

## APPENDIX F

### EXISTING TRAFFIC CONDITIONS INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

*APPENDIX F-1*

**EXISTING TRAFFIC CONDITIONS**

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim						
ANALYSIS CONDITION:		ARTIC- Existing Conditions						
INTERSECTION:		1 Manchester/ Katella						
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR			PM PEAK HOUR		
			VOLUME	V/C	CAPACITY	VOLUME	V/C	
NBL	1.5	1700	55	0.03 *	1700	38	0.02 *	
NBT	0	0	0	0.00	0	0	0.00	
NBR	1.5	3400	483	0.14 *	3400	158	0.05	
SBL	2	3400	22	0.01	3400	25	0.01	
SBT	2	3400	91	0.03 *	3400	54	0.02 *	
SBR	1	1700	16	0.01	1700	2	0.00	
EBL	0		0	*		0	*	
EBT	3	5100	883	0.17	5100	993	0.19	
EBR	1	1700	558	0.33 *	1700	552	0.32 *	
WBL	2	3400	122	0.04	3400	329	0.10	
WBT	3	5100	1247	0.24 *	5100	1674	0.33 *	
WBR	0		0			0		
Split Phase		N/S Movements		0.06			0.04	
		E/W Movements		0.24			0.33	
		Rt. Turn Component		0.23			0.11	
		Yellow Clearance		0.05			0.05	
<b>TOTAL CAPACITY UTILIZATION</b>				<b>0.583</b>	<b>0.524</b>			
<b>LEVEL OF SERVICE (LOS)</b>				<b>A</b>	<b>A</b>			

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim						
ANALYSIS CONDITION:		ARTIC- Existing Conditions						
INTERSECTION:		2 Anaheim Way/ Katella						
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR			PM PEAK HOUR		
			VOLUME	V/C	CAPACITY	VOLUME	V/C	
NBL	1.5	3400	508	0.15 *	2994	659	0.22	
NBT	3	3400	361	0.11	5115	1126	0.22	
NBR	0.5	1700	308	0.18 *	391	86	0.22	
SBL	0		0			0		
SBT	0		0	0.00 *		0	0.00	
SBR	0		0			0		
EBL	2	3400	39	0.01	3400	39	0.01	
EBT	3	5100	1335	0.26 *	5100	1150	0.23 *	
EBR	0		0			0		
WBL	0		0	*		0	*	
WBT	3.5	6800	896	0.13	6800	1430	0.21	
WBR	1.5	1700	48	0.03 *	1700	105	0.06 *	
N-S split adjstment		N/S Movements		0.18			0.22	
		E/W Movements		0.26			0.23	
		Rt. Turn Component		0.00			0.00	
		Yellow Clearance		0.05			0.05	
<b>TOTAL CAPACITY UTILIZATION</b>				<b>0.493</b>				<b>0.496</b>
<b>LEVEL OF SERVICE (LOS)</b>				<b>A</b>				<b>A</b>

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim					
ANALYSIS CONDITION:		ARTIC- Existing Conditions					
INTERSECTION:		3 Lewis/ Katella					
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		PM PEAK HOUR		
			VOLUME	V/C	VOLUME	V/C	
NBL	1	1700	10	0.01	26	0.02	
NBT	1	1700	40	0.03 *	82	0.07 *	
NBR	0		10		31		
SBL	1	1700	42	0.02 *	62	0.04 *	
SBT	1	1700	7	0.00	11	0.01	
SBR	1	1700	132	0.08	391	0.23 *	
EBL	1	1700	353	0.21 *	135	0.08 *	
EBT	3	5100	1132	0.22	963	0.19	
EBR	0		12		19		
WBL	1	1700	22	0.01	19	0.01	
WBT	3	5100	815	0.17 *	1318	0.27 *	
WBR	0		61		55		
		N/S Movements		0.05		0.10	
		E/W Movements		0.38		0.35	
		Rt. Turn Component		0.00		0.14	
		Yellow Clearance		0.05		0.05	
<b>TOTAL CAPACITY UTILIZATION</b>				<b>0.484</b>	<b>0.646</b>		
<b>LEVEL OF SERVICE (LOS)</b>				<b>A</b>	<b>B</b>		

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim						
ANALYSIS CONDITION:		ARTIC- Existing Conditions						
INTERSECTION:		4 State College/ Katella						
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		CAPACITY	PM PEAK HOUR		
			VOLUME	V/C		VOLUME	V/C	
NBL	2	3400	75	0.02	3400	110	0.03	
NBT	3	5100	447	0.11 *	5100	705	0.18 *	
NBR	0		139			204		
SBL	2	3400	139	0.04 *	3400	102	0.03 *	
SBT	3	5100	670	0.13	5100	640	0.13	
SBR	1	1700	136	0.08	1700	158	0.09	
EBL	2	3400	217	0.06	3400	197	0.06 *	
EBT	2.5	5100	775	0.15 *	5100	682	0.13	
EBR	1.5	1700	211	0.12	1700	125	0.07	
WBL	2	3400	231	0.07 *	3400	183	0.05	
WBT	3	5100	583	0.11	5100	1097	0.22 *	
WBR	1	1700	35	0.02	1700	109	0.06	
		N/S Movements		0.16			0.21	
		E/W Movements		0.22			0.27	
		Rt. Turn Component		0.00			0.00	
		Yellow Clearance		0.05			0.05	
<b>TOTAL CAPACITY UTILIZATION</b>				<b>0.426</b>	<b>0.531</b>			
<b>LEVEL OF SERVICE (LOS)</b>				<b>A</b>	<b>A</b>			

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim						
ANALYSIS CONