0 2 0 0 0 0			0 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		<none>	<none>		Perm	<none>		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 506
B: 0

WestBound
A: 323
B: 178

NorthBound
A: 212
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{212 + 0 + 178 + 506}{1200} = 0.747$$

LOS = C

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

CBASEPM

CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

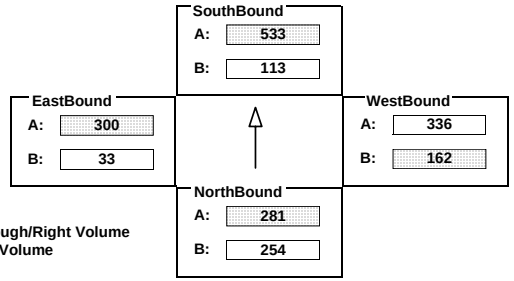
AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	462	281	252	113	499	34	162	622	50	33	600	419
AMBIENT												
RELATED												
PROJECT												
TOTAL	462	281	252	113	499	34	162	622	50	33	600	419
LANE	2	0	1	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	0	1	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{281 + 533 + 162 + 300}{*1425} = 0.825$$

LOS = D

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CBASEPM

CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

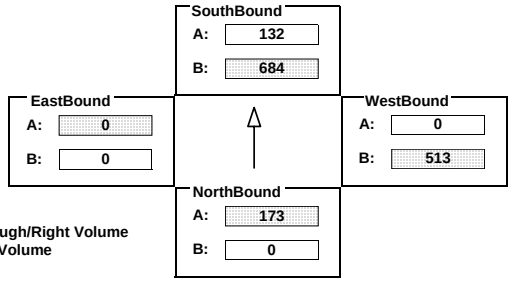
AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	345	635	684	396	0	932	0	665	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	345	635	684	396	0	932	0	665	0	0	0
LANE	0	0	2	0	0	1	0	1	0	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{173 + 684 + 513 + 0}{*1425} = 0.891$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	632	27	210	870	53	15	2	151	53	1	1
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	632	27	210	870	53	15	2	151	53	1	1
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 308
B: 210

EastBound
A: 55
B: 53

WestBound
A: 151
B: 15

NorthBound
A: 220
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{220 + 210 + 151 + 53}{*1500} = 0.353$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	16	482	11	117	603	75	5	5	86	98	19	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	16	482	11	117	603	75	5	5	86	98	19	38
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 302
B: 117

EastBound
A: 38
B: 98

WestBound
A: 86
B: 5

NorthBound
A: 164
B: 16

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{16 + 302 + 86 + 98}{*1500} = 0.265$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	385	12	131	510	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	385	12	131	510	25	6	0	90	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Split	Auto	<none>	<none>

Critical Movements Diagram

SouthBound
A: 268
B: 131

EastBound
A: 0
B: 0

WestBound
A: 90
B: 6

NorthBound
A: 201
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{201 + 131 + 90 + 0}{*1500} = 0.211$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	295	5	160	362	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	295	5	160	362	20	1	0	92	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	<none>	<none>

Critical Movements Diagram

SouthBound
A: 191
B: 160

EastBound
A: 0
B: 0

WestBound
A: 93
B: 1

NorthBound
A: 153
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{153 + 160 + 93 + 0}{1200} = 0.338$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	31	45	65	342	94	192	112	1369	131	75	1190	29
AMBIENT												
RELATED												
PROJECT												
TOTAL	31	45	65	342	94	192	112	1369	131	75	1190	29
LANE	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 192
B: 342

EastBound
A: 610
B: 75

WestBound
A: 750
B: 112

NorthBound
A: 110
B: 31

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{110 + 342 + 750 + 75}{*1500} = 0.781$$

LOS = C

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	509	1901	301	323	1766	188	319	883	398	137	750	532
AMBIENT												
RELATED												
PROJECT												
TOTAL	509	1901	301	323	1766	188	319	883	398	137	750	532
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 651
B: 178

EastBound
A: 375
B: 75

WestBound
A: 442
B: 175

NorthBound
A: 734
B: 280

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{280 + 651 + 175 + 375}{*1375} = 1.007$$

LOS = F

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CBASEPM

CalcaDB

April 21, 2010 ,Wednesday 01:10:15 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2009	211	897	1981	0	164	0	1112	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2009	211	897	1981	0	164	0	1112	0	0	0

LANE	0	0	2	0	1	0	0	2	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram

SouthBound
A: 660
B: 493

EastBound
A: 0
B: 0

WestBound
A: 118
B: 90

NorthBound
A: 740
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{740 + 493 + 118 + 0}{*1425} = 0.878$$

LOS = D

Developed by Chun Wong, 12/94

CBASEPM

CalcaDB

April 21, 2010 ,Wednesday 01:10:15 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	22	1153	143	184	1283	16	42	27	360	18	37	31
AMBIENT									-184			
RELATED												
PROJECT												
TOTAL	22	1153	143	184	1283	16	42	27	176	18	37	31

LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	OLA	Perm	Auto

Critical Movements Diagram

SouthBound
A: 650
B: 184

EastBound
A: 43
B: 18

WestBound
A: 102
B: 42

NorthBound
A: 648
B: 22

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{648 + 184 + 102 + 18}{*1425} = 0.598$$

LOS = A

Developed by Chun Wong, 12/94

CBASEPM

CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

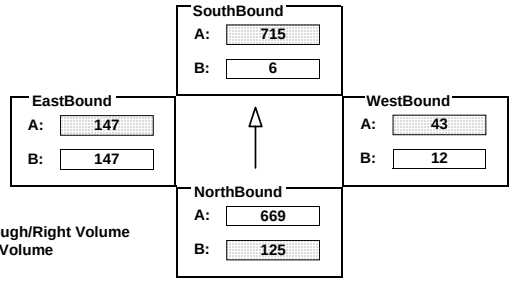
AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	125	1988	20	6	1852	293	12	0	31	290	3	75
AMBIENT												
RELATED												
PROJECT												
TOTAL	125	1988	20	6	1852	293	12	0	31	290	3	75
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Split	Auto			Split	Auto		

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{125 + 715 + 43 + 147}{*1375} = 0.679$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

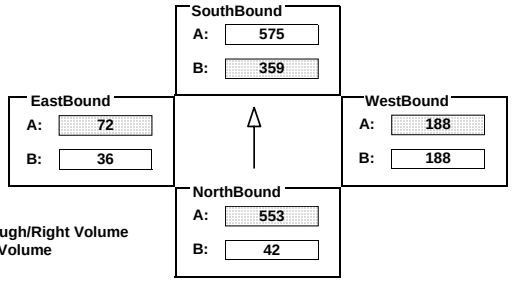
AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	42	958	148	359	1134	16	317	59	504	36	37	35
AMBIENT												
RELATED												
PROJECT												
TOTAL	42	958	148	359	1134	16	317	59	504	36	37	35
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	1	0	1	0	0	0	1	0	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Split	OLA			Split	Auto		

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{553 + 359 + 188 + 72}{*1375} = 0.782$$

LOS = C

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	91	1967	295	203	1798	84	411	607	94	0	515	139
AMBIENT												
RELATED												
PROJECT												
TOTAL	91	1967	295	203	1798	84	411	607	94	0	515	139
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 627
B: 203

EastBound
A: 327
B: 0

WestBound
A: 351
B: 226

NorthBound
A: 656
B: 91

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{656 + 203 + 226 + 327}{*1375} = 0.957$$

LOS = E

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CBASEPM

CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	946	0	129	0	183	551	65	178	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	946	0	129	0	183	551	65	178	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 520

EastBound
A: 89
B: 65

WestBound
A: 183
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 520 + 183 + 65}{*1500} = 0.442$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

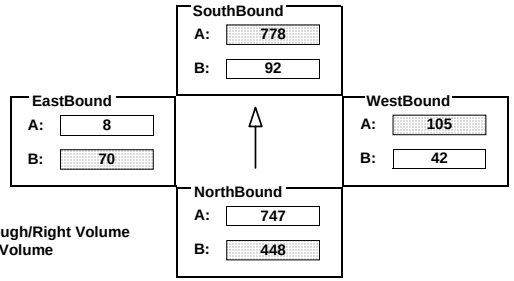
AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	814	2217	24	92	2246	89	42	23	40	70	8	1043
AMBIENT												
RELATED												
PROJECT												
TOTAL	814	2217	24	92	2246	89	42	23	40	70	8	1043
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{448 + 778 + 105 + 70}{*1425} = 0.913$$

LOS = E

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CBASEPM

CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

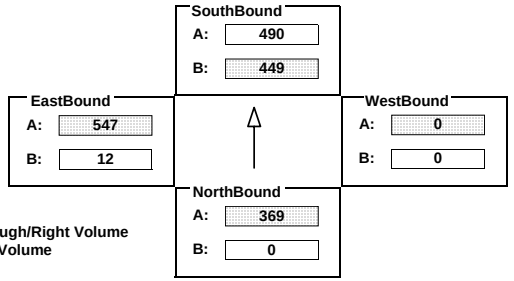
AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	496	611	817	979	0	0	0	0	12	1052	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	496	611	817	979	0	0	0	0	12	1052	41
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{369 + 449 + 0 + 547}{*1425} = 0.888$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	491	0	0	1181	91	621	1190	525	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	491	0	0	1181	91	621	1190	525	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 424
B: 0

EastBound
A: 0
B: 0

WestBound
A: 604
B: 604

NorthBound
A: 246
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 424 + 604 + 0}{*1425} = 0.664$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	947	365	65	1417	0	1509	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	947	365	65	1417	0	1509	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 904
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 830

NorthBound
A: 474
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 904 + 830 + 0}{*1500} = 1.086$$

LOS = F

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CBASEPM

CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	66	1833	346	629	1838	821	666	624	787	58	299	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	66	1833	346	629	1838	821	666	624	787	58	299	66

LANE																								
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram

SouthBound
A: 821
B: 346

EastBound
A: 122
B: 58

WestBound
A: 312
B: 366

NorthBound
A: 458
B: 66

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{66 + 821 + 366 + 122}{*1375} = 0.930$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 12:48:29 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: CUMULATIVE (2020) WITHOUT PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	167	0	0	0	375	824	0	0	820	122
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	167	0	0	0	375	824	0	0	820	122

LANE																								
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 410
B: 0

WestBound
A: 412
B: 375

NorthBound
A: 167
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{167 + 0 + 375 + 410}{1200} = 0.793$$

LOS = C

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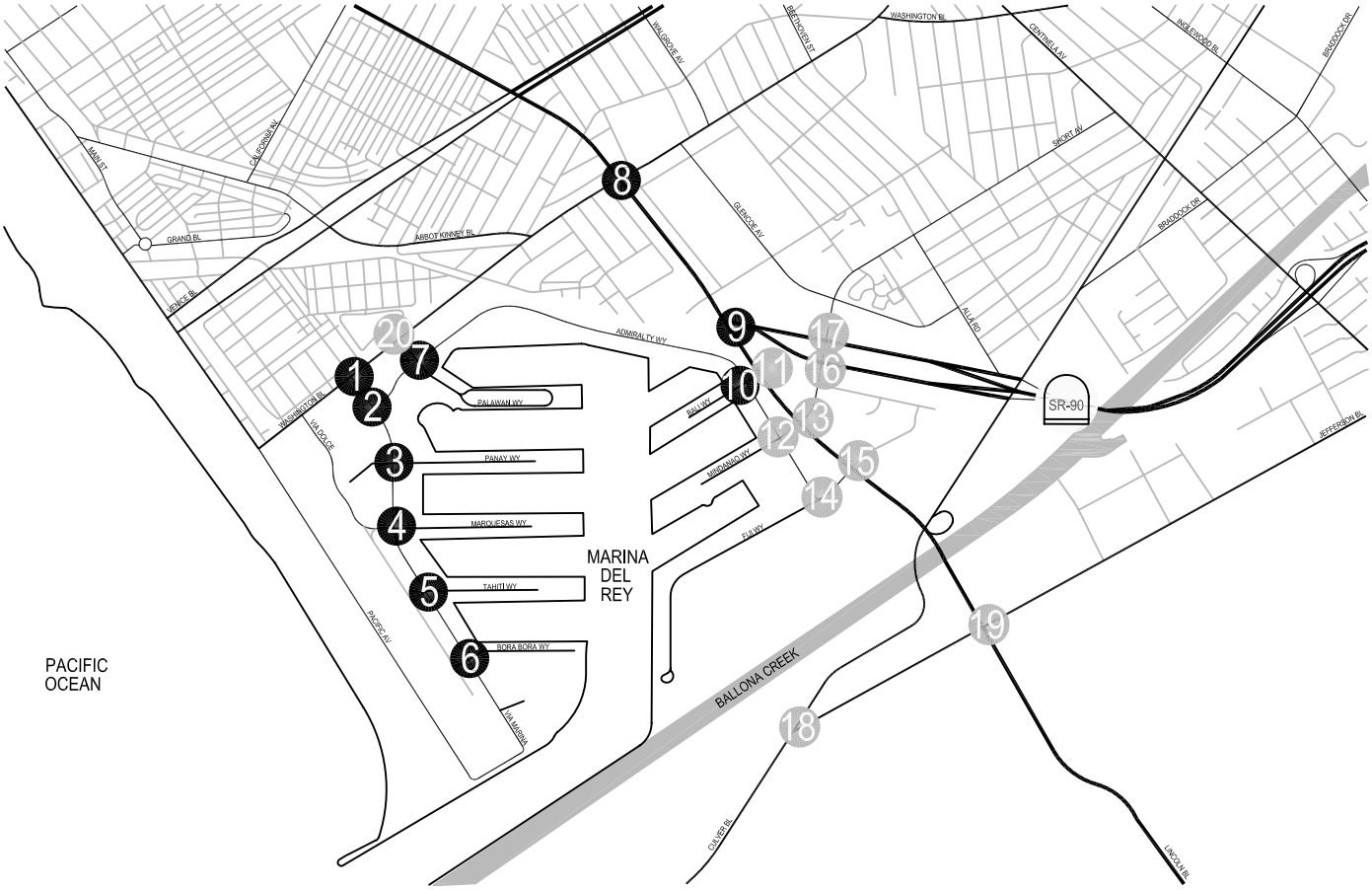
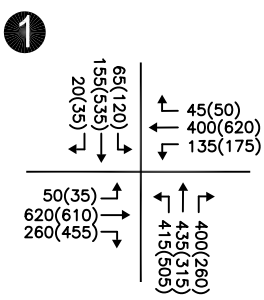
APPENDIX J

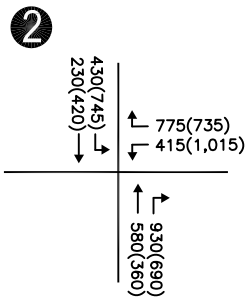
Cumulative (2020) Conditions with Pipeline Projects Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.

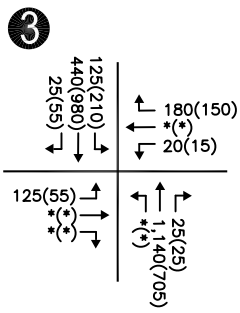




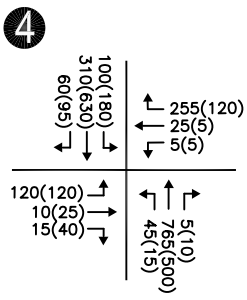
VIA MARINA & WASHINGTON BL



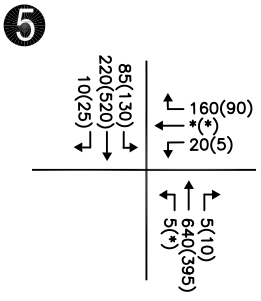
VIA MARINA & ADMIRALTY WY



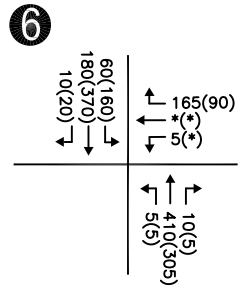
VIA MARINA & PANAY WY



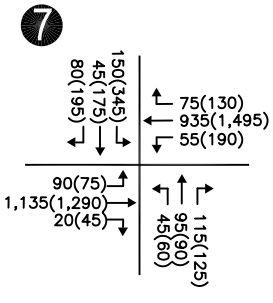
VIA MARINA & MARQUESAS WY



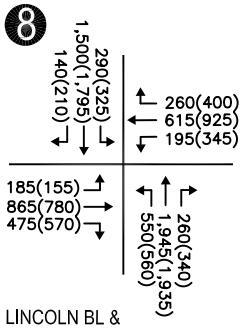
VIA MARINA & TAHITI WY



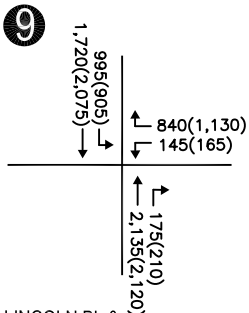
VIA MARINA & BORA BORA WY



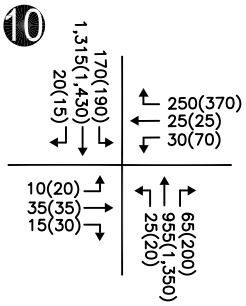
PALAWAN WY & ADMIRALTY WY



LINCOLN BL & WASHINGTON BL



LINCOLN BL & SR-90 ON/OFF-RAMPS



ADMIRALTY WY & BALI WY

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

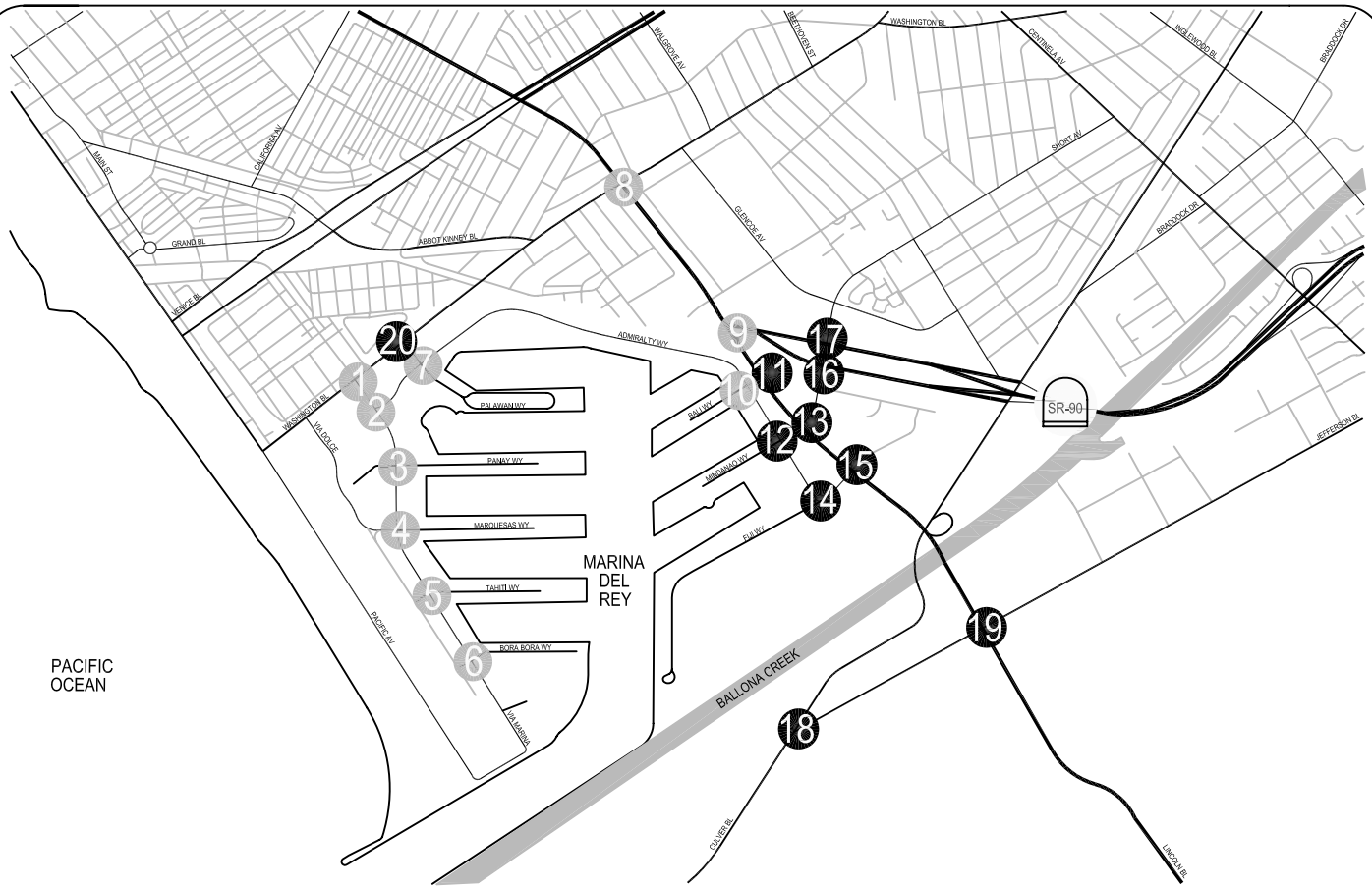
- STUDY INTERSECTION

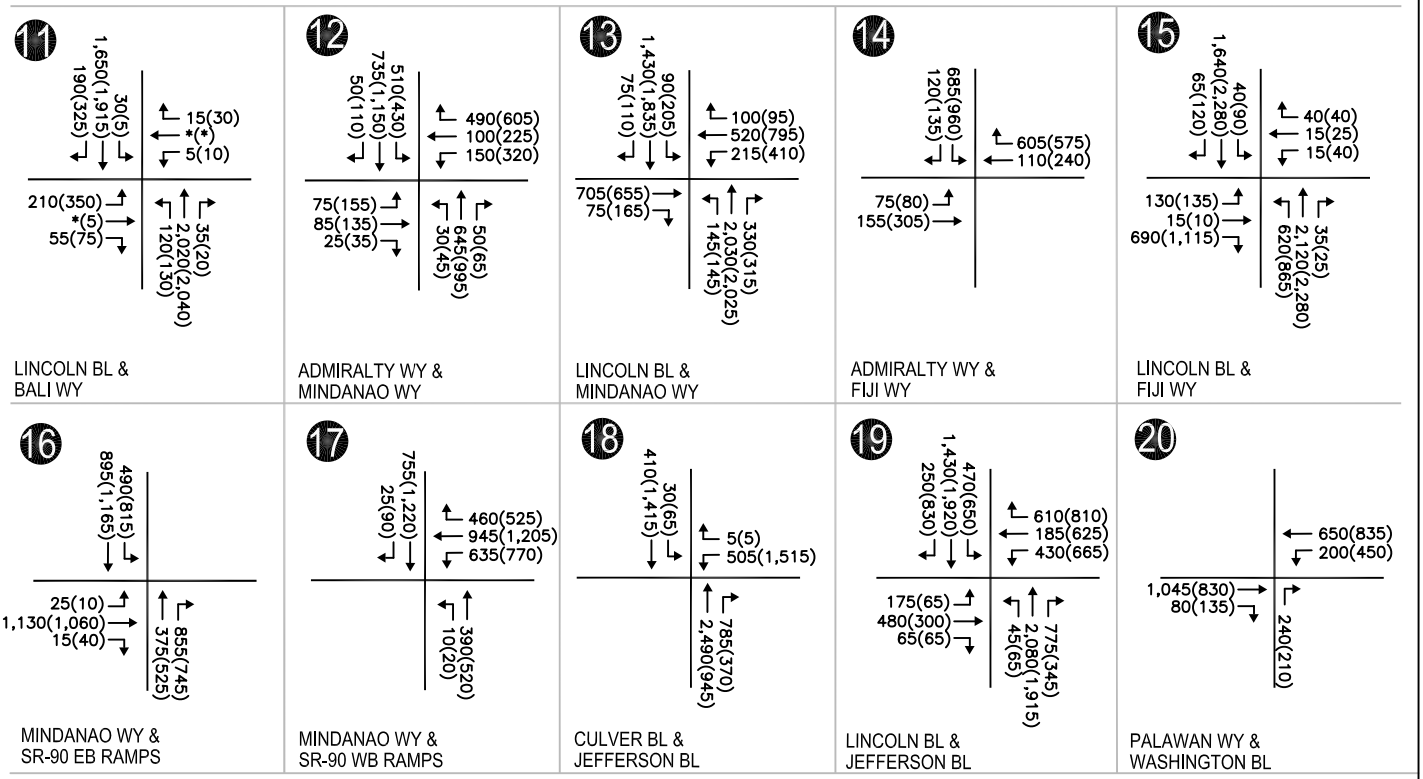
* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX J-1
CUMULATIVE (2020) CONDITIONS WITH PIPELINE PROJECTS
TRAFFIC VOLUMES

RAJU Associates, Inc.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX J-2
CUMULATIVE (2020) CONDITIONS WITH PIPELINE PROJECTS
TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

CPIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	417	435	398	67	156	22	133	398	47	52	622	262
AMBIENT												
RELATED												
PROJECT												
TOTAL	417	435	398	67	156	22	133	398	47	52	622	262
LANE	2 0	1 0	0 1 0	1 0	0 0 1 0	0	1 0	1 0	1 0 0	1 0	2 0	0 1 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 178
B: 67

EastBound
A: 311
B: 52

WestBound
A: 223
B: 133

NorthBound
A: 435
B: 229

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{435 + 178 + 133 + 311}{*1425} = 0.672$$

LOS = B

Developed by Chun Wong, 12/94

CPIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	581	930	430	229	0	413	0	777	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	581	930	430	229	0	413	0	777	0	0	0
LANE	0 0	2 0	0 1 0	1 0	3 0 0 0	0	2 0	0 0	0 2 0	0 0	0 0	0 0 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 76
B: 430

EastBound
A: 0
B: 0

WestBound
A: 0
B: 227

NorthBound
A: 291
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{291 + 430 + 227 + 0}{*1425} = 0.595$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

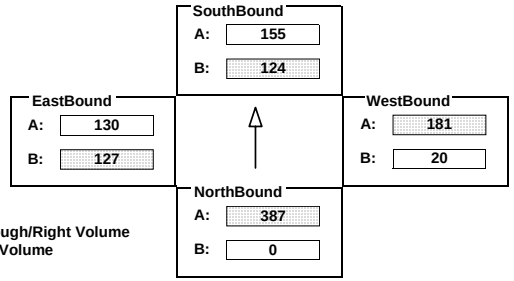
AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1139	23	124	440	25	20	0	181	127	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1139	23	124	440	25	20	0	181	127	1	2
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{387 + 124 + 181 + 127}{*1500} = 0.476$$

LOS = A

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CPIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

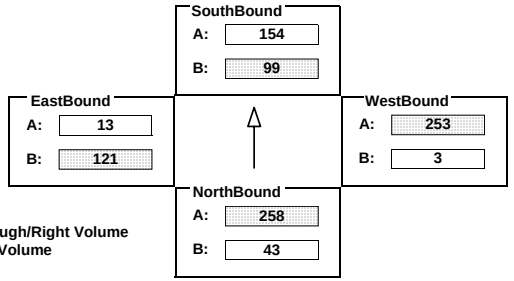
AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	767	7	99	308	59	3	24	253	121	12	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	767	7	99	308	59	3	24	253	121	12	13
LANE	1	0	2	0	1	0	0	1	0	2	0	0	1	0	0	1	0	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{258 + 99 + 253 + 121}{*1500} = 0.417$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	641	5	87	219	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	641	5	87	219	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 116
B: 87

EastBound
A: 0
B: 0

WestBound
A: 162
B: 20

NorthBound
A: 326
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{326 + 87 + 162 + 0}{*1500} = 0.313$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	411	10	61	179	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	411	10	61	179	10	6	1	165	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 95
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 213
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{213 + 61 + 172 + 0}{1200} = 0.372$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	47	96	117	148	47	82	56	933	75	88	1136	22
AMBIENT												
RELATED												
PROJECT												
TOTAL	47	96	117	148	47	82	56	933	75	88	1136	22
LANE	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 82
B: 148

EastBound
A: 579
B: 88

WestBound
A: 504
B: 56

NorthBound
A: 213
B: 47

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{213 + 148 + 56 + 579}{*1500} = 0.594$$

LOS = A

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CPIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	552	1945	261	290	1499	142	195	616	262	184	865	475
AMBIENT												
RELATED												
PROJECT												
TOTAL	552	1945	261	290	1499	142	195	616	262	184	865	475
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 547
B: 160

EastBound
A: 433
B: 101

WestBound
A: 308
B: 107

NorthBound
A: 735
B: 304

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{735 + 160 + 107 + 433}{*1375} = 0.974$$

LOS = E

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CPIPEAM

CalcaDB

April 21, 2010 ,Wednesday 01:11:16 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2137	175	993	1719	0	147	0	840	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2137	175	993	1719	0	147	0	840	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 573
B: 546

EastBound
A: 0
B: 0

WestBound
A: 0
B: 81

NorthBound
A: 771
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{771 + 546 + 81 + 0}{*1425} = 0.911$$

LOS = E

Developed by Chun Wong, 12/94

CPIPEAM

CalcaDB

April 21, 2010 ,Wednesday 01:11:16 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	24	954	64	168	1316	19	30	24	251	11	37	13
AMBIENT									-168			
RELATED												
PROJECT												
TOTAL	24	954	64	168	1316	19	30	24	83	11	37	13
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 668
B: 168

EastBound
A: 31
B: 11

WestBound
A: 54
B: 30

NorthBound
A: 509
B: 24

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{24 + 668 + 54 + 11}{*1425} = 0.461$$

LOS = A

Developed by Chun Wong, 12/94

CPIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	120	2020	33	28	1651	191	3	0	14	208	2	57
AMBIENT												
RELATED												
PROJECT												
TOTAL	120	2020	33	28	1651	191	3	0	14	208	2	57
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 614
B: 28

EastBound
A: 105
B: 105

WestBound
A: 17
B: 3

NorthBound
A: 684
B: 120

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{120 + 614 + 17 + 105}{*1375} = 0.553$$

LOS = A

Developed by Chun Wong, 12/94

CPIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	645	52	511	734	51	151	98	490	74	87	27
AMBIENT												
RELATED												
PROJECT												
TOTAL	29	645	52	511	734	51	151	98	490	74	87	27
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 393
B: 511

EastBound
A: 114
B: 74

WestBound
A: 125
B: 125

NorthBound
A: 349
B: 29

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{349 + 511 + 125 + 114}{*1375} = 0.729$$

LOS = C

Developed by Chun Wong, 12/94

CPIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	144	2030	331	92	1430	77	214	519	100	0	707	76
AMBIENT												
RELATED												
PROJECT												
TOTAL	144	2030	331	92	1430	77	214	519	100	0	707	76
LANE	1 0	3 0	0 1	0 1	2 0	1 0	0 2	0 1	0 1	0 0	0 0	1 0	1 0	0 0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 502
B: 92

EastBound
A: 392
B: 0

WestBound
A: 310
B: 118

NorthBound
A: 677
B: 144

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{677 + 92 + 118 + 392}{*1375} = 0.860$$

LOS = D

Developed by Chun Wong, 12/94

CPIPEAM

CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	686	0	119	0	112	606	75	155	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	686	0	119	0	112	606	75	155	0
LANE	0 0	0 0	0 0	0 0	2 0	0 0	0 1	0 0	0 1	0 0	1 0	2 0	0 0	0 0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Free	Perm	Free	Perm	<none>

Critical Movements Diagram

SouthBound
A: 0
B: 377

EastBound
A: 78
B: 75

WestBound
A: 112
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 377 + 112 + 75}{*1500} = 0.306$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

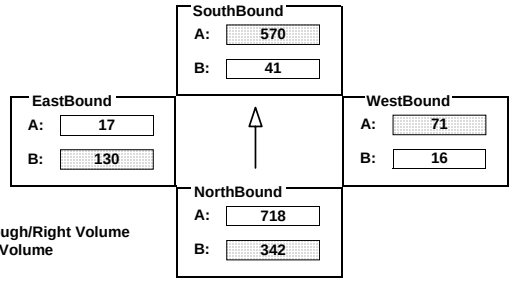
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	621	2119	35	41	1642	67	16	14	41	130	17	692
AMBIENT												
RELATED												
PROJECT												
TOTAL	621	2119	35	41	1642	67	16	14	41	130	17	692
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	1	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Free

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{342 + 570 + 71 + 130}{*1425} = 0.711$$

LOS = C

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CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

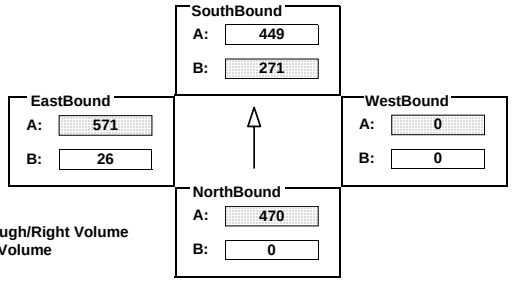
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	374	854	492	897	0	0	0	0	26	1129	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	374	854	492	897	0	0	0	0	26	1129	13
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	<none>	<none>	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{470 + 271 + 0 + 571}{*1425} = 0.851$$

LOS = D

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March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	389	0	0	753	26	636	947	460	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	389	0	0	753	26	636	947	460	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 260
B: 0

EastBound
A: 0
B: 0

WestBound
A: 528
B: 528

NorthBound
A: 195
B: 12

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 260 + 528 + 0}{*1425} = 0.491$$

LOS = A

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March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2491	783	30	408	0	507	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2491	783	30	408	0	507	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 294
B: 30

EastBound
A: 0
B: 0

WestBound
A: 4
B: 279

NorthBound
A: 1246
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1246 + 30 + 279 + 0}{*1500} = 0.967$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

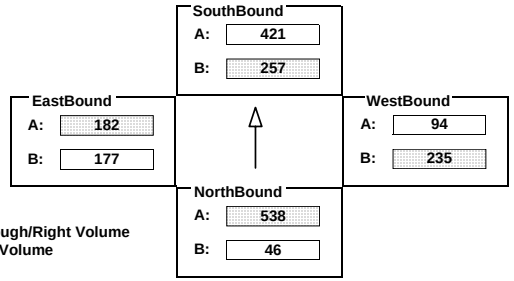
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	46	2082	773	468	1432	250	428	187	611	177	480	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	46	2082	773	468	1432	250	428	187	611	177	480	66

LANE																															
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	1	0	0			

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{538 + 257 + 235 + 182}{*1375} = 0.811$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 12:49:20 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

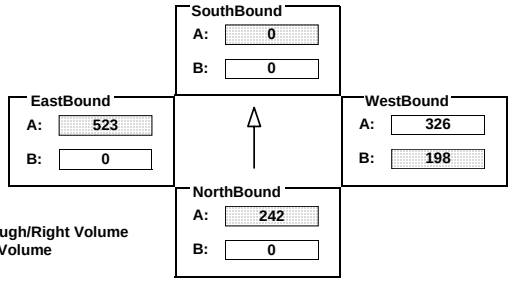
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	242	0	0	0	198	651	0	0	1045	78
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	242	0	0	0	198	651	0	0	1045	78

LANE																															
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0			

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{242 + 0 + 198 + 523}{1200} = 0.803$$

LOS = D

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

CPIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

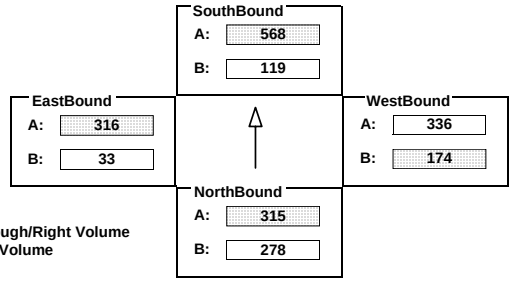
AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	505	315	261	119	534	34	174	622	50	33	610	455
AMBIENT												
RELATED												
PROJECT												
TOTAL	505	315	261	119	534	34	174	622	50	33	610	455
LANE	2	0	1	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	1	0	0	1	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{315 + 568 + 174 + 316}{*1425} = 0.894$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

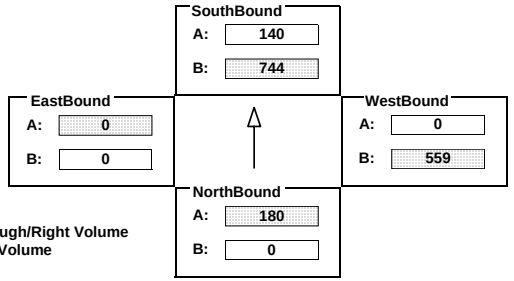
AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	360	692	744	419	0	1017	0	737	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	360	692	744	419	0	1017	0	737	0	0	0
LANE	0	0	2	0	0	1	0	1	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{180 + 744 + 559 + 0}{*1425} = 0.971$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	704	27	210	978	53	15	2	151	53	1	1
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	704	27	210	978	53	15	2	151	53	1	1

LANE																															
	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0

SIGNAL	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 344
B: 210

EastBound
A: 55
B: 53

WestBound
A: 151
B: 15

NorthBound
A: 244
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{244 + 210 + 151 + 53}{*1500} = 0.369$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	16	500	12	179	629	95	5	7	119	120	23	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	16	500	12	179	629	95	5	7	119	120	23	38

LANE																															
	1	0	2	0	1	0	0	1	0	2	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	0	1	0	0	1	0

SIGNAL	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 315
B: 179

EastBound
A: 38
B: 120

WestBound
A: 119
B: 5

NorthBound
A: 171
B: 16

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{171 + 179 + 119 + 120}{*1500} = 0.323$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	395	12	131	520	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	395	12	131	520	25	6	0	90	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 273
B: 131

EastBound
A: 0
B: 0

WestBound
A: 90
B: 6

NorthBound
A: 206
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{206 + 131 + 90 + 0}{*1500} = 0.215$$

LOS = A

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CPIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	305	5	160	372	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	305	5	160	372	20	1	0	92	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 196
B: 160

EastBound
A: 0
B: 0

WestBound
A: 93
B: 1

NorthBound
A: 158
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{158 + 160 + 93 + 0}{1200} = 0.343$$

LOS = A

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CPIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

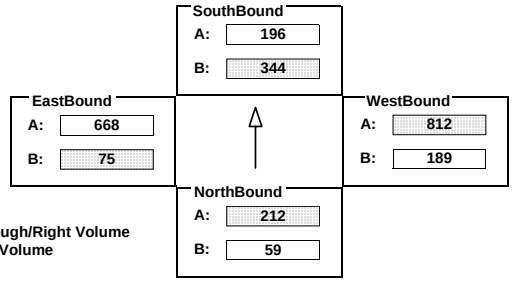
AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	59	89	123	344	176	196	189	1493	131	75	1289	47
AMBIENT												
RELATED												
PROJECT												
TOTAL	59	89	123	344	176	196	189	1493	131	75	1289	47
LANE	1 0 0 0 1 0 0			1 0 1 0 0 1 0			1 0 1 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{212 + 344 + 812 + 75}{*1500} = 0.892$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

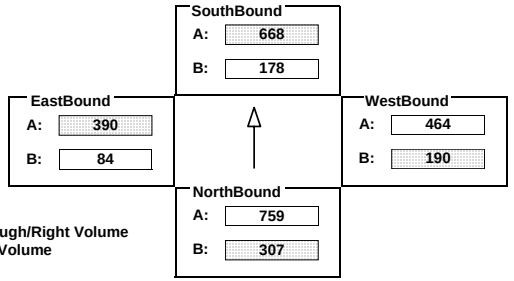
AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	558	1935	341	323	1795	210	346	927	398	153	780	572
AMBIENT												
RELATED												
PROJECT												
TOTAL	558	1935	341	323	1795	210	346	927	398	153	780	572
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{307 + 668 + 190 + 390}{*1375} = 1.061$$

LOS = F

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CalcaDB

April 21, 2010 ,Wednesday 01:11:42 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2120	211	904	2075	0	164	0	1129	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2120	211	904	2075	0	164	0	1129	0	0	0
LANE	0 0	2 0	1 0 0	2 0	3 0 0 0 0		2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 692
B: 497

EastBound
A: 0
B: 0

WestBound
A: 124
B: 90

NorthBound
A: 777
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{777 + 497 + 124 + 0}{*1425} = 0.911$$

LOS = E

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CPIPEPM

CalcaDB

April 21, 2010 ,Wednesday 01:11:42 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	22	1350	200	188	1432	17	70	27	368	19	37	32
AMBIENT									-188			
RELATED												
PROJECT												
TOTAL	22	1350	200	188	1432	17	70	27	180	19	37	32
LANE	1 0	1 0	1 0 0	1 0	1 0 1 0 0		1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 725
B: 188

EastBound
A: 44
B: 19

WestBound
A: 104
B: 70

NorthBound
A: 775
B: 22

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{775 + 188 + 104 + 19}{*1425} = 0.692$$

LOS = B

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March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	130	2040	20	6	1916	324	12	0	31	349	3	77
AMBIENT												
RELATED												
PROJECT												
TOTAL	130	2040	20	6	1916	324	12	0	31	349	3	77
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Split	Auto			Split	Auto		

Critical Movements Diagram

SouthBound
A: 747
B: 6

EastBound
A: 176
B: 176

WestBound
A: 43
B: 12

NorthBound
A: 687
B: 130

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{130 + 747 + 43 + 176}{*1375} = 0.727$$

LOS = C

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March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	996	64	428	1151	109	321	223	603	154	136	35
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	996	64	428	1151	109	321	223	603	154	136	35
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	1	0	1	0	0	0	1	0	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Split	OLA			Split	Auto		

Critical Movements Diagram

SouthBound
A: 630
B: 428

EastBound
A: 171
B: 154

WestBound
A: 272
B: 272

NorthBound
A: 530
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{530 + 428 + 272 + 171}{*1375} = 0.949$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	146	2024	314	203	1837	110	411	793	94	0	657	165
AMBIENT												
RELATED												
PROJECT												
TOTAL	146	2024	314	203	1837	110	411	793	94	0	657	165
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 649
B: 203

EastBound
A: 411
B: 0

WestBound
A: 444
B: 226

NorthBound
A: 675
B: 146

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{675 + 203 + 226 + 411}{*1375} = 1.032$$

LOS = F

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CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	959	0	137	0	239	574	81	305	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	959	0	137	0	239	574	81	305	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 527

EastBound
A: 153
B: 81

WestBound
A: 239
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 527 + 239 + 81}{*1500} = 0.495$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	863	2281	24	92	2281	119	42	23	40	137	8	1116
AMBIENT												
RELATED												
PROJECT												
TOTAL	863	2281	24	92	2281	119	42	23	40	137	8	1116
LANE	2	0	2	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram

SouthBound
A: 800
B: 92

EastBound
A: 8
B: 137

WestBound
A: 105
B: 42

NorthBound
A: 768
B: 475

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{475 + 800 + 105 + 137}{*1425} = 0.995$$

LOS = E

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CPIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	523	746	817	1165	0	0	0	0	12	1059	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	523	746	817	1165	0	0	0	0	12	1059	41
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram

SouthBound
A: 583
B: 449

EastBound
A: 550
B: 12

WestBound
A: 0
B: 0

NorthBound
A: 423
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{423 + 449 + 0 + 550}{*1425} = 0.928$$

LOS = E

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CPIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	518	0	0	1218	91	770	1207	525	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	518	0	0	1218	91	770	1207	525	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 436
B: 0

EastBound
A: 0
B: 0

WestBound
A: 659
B: 659

NorthBound
A: 259
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 436 + 659 + 0}{*1425} = 0.711$$

LOS = C

Developed by Chun Wong, 12/94

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CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	947	371	65	1417	0	1516	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	947	371	65	1417	0	1516	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 904
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 834

NorthBound
A: 474
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 904 + 834 + 0}{*1500} = 1.089$$

LOS = F

Developed by Chun Wong, 12/94

CPIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	66	1917	346	650	1918	828	666	624	809	64	299	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	66	1917	346	650	1918	828	666	624	809	64	299	66
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	Auto	

Critical Movements Diagram

SouthBound
A: 828
B: 358

EastBound
A: 122
B: 64

WestBound
A: 312
B: 366

NorthBound
A: 479
B: 66

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{66 + 828 + 366 + 122}{*1375} = 0.935$$

LOS = E

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CPIPEPM

CalcaDB

March 10, 2010 ,Wednesday 12:49:44 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: CUMULATIVE (2020) WITH LCP PIPELINE PROJECTS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	212	0	0	0	451	837	0	0	832	135
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	212	0	0	0	451	837	0	0	832	135
LANE	0 0 0 0 0 1 0			0 0 0 0 0 0 0			1 0 2 0 0 0 0			0 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		<none>	<none>		Perm	<none>		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 416
B: 0

WestBound
A: 419
B: 451

NorthBound
A: 212
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{212 + 0 + 451 + 416}{1200} = 0.899$$

LOS = D

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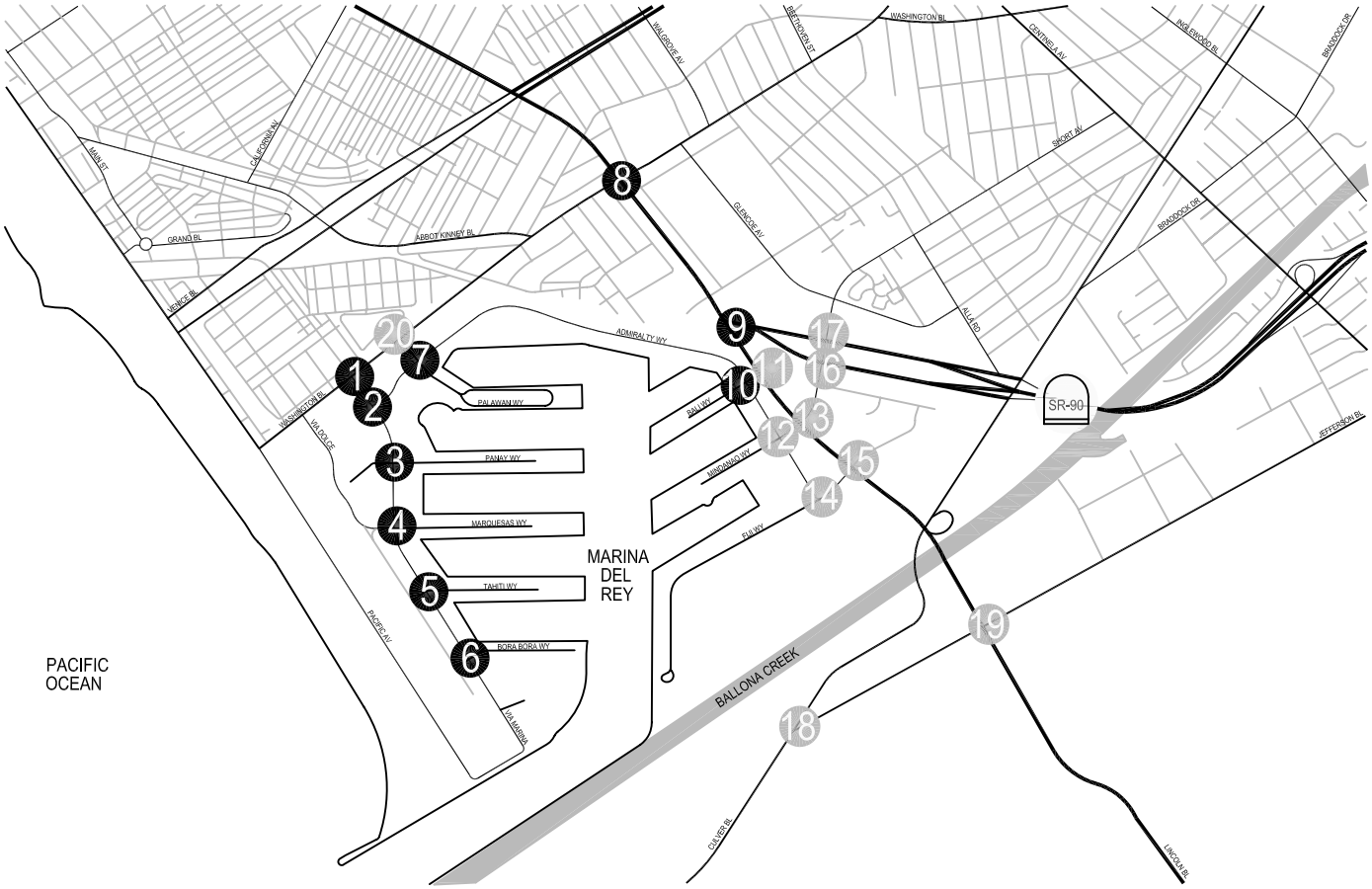
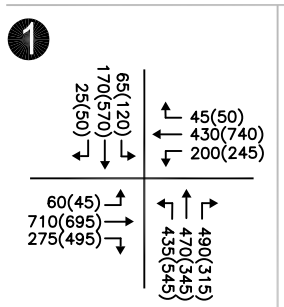
APPENDIX K

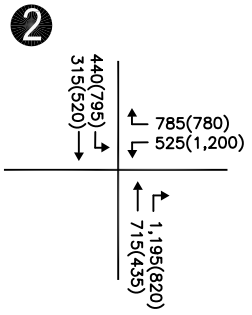
Cumulative (2020) Conditions with Proposed LCP Buildout (including Pipeline Projects) Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.

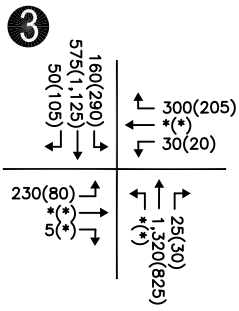




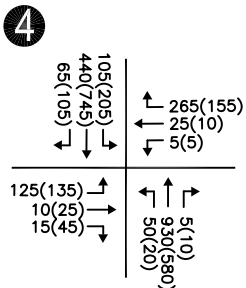
VIA MARINA & WASHINGTON BL



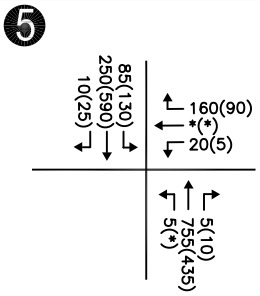
VIA MARINA & ADMIRALTY WY



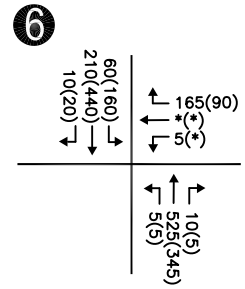
VIA MARINA & PANAY WY



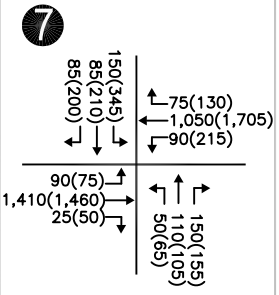
VIA MARINA & MARQUESAS WY



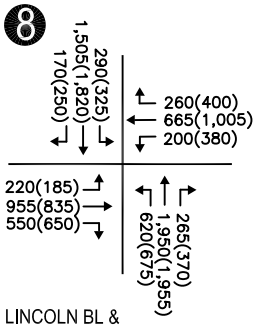
VIA MARINA & TAHITI WY



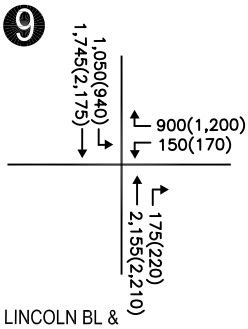
VIA MARINA & BORA BORA WY



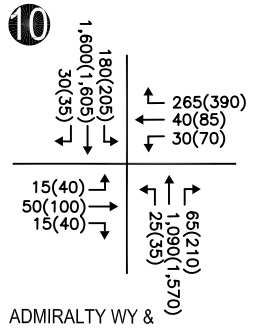
PALAWAN WY & ADMIRALTY WY



LINCOLN BL & WASHINGTON BL



LINCOLN BL & SR-90 ON/OFF-RAMPS



ADMIRALTY WY & BALI WY

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

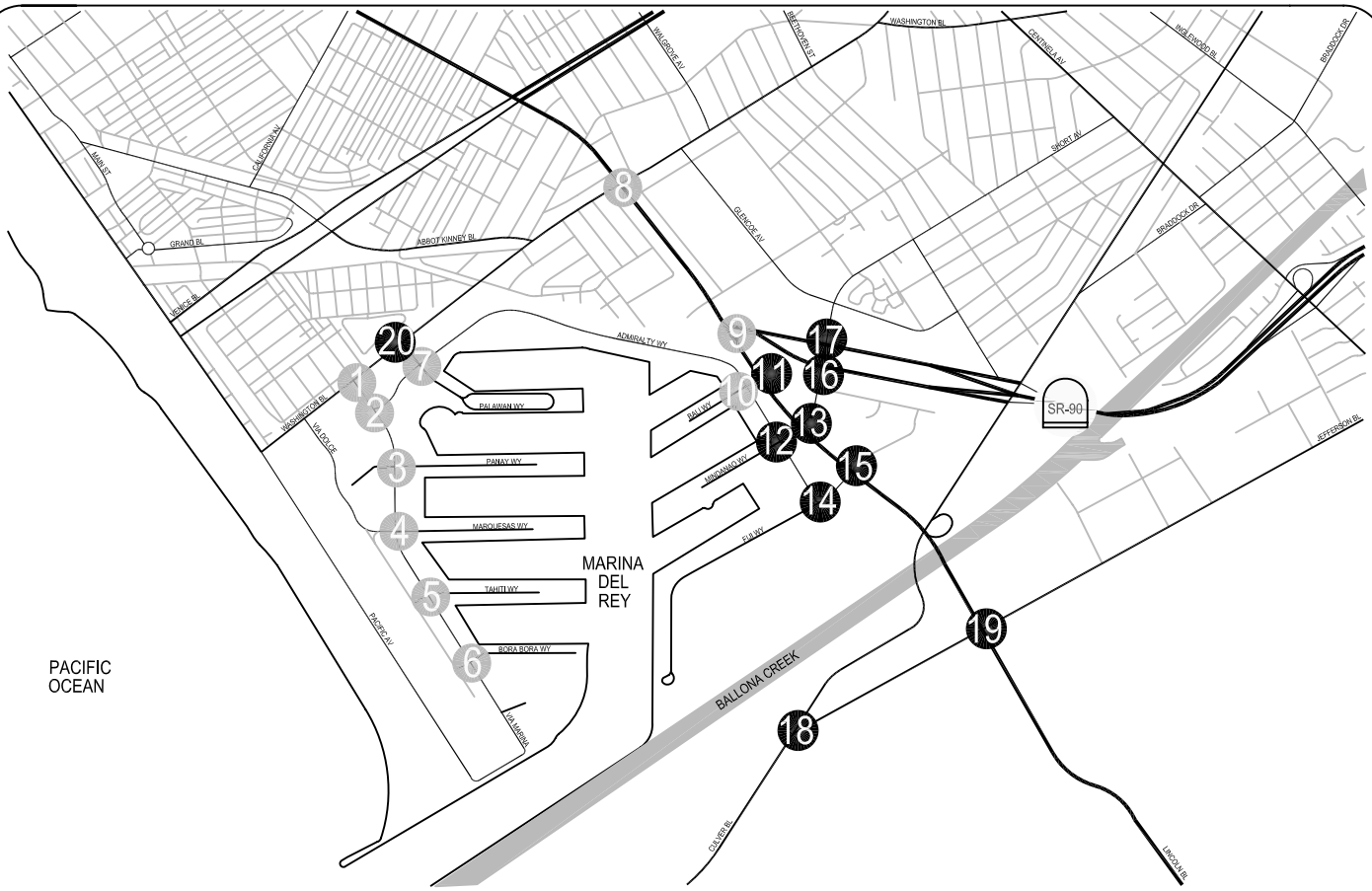
- STUDY INTERSECTION

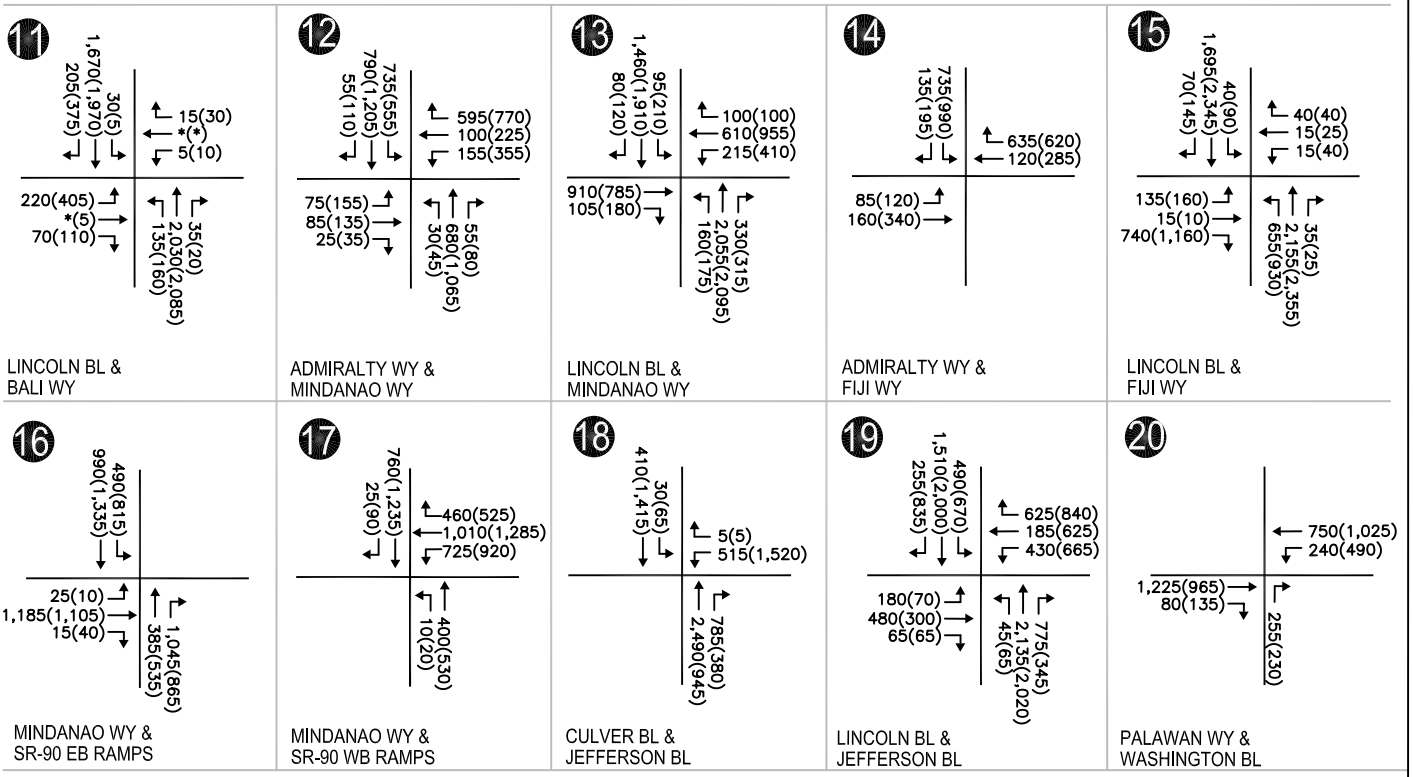
* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX K-1
CUMULATIVE (2020) CONDITIONS WITH PROPOSED LCP BUILDOUT (INCLUDING PIPELINE PROJECTS) TRAFFIC VOLUMES

RAJU Associates, Inc.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX K-2
CUMULATIVE (2020) CONDITIONS WITH PROPOSED LCP BUILDOUT (INCLUDING PIPELINE PROJECTS) TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

CPROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

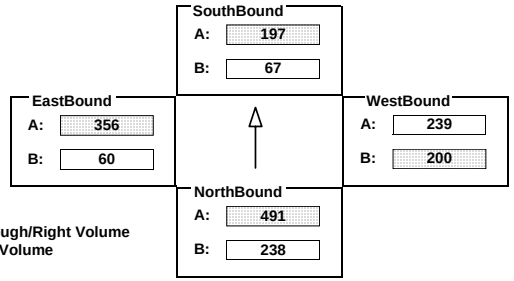
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	433	470	491	67	171	26	200	431	47	60	712	275
AMBIENT												
RELATED												
PROJECT												
TOTAL	433	470	491	67	171	26	200	431	47	60	712	275
LANE	2	0	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	0	1	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{491 + 197 + 200 + 356}{*1425} = 0.803$$

LOS = D

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CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

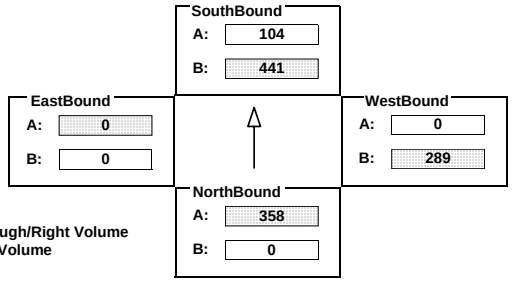
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	716	1193	441	313	0	525	0	787	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	716	1193	441	313	0	525	0	787	0	0	0
LANE	0	0	2	0	0	1	0	1	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{358 + 441 + 289 + 0}{*1425} = 0.694$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	1318	25	159	575	51	28	0	298	230	1	4
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	1318	25	159	575	51	28	0	298	230	1	4
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 209
B: 159

EastBound
A: 235
B: 230

WestBound
A: 298
B: 28

NorthBound
A: 448
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{448 + 159 + 298 + 230}{*1500} = 0.687$$

LOS = B

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CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	49	930	7	107	438	67	3	24	267	125	12	15
AMBIENT												
RELATED												
PROJECT												
TOTAL	49	930	7	107	438	67	3	24	267	125	12	15
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 219
B: 107

EastBound
A: 15
B: 125

WestBound
A: 267
B: 3

NorthBound
A: 312
B: 49

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{312 + 107 + 267 + 125}{*1500} = 0.471$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	757	5	87	252	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	757	5	87	252	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 132
B: 87

EastBound
A: 0
B: 0

WestBound
A: 162
B: 20

NorthBound
A: 384
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{384 + 87 + 162 + 0}{*1500} = 0.352$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	527	10	61	212	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	527	10	61	212	10	6	1	165	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 111
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 271
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{271 + 61 + 172 + 0}{1200} = 0.420$$

LOS = A

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CPROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	50	109	152	148	87	85	91	1048	75	88	1408	23
AMBIENT												
RELATED												
PROJECT												
TOTAL	50	109	152	148	87	85	91	1048	75	88	1408	23
LANE	1 0 0 0 1 0 0			1 0 1 0 0 1 0			1 0 1 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 87
B: 148

EastBound
A: 716
B: 88

WestBound
A: 562
B: 91

NorthBound
A: 261
B: 50

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{261 + 148 + 91 + 716}{*1500} = 0.741$$

LOS = C

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CPROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	621	1949	266	290	1504	169	202	665	262	221	954	548
AMBIENT												
RELATED												
PROJECT												
TOTAL	621	1949	266	290	1504	169	202	665	262	221	954	548
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 558
B: 160

EastBound
A: 477
B: 122

WestBound
A: 333
B: 111

NorthBound
A: 738
B: 342

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{342 + 558 + 111 + 477}{*1375} = 1.012$$

LOS = F

Developed by Chun Wong, 12/94

CPROJAM

CalcaDB

April 21, 2010 ,Wednesday 01:12:52 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2157	176	1049	1747	0	149	0	899	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2157	176	1049	1747	0	149	0	899	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 582
B: 577

EastBound
A: 0
B: 0

WestBound
A: 0
B: 82

NorthBound
A: 778
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{778 + 577 + 82 + 0}{*1425} = 0.938$$

LOS = E

Developed by Chun Wong, 12/94

CPROJAM

CalcaDB

April 21, 2010 ,Wednesday 01:12:52 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	27	1091	65	182	1601	28	30	40	263	15	48	15
AMBIENT									-182			
RELATED												
PROJECT												
TOTAL	27	1091	65	182	1601	28	30	40	81	15	48	15
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 815
B: 182

EastBound
A: 39
B: 15

WestBound
A: 61
B: 30

NorthBound
A: 578
B: 27

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{27 + 815 + 61 + 15}{*1425} = 0.574$$

LOS = A

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March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

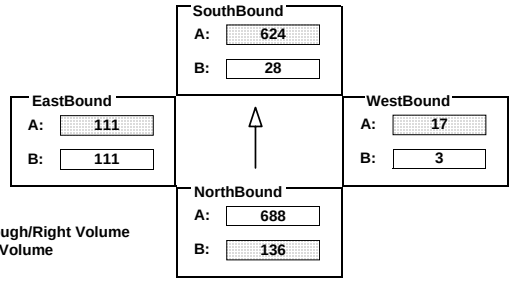
AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	136	2030	33	28	1668	203	3	0	14	219	2	71
AMBIENT												
RELATED												
PROJECT												
TOTAL	136	2030	33	28	1668	203	3	0	14	219	2	71
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{136 + 624 + 17 + 111}{*1375} = 0.576$$

LOS = A

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March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

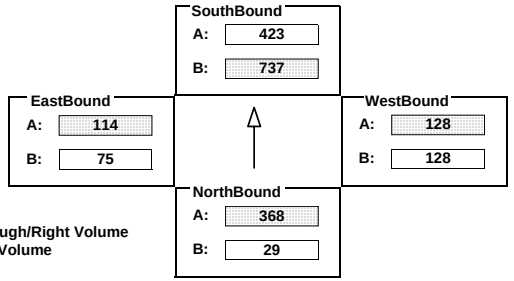
AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	680	55	737	790	55	157	98	595	75	87	27
AMBIENT												
RELATED												
PROJECT												
TOTAL	29	680	55	737	790	55	157	98	595	75	87	27
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 1 0 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{368 + 737 + 128 + 114}{*1375} = 0.910$$

LOS = E

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March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	160	2053	331	93	1459	78	214	611	102	0	908	104
AMBIENT												
RELATED												
PROJECT												
TOTAL	160	2053	331	93	1459	78	214	611	102	0	908	104
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 512
B: 93

EastBound
A: 506
B: 0

WestBound
A: 357
B: 118

NorthBound
A: 684
B: 160

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{684 + 93 + 118 + 506}{*1375} = 0.949$$

LOS = E

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March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	734	0	134	0	120	636	83	161	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	734	0	134	0	120	636	83	161	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 404

EastBound
A: 81
B: 83

WestBound
A: 120
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 404 + 120 + 83}{*1500} = 0.335$$

LOS = A

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March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	655	2155	35	41	1695	71	16	14	41	135	17	742
AMBIENT												
RELATED												
PROJECT												
TOTAL	655	2155	35	41	1695	71	16	14	41	135	17	742
LANE	2	0 2	0 1	0 0	1	0 2	0 1	0 0	0	0 0	1	0 1	0 0	1	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Perm	Auto			Perm	Free		

Critical Movements Diagram

SouthBound
A: 589
B: 41

EastBound
A: 17
B: 135

WestBound
A: 71
B: 16

NorthBound
A: 730
B: 360

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{360 + 589 + 71 + 135}{*1425} = 0.741$$

LOS = C

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CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	385	1045	492	991	0	0	0	0	26	1186	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	385	1045	492	991	0	0	0	0	26	1186	13
LANE	0	0 1	0 1	1 0	2	0 2	0 0	0 0	0	0 0	0	0 1	0 1	0	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Perm	Auto			Prot-Fix	<none>			<none>	<none>			Split	Auto		

Critical Movements Diagram

SouthBound
A: 496
B: 271

EastBound
A: 600
B: 26

WestBound
A: 0
B: 0

NorthBound
A: 575
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{575 + 271 + 0 + 600}{*1425} = 0.945$$

LOS = E

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CPROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

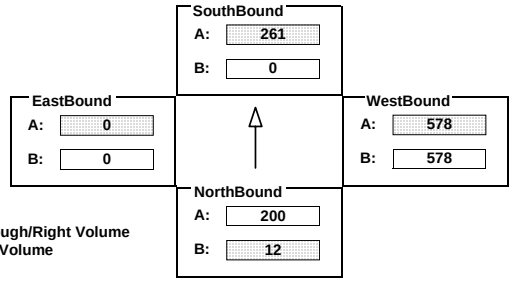
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	400	0	0	758	26	725	1008	460	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	400	0	0	758	26	725	1008	460	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	<none>	Perm	Auto	Split	Auto	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 261 + 578 + 0}{*1425} = 0.527$$

LOS = A

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CPROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

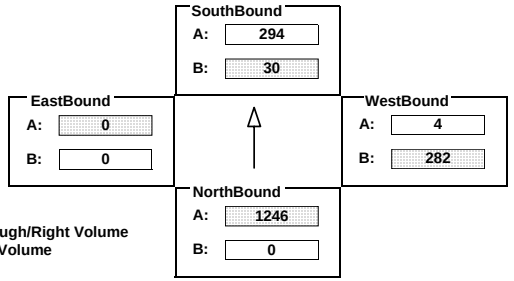
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2491	787	30	408	0	513	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2491	787	30	408	0	513	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	<none>	Split	Auto	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1246 + 30 + 282 + 0}{*1500} = 0.969$$

LOS = E

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CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	46	2134	773	488	1508	256	428	187	625	181	480	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	46	2134	773	488	1508	256	428	187	625	181	480	66

	NORTHBOUND							SOUTHBOUND							WESTBOUND							EASTBOUND						
LANE	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram

SouthBound
A: 441
B: 268

EastBound
A: 182
B: 181

WestBound
A: 94
B: 235

NorthBound
A: 538
B: 46

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{538 + 268 + 235 + 182}{*1375} = 0.819$$

LOS = D

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CPROJAM

CalcaDB

March 10, 2010 ,Wednesday 12:50:35 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	255	0	0	0	240	752	0	0	1227	79
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	255	0	0	0	240	752	0	0	1227	79

	NORTHBOUND							SOUTHBOUND							WESTBOUND							EASTBOUND						
LANE	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 614
B: 0

WestBound
A: 376
B: 240

NorthBound
A: 255
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{255 + 0 + 240 + 614}{1200} = 0.924$$

LOS = E

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

CPROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

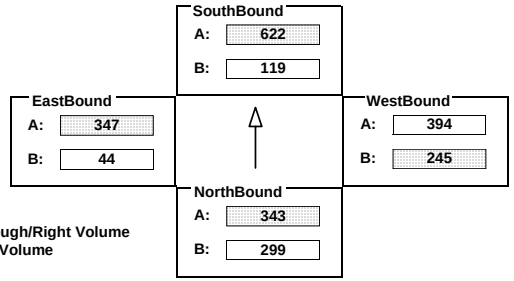
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	544	343	315	119	572	50	245	738	50	44	693	497
AMBIENT												
RELATED												
PROJECT												
TOTAL	544	343	315	119	572	50	245	738	50	44	693	497
LANE	2	0	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	0	1	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{343 + 622 + 245 + 347}{*1425} = 1.023$$

LOS = F

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

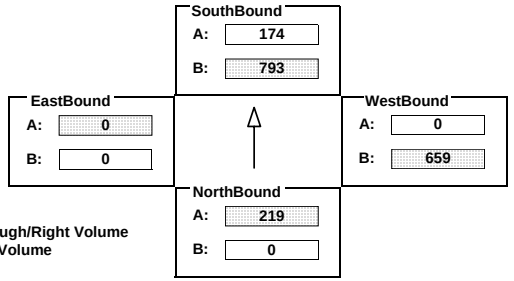
COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	437	820	793	522	0	1199	0	780	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	437	820	793	522	0	1199	0	780	0	0	0
LANE	0	0	2	0	0	1	0	1	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{219 + 793 + 659 + 0}{*1425} = 1.103$$

LOS = F

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	826	32	292	1127	107	18	2	205	82	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	826	32	292	1127	107	18	2	205	82	1	2
LANE	1 0	2 0	1 0	0	1 0	2 0	1 0	0	0 1	0	0 0	1 0	0 0	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR
SIGNAL	Perm	Auto			Perm	Auto			Perm	Auto			Perm	Auto

Critical Movements Diagram

SouthBound
A: 411
B: 292

EastBound
A: 85
B: 82

WestBound
A: 205
B: 18

NorthBound
A: 286
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{286 + 292 + 205 + 82}{*1500} = 0.507$$

LOS = A

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	20	578	12	206	745	106	6	8	154	134	24	43
AMBIENT												
RELATED												
PROJECT												
TOTAL	20	578	12	206	745	106	6	8	154	134	24	43
LANE	1 0	2 0	1 0	0	1 0	2 0	0 1	1 0	0	0 1	0	1 0	0	1
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR
SIGNAL	Perm	Auto			Perm	Auto			Perm	Auto			Perm	Auto

Critical Movements Diagram

SouthBound
A: 373
B: 206

EastBound
A: 43
B: 134

WestBound
A: 154
B: 6

NorthBound
A: 197
B: 20

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{197 + 206 + 154 + 134}{*1500} = 0.391$$

LOS = A

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	437	12	131	588	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	437	12	131	588	25	6	0	90	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 307
B: 131

EastBound
A: 0
B: 0

WestBound
A: 90
B: 6

NorthBound
A: 229
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{229 + 131 + 90 + 0}{*1500} = 0.230$$

LOS = A

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	347	5	160	440	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	347	5	160	440	20	1	0	92	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 230
B: 160

EastBound
A: 0
B: 0

WestBound
A: 93
B: 1

NorthBound
A: 179
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{179 + 160 + 93 + 0}{1200} = 0.360$$

LOS = A

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	64	104	156	346	210	202	216	1707	132	75	1460	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	64	104	156	346	210	202	216	1707	132	75	1460	51
LANE	1 0 0	0 1 0 0		1 0 1	0 0 1 0		1 0 1	0 1 0 0		1 0 1	0 1 0 0	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 210
B: 346

EastBound
A: 756
B: 75

WestBound
A: 920
B: 216

NorthBound
A: 260
B: 64

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{260 + 346 + 920 + 75}{*1500} = 0.997$$

LOS = E

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	674	1954	371	323	1819	251	382	1006	398	184	836	649
AMBIENT												
RELATED												
PROJECT												
TOTAL	674	1954	371	323	1819	251	382	1006	398	184	836	649
LANE	2 0 2	0 1 0 0		2 0 2	0 1 0 0		2 0 2	0 0 1 0		2 0 2	0 0 1 0	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 690
B: 178

EastBound
A: 418
B: 101

WestBound
A: 503
B: 210

NorthBound
A: 775
B: 371

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{371 + 690 + 210 + 418}{*1375} = 1.158$$

LOS = F

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CalcaDB

April 21, 2010 ,Wednesday 01:13:22 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

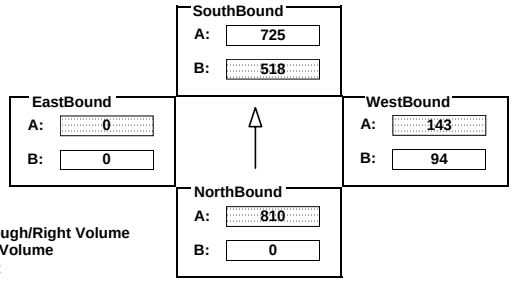
AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2212	218	942	2176	0	170	0	1202	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2212	218	942	2176	0	170	0	1202	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{810 + 518 + 143 + 0}{*1425} = 0.962$$

LOS = E

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CPROJPM

CalcaDB

April 21, 2010 ,Wednesday 01:13:22 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

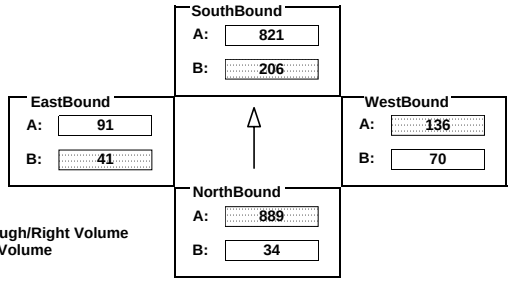
AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	34	1570	208	206	1605	37	70	85	392	41	99	42
AMBIENT									-206			
RELATED												
PROJECT												
TOTAL	34	1570	208	206	1605	37	70	85	186	41	99	42
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{889 + 206 + 136 + 41}{*1425} = 0.823$$

LOS = D

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	162	2085	20	6	1972	375	12	0	31	404	3	109
AMBIENT												
RELATED												
PROJECT												
TOTAL	162	2085	20	6	1972	375	12	0	31	404	3	109
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Split	Auto			Split	Auto		

Critical Movements Diagram

SouthBound
A: 782
B: 6

EastBound
A: 204
B: 204

WestBound
A: 43
B: 12

NorthBound
A: 702
B: 162

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{162 + 782 + 43 + 204}{*1375} = 0.796$$

LOS = C

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	1066	80	555	1205	110	355	223	769	156	136	35
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	1066	80	555	1205	110	355	223	769	156	136	35
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	1	0	1	0	0	0	1	0	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Split	OLA			Split	Auto		

Critical Movements Diagram

SouthBound
A: 658
B: 555

EastBound
A: 171
B: 156

WestBound
A: 289
B: 289

NorthBound
A: 573
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{573 + 555 + 289 + 171}{*1375} = 1.085$$

LOS = F

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CalcaDB

March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	175	2093	317	209	1910	120	412	955	101	0	783	182
AMBIENT												
RELATED												
PROJECT												
TOTAL	175	2093	317	209	1910	120	412	955	101	0	783	182
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 677
B: 209

EastBound
A: 483
B: 0

WestBound
A: 528
B: 227

NorthBound
A: 698
B: 175

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{698 + 209 + 227 + 483}{*1375} = 1.106$$

LOS = F

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March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	991	0	194	0	286	619	122	340	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	991	0	194	0	286	619	122	340	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 545

EastBound
A: 170
B: 122

WestBound
A: 286
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 545 + 286 + 122}{*1500} = 0.565$$

LOS = A

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CalcaDB

March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	928	2357	24	92	2345	146	42	23	40	161	8	1162
AMBIENT												
RELATED												
PROJECT												
TOTAL	928	2357	24	92	2345	146	42	23	40	161	8	1162
LANE	2	0 2	0 1	0 0	1	0 2	0 1	0 0	0	0 0	1	0 1	0 0	1 0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Perm	Auto			Perm	Free

Critical Movements Diagram

SouthBound
A: 830
B: 92

EastBound
A: 8
B: 161

WestBound
A: 105
B: 42

NorthBound
A: 794
B: 510

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{510 + 830 + 105 + 161}{*1425} = 1.057$$

LOS = F

Developed by Chun Wong, 12/94

CPROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	536	867	817	1335	0	0	0	0	12	1104	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	536	867	817	1335	0	0	0	0	12	1104	41
LANE	0	0 1	0 1	1 0	2	0 2	0 0	0 0	0	0 0	0	0 1	0 1	0 0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR
SIGNAL	Perm	Auto			Prot-Fix	<none>			<none>	<none>			Split	Auto

Critical Movements Diagram

SouthBound
A: 668
B: 449

EastBound
A: 573
B: 12

WestBound
A: 0
B: 0

NorthBound
A: 468
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{468 + 449 + 0 + 573}{*1425} = 0.976$$

LOS = E

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CPROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	531	0	0	1235	91	922	1286	525	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	531	0	0	1235	91	922	1286	525	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 442
B: 0

EastBound
A: 0
B: 0

WestBound
A: 736
B: 736

NorthBound
A: 266
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 442 + 736 + 0}{*1425} = 0.769$$

LOS = C

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CPROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	947	379	65	1417	0	1521	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	947	379	65	1417	0	1521	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 904
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 837

NorthBound
A: 474
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 904 + 837 + 0}{*1500} = 1.091$$

LOS = F

Developed by Chun Wong, 12/94

CPROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

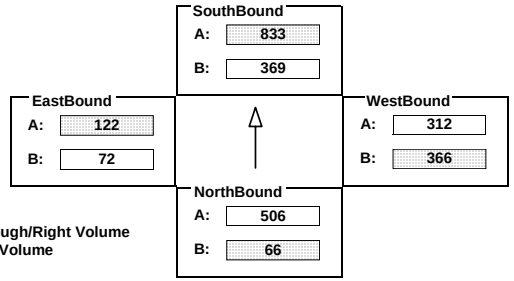
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	66	2022	346	671	1999	833	666	624	838	72	299	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	66	2022	346	671	1999	833	666	624	838	72	299	66

LANE																															
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	1	0	0	0	0	2

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{66 + 833 + 366 + 122}{*1375} = 0.939$$

LOS = E

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CPROJPM

CalcaDB

March 10, 2010 ,Wednesday 12:50:56 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: CUMULATIVE(2020) W/PROPOSED LCP BUILDOUT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

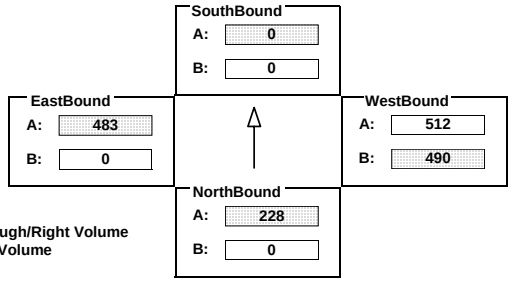
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	228	0	0	0	490	1023	0	0	966	137
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	228	0	0	0	490	1023	0	0	966	137

LANE																															
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	<none>	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{228 + 0 + 490 + 483}{1200} = 1.001$$

LOS = F

Developed by Chun Wong, 12/94

APPENDIX L

Transportation Mitigation Program in the Approved Local Coastal Program (LCP)

APPENDIX L

TRANSPORTATION IMPROVEMENT PROGRAM

I. INTRODUCTION

The Transportation Improvement Program (TIP) addresses in specific detail transportation and circulation issues initially identified in the Marina del Rey Land Use Plan, and discussed in the Specific Plan component of this LIP. The objectives of this TIP are:

- Develop and set in motion programs for the detailed design and implementation of those transportation improvements necessary to accommodate and adequately serve future development authorized by the certified Land Use Plan (LUP);

- Maintain and enhance public access to coastal recreational opportunities in and adjacent to Marina del Rey; and

- Develop and institute appropriate financing mechanisms to generate the revenues necessary for TIP implementation.

The transportation improvements called for in the LUP include both capital and non-capital programs designed to enhance regional access to the coast and expand the capacity of the local roadway system. These improvements include:

- Improvement of Admiralty Way to 5 lanes within existing right-of-way and improvement of key intersections to enhanced Marina access;

- Surface circulation improvements primarily involving improved access to and circulation within the existing Marina;

- Implementation of project-specific measure to mitigate within the Marina and adjacent areas the cumulative impacts of new development; potential mitigation measures include a shuttle program designed to facilitate shoreline access; and

- Development and implementation of a Transportation Systems Management (TSM)/Transportation Demand Management (TDM) program to achieve efficient use of local and regional transportation facilities.

The ensuing sections define in greater detail and above identified improvements. Part IV sets forth the improvement financing strategy. This includes the requirement for agreements between developers and the County to assure fair financing and timely construction of improvement sin the conjunction with the new development.

II. CIRCULATION SYSTEM IMPROVEMENTS

A number of local circulation system improvements are required to accommodate traffic generated by new development within the existing Marina. This new cycle of development will include expansion and recycling of hotels, restaurant, boat slips, marine commercial, residential and commercial uses. The Marina del Rey Land Use Plan specifies that improvement of Admiralty Way and improvements to key intersections may be used to provide sufficient circulation capacity to accommodate the build out allocated in each development zone. These improvements are divided into two categories according to mitigation needs, improvement phasing and funding.

A. Category 1 Improvements

Category 1 improvements consist of potential internal Marina del Rey improvements. The following circulation improvements represent the priority of mitigation measures which were identified in the DKS traffic study of 1991 to be necessary to mitigate internal traffic impacts of redevelopment within Marina del Rey. These improvements may be used to mitigate the increase in P.M. speak hour trips generated by otherwise approvable development. The estimated Level of Service (LOS), if all Phase II development and Category I traffic improvements are completed, is shown in Figure 13 of the LUP.

Category 1 improvements will be financed and implemented through agreements between lessees, consistent with the Improvement Financing and Phasing Section of this TIP. Completion of Category 1 improvements will provide the mitigation capacity needed within Marina del Rey for 100 percent of the build out allocated in the Specific Plan. The following measures are included in Category 1:

1. Admiralty Way 5-Lane Improvement. The Marina del Rey Traffic Study (1991) prepared by DKS Associates analyzed a number of potential transportation improvements and found that the improvement of Admiralty Way to 5 lanes, in conjunction with the intersection improvements discussed below, provides sufficient traffic capacity to mitigate levels of development anticipated in the existing Marina. The lane will be added from Fiji Way to Via Marina in the northbound/westbound direction to accommodate the p.m. peak period traffic flow. The addition of a fifth lane will be accomplished within existing right-of-way by moving the median and re-striping the roadway. Future development of sub-regional improvements to connect Admiralty Way with Route 90 may require an additional lane on Admiralty Way; this is discussed under Category 3 improvements.

2. ATSAC or Other Advanced Signal Synchronization. Automated Traffic Surveillance and Control (ATSAC) is traffic signal synchronization technology installed and administered by the City of Los Angeles. The ATSAC program is a sophisticated traffic monitoring and control system which records the volume and speed of vehicular traffic and responds to changing traffic flow patterns by adjusting signal timing to reduce traffic congestion and vehicular delays.

The County of Los Angeles also administers a traffic signal synchronization program which is based on continuously correcting signal timing and progression. Both the ATSAC system and the County's synchronization program have been shown to reduce the number of stops along travel corridors, improve average travel speeds and improve intersection level of service. The effectiveness of this technology depends on the installation of synchronization systems at each signalized intersection along a given corridor.

ATSAC or a similar signal synchronization technology will be installed along Admiralty Way at its intersections with Via Marina, Palawan Way, Bali Way and Mindanao Way. Additionally, ATSAC or similar synchronization technology will be installed along Lincoln Boulevard at its intersections with Bali Way, Fiji Way.

3. Via Marina at Admiralty Way. Widen the south side of Admiralty Way to accommodate a triple west bound left turn movement, and two lanes eastbound on Admiralty Way with a right-turn merge lane from northbound Via Marina. At some point in the future, this intersection may be reconstructed to improve traffic flow along Admiralty Way (see Category 3 improvements).

4. Palawan Way at Admiralty Way.

a) Palawan Way Northbound at Admiralty Way. Re-stripe northbound Palawan Way to provide a separate right turn approach lane to Admiralty way.

b) Palawan Way Southbound at Admiralty Way. Re-stripe southbound Palawan Way to convert one through lane into a second left-turn approach lane to Admiralty Way.

5. Lincoln Boulevard at Bali Way. Widen southbound Lincoln Boulevard to provide a right-turn lane at Bali Way.

6. Admiralty Way at Mindanao Way. Widen northbound Admiralty Way to provide a right-turn lane at Mindanao Way.

7. Lincoln Boulevard at Mindanao Way. Widen Lincoln Boulevard, relocate and narrow median island, to provide a northbound right turn or through lane at Mindanao.

8. Admiralty Way at Fiji Way. Widen southbound Admiralty Way approach to Fiji Way to provide three through lanes.

9. Fiji Way at Lincoln Boulevard. Widen eastbound Fiji Way approach to Lincoln Boulevard to provide an additional left turn lane at Lincoln Boulevard.

B. Category 2 Improvements (Reserved for Area A)

C. Category 3 Improvements

Category 3 consists of improvements which may be employed to mitigate the cumulative impacts of development in the LCP study area on the regional transportation system serving Marina del Rey and adjacent areas. Development shall not be approved that will significantly exceed the capacity of the sub-regional street system. All significant adverse traffic impacts, generated by development in the LCP study area, upon the circulation system outside the unincorporated area of Marina del Rey, shall be mitigated by the developer prior to receiving final discretionary permits.

Ninety-three percent of all trips originate or end outside Marina del Rey. All development shall contribute a calculated fair share toward construction of improvements necessary to mitigate all of the development's significant adverse cumulative traffic impacts. The traffic studies prepared as part of each project's environmental documentation shall address the project's impacts on adjacent state highways and other regional collector streets, and shall be the basis for determining the amount of cumulative impacts which the project has on regional traffic due to the increase in the number of trips that the project generates that begin or end outside the LUP area.

Studies prepared in compliance with this requirement shall show: 1) the number of daily and peak hour trips generated by the development; 2) the number and percentage of those trips originating and terminating outside Marina del Rey; and 3) the direction of the trips upon departing the existing Marina. Based on this documentation, all development shall contribute its proportionate fair share of the Category 3 improvements that will fully mitigate the level of impact such development will have on the regional system serving the LUP area. The study shall be provided at the time of the permit application.

Based on the information prepared regarding traffic impacts, individual development projects may be required to contribute a calculated fair share toward construction of improvements listed below, or may be required to construct other specified improvements which mitigate all significant cumulative impacts of development on the regional transportation system.

1. Redesign of Admiralty Way/Via Marina Intersection. The intersection of Admiralty Way and Via Marina is currently a "T" intersection at which Admiralty Way forms the stem of the "T". A redesign of this intersection could make Admiralty way a continuous loop road with Via marina becoming the stem of the "T". As part of this reconfiguration, a modern roundabout could be constructed which would enhance traffic flow and reduce motorist' delay. This improvement would facilitate

periphery access around the Marina and could accompany a redevelopment of the public beach area to provide new water views. This measure may provide additional traffic capacity, but additional study is needed. Designation of Admiralty Way as a Scenic Highway would accompany the redesign. This improvement is an unscheduled, long-term measure.

2. Shuttle System/Enhanced Coastal Access. The Marina del Rey Traffic study (1991) evaluated the potential for implementation of a shuttle bus system in Marina del Rey. The study found that shuttle service would likely not be a significant mitigation measure for traffic impacts and would be most beneficial if developed in conjunction with a light rail line into the Marina area. Since light rail routes and designs area uncertain at this time establishment of a shuttle service in the Marina in the near term is unlikely.

3. Periphery parking lots. The purchase of land for park-and-ride lots and periphery parking represents a viable method for reducing the number of vehicles attempting to reach beach parking lots and other coastal destinations. Establishment of periphery parking lots should coincide with creation of a shuttle system or “dash” service to provide transportation from such parking lots to the coast. Implementation of a periphery parking lot program is unscheduled, but capital may be used from the Coastal Improvement Fund for the leasing or purchase of such lots and the creation of a park-and-ride or dash system to service lots.

4. Lincoln People-mover. A people-mover system along Lincoln Boulevard could facilitate north-south access without the cost or impact of light rail transit. Such a system could be elevated over the center of Lincoln Boulevard on a narrow, elevated right –of-way without the loss of any traffic lanes. The system could connect Parking Lot C at Los Angeles international Airport, which is proposed as the terminus for the Green Line transit service, with Santa Monica and point’s in-between.

5. Light Rail. Implementation of a light rail transit line is unfunded and unscheduled at this time. A transit line extending from Parking Lot C at Los Angeles International Airport north along Lincoln Boulevard to Santa Monica has been studied, as has a line which would follow Lincoln Boulevard to Culver Boulevard and then eastward to the Santa Monica Freeway. Since a number of alternatives exist, and none area likely to be developed in the near term, light rail does not appear to be viable transportation option over the next twenty years.

6. Route 90 Extensions. If the scope of the project and the funding is agreed to by the board of supervisors, the City of Los Angeles, and Caltrans, connect Route 90 to Admiralty Way via a fly-over across Lincoln Boulevard, widen Admiralty Way by an additional westbound lane to parcel OT, thence connect Admiralty Way with Washington Street through parcel OT. This improvement shall only go forward with the agreement of all these agencies.

7. Other Improvements. Other coastal access or public transportation improvements which mitigate significant adverse cumulative impacts of development on the regional transportation system, including those improvements identified in Chapter 11 of the certified LUP.

III. TRANSPORTATION SYSTEM MANAGEMENT AND TRANSPORTATION DEMAND MANAGEMENT PROGRAMS

A. Introduction

The Transportation System Management (TSM) AND Transportation Demand Management (TDM) programs are required as a condition for new development. These guidelines shall be sued when establishing TSM and TDM programs. TSM improvements consist of engineering improvements to enhance the system capacity and improve traffic flow; TDM improvements encourage people to use alternatives to the single person vehicle such as car pools, van pools, changing travel modes or to eliminate unnecessary trips, particularly during times of peak demand. These measures are relatively low cost remedies and include both capital and non-capital programs.

B. TSM Alternatives

The following TSM improvements may be employed to implement LUP policy. They can improve the flow of traffic and reduce traffic congestion. They are relatively low-cost measures and can be implemented quickly.

1. Traffic Signal Synchronization. State of the art traffic signal synchronization can reduce delay at intersections and improve traffic flow. This measure was previously discussed under Category 1 improvements.

2. One-Way Streets. A pair of one-way streets, known as a couplet, can improve traffic capacity and flow.

3. Roundabouts. Modern roundabouts are relatively low-cost and can reduce delay for motorist. Adequate right-of-way is needed for optimal operation.

4. Geometric Modifications. Geometric modifications of intersections and the addition of turning lanes can improve the efficiency of intersections and increase traffic capacity.

C. TDM Alternatives

The following sections list a number of TDM measures that may be employed to implement LUP policy. Implementation of these strategies will require a partnership between local government and private enterprise. Opportunities for application of these TDM strategies will vary. Applicants for projects in Marina del Rey shall consult with

the Department of Public Works and the Department of Regional Planning to develop as many strategies as feasible for each site, and to address cumulative problems related to several sites.

1. Park and Ride Lots. Coastal Improvement Fund monies may be used to purchase Park and Ride lots to be used for the various TDM programs.

2. Ridesharing. Since the most effective means of producing greater auto occupancy for work trips is organizing ridesharing by place of employment, the majority of the measures described are employer-based and hence require the cooperation of the private sector. These employer-directed strategies involve implementing the following actions.

a. Car pool and van pool matching and promotion: Employers shall provide in-house rideshare matching assistance and promote ride-sharing (Commuter Transportation Services is a resource).

b. Financial incentives for ridesharing: Financial incentives involve the payment by an employer of various kinds of direct or indirect subsidies to their employee to encourage ridesharing. An employer may direct cash payments to all persons who rideshare with two or more people, fifteen or more days each month. Alternatively, the payment could be based on mileage traveled or graduated by the size of the pool. Also, subsidies may include special fringe benefits such as accrual of a “bonus” vacation day for every 100 days traveled to work in a car pool. Finally, company discounts for various kinds of goods or services, for which only members of car pools are eligible, may be offered.

3. Transit Promotion and Incentives. As with ridesharing, private and public cooperation can promote the use of transit by providing financial incentives and facilities. Also, all subsidized bus passes or other financial incentives could be provided for bus users similar to those provided for ridesharing.

4. Modified Work Scheduled and Flex Time. To reduce the actual number of work trips, all employers should consider Modified Work Schedules. Schedules should feature longer hours per day and fewer work days per week. The Flex Time concept allows flexible work hours to reduce peak hour trips.

5. Increased Bicycle Use. Bicycle facilities should be provided at places of employment, restaurants, and visitor-oriented facilities and at public transportation facilities. Facilities should include bicycle racks, locker rooms and showers.

6. Parking related strategies. There is a couple of parking related strategies to promote ride-sharing and to encourage transit usage. These methods include:

a. Preferential parking for ride-sharers: this policy involves providing car pools preferential parking privilege at their place of work. This could include giving guaranteed space to car pools or establishing a priority system for issuing parking permits. For example, in large lots of most accessible spaces could be assigned to car pools. If covered parking is available, as many can be implemented voluntarily by a wide range for employers. It constitutes a low-cost, immediate action and workable strategy to promote ridesharing and reduce traffic congestion.

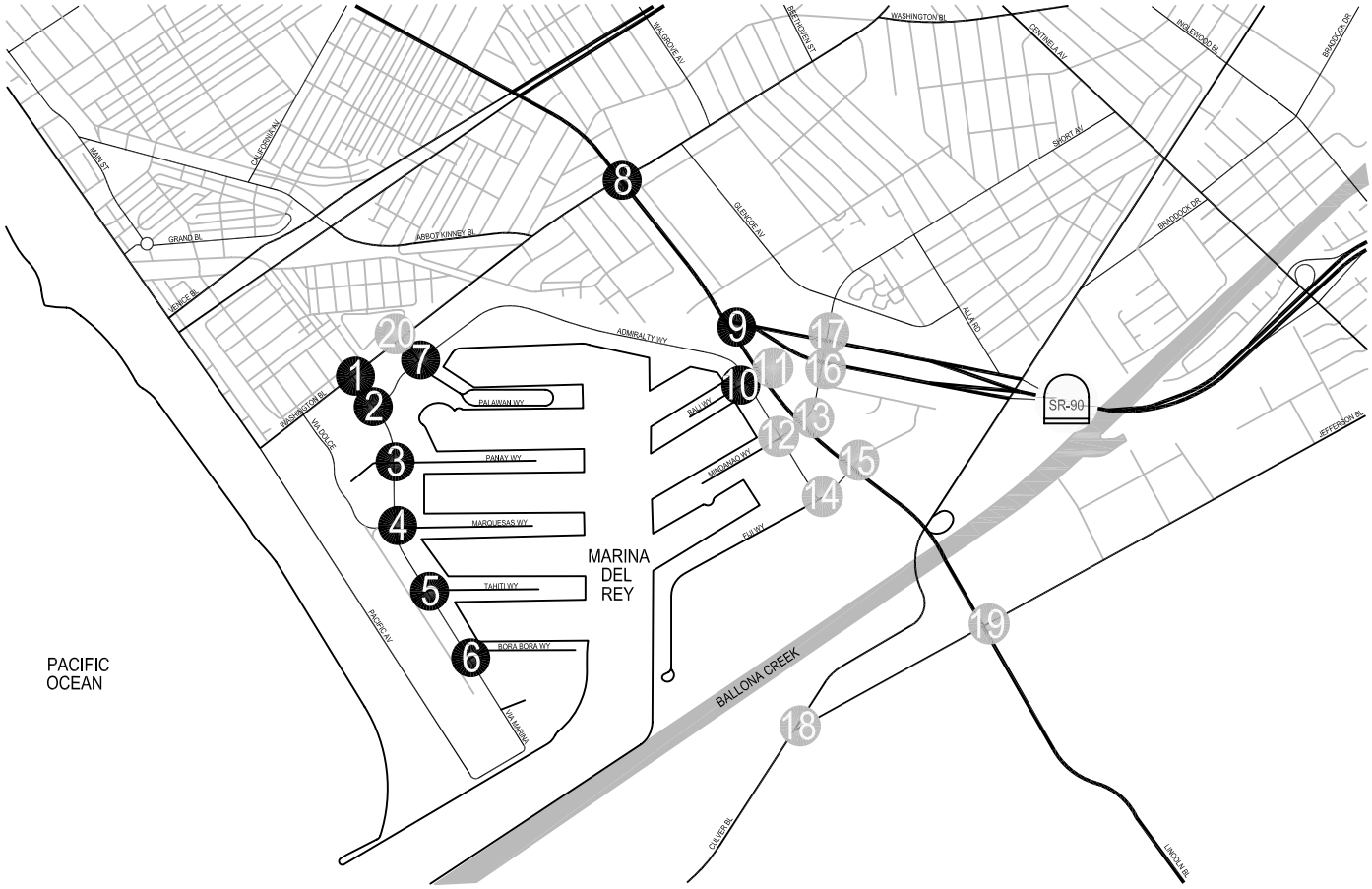
b. Elimination of free employee parking: The purpose of this strategy is to eliminate all free and subsidized employees parking by requiring employees to pay prevailing commercial parking rates. When implementing this strategy, employers should encourage and assist employees in switching from low to high occupancy vehicles, by forming car pools, ect.

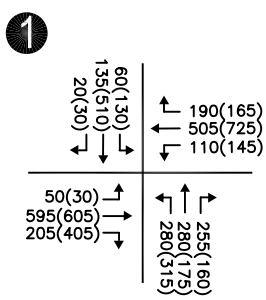
7. Telecommuting. This strategy involves the use of telecommunications technology as a substitute for travel. People whose jobs involve telecommunications technology such as computers and work processors maybe able to work at home, avoiding a trip during peak hours. Working at home may also be an option for many others whose jobs may not directly involve telecommunications (except possibly telephones). Examples of these include clerical work, typing, research and writing. Working at home could be full or part-time, depending on the need to associate with the office. An alternative could be working at home in the morning, and then driving to work in off peak hours. Lastly, the use of telecommuting can leave can lead to an improved midday level of service.

APPENDIX M

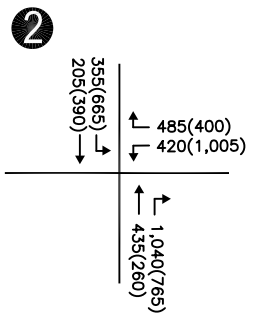
Ambient (2020) Conditions with Pipeline Projects and Improvements
Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.

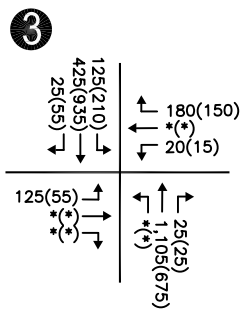




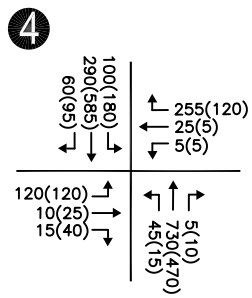
VIA MARINA & WASHINGTON BL



VIA MARINA & ADMIRALTY WY



VIA MARINA & PANAY WY



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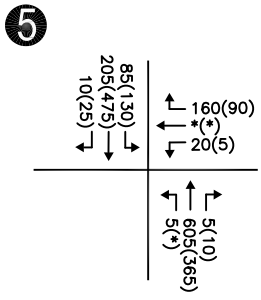
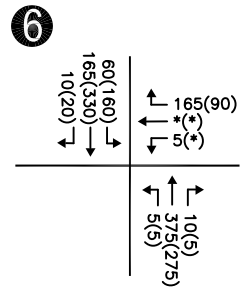
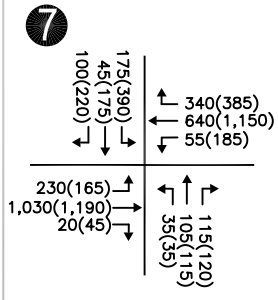


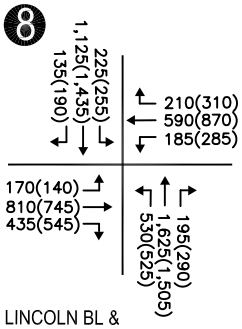
VIA MARINA & TAHITI WY



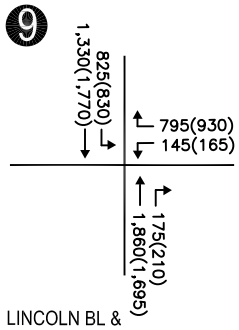
VIA MARINA & BORA BORA WY



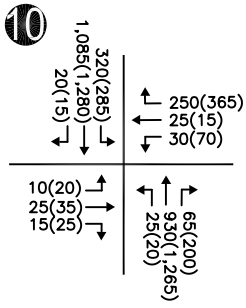
PALAWAN WY & ADMIRALTY WY



LINCOLN BL & WASHINGTON BL



LINCOLN BL & SR-90 ON/OFF-RAMPS



ADMIRALTY WY & BALI WY

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

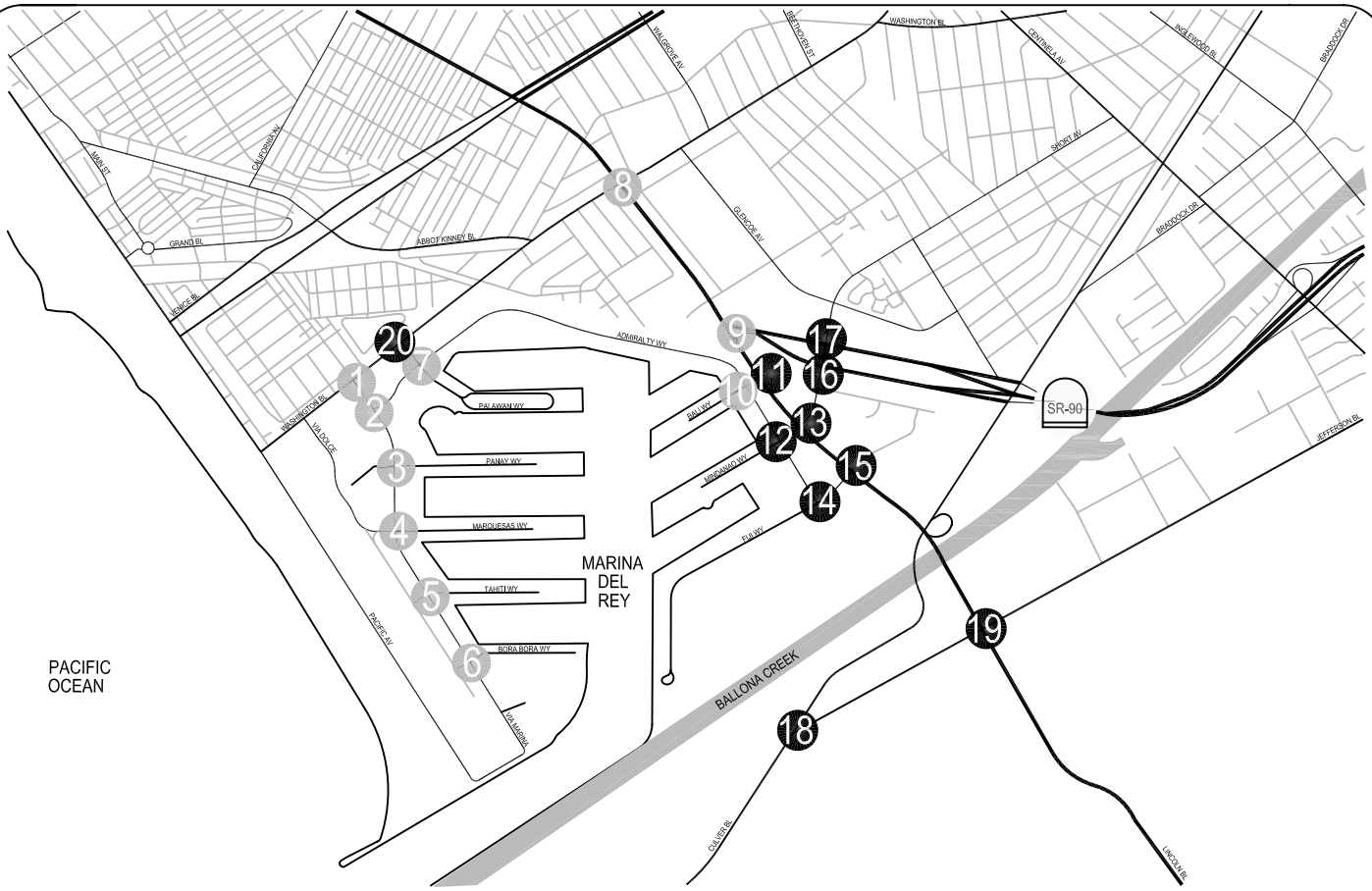
- STUDY INTERSECTION

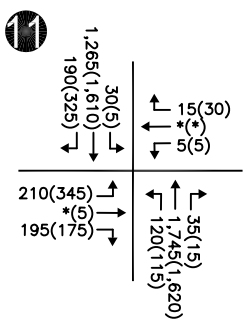
* - NEGLIGIBLE VOLUME

N
Not to scale

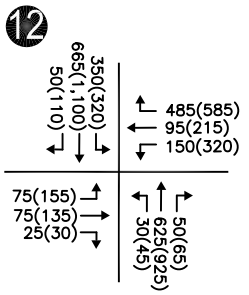
APPENDIX M-1
AMBIENT (2020) CONDITIONS WITH PIPELINE PROJECTS AND IMPROVEMENTS TRAFFIC VOLUMES

RAJU Associates, Inc.

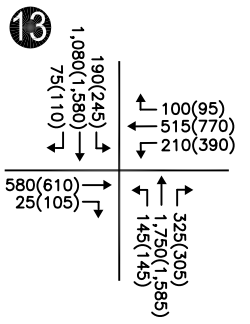




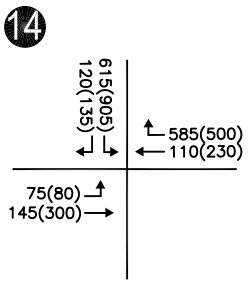
LINCOLN BL &
BALI WY



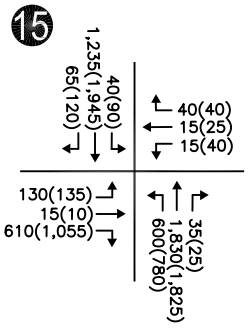
ADMIRALTY WY &
MINDANAO WY



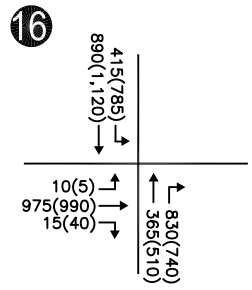
LINCOLN BL &
MINDANAO WY



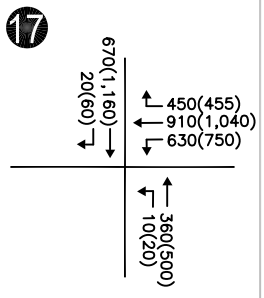
ADMIRALTY WY &
FIJI WY



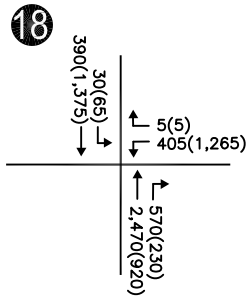
LINCOLN BL &
FIJI WY



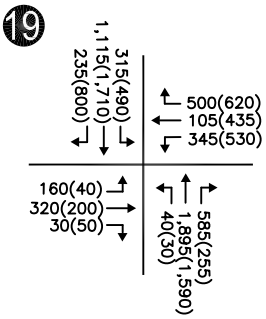
MINDANAO WY &
SR-90 EB RAMPS



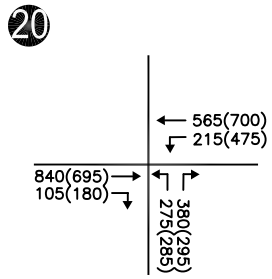
MINDANAO WY &
SR-90 WB RAMPS



CULVER BL &
JEFFERSON BL



LINCOLN BL &
JEFFERSON BL



PALAWAN WY &
WASHINGTON BL

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX M-2
AMBIENT (2020) CONDITIONS WITH PIPELINE PROJECTS
AND IMPROVEMENTS TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

APLIMPAM

CalcaDB

April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	279	279	253	59	136	21	108	506	192	49	595	207
AMBIENT												
RELATED												
PROJECT												
TOTAL	279	279	253	59	136	21	108	506	192	49	595	207
LANE	2 0 1 0 0 1 0			1 0 0 0 1 0 0			1 0 1 0 1 0 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 157
B: 59

EastBound
A: 298
B: 49

WestBound
A: 349
B: 108

NorthBound
A: 279
B: 153

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{279 + 157 + 108 + 298}{*1425} = 0.521$$

LOS = A

Developed by Chun Wong, 12/94

APLIMPAM

CalcaDB

April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: AMB(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	436	1039	354	204	0	421	0	483	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	436	1039	354	204	0	421	0	483	0	0	0
LANE	0 0 2 0 0 1 0			2 0 2 0 0 0 0			3 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 102
B: 195

EastBound
A: 0
B: 0

WestBound
A: 71
B: 156

NorthBound
A: 218
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{218 + 195 + 156 + 0}{*1425} = 0.329$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALY WAY I/S No: 2

AM/PM: AM Comments: AMB(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	354	0	204	0	421	483	436	1039	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	354	0	204	0	421	483	436	1039	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 2 0 0 1 0			2 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Auto		Perm	OLA		Prot-Fix	<none>	

Critical Movements Diagram

SouthBound
A: 84
B: 195

EastBound
A: 520
B: 240

WestBound
A: 288
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 195 + 288 + 240}{*1425} = 0.437$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1103	23	124	424	25	20	0	181	127	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1103	23	124	424	25	20	0	181	127	1	2
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 150
B: 124

EastBound
A: 130
B: 127

WestBound
A: 181
B: 20

NorthBound
A: 375
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{375 + 124 + 181 + 127}{*1500} = 0.468$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	731	7	99	292	59	3	24	253	121	12	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	731	7	99	292	59	3	24	253	121	12	13
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 146
B: 99

EastBound
A: 13
B: 121

WestBound
A: 253
B: 3

NorthBound
A: 246
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{246 + 99 + 253 + 121}{*1500} = 0.409$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	605	5	87	203	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	605	5	87	203	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 108
B: 87

EastBound
A: 0
B: 0

WestBound
A: 162
B: 20

NorthBound
A: 308
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{308 + 87 + 162 + 0}{*1500} = 0.301$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	375	10	61	163	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	375	10	61	163	10	6	1	165	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	<none>	<none>

Critical Movements Diagram

SouthBound
A: 87
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 195
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{195 + 61 + 172 + 0}{1200} = 0.357$$

LOS = A

Developed by Chun Wong, 12/94

APLIMPAM

April 26, 2010 ,Monday 03:38:57 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: AMB(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	37	106	117	173	47	101	56	638	342	228	1029	22
AMBIENT												
RELATED												
PROJECT												
TOTAL	37	106	117	173	47	101	56	638	342	228	1029	22
LANE	0 1 0 0 1 0 0			1 1 0 0 0 1 0			1 0 2 0 1 0 0			1 0 1 0 1 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 110
B: 110

EastBound
A: 526
B: 228

WestBound
A: 342
B: 56

NorthBound
A: 130
B: 37

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{130 + 110 + 56 + 526}{*1425} = 0.507$$

LOS = A

Developed by Chun Wong, 12/94

APLIMPAM

April 26, 2010 ,Monday 03:38:57 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

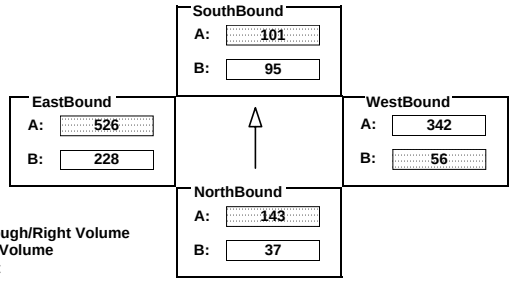
AM/PM: AM Comments: AMB(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	37	106	117	173	47	101	56	638	342	228	1029	22
AMBIENT												
RELATED												
PROJECT												
TOTAL	37	106	117	173	47	101	56	638	342	228	1029	22
LANE	0 1 0 0 0 1 0			2 0 1 0 0 1 0			1 0 2 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{143 + 101 + 56 + 526}{*1425} = 0.510$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

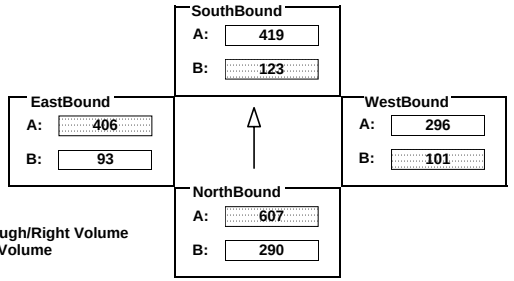
AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	528	1625	196	224	1124	134	183	591	210	169	811	436
AMBIENT												
RELATED												
PROJECT												
TOTAL	528	1625	196	224	1124	134	183	591	210	169	811	436
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{607 + 123 + 101 + 406}{*1375} = 0.830$$

LOS = D

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1862	175	824	1328	0	147	0	797	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1862	175	824	1328	0	147	0	797	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 443
B: 453

EastBound
A: 0
B: 0

WestBound
A: 0
B: 81

NorthBound
A: 679
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{679 + 453 + 81 + 0}{*1425} = 0.781$$

LOS = C

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	24	930	64	318	1084	19	30	23	248	11	25	13
AMBIENT									-175			
RELATED												
PROJECT												
TOTAL	24	930	64	318	1084	19	30	23	73	11	25	13
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 552
B: 175

EastBound
A: 25
B: 11

WestBound
A: 48
B: 30

NorthBound
A: 497
B: 24

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{497 + 175 + 48 + 11}{*1425} = 0.443$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	118	1744	33	28	1263	189	3	0	14	208	2	195
AMBIENT												
RELATED												
PROJECT												
TOTAL	118	1744	33	28	1263	189	3	0	14	208	2	195
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 484
B: 28

EastBound
A: 136
B: 105

WestBound
A: 17
B: 3

NorthBound
A: 592
B: 118

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{592 + 28 + 17 + 136}{*1375} = 0.492$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	625	52	348	664	51	151	97	486	74	75	27
AMBIENT									-191			
RELATED												
PROJECT												
TOTAL	29	625	52	348	664	51	151	97	295	74	75	27
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 1 0 1 0			1 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 358
B: 191

EastBound
A: 59
B: 59

WestBound
A: 196
B: 151

NorthBound
A: 339
B: 29

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{339 + 191 + 196 + 59}{*1375} = 0.501$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	143	1752	323	192	1080	77	209	515	100	0	582	26
AMBIENT												
RELATED												
PROJECT												
TOTAL	143	1752	323	192	1080	77	209	515	100	0	582	26
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 386
B: 192

EastBound
A: 304
B: 0

WestBound
A: 308
B: 115

NorthBound
A: 584
B: 143

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{584 + 192 + 115 + 304}{*1375} = 0.799$$

LOS = C

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	616	0	119	0	111	586	75	143	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	616	0	119	0	111	586	75	143	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 339

EastBound
A: 72
B: 75

WestBound
A: 111
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 339 + 111 + 75}{*1500} = 0.280$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	600	1832	35	41	1236	67	16	14	41	130	17	610
AMBIENT												
RELATED												
PROJECT												
TOTAL	600	1832	35	41	1236	67	16	14	41	130	17	610
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram

SouthBound
A: 434
B: 41

EastBound
A: 17
B: 130

WestBound
A: 71
B: 16

NorthBound
A: 622
B: 330

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{330 + 434 + 71 + 130}{*1425} = 0.607$$

LOS = B

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	363	832	413	888	0	0	0	0	9	977	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	363	832	413	888	0	0	0	0	9	977	13
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram

SouthBound
A: 444
B: 227

EastBound
A: 495
B: 9

WestBound
A: 0
B: 0

NorthBound
A: 458
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{458 + 227 + 0 + 495}{*1425} = 0.758$$

LOS = C

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	361	0	0	669	21	632	910	448	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	361	0	0	669	21	632	910	448	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 230
B: 0

EastBound
A: 0
B: 0

WestBound
A: 514
B: 514

NorthBound
A: 181
B: 12

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 230 + 514 + 0}{*1425} = 0.461$$

LOS = A

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2469	568	30	391	0	403	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2469	568	30	391	0	403	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 286
B: 30

EastBound
A: 0
B: 0

WestBound
A: 4
B: 222

NorthBound
A: 1235
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1235 + 30 + 222 + 0}{*1500} = 0.921$$

LOS = E

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	38	1895	584	313	1115	234	346	107	500	160	320	28
AMBIENT												
RELATED												
PROJECT												
TOTAL	38	1895	584	313	1115	234	346	107	500	160	320	28
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	Auto	

Critical Movements Diagram

SouthBound
A: 337
B: 172

EastBound
A: 116
B: 160

WestBound
A: 103
B: 190

NorthBound
A: 474
B: 38

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{474 + 172 + 190 + 116}{*1375} = 0.622$$

LOS = B

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April 26, 2010 ,Monday 03:38:57 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: AMBIENT(2020)W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	277	0	382	0	0	0	216	564	0	0	840	104
AMBIENT												
RELATED												
PROJECT												
TOTAL	277	0	382	0	0	0	216	564	0	0	840	104
LANE	2 0 0 0 0 1 0			0 0 0 0 0 0 0			2 0 2 0 0 0 0			0 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	OLA		<none>	<none>		Prot-Fix	<none>		Perm	OLA	

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 420
B: 0

WestBound
A: 282
B: 119

NorthBound
A: 263
B: 152

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{263 + 0 + 119 + 420}{*1425} = 0.493$$

LOS = A

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

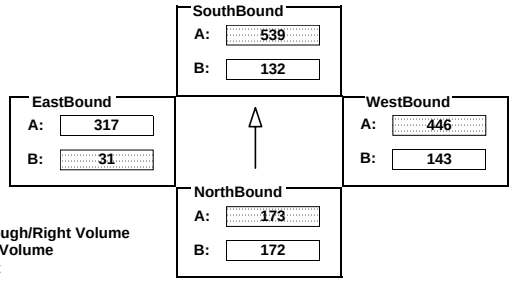
AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	313	173	162	132	508	31	143	726	166	31	607	403
AMBIENT												
RELATED												
PROJECT												
TOTAL	313	173	162	132	508	31	143	726	166	31	607	403
LANE	2 0	1 0	0 1 0	1 0	0 0	1 0 0	1 0	1 0	1 0 0	1 0	2 0	0 1 0
	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR
SIGNAL	Split		Auto	Split		Auto	Perm		Auto	Perm		Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{173 + 539 + 446 + 31}{*1425} = 0.764$$

LOS = C

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April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

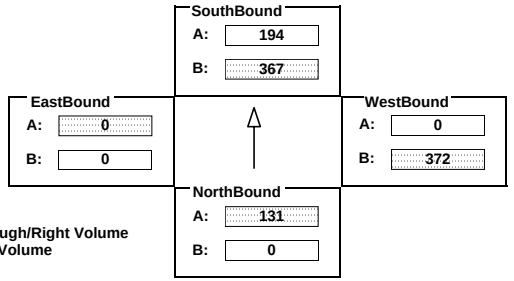
AM/PM: PM Comments: AMB(2020)W/LCP PIPELINE PRJS W/IMPROVEMENT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	261	763	667	388	0	1005	0	402	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	261	763	667	388	0	1005	0	402	0	0	0
LANE	0 0	2 0	0 1 0	2 0	2 0	0 0 0	3 0	0 0	0 2 0	0 0	0 0	0 0 0
	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR
SIGNAL	Perm		Free	Prot-Fix		<none>	Split		OLA	<none>		<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{131 + 367 + 372 + 0}{*1425} = 0.541$$

LOS = A

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April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: AMB(2020)W/LCP PIPELINE PRJS W/IMPROVEMENT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	667	0	388	0	1005	402	261	763	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	667	0	388	0	1005	402	261	763	0

LANE																								
	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	1	0	2	0	2	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	OLA	Prot-Fix	<none>

Critical Movements Diagram

SouthBound A: 316 B: 367

EastBound A: 382 B: 144

WestBound A: 503 B: 0

NorthBound A: 0 B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 367 + 503 + 144}{*1425} = 0.642$$

LOS = B

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April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	676	27	210	935	53	15	2	151	53	1	1
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	676	27	210	935	53	15	2	151	53	1	1

LANE																								
	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound A: 329 B: 210

EastBound A: 55 B: 53

WestBound A: 151 B: 15

NorthBound A: 234 B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{234 + 210 + 151 + 53}{*1500} = 0.362$$

LOS = A

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April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	16	472	12	179	586	95	5	7	119	120	23	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	16	472	12	179	586	95	5	7	119	120	23	38
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 293
B: 179

EastBound
A: 38
B: 120

WestBound
A: 119
B: 5

NorthBound
A: 161
B: 16

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{161 + 179 + 119 + 120}{*1500} = 0.316$$

LOS = A

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April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	367	12	131	477	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	367	12	131	477	25	6	0	90	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 251
B: 131

EastBound
A: 0
B: 0

WestBound
A: 90
B: 6

NorthBound
A: 192
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{192 + 131 + 90 + 0}{*1500} = 0.205$$

LOS = A

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April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

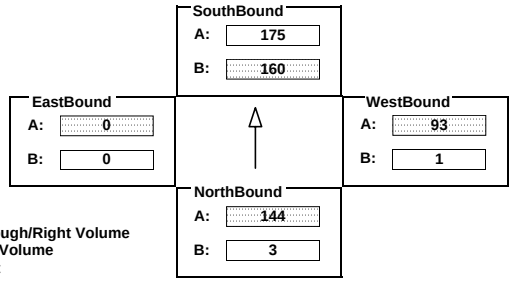
AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	277	5	160	329	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	277	5	160	329	20	1	0	92	0	0	0
LANE	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{144 + 160 + 93 + 0}{1200} = 0.331$$

LOS = A

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April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

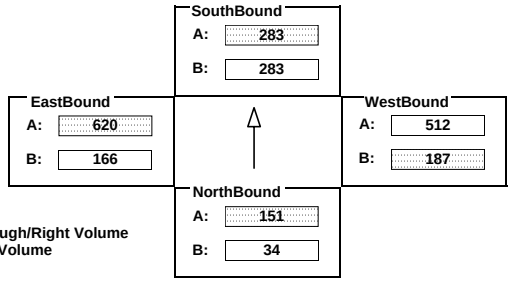
AM/PM: PM Comments: AMB(2020)W/LCP PIPELINE PRJS W/IMPROVEMENT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	34	114	119	389	176	219	187	1148	387	166	1192	47
AMBIENT												
RELATED												
PROJECT												
TOTAL	34	114	119	389	176	219	187	1148	387	166	1192	47
LANE	0	1	0	0	1	0	0	1	1	0	0	0	1	0	1	0	0	2	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{151 + 283 + 187 + 620}{*1425} = 0.801$$

LOS = D

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CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

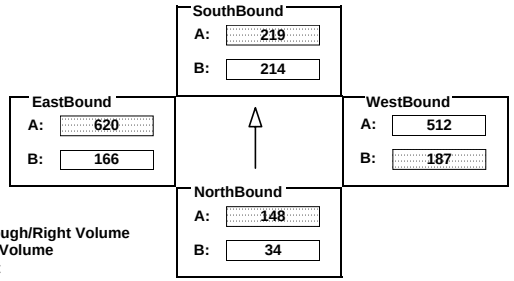
AM/PM: PM Comments: AMB(2020)W/LCP PIPELINE PRJS W/IMPROVEMENT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	34	114	119	389	176	219	187	1148	387	166	1192	47
AMBIENT												
RELATED												
PROJECT												
TOTAL	34	114	119	389	176	219	187	1148	387	166	1192	47
LANE	0	1	0	0	0	1	0	2	0	1	0	1	0	1	0	2	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{148 + 219 + 187 + 620}{*1425} = 0.754$$

LOS = C

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April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

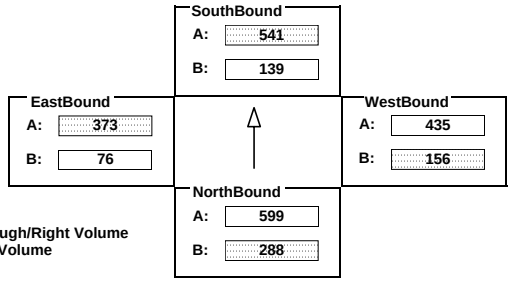
AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	524	1506	290	253	1433	191	283	870	312	138	746	543
AMBIENT												
RELATED												
PROJECT												
TOTAL	524	1506	290	253	1433	191	283	870	312	138	746	543
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{288 + 541 + 156 + 373}{*1375} = 0.918$$

LOS = E

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April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1696	211	829	1769	0	164	0	930	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1696	211	829	1769	0	164	0	930	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 590
B: 456

EastBound
A: 0
B: 0

WestBound
A: 56
B: 90

NorthBound
A: 636
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{636 + 456 + 90 + 0}{*1425} = 0.759$$

LOS = C

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	19	1263	200	285	1279	17	70	16	364	19	35	27
AMBIENT									-157			
RELATED												
PROJECT												
TOTAL	19	1263	200	285	1279	17	70	16	207	19	35	27
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 648
B: 157

EastBound
A: 41
B: 19

WestBound
A: 112
B: 70

NorthBound
A: 732
B: 19

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{732 + 157 + 112 + 19}{*1425} = 0.646$$

LOS = B

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	115	1618	16	6	1610	324	5	0	31	347	3	174
AMBIENT												
RELATED												
PROJECT												
TOTAL	115	1618	16	6	1610	324	5	0	31	347	3	174
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 645
B: 6

EastBound
A: 175
B: 175

WestBound
A: 36
B: 5

NorthBound
A: 545
B: 115

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{115 + 645 + 36 + 175}{*1375} = 0.636$$

LOS = B

Developed by Chun Wong, 12/94

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	923	64	320	1102	109	321	213	587	154	134	30
AMBIENT									-176			
RELATED												
PROJECT												
TOTAL	43	923	64	320	1102	109	321	213	411	154	134	30
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 1 0 1 0			1 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 606
B: 176

EastBound
A: 106
B: 106

WestBound
A: 315
B: 315

NorthBound
A: 494
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{494 + 176 + 315 + 106}{*1375} = 0.723$$

LOS = C

Developed by Chun Wong, 12/94

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	144	1583	303	243	1581	110	392	769	94	0	609	103
AMBIENT												
RELATED												
PROJECT												
TOTAL	144	1583	303	243	1581	110	392	769	94	0	609	103
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 564
B: 243

EastBound
A: 356
B: 0

WestBound
A: 432
B: 216

NorthBound
A: 528
B: 144

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{528 + 243 + 216 + 356}{*1375} = 0.907$$

LOS = E

Developed by Chun Wong, 12/94

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	905	0	137	0	229	501	81	298	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	905	0	137	0	229	501	81	298	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 498

EastBound
A: 149
B: 81

WestBound
A: 229
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 498 + 229 + 81}{*1500} = 0.469$$

LOS = A

Developed by Chun Wong, 12/94

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

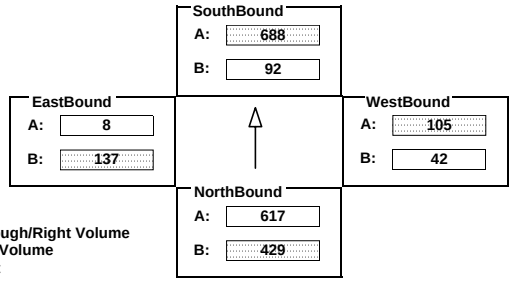
AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	780	1826	24	92	1945	119	42	23	40	137	8	1054
AMBIENT												
RELATED												
PROJECT												
TOTAL	780	1826	24	92	1945	119	42	23	40	137	8	1054
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{429 + 688 + 105 + 137}{*1425} = 0.884$$

LOS = D

Developed by Chun Wong, 12/94

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

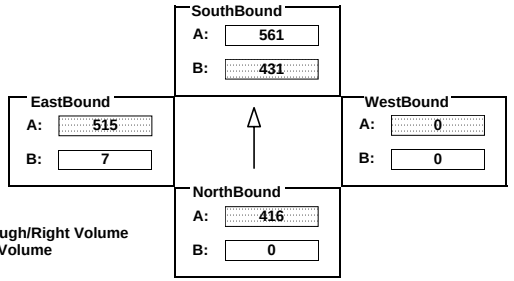
AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	511	738	783	1122	0	0	0	0	7	989	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	511	738	783	1122	0	0	0	0	7	989	41
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{416 + 431 + 0 + 515}{*1425} = 0.886$$

LOS = D

Developed by Chun Wong, 12/94

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	500	0	0	1162	60	749	1039	453	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	500	0	0	1162	60	749	1039	453	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 407
B: 0

EastBound
A: 0
B: 0

WestBound
A: 596
B: 596

NorthBound
A: 250
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 407 + 596 + 0}{*1425} = 0.646$$

LOS = B

Developed by Chun Wong, 12/94

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	918	232	65	1373	0	1264	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	918	232	65	1373	0	1264	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 882
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 695

NorthBound
A: 459
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 882 + 695 + 0}{*1500} = 0.981$$

LOS = E

Developed by Chun Wong, 12/94

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	28	1591	257	489	1708	801	528	437	618	38	200	52
AMBIENT												
RELATED												
PROJECT												
TOTAL	28	1591	257	489	1708	801	528	437	618	38	200	52
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	Auto	

Critical Movements Diagram

SouthBound
A: 801
B: 269

EastBound
A: 84
B: 38

WestBound
A: 219
B: 290

NorthBound
A: 398
B: 28

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{28 + 801 + 290 + 84}{*1375} = 0.805$$

LOS = D

Developed by Chun Wong, 12/94

APLIMPPM

CalcaDB

April 26, 2010 ,Monday 03:44:09 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: AMB. (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	287	0	296	0	0	0	474	698	0	0	697	180
AMBIENT												
RELATED												
PROJECT												
TOTAL	287	0	296	0	0	0	474	698	0	0	697	180
LANE	2 0 0 0 0 1 0			0 0 0 0 0 0 0			2 0 2 0 0 0 0			0 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	OLA		<none>	<none>		Prot-Fix	<none>		Perm	OLA	

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 349
B: 0

WestBound
A: 349
B: 261

NorthBound
A: 35
B: 158

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{158 + 0 + 261 + 349}{*1425} = 0.469$$

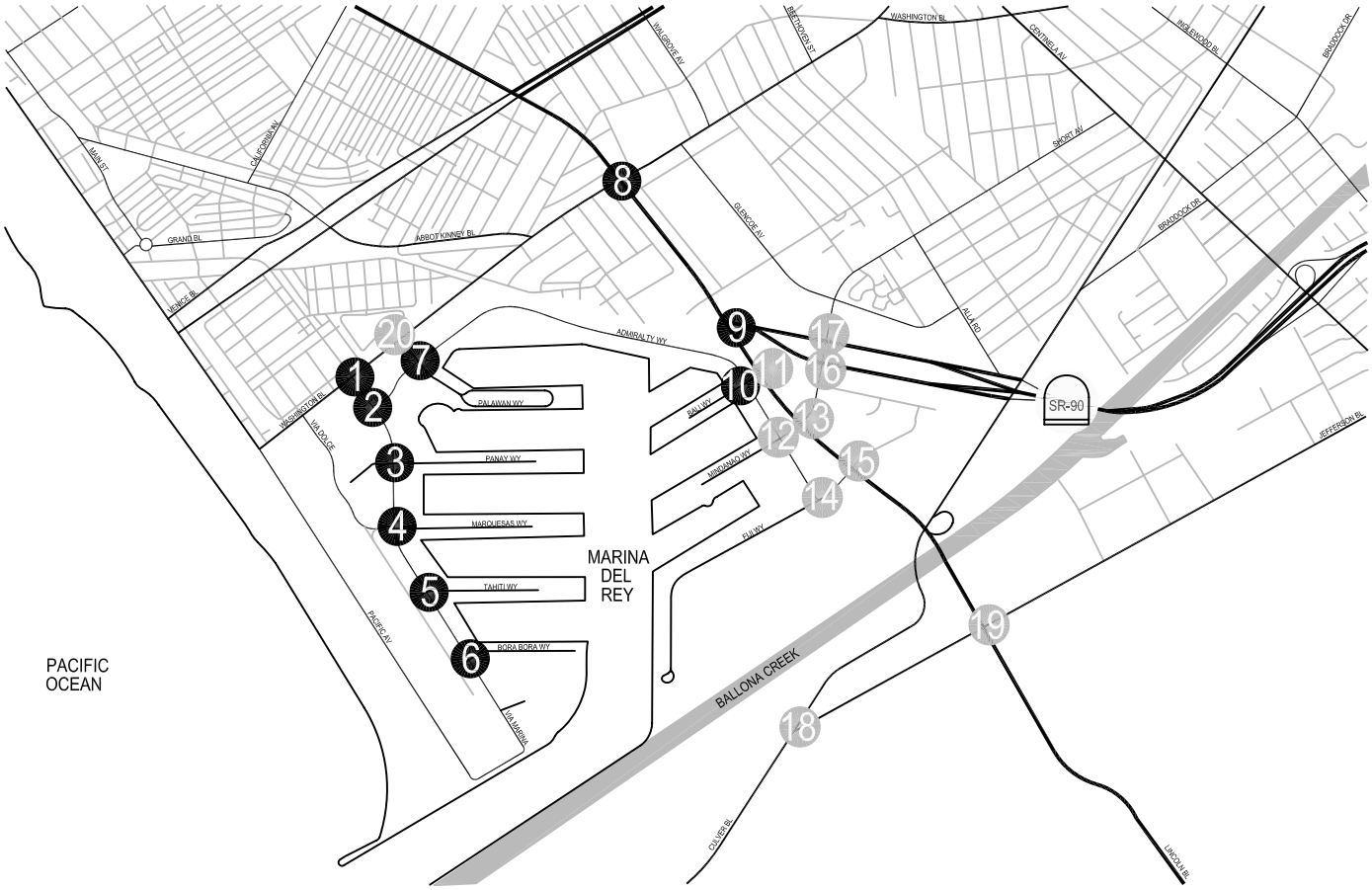
LOS = A

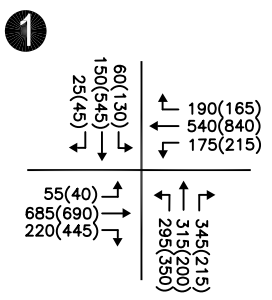
Developed by Chun Wong, 12/94

APPENDIX N

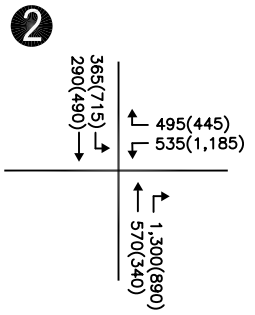
Ambient (2020) Conditions with Proposed LCP Buildout (including Pipeline Projects) and Improvements Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.

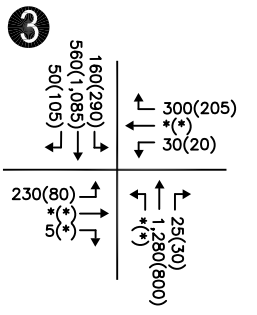




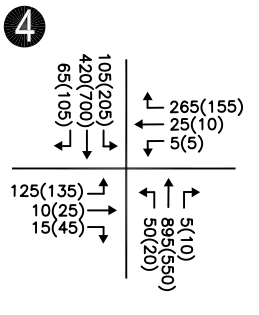
VIA MARINA & WASHINGTON BL



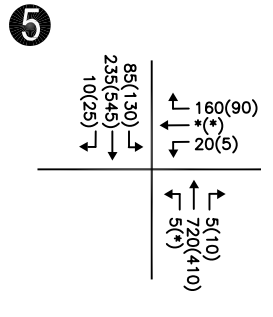
VIA MARINA & ADMIRALTY WY



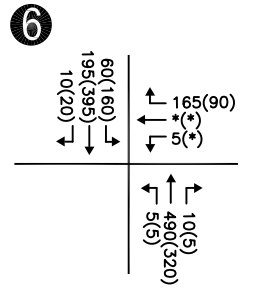
VIA MARINA & PANAY WY



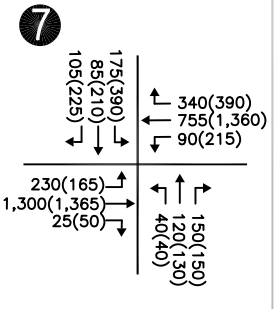
VIA MARINA & MARQUESAS WY



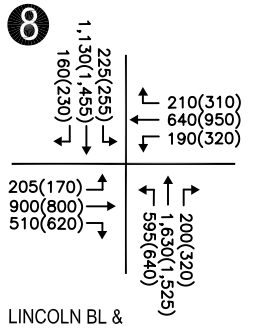
VIA MARINA & TAHITI WY



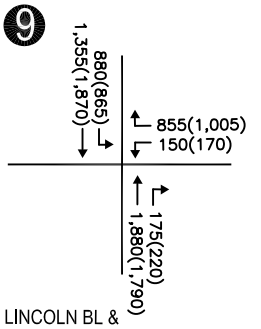
VIA MARINA & BORA BORA WY



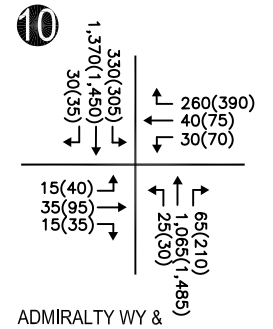
PALAWAN WY & ADMIRALTY WY



LINCOLN BL & WASHINGTON BL



LINCOLN BL & SR-90 ON/OFF-RAMPS



ADMIRALTY WY & BALI WY

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

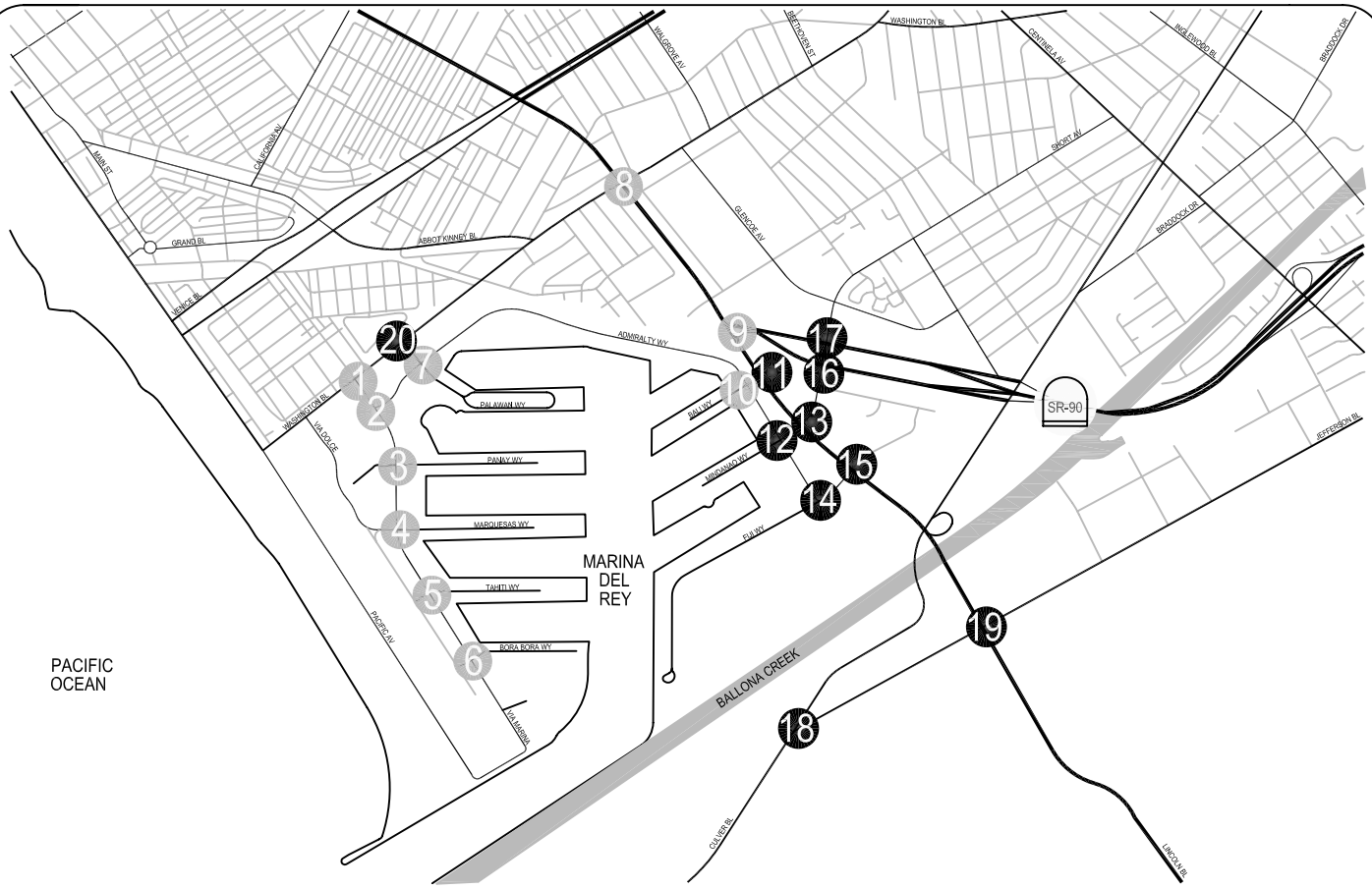
- STUDY INTERSECTION

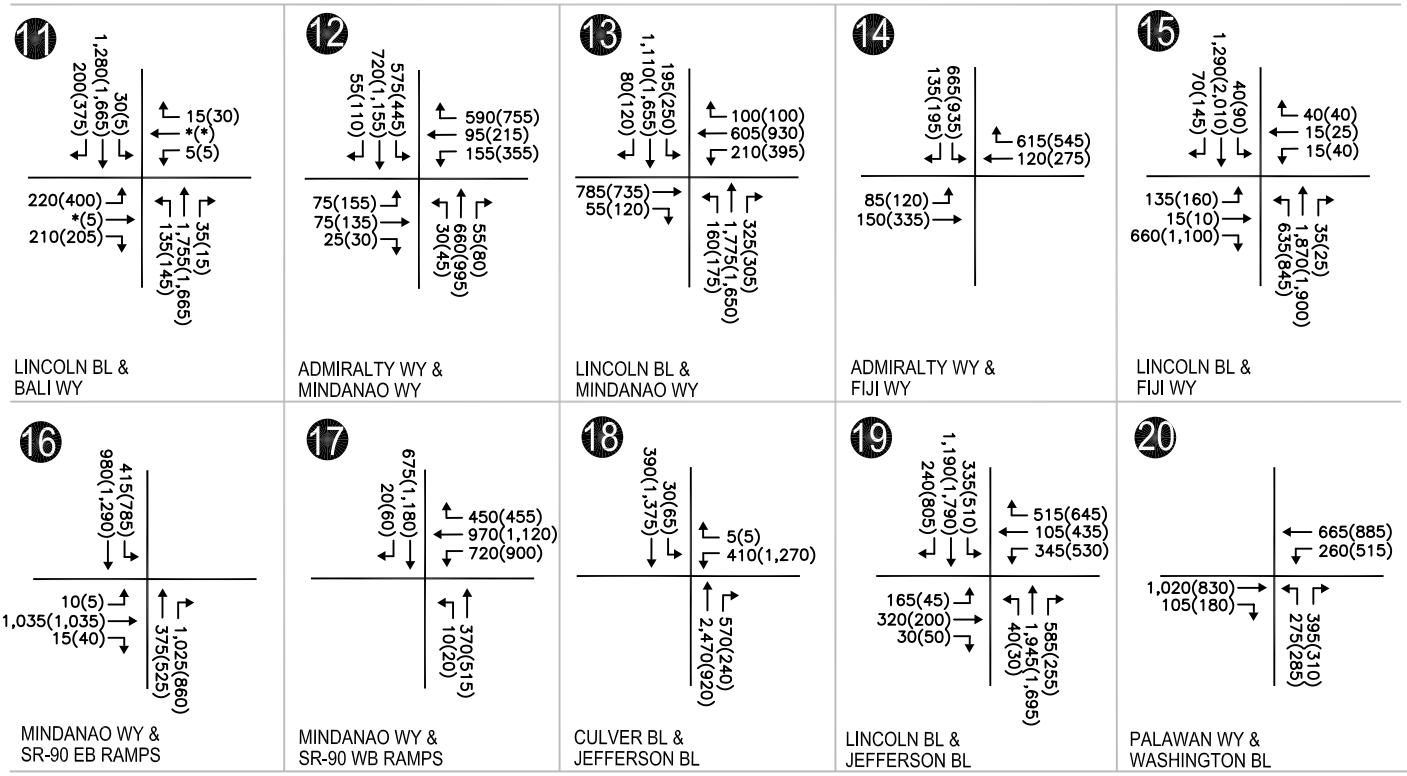
* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX N-1
AMBIENT (2020) CONDITIONS WITH PROPOSED LCP BUILDOUT (INCLUDING PIPELINE PROJECTS) AND IMPROVEMENTS TRAFFIC VOLUMES

RAJU Associates, Inc.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX N-2
AMBIENT (2020) CONDITIONS WITH PROPOSED LCP BUILDOUT
(INCLUDING PIPELINE PROJECTS) AND IMPROVEMENTS TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

AIMPAM

CalcaDB

April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	295	314	346	59	151	25	175	539	192	57	685	220
AMBIENT												
RELATED												
PROJECT												
TOTAL	295	314	346	59	151	25	175	539	192	57	685	220
LANE	2 0 1 0 0 1 0			1 0 0 0 1 0 0			1 0 1 0 1 0 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 176
B: 59

EastBound
A: 343
B: 57

WestBound
A: 366
B: 175

NorthBound
A: 346
B: 162

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{346 + 176 + 175 + 343}{*1425} = 0.660$$

LOS = B

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: AMBIENT(2020)W/PROPOSED LCP BUILDOUT W/IMPT (ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	571	1302	365	288	0	533	0	493	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	571	1302	365	288	0	533	0	493	0	0	0
LANE	0 0 2 0 0 1 0			2 0 2 0 0 0 0			3 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 144
B: 201

EastBound
A: 0
B: 0

WestBound
A: 70
B: 197

NorthBound
A: 286
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{286 + 201 + 197 + 0}{*1425} = 0.410$$

LOS = A

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: AMBIENT(2020)W/PROPOSED LCP BUILDOUT W/IMPT (ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	365	0	288	0	533	493	571	1302	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	365	0	288	0	533	493	571	1302	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 2 0 0 1 0			2 0 2 0 0 0 0		
	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR
SIGNAL	<none>		<none>	Split		Auto	Perm		OLA	Prot-Fix		<none>

Critical Movements Diagram

SouthBound
A: 131
B: 201

EastBound
A: 651
B: 314

WestBound
A: 292
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 201 + 0 + 651}{*1425} = 0.528$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	1282	25	159	559	51	28	0	298	230	1	4
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	1282	25	159	559	51	28	0	298	230	1	4
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR
SIGNAL	Perm		Auto	Perm		Auto	Perm		Auto	Perm		Auto

Critical Movements Diagram

SouthBound
A: 203
B: 159

EastBound
A: 235
B: 230

WestBound
A: 298
B: 28

NorthBound
A: 436
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{436 + 159 + 298 + 230}{*1500} = 0.679$$

LOS = B

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	49	894	7	107	422	67	3	24	267	125	12	15
AMBIENT												
RELATED												
PROJECT												
TOTAL	49	894	7	107	422	67	3	24	267	125	12	15
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 211
B: 107

EastBound
A: 15
B: 125

WestBound
A: 267
B: 3

NorthBound
A: 300
B: 49

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{300 + 107 + 267 + 125}{*1500} = 0.463$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	721	5	87	236	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	721	5	87	236	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 124
B: 87

EastBound
A: 0
B: 0

WestBound
A: 162
B: 20

NorthBound
A: 366
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{366 + 87 + 162 + 0}{*1500} = 0.340$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	491	10	61	196	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	491	10	61	196	10	6	1	165	0	0	0
LANE	0 1 0	0 1 0	0	1 0 1	0 1 0	0	0 0 0	1 0 0	0	0 0 0	0 0 0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 103
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 253
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{253 + 61 + 172 + 0}{1200} = 0.405$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: AMBIENT(2020)W/PROPOSED LCP BUILDOUT W/IMPT (ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	40	119	152	173	87	104	91	753	342	228	1301	23
AMBIENT												
RELATED												
PROJECT												
TOTAL	40	119	152	173	87	104	91	753	342	228	1301	23
LANE	0 1 0	0 1 0	0	1 1 0	0 1 0	0	1 0 2	0 1 0	0	1 0 1	0 1 0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 130
B: 130

EastBound
A: 662
B: 228

WestBound
A: 365
B: 91

NorthBound
A: 156
B: 40

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{156 + 130 + 91 + 662}{*1425} = 0.659$$

LOS = B

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

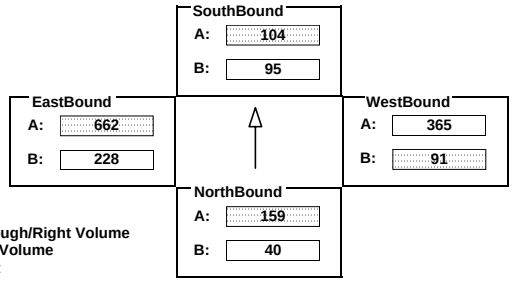
AM/PM: AM Comments: AMBIENT(2020)W/PROPOSED LCP BUILDOUT W/IMPT (ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	40	119	152	173	87	104	91	753	342	228	1301	23
AMBIENT												
RELATED												
PROJECT												
TOTAL	40	119	152	173	87	104	91	753	342	228	1301	23
LANE	0	1	0	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{159 + 104 + 91 + 662}{*1425} = 0.643$$

LOS = B

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

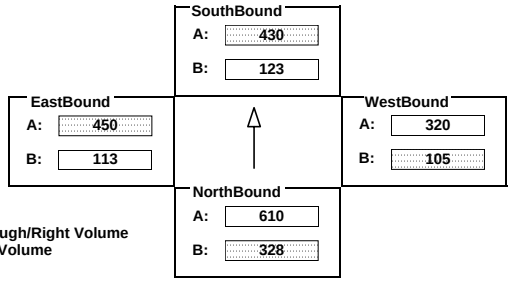
AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	597	1629	201	224	1129	161	190	640	210	206	900	509
AMBIENT												
RELATED												
PROJECT												
TOTAL	597	1629	201	224	1129	161	190	640	210	206	900	509
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{328 + 430 + 105 + 450}{*1375} = 0.885$$

LOS = D

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1882	176	880	1356	0	149	0	856	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1882	176	880	1356	0	149	0	856	0	0	0

LANE																															
	0	0	2	0	1	0	0	2	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram

SouthBound
A: 452
B: 484

EastBound
A: 0
B: 0

WestBound
A: 0
B: 82

NorthBound
A: 686
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{686 + 484 + 82 + 0}{*1425} = 0.809$$

LOS = D

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	27	1067	65	332	1369	28	30	39	260	15	36	15
AMBIENT									-183			
RELATED												
PROJECT												
TOTAL	27	1067	65	332	1369	28	30	39	77	15	36	15

LANE																															
	1	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	0	0	1	1	0	0	1	0	0	1	0	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	OLA	Perm	Auto

Critical Movements Diagram

SouthBound
A: 699
B: 183

EastBound
A: 33
B: 15

WestBound
A: 58
B: 30

NorthBound
A: 566
B: 27

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{566 + 183 + 58 + 15}{*1425} = 0.507$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	134	1754	33	28	1280	201	3	0	14	219	2	209
AMBIENT												
RELATED												
PROJECT												
TOTAL	134	1754	33	28	1280	201	3	0	14	219	2	209
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 494
B: 28

EastBound
A: 142
B: 111

WestBound
A: 17
B: 3

NorthBound
A: 596
B: 134

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{134 + 494 + 17 + 142}{*1375} = 0.502$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	660	55	574	720	55	157	97	591	75	75	27
AMBIENT									-316			
RELATED												
PROJECT												
TOTAL	29	660	55	574	720	55	157	97	275	75	75	27
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 1 0 1 0			1 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 388
B: 316

EastBound
A: 59
B: 59

WestBound
A: 186
B: 157

NorthBound
A: 358
B: 29

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{358 + 316 + 186 + 59}{*1375} = 0.598$$

LOS = A

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	159	1775	323	193	1109	78	209	607	102	0	783	54
AMBIENT												
RELATED												
PROJECT												
TOTAL	159	1775	323	193	1109	78	209	607	102	0	783	54
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 396
B: 193

EastBound
A: 419
B: 0

WestBound
A: 355
B: 115

NorthBound
A: 592
B: 159

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{592 + 193 + 115 + 419}{*1375} = 0.889$$

LOS = D

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	664	0	134	0	119	616	83	149	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	664	0	134	0	119	616	83	149	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 365

EastBound
A: 75
B: 83

WestBound
A: 119
B: 0

NorthBound
A: 0
B: 0

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 365 + 119 + 83}{*1500} = 0.308$$

LOS = A

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	634	1868	35	41	1289	71	16	14	41	135	17	660
AMBIENT												
RELATED												
PROJECT												
TOTAL	634	1868	35	41	1289	71	16	14	41	135	17	660
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram

SouthBound
A: 453
B: 41

EastBound
A: 17
B: 135

WestBound
A: 71
B: 16

NorthBound
A: 634
B: 349

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{349 + 453 + 71 + 135}{*1425} = 0.637$$

LOS = B

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	374	1023	413	982	0	0	0	0	9	1034	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	374	1023	413	982	0	0	0	0	9	1034	13
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram

SouthBound
A: 491
B: 227

EastBound
A: 524
B: 9

WestBound
A: 0
B: 0

NorthBound
A: 563
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{563 + 227 + 0 + 524}{*1425} = 0.852$$

LOS = D

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	372	0	0	674	21	721	971	448	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	372	0	0	674	21	721	971	448	0	0	0
LANE	1 0	2 0	0 0	0 0	2 0	1 0	0	1 1	1 0	0 1	0	0 0
	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR
SIGNAL	Prot-Fix		<none>	Perm		Auto	Split		Auto	<none>		<none>

Critical Movements Diagram

SouthBound
A: 232
B: 0

EastBound
A: 0
B: 0

WestBound
A: 564
B: 564

NorthBound
A: 186
B: 12

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 232 + 564 + 0}{*1425} = 0.497$$

LOS = A

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2469	572	30	391	0	409	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2469	572	30	391	0	409	0	4	0	0	0
LANE	0 0	2 0	0 1	0 0	1 1	0 0	0	2 0	0 0	0 1	0	0 0
	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR
SIGNAL	Perm		Free	Perm		<none>	Split		Auto	<none>		<none>

Critical Movements Diagram

SouthBound
A: 286
B: 30

EastBound
A: 0
B: 0

WestBound
A: 4
B: 225

NorthBound
A: 1235
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1235 + 30 + 225 + 0}{*1500} = 0.923$$

LOS = E

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	38	1947	584	333	1191	240	346	107	514	164	320	28
AMBIENT												
RELATED												
PROJECT												
TOTAL	38	1947	584	333	1191	240	346	107	514	164	320	28
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	Auto	

Critical Movements Diagram

SouthBound
A: 358
B: 183

EastBound
A: 116
B: 164

WestBound
A: 100
B: 190

NorthBound
A: 487
B: 38

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{487 + 183 + 190 + 116}{*1375} = 0.640$$

LOS = B

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April 26, 2010 ,Monday 03:52:17 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	277	0	395	0	0	0	258	665	0	0	1022	105
AMBIENT												
RELATED												
PROJECT												
TOTAL	277	0	395	0	0	0	258	665	0	0	1022	105
LANE	2 0 0 0 0 1 0			0 0 0 0 0 0 0			2 0 2 0 0 0 0			0 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	OLA		<none>	<none>		Prot-Fix	<none>		Perm	OLA	

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 511
B: 0

WestBound
A: 333
B: 142

NorthBound
A: 253
B: 152

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{253 + 0 + 142 + 511}{*1425} = 0.566$$

LOS = A

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	352	201	216	132	546	47	214	842	166	42	690	445
AMBIENT												
RELATED												
PROJECT												
TOTAL	352	201	216	132	546	47	214	842	166	42	690	445
LANE	2 0 1 0 0 1 0			1 0 0 0 1 0 0			1 0 1 0 1 0 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 593
B: 132

EastBound
A: 348
B: 42

WestBound
A: 504
B: 214

NorthBound
A: 216
B: 194

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{216 + 593 + 214 + 348}{*1425} = 0.892$$

LOS = D

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: AMBIENT(2020)W/PROPOSED LCP BUILDOUT W/IMPT (ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	338	891	716	491	0	1187	0	445	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	338	891	716	491	0	1187	0	445	0	0	0
LANE	0 0 2 0 0 1 0			2 0 2 0 0 0 0			3 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 246
B: 394

EastBound
A: 0
B: 0

WestBound
A: 0
B: 439

NorthBound
A: 169
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{169 + 394 + 439 + 0}{*1425} = 0.633$$

LOS = B

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: AMBIENT(2020)W/PROPOSED LCP BUILDOUT W/IMPT (ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	716	0	491	0	1187	445	338	891	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	716	0	491	0	1187	445	338	891	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 2 0 0 1 0			2 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Auto		Perm	OLA		Prot-Fix	<none>	

Critical Movements Diagram

SouthBound
A: 398
B: 394

EastBound
A: 446
B: 186

WestBound
A: 594
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 398 + 594 + 186}{*1425} = 0.757$$

LOS = C

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	798	32	292	1084	107	18	2	205	82	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	798	32	292	1084	107	18	2	205	82	1	2
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 397
B: 292

EastBound
A: 85
B: 82

WestBound
A: 205
B: 18

NorthBound
A: 277
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{277 + 292 + 205 + 82}{*1500} = 0.501$$

LOS = A

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	20	550	12	206	702	106	6	8	154	134	24	43
AMBIENT												
RELATED												
PROJECT												
TOTAL	20	550	12	206	702	106	6	8	154	134	24	43
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 351
B: 206

EastBound
A: 43
B: 134

WestBound
A: 154
B: 6

NorthBound
A: 187
B: 20

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{187 + 206 + 154 + 134}{*1500} = 0.384$$

LOS = A

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	409	12	131	545	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	409	12	131	545	25	6	0	90	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 285
B: 131

EastBound
A: 0
B: 0

WestBound
A: 90
B: 6

NorthBound
A: 213
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{213 + 131 + 90 + 0}{*1500} = 0.219$$

LOS = A

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	319	5	160	397	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	319	5	160	397	20	1	0	92	0	0	0
LANE	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 209
B: 160

EastBound
A: 0
B: 0

WestBound
A: 93
B: 1

NorthBound
A: 165
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{165 + 160 + 93 + 0}{1200} = 0.348$$

LOS = A

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: PM Comments: AMBIENT(2020)W/PROPOSED LCP BUILDOUT W/IMPT (ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	39	129	152	391	210	225	214	1362	388	166	1363	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	39	129	152	391	210	225	214	1362	388	166	1363	51
LANE	0	1	0	0	1	0	0	1	1	0	0	0	1	0	1	0	2	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 301
B: 301

EastBound
A: 707
B: 166

WestBound
A: 583
B: 214

NorthBound
A: 180
B: 39

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{180 + 301 + 214 + 707}{*1425} = 0.914$$

LOS = E

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

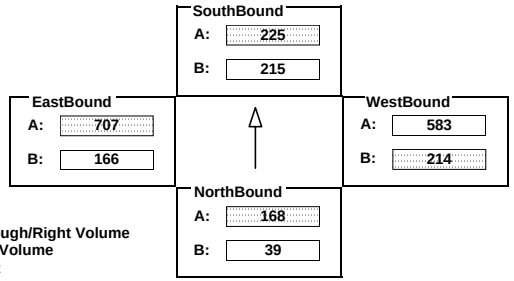
AM/PM: PM Comments: AMBIENT(2020)W/PROPOSED LCP BUILDOUT W/IMPT (ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	39	129	152	391	210	225	214	1362	388	166	1363	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	39	129	152	391	210	225	214	1362	388	166	1363	51
LANE	0	1	0	0	0	1	0	2	0	0	1	0	1	0	2	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{168 + 225 + 214 + 707}{*1425} = 0.852$$

LOS = D

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

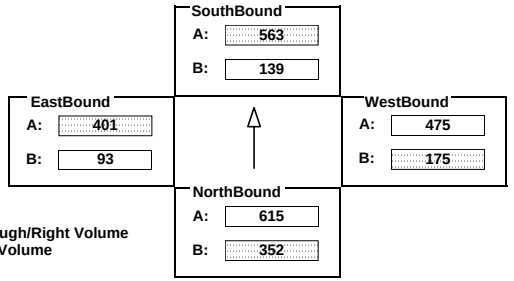
AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	640	1525	320	253	1457	232	319	949	312	169	802	620
AMBIENT												
RELATED												
PROJECT												
TOTAL	640	1525	320	253	1457	232	319	949	312	169	802	620
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{352 + 563 + 175 + 401}{*1375} = 1.014$$

LOS = F

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1788	218	867	1870	0	170	0	1003	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1788	218	867	1870	0	170	0	1003	0	0	0

LANE																															
	0	0	2	0	1	0	0	2	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram

SouthBound
A: 623
B: 477

EastBound
A: 0
B: 0

WestBound
A: 75
B: 94

NorthBound
A: 669
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{669 + 477 + 94 + 0}{*1425} = 0.800$$

LOS = D

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	31	1483	208	303	1452	37	70	74	388	41	97	37
AMBIENT									-167			
RELATED												
PROJECT												
TOTAL	31	1483	208	303	1452	37	70	74	221	41	97	37

LANE																															
	1	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	0	0	1	1	0	0	1	0	0	1	0	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	OLA	Perm	Auto

Critical Movements Diagram

SouthBound
A: 745
B: 167

EastBound
A: 88
B: 41

WestBound
A: 148
B: 70

NorthBound
A: 846
B: 31

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{846 + 167 + 148 + 41}{*1425} = 0.774$$

LOS = C

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	147	1663	16	6	1666	375	5	0	31	402	3	206
AMBIENT												
RELATED												
PROJECT												
TOTAL	147	1663	16	6	1666	375	5	0	31	402	3	206
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 680
B: 6

EastBound
A: 203
B: 203

WestBound
A: 36
B: 5

NorthBound
A: 560
B: 147

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{147 + 680 + 36 + 203}{*1375} = 0.705$$

LOS = C

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	993	80	447	1156	110	355	213	753	156	134	30
AMBIENT									-246			
RELATED												
PROJECT												
TOTAL	43	993	80	447	1156	110	355	213	507	156	134	30
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 1 0 1 0			1 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 633
B: 246

EastBound
A: 107
B: 107

WestBound
A: 360
B: 355

NorthBound
A: 537
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{537 + 246 + 360 + 107}{*1375} = 0.839$$

LOS = D

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	173	1652	306	249	1654	120	393	931	101	0	735	120
AMBIENT												
RELATED												
PROJECT												
TOTAL	173	1652	306	249	1654	120	393	931	101	0	735	120

LANE																								
	1	0	3	0	0	1	0	1	0	2	0	0	0	2	0	1	0	1	0	0	0	0	1	0
	0	1	0	1	0	0			2	0	1	0	1	0	0									

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 591
B: 249

EastBound
A: 428
B: 0

WestBound
A: 516
B: 216

NorthBound
A: 551
B: 173

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{551 + 249 + 216 + 428}{*1375} = 0.980$$

LOS = E

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	937	0	194	0	276	546	122	333	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	937	0	194	0	276	546	122	333	0

LANE																								
	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	1	0	0	1	0	2	0	0
	0	0	0	0	0	0																		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Free	Perm	Free	Perm	<none>

Critical Movements Diagram

SouthBound
A: 0
B: 515

EastBound
A: 167
B: 122

WestBound
A: 276
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 515 + 276 + 122}{*1500} = 0.539$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

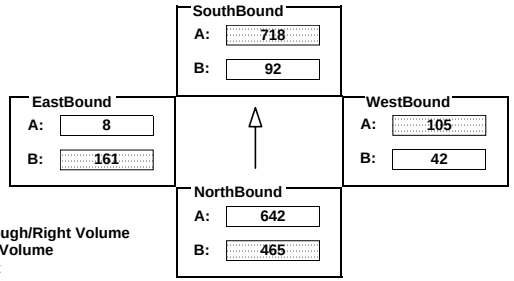
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	845	1902	24	92	2009	146	42	23	40	161	8	1100
AMBIENT												
RELATED												
PROJECT												
TOTAL	845	1902	24	92	2009	146	42	23	40	161	8	1100

LANE																															
	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Free

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{465 + 718 + 105 + 161}{*1425} = 0.947$$

LOS = E

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

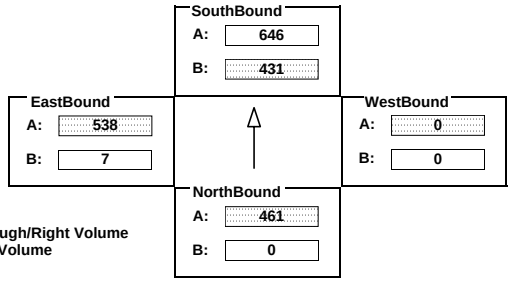
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	524	859	783	1292	0	0	0	0	7	1034	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	524	859	783	1292	0	0	0	0	7	1034	41

LANE																															
	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	<none>	<none>	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{461 + 431 + 0 + 538}{*1425} = 0.934$$

LOS = E

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	513	0	0	1179	60	901	1118	453	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	513	0	0	1179	60	901	1118	453	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 413
B: 0

EastBound
A: 0
B: 0

WestBound
A: 673
B: 673

NorthBound
A: 257
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 413 + 673 + 0}{*1425} = 0.705$$

LOS = C

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	918	240	65	1373	0	1269	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	918	240	65	1373	0	1269	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 882
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 698

NorthBound
A: 459
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 882 + 698 + 0}{*1500} = 0.983$$

LOS = E

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April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	28	1696	257	510	1789	806	528	437	647	46	200	52
AMBIENT												
RELATED												
PROJECT												
TOTAL	28	1696	257	510	1789	806	528	437	647	46	200	52
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	Auto	

Critical Movements Diagram

SouthBound
A: 806
B: 281

EastBound
A: 84
B: 46

WestBound
A: 219
B: 290

NorthBound
A: 424
B: 28

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{28 + 806 + 290 + 84}{*1375} = 0.809$$

LOS = D

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AIMPPM

CalcaDB

April 26, 2010 ,Monday 04:49:23 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: AMBIENT(2020) W/PROPOSED LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	287	0	312	0	0	0	513	884	0	0	831	182
AMBIENT												
RELATED												
PROJECT												
TOTAL	287	0	312	0	0	0	513	884	0	0	831	182
LANE	2 0 0 0 0 1 0			0 0 0 0 0 0 0			2 0 2 0 0 0 0			0 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	OLA		<none>	<none>		Prot-Fix	OLA		Perm	OLA	

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 416
B: 0

WestBound
A: 442
B: 282

NorthBound
A: 30
B: 158

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{158 + 0 + 282 + 416}{*1425} = 0.531$$

LOS = A

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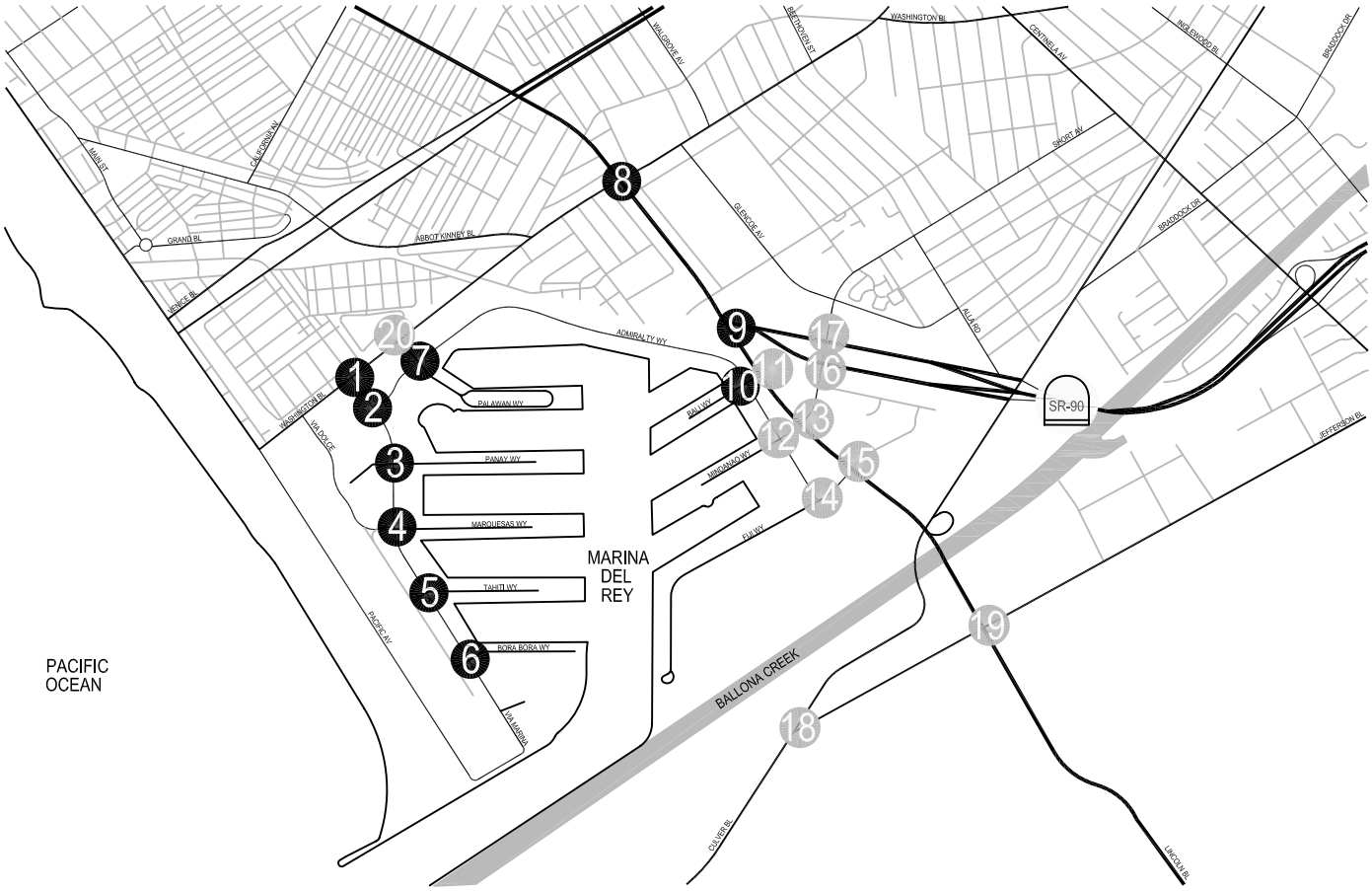
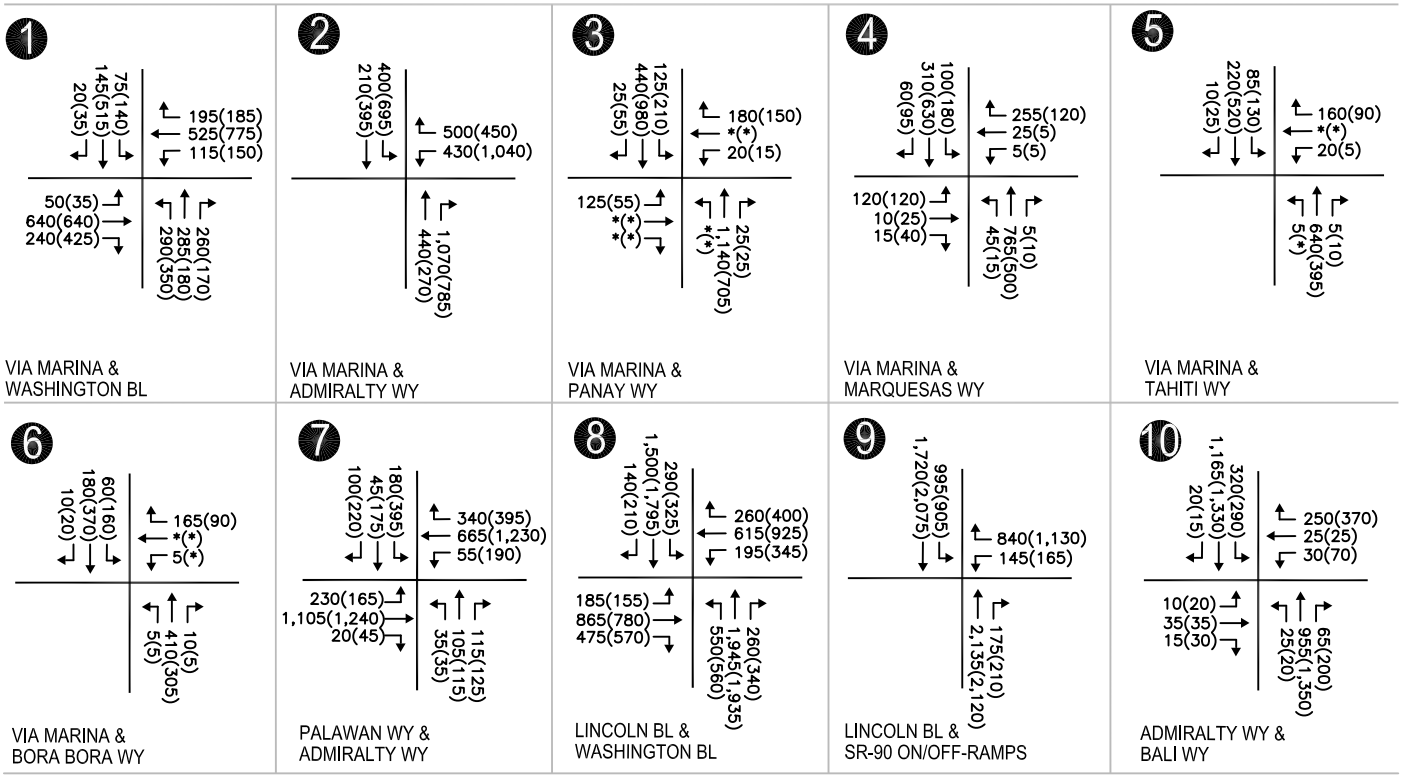
APPENDIX O

Cumulative (2020) Conditions with Pipeline Projects and Improvements
Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

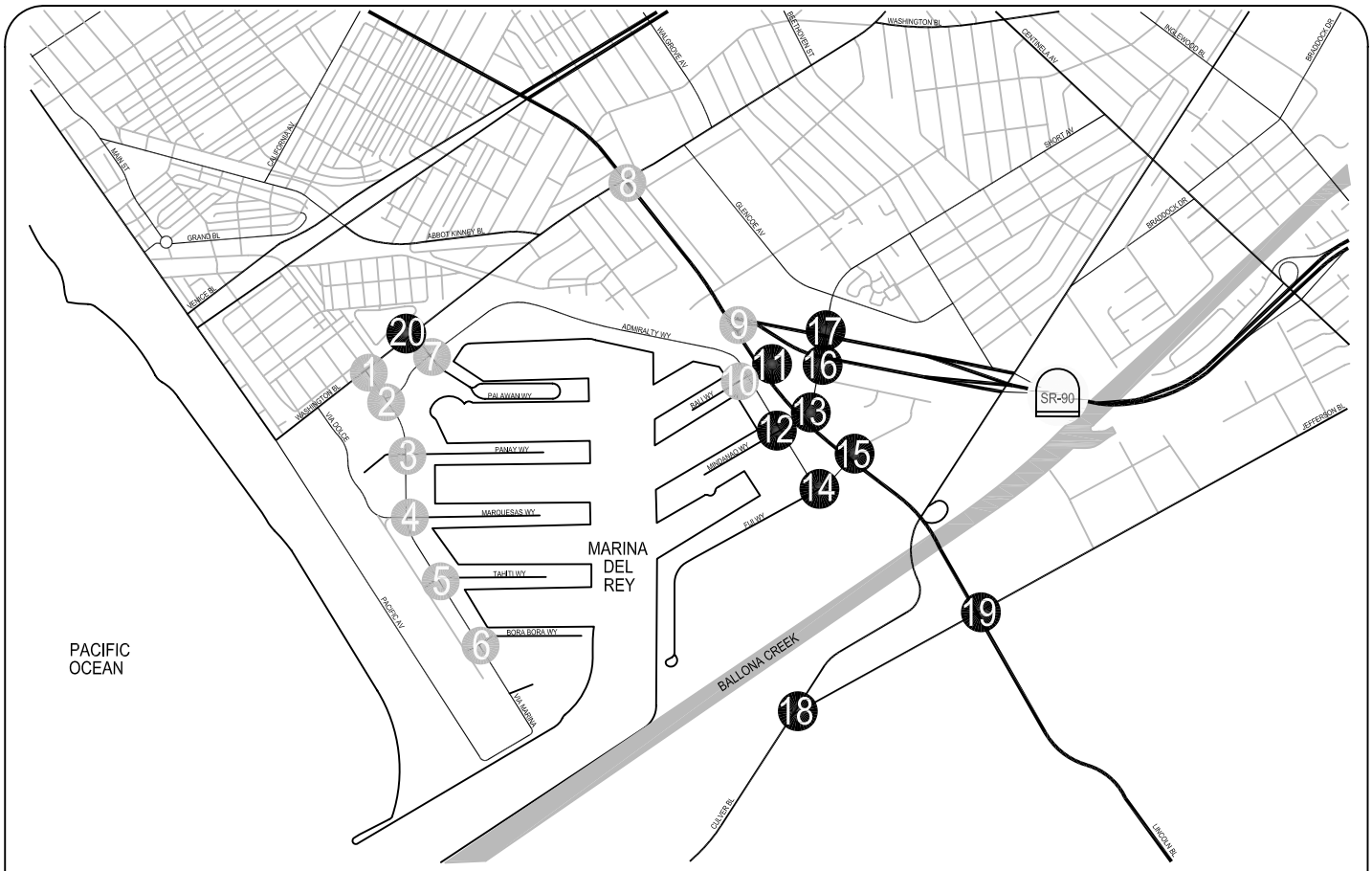
- STUDY INTERSECTION

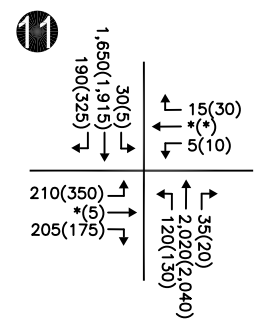
* - NEGLIGIBLE VOLUME

N
Not to scale

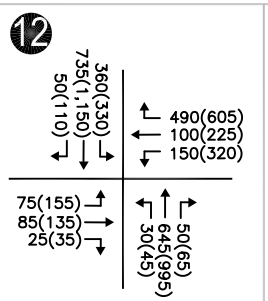
APPENDIX O-1
CUMULATIVE (2020) CONDITIONS WITH PIPELINE PROJECTS AND IMPROVEMENTS TRAFFIC VOLUMES

RAJU Associates, Inc.

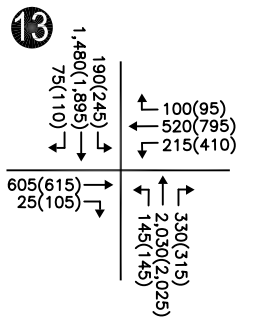




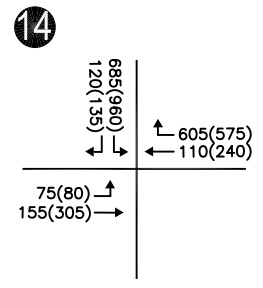
LINCOLN BL &
BALI WY



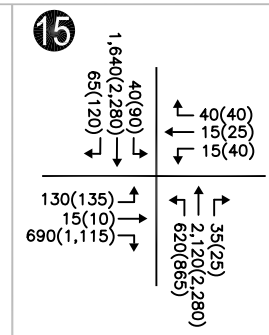
ADMIRALTY WY &
MINDANAO WY



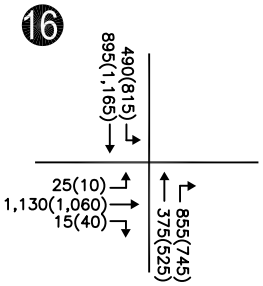
LINCOLN BL &
MINDANAO WY



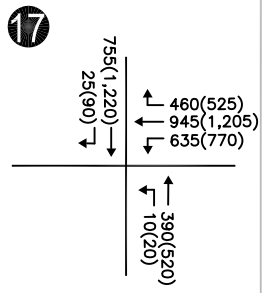
ADMIRALTY WY &
FIJI WY



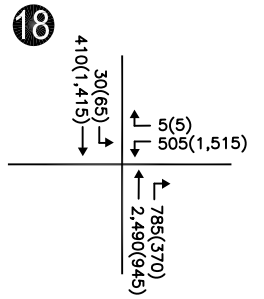
LINCOLN BL &
FIJI WY



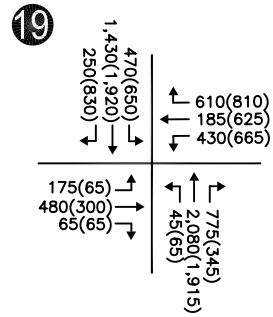
MINDANAO WY &
SR-90 EB RAMPS



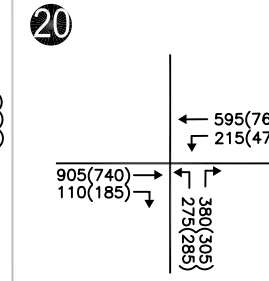
MINDANAO WY &
SR-90 WB RAMPS



CULVER BL &
JEFFERSON BL



LINCOLN BL &
JEFFERSON BL



PALAWAN WY &
WASHINGTON BL

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX O-2
CUMULATIVE (2020) CONDITIONS WITH PIPELINE PROJECTS
AND IMPROVEMENTS TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

CPLIMPAM

CalcaDB

April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	289	286	258	77	146	22	114	526	196	52	642	242
AMBIENT												
RELATED												
PROJECT												
TOTAL	289	286	258	77	146	22	114	526	196	52	642	242
LANE	2 0 1 0 0 1 0			1 0 0 0 1 0 0			1 0 1 0 1 0 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 168
B: 77

EastBound
A: 321
B: 52

WestBound
A: 361
B: 114

NorthBound
A: 286
B: 159

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{286 + 168 + 114 + 321}{*1425} = 0.554$$

LOS = A

Developed by Chun Wong, 12/94

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CalcaDB

April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: CUML(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	441	1070	400	210	0	432	0	500	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	441	1070	400	210	0	432	0	500	0	0	0
LANE	0 0 2 0 0 1 0			2 0 2 0 0 0 0			3 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 105
B: 220

EastBound
A: 0
B: 0

WestBound
A: 55
B: 160

NorthBound
A: 221
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{221 + 220 + 160 + 0}{*1425} = 0.352$$

LOS = A

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CalcaDB

April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY I/S No: 2

AM/PM: AM Comments: CUML(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	400	0	210	0	432	500	441	1070	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	400	0	210	0	432	500	441	1070	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 2 0 0 1 0			2 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Auto		Perm	OLA		Prot-Fix	<none>	

Critical Movements Diagram

SouthBound
A: 89
B: 220

EastBound
A: 535
B: 243

WestBound
A: 280
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 220 + 0 + 535}{*1425} = 0.460$$

LOS = A

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CalcaDB

April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1139	23	124	440	25	20	0	181	127	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1139	23	124	440	25	20	0	181	127	1	2
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 155
B: 124

EastBound
A: 130
B: 127

WestBound
A: 181
B: 20

NorthBound
A: 387
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{387 + 124 + 181 + 127}{*1500} = 0.476$$

LOS = A

Developed by Chun Wong, 12/94

CPLIMPAM

CalcaDB

April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	767	7	99	308	59	3	24	253	121	12	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	767	7	99	308	59	3	24	253	121	12	13
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 154
B: 99

EastBound
A: 13
B: 121

WestBound
A: 253
B: 3

NorthBound
A: 258
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{258 + 99 + 253 + 121}{*1500} = 0.417$$

LOS = A

Developed by Chun Wong, 12/94

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CalcaDB

April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	641	5	87	219	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	641	5	87	219	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 116
B: 87

EastBound
A: 0
B: 0

WestBound
A: 162
B: 20

NorthBound
A: 326
B: 6

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{326 + 87 + 162 + 0}{*1500} = 0.313$$

LOS = A

Developed by Chun Wong, 12/94

CPLIMPAM

CalcaDB

April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	411	10	61	179	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	411	10	61	179	10	6	1	165	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	<none>	<none>

Critical Movements Diagram

SouthBound
A: 95
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 213
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{213 + 61 + 172 + 0}{1200} = 0.372$$

LOS = A

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: CUML(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	37	106	117	178	47	101	56	666	342	228	1106	22
AMBIENT												
RELATED												
PROJECT												
TOTAL	37	106	117	178	47	101	56	666	342	228	1106	22
LANE	0 1 0 0 1 0 0			1 1 0 0 0 1 0			1 0 2 0 1 0 0			1 0 1 0 1 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 113
B: 113

EastBound
A: 564
B: 228

WestBound
A: 342
B: 56

NorthBound
A: 130
B: 37

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{130 + 113 + 56 + 564}{*1425} = 0.536$$

LOS = A

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: CUML(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	37	106	117	178	47	101	56	666	342	228	1106	22
AMBIENT												
RELATED												
PROJECT												
TOTAL	37	106	117	178	47	101	56	666	342	228	1106	22
LANE	0	1	0	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 101
B: 98

EastBound
A: 564
B: 228

WestBound
A: 342
B: 56

NorthBound
A: 143
B: 37

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{143 + 101 + 56 + 564}{*1425} = 0.536$$

LOS = A

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	552	1945	261	290	1499	142	195	616	262	184	865	475
AMBIENT												
RELATED												
PROJECT												
TOTAL	552	1945	261	290	1499	142	195	616	262	184	865	475
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	OLA

Critical Movements Diagram

SouthBound
A: 547
B: 160

EastBound
A: 433
B: 101

WestBound
A: 308
B: 107

NorthBound
A: 735
B: 304

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{735 + 160 + 107 + 433}{*1375} = 0.974$$

LOS = E

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2137	175	993	1719	0	147	0	840	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2137	175	993	1719	0	147	0	840	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 573
B: 546

EastBound
A: 0
B: 0

WestBound
A: 0
B: 81

NorthBound
A: 771
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{771 + 546 + 81 + 0}{*1425} = 0.911$$

LOS = E

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	24	954	64	318	1166	19	30	24	251	11	37	13
AMBIENT									-175			
RELATED												
PROJECT												
TOTAL	24	954	64	318	1166	19	30	24	76	11	37	13
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 593
B: 175

EastBound
A: 31
B: 11

WestBound
A: 50
B: 30

NorthBound
A: 509
B: 24

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{509 + 175 + 30 + 31}{*1425} = 0.453$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	120	2020	33	28	1651	191	3	0	14	208	2	207
AMBIENT												
RELATED												
PROJECT												
TOTAL	120	2020	33	28	1651	191	3	0	14	208	2	207
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Split	Auto	Split	Auto

Critical Movements Diagram

SouthBound
A: 614
B: 28

EastBound
A: 147
B: 105

WestBound
A: 17
B: 3

NorthBound
A: 684
B: 120

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{120 + 614 + 17 + 147}{*1375} = 0.583$$

LOS = A

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	645	52	361	734	51	151	98	490	74	87	27
AMBIENT									-199			
RELATED												
PROJECT												
TOTAL	29	645	52	361	734	51	151	98	291	74	87	27
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 1 0 1 0			1 1 0 0 1 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Split	OLA	Split	Auto

Critical Movements Diagram

SouthBound
A: 393
B: 199

EastBound
A: 63
B: 63

WestBound
A: 195
B: 151

NorthBound
A: 349
B: 29

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{349 + 199 + 195 + 63}{*1375} = 0.516$$

LOS = A

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	144	2030	331	192	1480	77	214	519	100	0	607	26
AMBIENT												
RELATED												
PROJECT												
TOTAL	144	2030	331	192	1480	77	214	519	100	0	607	26
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 519
B: 192

EastBound
A: 317
B: 0

WestBound
A: 310
B: 118

NorthBound
A: 677
B: 144

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{677 + 192 + 118 + 317}{*1375} = 0.878$$

LOS = D

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	686	0	119	0	112	606	75	155	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	686	0	119	0	112	606	75	155	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 377

EastBound
A: 78
B: 75

WestBound
A: 112
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 377 + 112 + 75}{*1500} = 0.306$$

LOS = A

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	621	2119	35	41	1642	67	16	14	41	130	17	692
AMBIENT												
RELATED												
PROJECT												
TOTAL	621	2119	35	41	1642	67	16	14	41	130	17	692
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram

SouthBound
A: 570
B: 41

EastBound
A: 17
B: 130

WestBound
A: 71
B: 16

NorthBound
A: 718
B: 342

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{342 + 570 + 71 + 130}{*1425} = 0.711$$

LOS = C

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	374	854	492	897	0	0	0	0	26	1129	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	374	854	492	897	0	0	0	0	26	1129	13
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram

SouthBound
A: 449
B: 271

EastBound
A: 571
B: 26

WestBound
A: 0
B: 0

NorthBound
A: 470
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{470 + 271 + 0 + 571}{*1425} = 0.851$$

LOS = D

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INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	389	0	0	753	26	636	947	460	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	389	0	0	753	26	636	947	460	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 260
B: 0

EastBound
A: 0
B: 0

WestBound
A: 528
B: 528

NorthBound
A: 195
B: 12

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 260 + 528 + 0}{*1425} = 0.491$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2491	783	30	408	0	507	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2491	783	30	408	0	507	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 294
B: 30

EastBound
A: 0
B: 0

WestBound
A: 4
B: 279

NorthBound
A: 1246
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1246 + 30 + 279 + 0}{*1500} = 0.967$$

LOS = E

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	46	2082	773	468	1432	250	428	187	611	177	480	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	46	2082	773	468	1432	250	428	187	611	177	480	66

LANE																								
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram

SouthBound
A: 421
B: 257

EastBound
A: 182
B: 177

WestBound
A: 94
B: 235

NorthBound
A: 538
B: 46

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{538 + 257 + 235 + 182}{*1375} = 0.811$$

LOS = D

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April 26, 2010 ,Monday 05:03:54 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	277	0	382	0	0	0	217	593	0	0	905	108
AMBIENT												
RELATED												
PROJECT												
TOTAL	277	0	382	0	0	0	217	593	0	0	905	108

LANE																														
	2	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	0	0	1	0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	<none>	<none>	Prot-Fix	<none>	Perm	OLA

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 453
B: 0

WestBound
A: 297
B: 119

NorthBound
A: 263
B: 152

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{263 + 0 + 119 + 453}{*1425} = 0.516$$

LOS = A

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	351	182	170	139	514	34	151	776	183	33	640	425
AMBIENT												
RELATED												
PROJECT												
TOTAL	351	182	170	139	514	34	151	776	183	33	640	425
LANE	2 0 1 0 0 1 0			1 0 0 0 1 0 0			1 0 1 0 1 0 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 548
B: 139

EastBound
A: 328
B: 33

WestBound
A: 480
B: 151

NorthBound
A: 182
B: 193

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{193 + 548 + 480 + 33}{*1425} = 0.810$$

LOS = D

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: CUML(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	269	783	694	396	0	1040	0	450	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	269	783	694	396	0	1040	0	450	0	0	0
LANE	0 0 2 0 0 1 0			2 0 2 0 0 0 0			3 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 198
B: 382

EastBound
A: 0
B: 0

WestBound
A: 0
B: 385

NorthBound
A: 135
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{135 + 382 + 385 + 0}{*1425} = 0.563$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: CUML(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	694	0	396	0	1040	450	269	783	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	694	0	396	0	1040	450	269	783	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 2 0 0 1 0			2 0 2 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Auto		Perm	OLA		Prot-Fix	<none>	

Critical Movements Diagram

SouthBound
A: 322
B: 382

EastBound
A: 392
B: 148

WestBound
A: 520
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 382 + 520 + 148}{*1425} = 0.667$$

LOS = B

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	704	27	210	978	53	15	2	151	53	1	1
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	704	27	210	978	53	15	2	151	53	1	1
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 1 0 0 0 1 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 344
B: 210

EastBound
A: 55
B: 53

WestBound
A: 151
B: 15

NorthBound
A: 244
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{244 + 210 + 151 + 53}{*1500} = 0.369$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	16	500	12	179	629	95	5	7	119	120	23	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	16	500	12	179	629	95	5	7	119	120	23	38
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 315
B: 179

EastBound
A: 38
B: 120

WestBound
A: 119
B: 5

NorthBound
A: 171
B: 16

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{171 + 179 + 119 + 120}{*1500} = 0.323$$

LOS = A

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April 26, 2010 ,Monday 05:09:50 PM

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	395	12	131	520	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	395	12	131	520	25	6	0	90	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 273
B: 131

EastBound
A: 0
B: 0

WestBound
A: 90
B: 6

NorthBound
A: 206
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{206 + 131 + 90 + 0}{*1500} = 0.215$$

LOS = A

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	305	5	160	372	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	305	5	160	372	20	1	0	92	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 196
B: 160

EastBound
A: 0
B: 0

WestBound
A: 93
B: 1

NorthBound
A: 158
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{158 + 160 + 93 + 0}{1200} = 0.343$$

LOS = A

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: PM Comments: CUML(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	34	114	123	394	176	219	189	1231	393	166	1239	47
AMBIENT												
RELATED												
PROJECT												
TOTAL	34	114	123	394	176	219	189	1231	393	166	1239	47
LANE	0 1 0 0 1 0 0			1 1 0 0 0 1 0			1 0 2 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 285
B: 285

EastBound
A: 643
B: 166

WestBound
A: 541
B: 189

NorthBound
A: 153
B: 34

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{153 + 285 + 189 + 643}{*1425} = 0.821$$

LOS = D

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: PM Comments: CUML(2020)W/LCP PIPELINE PROJS W/IMPROVEMENT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	34	114	123	394	176	219	189	1231	393	166	1239	47
AMBIENT												
RELATED												
PROJECT												
TOTAL	34	114	123	394	176	219	189	1231	393	166	1239	47
LANE	0	1	0	0	0	1	0	2	0	1	0	0	2	0	1	0	0	1	0	1	0	2	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 219
B: 217

EastBound
A: 643
B: 166

WestBound
A: 541
B: 189

NorthBound
A: 148
B: 34

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{148 + 219 + 189 + 643}{*1425} = 0.771$$

LOS = C

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	558	1935	341	323	1795	210	346	927	398	153	780	572
AMBIENT												
RELATED												
PROJECT												
TOTAL	558	1935	341	323	1795	210	346	927	398	153	780	572
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 668
B: 178

EastBound
A: 390
B: 84

WestBound
A: 464
B: 190

NorthBound
A: 759
B: 307

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{307 + 668 + 190 + 390}{*1375} = 1.061$$

LOS = F

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2120	211	904	2075	0	164	0	1129	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2120	211	904	2075	0	164	0	1129	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 692
B: 497

EastBound
A: 0
B: 0

WestBound
A: 124
B: 90

NorthBound
A: 777
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{777 + 497 + 124 + 0}{*1425} = 0.911$$

LOS = E

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	22	1350	200	288	1332	17	70	27	368	19	37	32
AMBIENT									-158			
RELATED												
PROJECT												
TOTAL	22	1350	200	288	1332	17	70	27	210	19	37	32
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 675
B: 158

EastBound
A: 44
B: 19

WestBound
A: 119
B: 70

NorthBound
A: 775
B: 22

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{775 + 158 + 119 + 19}{*1425} = 0.682$$

LOS = B

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	130	2040	20	6	1916	324	12	0	31	349	3	177
AMBIENT												
RELATED												
PROJECT												
TOTAL	130	2040	20	6	1916	324	12	0	31	349	3	177
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Split	Auto			Split	Auto		

Critical Movements Diagram

SouthBound
A: 747
B: 6

EastBound
A: 176
B: 176

WestBound
A: 43
B: 12

NorthBound
A: 687
B: 130

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{130 + 747 + 43 + 176}{*1375} = 0.727$$

LOS = C

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	996	64	328	1151	109	321	223	603	154	136	35
AMBIENT									-180			
RELATED												
PROJECT												
TOTAL	43	996	64	328	1151	109	321	223	423	154	136	35
LANE	1	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	0	1	0	1	0	1	1	0	0	1	0	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Split	OLA			Split	Auto		

Critical Movements Diagram

SouthBound
A: 630
B: 180

EastBound
A: 108
B: 108

WestBound
A: 323
B: 321

NorthBound
A: 530
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{530 + 180 + 323 + 108}{*1375} = 0.760$$

LOS = C

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	146	2024	314	243	1897	110	411	793	94	0	617	105
AMBIENT												
RELATED												
PROJECT												
TOTAL	146	2024	314	243	1897	110	411	793	94	0	617	105
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 669
B: 243

EastBound
A: 361
B: 0

WestBound
A: 444
B: 226

NorthBound
A: 675
B: 146

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{675 + 243 + 226 + 361}{*1375} = 1.025$$

LOS = F

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CalcaDB

April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	959	0	137	0	239	574	81	305	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	959	0	137	0	239	574	81	305	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 527

EastBound
A: 153
B: 81

WestBound
A: 239
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 527 + 239 + 81}{*1500} = 0.495$$

LOS = A

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	863	2281	24	92	2281	119	42	23	40	137	8	1116
AMBIENT												
RELATED												
PROJECT												
TOTAL	863	2281	24	92	2281	119	42	23	40	137	8	1116
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram

SouthBound
A: 800
B: 92

EastBound
A: 8
B: 137

WestBound
A: 105
B: 42

NorthBound
A: 768
B: 475

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{475 + 800 + 105 + 137}{*1425} = 0.995$$

LOS = E

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	523	746	817	1165	0	0	0	0	12	1059	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	523	746	817	1165	0	0	0	0	12	1059	41
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram

SouthBound
A: 583
B: 449

EastBound
A: 550
B: 12

WestBound
A: 0
B: 0

NorthBound
A: 423
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{423 + 449 + 0 + 550}{*1425} = 0.928$$

LOS = E

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	518	0	0	1218	91	770	1207	525	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	518	0	0	1218	91	770	1207	525	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 436
B: 0

EastBound
A: 0
B: 0

WestBound
A: 659
B: 659

NorthBound
A: 259
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 436 + 659 + 0}{*1425} = 0.711$$

LOS = C

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	947	371	65	1417	0	1516	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	947	371	65	1417	0	1516	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 904
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 834

NorthBound
A: 474
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 904 + 834 + 0}{*1500} = 1.089$$

LOS = F

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	66	1917	346	650	1918	828	666	624	809	64	299	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	66	1917	346	650	1918	828	666	624	809	64	299	66
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	Auto	

Critical Movements Diagram

SouthBound
A: 828
B: 358

EastBound
A: 122
B: 64

WestBound
A: 312
B: 366

NorthBound
A: 479
B: 66

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{66 + 828 + 366 + 122}{*1375} = 0.935$$

LOS = E

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April 26, 2010 ,Monday 05:09:50 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: CUMULATIVE (2020) W/LCP PIPELINE PROJECTS W/IMPROVEMEN

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	287	0	303	0	0	0	474	767	0	0	741	185
AMBIENT												
RELATED												
PROJECT												
TOTAL	287	0	303	0	0	0	474	767	0	0	741	185
LANE	2 0 0 0 0 1 0			0 0 0 0 0 0 0			2 0 2 0 0 0 0			0 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	OLA		<none>	<none>		Prot-Fix	<none>		Perm	OLA	

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 371
B: 0

WestBound
A: 384
B: 261

NorthBound
A: 42
B: 158

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{158 + 0 + 261 + 371}{*1425} = 0.484$$

LOS = A

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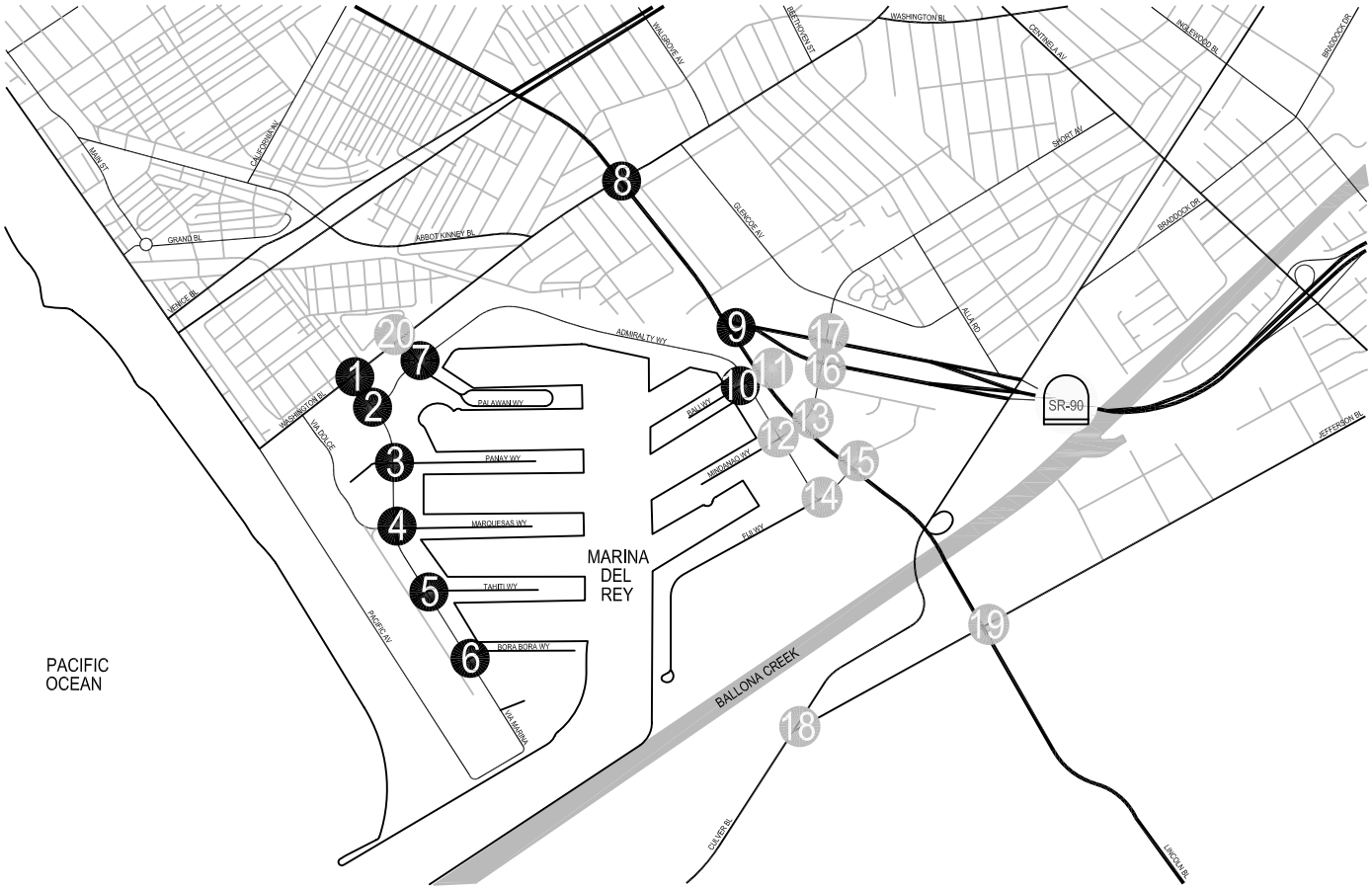
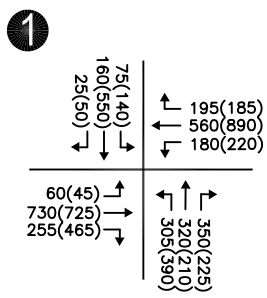
APPENDIX P

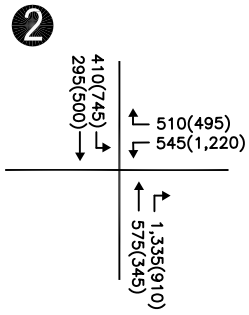
Cumulative (2020) Conditions with Proposed LCP Buildout (including Pipeline Projects) and Improvements Traffic Volumes and Level of Service Worksheets

* All signalized intersections include V/C credit of 0.10 to account from ATSAC and ATCS. ATCS credit of 0.03 is not automatically reflected on the capacity calculation worksheets.

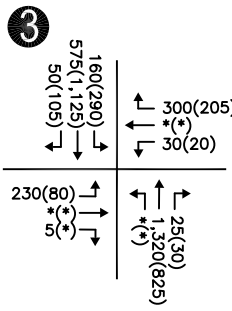




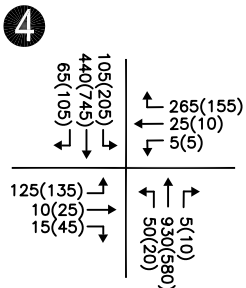
VIA MARINA & WASHINGTON BL



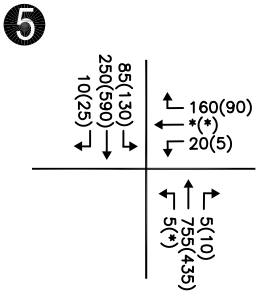
VIA MARINA & ADMIRALTY WY



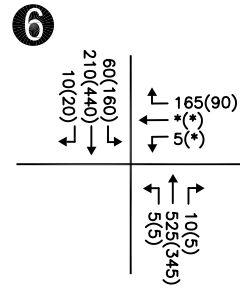
VIA MARINA & PANAY WY



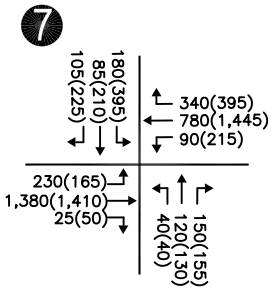
VIA MARINA & MARQUESAS WY



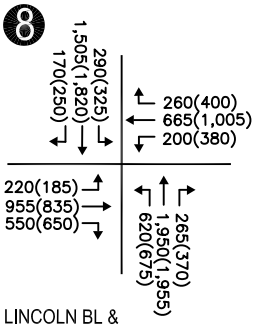
VIA MARINA & TAHITI WY



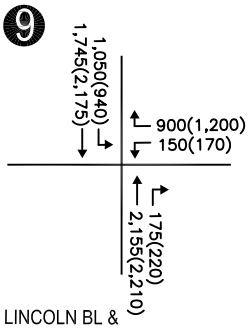
VIA MARINA & BORA BORA WY



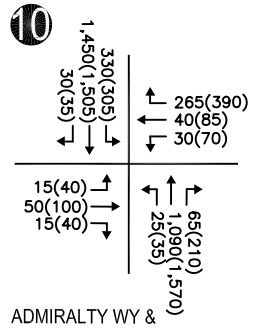
PALAWAN WY & ADMIRALTY WY



LINCOLN BL & WASHINGTON BL



LINCOLN BL & SR-90 ON/OFF-RAMPS



ADMIRALTY WY & BALI WY

LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

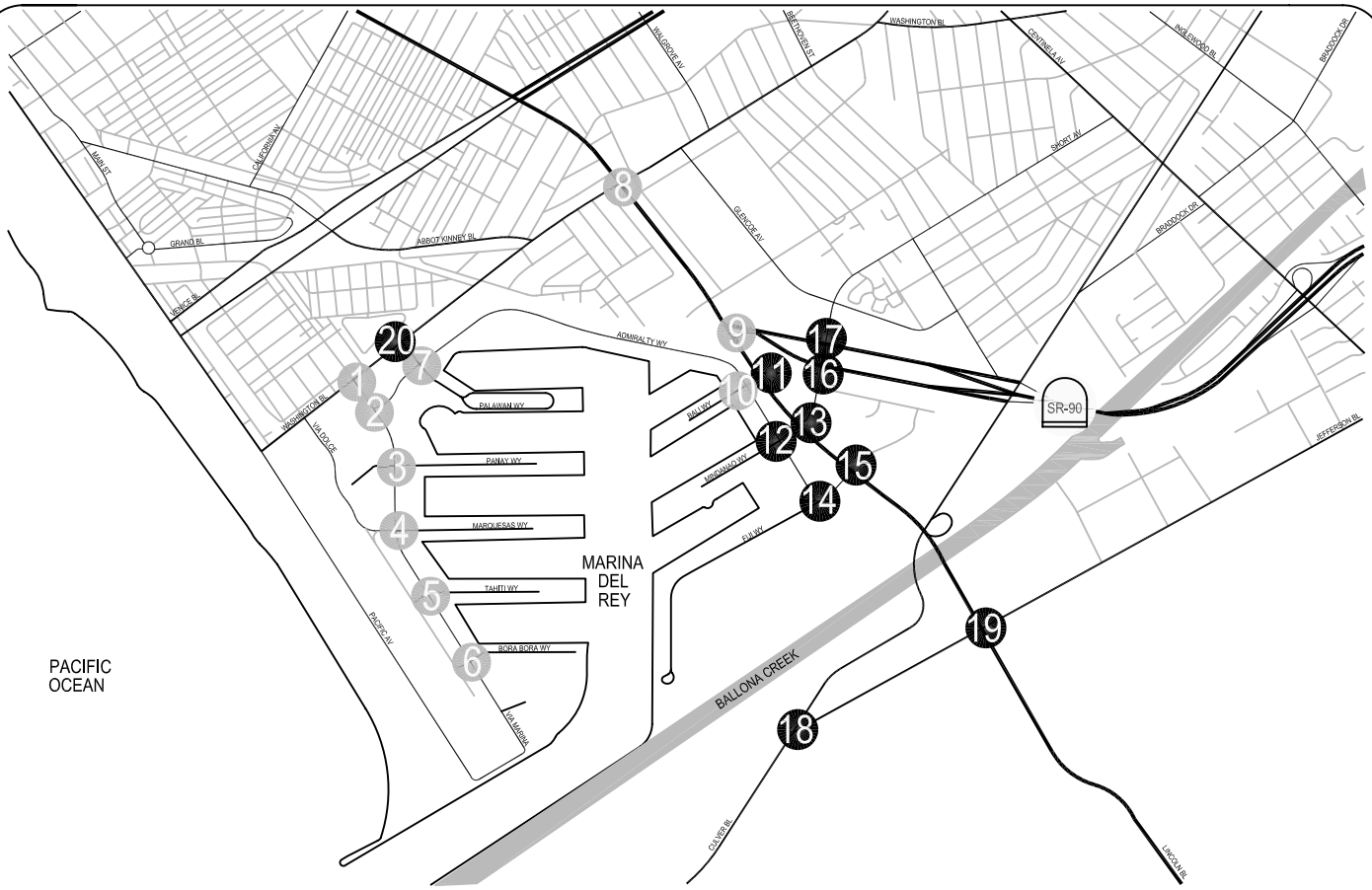
- STUDY INTERSECTION

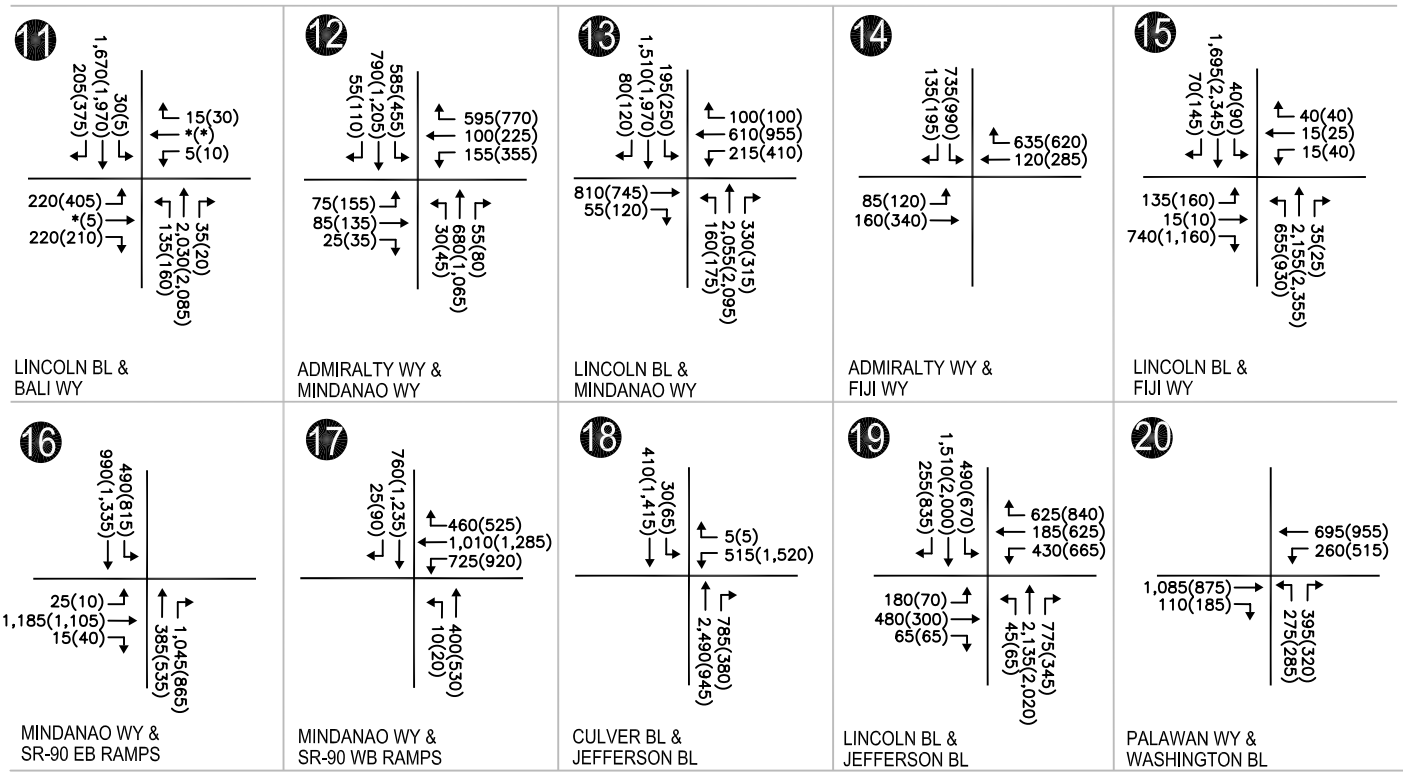
* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX P-1
CUMULATIVE (2020) CONDITIONS WITH PROPOSED LCP BUILDOUT (INCLUDING PIPELINE PROJECTS) AND IMPROVEMENTS TRAFFIC VOLUMES

RAJU Associates, Inc.





LEGEND:

XXX(XXX) - AM(PM) PEAK HOUR TRAFFIC VOLUMES ROUNDED TO THE NEAREST 5 VEHICLES

- STUDY INTERSECTION

* - NEGLIGIBLE VOLUME

N
Not to scale

APPENDIX P-2
CUMULATIVE (2020) CONDITIONS WITH PROPOSED LCP BUILDOUT (INCLUDING PIPELINE PROJECTS) AND IMPROVEMENTS TRAFFIC VOLUMES

RAJU Associates, Inc.

AM PEAK HOUR

LEVEL OF SERVICE WORKSHEETS

CIMPAM

CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	305	321	351	77	161	26	181	559	196	60	732	255
AMBIENT												
RELATED												
PROJECT												
TOTAL	305	321	351	77	161	26	181	559	196	60	732	255
LANE	2	0	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	0	1	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 187
B: 77

EastBound
A: 366
B: 60

WestBound
A: 378
B: 181

NorthBound
A: 351
B: 168

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{351 + 187 + 181 + 366}{*1425} = 0.691$$

LOS = B

Developed by Chun Wong, 12/94

CIMPAM

CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	576	1333	411	294	0	544	0	510	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	576	1333	411	294	0	544	0	510	0	0	0
LANE	0	0	2	0	0	1	0	2	0	2	0	0	0	0	3	0	0	0	0	2	0	0	0	0	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 147
B: 226

EastBound
A: 0
B: 0

WestBound
A: 54
B: 201

NorthBound
A: 288
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{288 + 226 + 201 + 0}{*1425} = 0.432$$

LOS = A

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CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	411	0	294	0	544	510	576	1333	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	411	0	294	0	544	510	576	1333	0

LANE																								
	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	1	0	2	0	2	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	OLA	Prot-Fix	<none>

Critical Movements Diagram

SouthBound
A: 136
B: 226

EastBound
A: 667
B: 317

WestBound
A: 284
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 226 + 0 + 667}{*1425} = 0.557$$

LOS = A

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CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	1318	25	159	575	51	28	0	298	230	1	4
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	1318	25	159	575	51	28	0	298	230	1	4

LANE																								
	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 209
B: 159

EastBound
A: 235
B: 230

WestBound
A: 298
B: 28

NorthBound
A: 448
B: 1

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{448 + 159 + 298 + 230}{*1500} = 0.687$$

LOS = B

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CIMPAM

CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

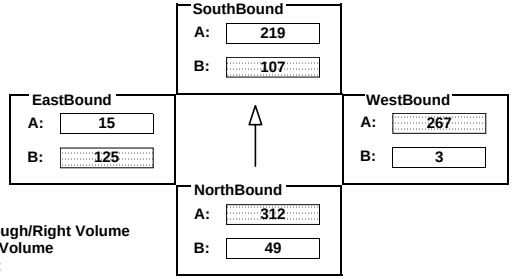
AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	49	930	7	107	438	67	3	24	267	125	12	15
AMBIENT												
RELATED												
PROJECT												
TOTAL	49	930	7	107	438	67	3	24	267	125	12	15
LANE	1 0 2 0 1 0 0			1 0 2 0 0 1 0			0 1 0 0 1 0 0			1 0 1 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{312 + 107 + 267 + 125}{*1500} = 0.471$$

LOS = A

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CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

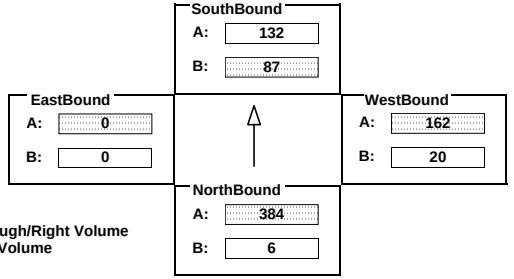
AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	6	757	5	87	252	12	20	2	162	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	6	757	5	87	252	12	20	2	162	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 1 0 0 1 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{384 + 87 + 162 + 0}{*1500} = 0.352$$

LOS = A

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CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	5	527	10	61	212	10	6	1	165	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	5	527	10	61	212	10	6	1	165	0	0	0
LANE	0 1 0 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 111
B: 61

EastBound
A: 0
B: 0

WestBound
A: 172
B: 6

NorthBound
A: 271
B: 5

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{271 + 61 + 172 + 0}{1200} = 0.420$$

LOS = A

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CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	40	119	152	178	87	104	91	781	342	228	1378	23
AMBIENT												
RELATED												
PROJECT												
TOTAL	40	119	152	178	87	104	91	781	342	228	1378	23
LANE	0 1 0 0 1 0 0			1 1 0 0 0 1 0			1 0 2 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 133
B: 133

EastBound
A: 701
B: 228

WestBound
A: 374
B: 91

NorthBound
A: 156
B: 40

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{156 + 133 + 91 + 701}{*1425} = 0.689$$

LOS = B

Developed by Chun Wong, 12/94

CIMPAM

CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	40	119	152	178	87	104	91	781	342	228	1378	23
AMBIENT												
RELATED												
PROJECT												
TOTAL	40	119	152	178	87	104	91	781	342	228	1378	23
LANE	0	1	0	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 104
B: 98

EastBound
A: 701
B: 228

WestBound
A: 374
B: 91

NorthBound
A: 159
B: 40

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{159 + 104 + 91 + 701}{*1425} = 0.670$$

LOS = B

Developed by Chun Wong, 12/94

CIMPAM

CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	621	1949	266	290	1504	169	202	665	262	221	954	548
AMBIENT												
RELATED												
PROJECT												
TOTAL	621	1949	266	290	1504	169	202	665	262	221	954	548
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0	2	0	2	0	0	1	0	2	0	2	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 558
B: 160

EastBound
A: 477
B: 122

WestBound
A: 333
B: 111

NorthBound
A: 738
B: 342

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{342 + 558 + 111 + 477}{*1375} = 1.012$$

LOS = F

Developed by Chun Wong, 12/94

CIMPAM

CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2157	176	1049	1747	0	149	0	899	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2157	176	1049	1747	0	149	0	899	0	0	0

LANE	0	0	2	0	1	0	0	2	0	3	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram

SouthBound
A: 582
B: 577

EastBound
A: 0
B: 0

WestBound
A: 0
B: 82

NorthBound
A: 778
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{778 + 577 + 82 + 0}{*1425} = 0.938$$

LOS = E

Developed by Chun Wong, 12/94

CIMPAM

CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	27	1091	65	332	1451	28	30	40	263	15	48	15
AMBIENT									-183			
RELATED												
PROJECT												
TOTAL	27	1091	65	332	1451	28	30	40	80	15	48	15

LANE	1	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	OLA	Perm	Auto

Critical Movements Diagram

SouthBound
A: 740
B: 183

EastBound
A: 39
B: 15

WestBound
A: 60
B: 30

NorthBound
A: 578
B: 27

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{27 + 740 + 60 + 15}{*1425} = 0.521$$

LOS = A

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CalcaDB

April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	136	2030	33	28	1668	203	3	0	14	219	2	221
AMBIENT												
RELATED												
PROJECT												
TOTAL	136	2030	33	28	1668	203	3	0	14	219	2	221
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0
	Phasing	RTOR					Phasing	RTOR					Phasing	RTOR					Phasing	RTOR				
SIGNAL	Prot-Fix	Auto					Prot-Fix	Auto					Split	Auto					Split	Auto				

Critical Movements Diagram

SouthBound
A: 624
B: 28

EastBound
A: 153
B: 111

WestBound
A: 17
B: 3

NorthBound
A: 688
B: 136

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{136 + 624 + 17 + 153}{*1375} = 0.606$$

LOS = B

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April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	680	55	587	790	55	157	98	595	75	87	27
AMBIENT									-323			
RELATED												
PROJECT												
TOTAL	29	680	55	587	790	55	157	98	272	75	87	27
LANE	1	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	0	1	0	1	0	1	1	0	0	1	0	0
	Phasing	RTOR					Phasing	RTOR					Phasing	RTOR					Phasing	RTOR				
SIGNAL	Prot-Fix	Auto					Prot-Fix	Auto					Split	OLA					Split	Auto				

Critical Movements Diagram

SouthBound
A: 423
B: 323

EastBound
A: 63
B: 63

WestBound
A: 185
B: 157

NorthBound
A: 368
B: 29

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{368 + 323 + 185 + 63}{*1375} = 0.613$$

LOS = B

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April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	160	2053	331	193	1509	78	214	611	102	0	808	54
AMBIENT												
RELATED												
PROJECT												
TOTAL	160	2053	331	193	1509	78	214	611	102	0	808	54
LANE	1	0	3	0	0	1	0	1	0	2	0	1	0	1	0	0	0	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 529
B: 193

EastBound
A: 431
B: 0

WestBound
A: 357
B: 118

NorthBound
A: 684
B: 160

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{684 + 193 + 118 + 431}{*1375} = 0.967$$

LOS = E

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April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	734	0	134	0	120	636	83	161	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	734	0	134	0	120	636	83	161	0
LANE	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	2	0	0	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 404

EastBound
A: 81
B: 83

WestBound
A: 120
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 404 + 120 + 83}{*1500} = 0.335$$

LOS = A

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April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	655	2155	35	41	1695	71	16	14	41	135	17	742
AMBIENT												
RELATED												
PROJECT												
TOTAL	655	2155	35	41	1695	71	16	14	41	135	17	742
LANE	2	0 2	0 1	0 0	1	0 2	0 1	0 0	0	0 0	1	0 1	0 0	1	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Prot-Fix	Auto			Prot-Fix	Auto			Perm	Auto			Perm	Free		

Critical Movements Diagram

SouthBound
A: 589
B: 41

EastBound
A: 17
B: 135

WestBound
A: 71
B: 16

NorthBound
A: 730
B: 360

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{360 + 589 + 71 + 135}{*1425} = 0.741$$

LOS = C

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April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	385	1045	492	991	0	0	0	0	26	1186	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	385	1045	492	991	0	0	0	0	26	1186	13
LANE	0	0 1	0 1	1	0	2	0 2	0 0	0	0	0 0	0 0	0	0	1	0 1	0 1	0	0
	Phasing	RTOR			Phasing	RTOR			Phasing	RTOR			Phasing	RTOR		
SIGNAL	Perm	Auto			Prot-Fix	<none>			<none>	<none>			Split	Auto		

Critical Movements Diagram

SouthBound
A: 496
B: 271

EastBound
A: 600
B: 26

WestBound
A: 0
B: 0

NorthBound
A: 575
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{575 + 271 + 0 + 600}{*1425} = 0.945$$

LOS = E

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April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	400	0	0	758	26	725	1008	460	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	400	0	0	758	26	725	1008	460	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 261
B: 0

EastBound
A: 0
B: 0

WestBound
A: 578
B: 578

NorthBound
A: 200
B: 12

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{12 + 261 + 578 + 0}{*1425} = 0.527$$

LOS = A

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April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2491	787	30	408	0	513	0	4	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2491	787	30	408	0	513	0	4	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 294
B: 30

EastBound
A: 0
B: 0

WestBound
A: 4
B: 282

NorthBound
A: 1246
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1246 + 30 + 282 + 0}{*1500} = 0.969$$

LOS = E

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April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	46	2134	773	488	1508	256	428	187	625	181	480	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	46	2134	773	488	1508	256	428	187	625	181	480	66

LANE																								
	1	0	4	0	0	1	0	2	0	3	0	1	0	0	2	0	2	0	0	2	0	1	0	2	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Prot-Fix	OLA	Prot-Fix	Auto

Critical Movements Diagram

SouthBound
A: 441
B: 268

EastBound
A: 182
B: 181

WestBound
A: 94
B: 235

NorthBound
A: 538
B: 46

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{538 + 268 + 235 + 182}{*1375} = 0.819$$

LOS = D

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April 26, 2010 ,Monday 05:14:18 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: AM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	277	0	395	0	0	0	259	694	0	0	1087	109
AMBIENT												
RELATED												
PROJECT												
TOTAL	277	0	395	0	0	0	259	694	0	0	1087	109

LANE																														
	2	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	0	0	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	<none>	<none>	Prot-Fix	<none>	Perm	OLA

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 544
B: 0

WestBound
A: 347
B: 142

NorthBound
A: 253
B: 152

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{253 + 0 + 142 + 544}{*1425} = 0.589$$

LOS = A

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PM PEAK HOUR
LEVEL OF SERVICE WORKSHEETS

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April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA / OCEAN AVE W/E: WASHINGTON BLVD I/S No: 1

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	390	210	224	139	552	50	222	892	183	44	723	467
AMBIENT												
RELATED												
PROJECT												
TOTAL	390	210	224	139	552	50	222	892	183	44	723	467
LANE	2 0 1 0 0 1 0			1 0 0 0 1 0 0			1 0 1 0 1 0 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 602
B: 139

EastBound
A: 362
B: 44

WestBound
A: 538
B: 222

NorthBound
A: 224
B: 215

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{224 + 602 + 222 + 362}{*1425} = 0.919$$

LOS = E

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April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	346	911	743	499	0	1222	0	493	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	346	911	743	499	0	1222	0	493	0	0	0
LANE	0 0 2 0 0 1 0			2 0 2 0 0 0 0			3 0 0 0 0 2 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Prot-Fix	<none>		Split	OLA		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 250
B: 409

EastBound
A: 0
B: 0

WestBound
A: 0
B: 452

NorthBound
A: 173
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{173 + 409 + 452 + 0}{*1425} = 0.656$$

LOS = B

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April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: ADMIRALTY WY I/S No: 2

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	743	0	499	0	1222	493	346	911	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	743	0	499	0	1222	493	346	911	0

LANE																								
	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	1	0	2	0	2	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	OLA	Prot-Fix	<none>

Critical Movements Diagram

SouthBound
A: 404
B: 409

EastBound
A: 456
B: 190

WestBound
A: 611
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 409 + 611 + 190}{*1425} = 0.779$$

LOS = C

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April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: PANAY WY I/S No: 3

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	826	32	292	1127	107	18	2	205	82	1	2
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	826	32	292	1127	107	18	2	205	82	1	2

LANE																								
	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram

SouthBound
A: 411
B: 292

EastBound
A: 85
B: 82

WestBound
A: 205
B: 18

NorthBound
A: 286
B: 2

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{286 + 292 + 205 + 82}{*1500} = 0.507$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: MARQUESAS WY I/S No: 4

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

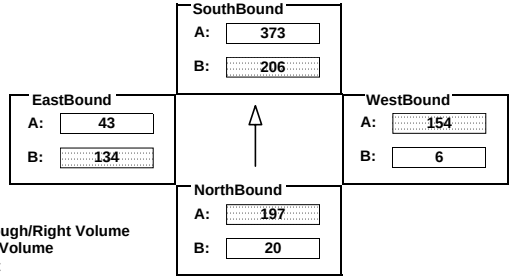
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	20	578	12	206	745	106	6	8	154	134	24	43
AMBIENT												
RELATED												
PROJECT												
TOTAL	20	578	12	206	745	106	6	8	154	134	24	43

LANE																															
	1	0	2	0	1	0	0	1	0	2	0	0	1	0	0	1	0	0	1	1	0	1	0	0	1	0	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{197 + 206 + 154 + 134}{*1500} = 0.391$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: TAHITI WY I/S No: 5

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

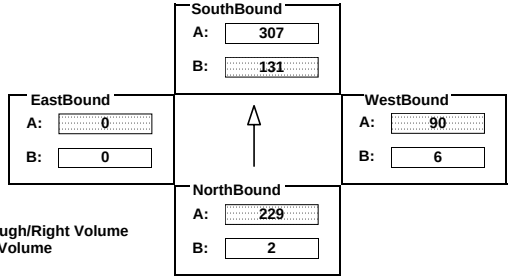
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	2	437	12	131	588	25	6	0	90	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	2	437	12	131	588	25	6	0	90	0	0	0

LANE																															
	0	1	0	0	1	0	0	1	0	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Split	Auto	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{229 + 131 + 90 + 0}{*1500} = 0.230$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: VIA MARINA W/E: BORA BORA WY I/S No: 6

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	3	347	5	160	440	20	1	0	92	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	3	347	5	160	440	20	1	0	92	0	0	0
LANE	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 230
B: 160

EastBound
A: 0
B: 0

WestBound
A: 93
B: 1

NorthBound
A: 179
B: 3

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{179 + 160 + 93 + 0}{1200} = 0.360$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPT(ALT A)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	39	129	156	396	210	225	216	1445	394	166	1410	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	39	129	156	396	210	225	216	1445	394	166	1410	51
LANE	0	1	0	0	1	0	0	1	1	0	0	0	1	0	1	0	0	0	1	0	2	0	1	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 303
B: 303

EastBound
A: 731
B: 166

WestBound
A: 613
B: 216

NorthBound
A: 182
B: 39

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{182 + 303 + 216 + 731}{*1425} = 0.935$$

LOS = E

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April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: ADMIRALTY WY I/S No: 7

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPT(ALT B)

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	39	129	156	396	210	225	216	1445	394	166	1410	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	39	129	156	396	210	225	216	1445	394	166	1410	51
LANE	0 1 0 0 0 1 0			2 0 1 0 0 1 0			1 0 2 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 225
B: 218

EastBound
A: 731
B: 166

WestBound
A: 613
B: 216

NorthBound
A: 168
B: 39

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{168 + 225 + 216 + 731}{*1425} = 0.870$$

LOS = D

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April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: WASHINGTON BLVD I/S No: 8

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	674	1954	371	323	1819	251	382	1006	398	184	836	649
AMBIENT												
RELATED												
PROJECT												
TOTAL	674	1954	371	323	1819	251	382	1006	398	184	836	649
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			2 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	OLA	

Critical Movements Diagram

SouthBound
A: 690
B: 178

EastBound
A: 418
B: 101

WestBound
A: 503
B: 210

NorthBound
A: 775
B: 371

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{371 + 690 + 210 + 418}{*1375} = 1.158$$

LOS = F

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: SR-90 ON/OFF RAMPS I/S No: 9

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	2212	218	942	2176	0	170	0	1202	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	2212	218	942	2176	0	170	0	1202	0	0	0
LANE	0 0 2 0 1 0 0			2 0 3 0 0 0 0			2 0 0 0 0 2 0			0 0 0 0 0 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	<none>	Split	OLA	<none>	<none>

Critical Movements Diagram

SouthBound
A: 725
B: 518

EastBound
A: 0
B: 0

WestBound
A: 143
B: 94

NorthBound
A: 810
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{810 + 518 + 143 + 0}{*1425} = 0.962$$

LOS = E

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: BALI WY I/S No: 10

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	34	1570	208	306	1505	37	70	85	392	41	99	42
AMBIENT									-168			
RELATED												
PROJECT												
TOTAL	34	1570	208	306	1505	37	70	85	224	41	99	42
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 0 1 1 0			0 1 0 0 1 0 0		

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	OLA	Perm	Auto

Critical Movements Diagram

SouthBound
A: 771
B: 168

EastBound
A: 112
B: 41

WestBound
A: 155
B: 70

NorthBound
A: 889
B: 34

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{889 + 168 + 155 + 41}{*1425} = 0.809$$

LOS = D

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: BALI WY I/S No: 11

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	162	2085	20	6	1972	375	12	0	31	404	3	209
AMBIENT												
RELATED												
PROJECT												
TOTAL	162	2085	20	6	1972	375	12	0	31	404	3	209
LANE	1 0 2 0 1 0 0			1 0 2 0 1 0 0			0 0 0 1 0 0 0			1 1 0 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram

SouthBound
A: 782
B: 6

EastBound
A: 204
B: 204

WestBound
A: 43
B: 12

NorthBound
A: 702
B: 162

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{162 + 782 + 43 + 204}{*1375} = 0.796$$

LOS = C

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: MINDANAO WY I/S No: 12

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	1066	80	455	1205	110	355	223	769	156	136	35
AMBIENT									-250			
RELATED												
PROJECT												
TOTAL	43	1066	80	455	1205	110	355	223	519	156	136	35
LANE	1 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 0 1 0 1 0			1 1 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Split	OLA		Split	Auto	

Critical Movements Diagram

SouthBound
A: 658
B: 250

EastBound
A: 109
B: 109

WestBound
A: 371
B: 355

NorthBound
A: 573
B: 43

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{573 + 250 + 371 + 109}{*1375} = 0.878$$

LOS = D

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: MINDANAO WY I/S No: 13

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	175	2093	317	249	1970	120	412	955	101	0	743	122
AMBIENT												
RELATED												
PROJECT												
TOTAL	175	2093	317	249	1970	120	412	955	101	0	743	122
LANE	1 0 3 0 0 1 0			1 0 2 0 1 0 0			2 0 1 0 1 0 0			0 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram

SouthBound
A: 697
B: 249

EastBound
A: 433
B: 0

WestBound
A: 528
B: 227

NorthBound
A: 698
B: 175

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{698 + 249 + 227 + 433}{*1375} = 1.099$$

LOS = F

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INTERSECTION DATA SUMMARY SHEET

N/S: ADMIRALTY WY W/E: FIJI WY I/S No: 14

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	991	0	194	0	286	619	122	340	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	991	0	194	0	286	619	122	340	0
LANE	0 0 0 0 0 0 0			2 0 0 0 0 1 0			0 0 1 0 0 1 0			1 0 2 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Free		Perm	Free		Perm	<none>	

Critical Movements Diagram

SouthBound
A: 0
B: 545

EastBound
A: 170
B: 122

WestBound
A: 286
B: 0

NorthBound
A: 0
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 545 + 286 + 122}{*1500} = 0.565$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: FIJI WY I/S No: 15

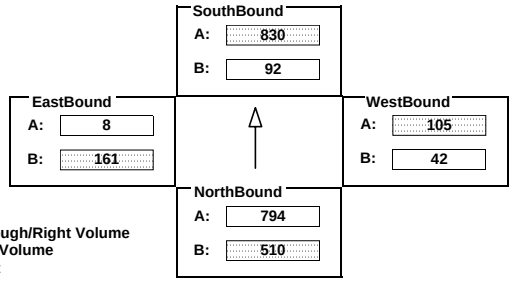
AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	928	2357	24	92	2345	146	42	23	40	161	8	1162
AMBIENT												
RELATED												
PROJECT												
TOTAL	928	2357	24	92	2345	146	42	23	40	161	8	1162
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Perm	Auto		Perm	Free	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{510 + 830 + 105 + 161}{*1425} = 1.057$$

LOS = F

Developed by Chun Wong, 12/94

CIMPPM

CalcaDB

April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 EB ON/OFF RAMPS I/S No: 16

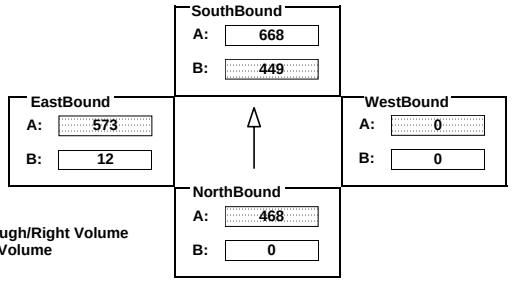
AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	536	867	817	1335	0	0	0	0	12	1104	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	536	867	817	1335	0	0	0	0	12	1104	41
LANE	0	0	1	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	<none>		<none>	<none>		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{468 + 449 + 0 + 573}{*1425} = 0.976$$

LOS = E

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CalcaDB

April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: MINDANAO WY W/E: SR-90 WB ON/OFF RAMPS I/S No: 17

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	18	531	0	0	1235	91	922	1286	525	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	18	531	0	0	1235	91	922	1286	525	0	0	0
LANE	1 0 2 0 0 0 0			0 0 2 0 1 0 0			1 1 1 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	<none>		Perm	Auto		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 442
B: 0

EastBound
A: 0
B: 0

WestBound
A: 736
B: 736

NorthBound
A: 266
B: 18

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{18 + 442 + 736 + 0}{*1425} = 0.769$$

LOS = C

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CalcaDB

April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: CULVER BLVD W/E: JEFFERSON BLVD I/S No: 18

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	947	379	65	1417	0	1521	0	3	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	947	379	65	1417	0	1521	0	3	0	0	0
LANE	0 0 2 0 0 1 0			0 1 1 0 0 0 0			2 0 0 0 0 1 0			0 0 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	<none>		Split	Auto		<none>	<none>	

Critical Movements Diagram

SouthBound
A: 904
B: 65

EastBound
A: 0
B: 0

WestBound
A: 3
B: 837

NorthBound
A: 474
B: 0

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{0 + 904 + 837 + 0}{*1500} = 1.091$$

LOS = F

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April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: LINCOLN BLVD W/E: JEFFERSON BLVD I/S No: 19

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	66	2022	346	671	1999	833	666	624	838	72	299	66
AMBIENT												
RELATED												
PROJECT												
TOTAL	66	2022	346	671	1999	833	666	624	838	72	299	66
LANE	1 0 4 0 0 1 0			2 0 3 0 1 0 0			2 0 2 0 0 2 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Prot-Fix	OLA		Prot-Fix	Auto	

Critical Movements Diagram

SouthBound
A: 833
B: 369

EastBound
A: 122
B: 72

WestBound
A: 312
B: 366

NorthBound
A: 506
B: 66

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{66 + 833 + 366 + 122}{*1375} = 0.939$$

LOS = E

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CalcaDB

April 26, 2010 ,Monday 05:20:27 PM

INTERSECTION DATA SUMMARY SHEET

N/S: PALAWAN WY W/E: WASHINGTON BLVD I/S No: 20

AM/PM: PM Comments: CUMULATIVE(2020)W/LCP BUILDOUT W/IMPROVEMENT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	287	0	319	0	0	0	513	953	0	0	875	187
AMBIENT												
RELATED												
PROJECT												
TOTAL	287	0	319	0	0	0	513	953	0	0	875	187
LANE	2 0 0 0 0 1 0			0 0 0 0 0 0 0			2 0 2 0 0 0 0			0 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	OLA		<none>	<none>		Prot-Fix	<none>		Perm	OLA	

Critical Movements Diagram

SouthBound
A: 0
B: 0

EastBound
A: 438
B: 0

WestBound
A: 477
B: 282

NorthBound
A: 37
B: 158

A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{158 + 0 + 282 + 438}{*1425} = 0.546$$

LOS = A

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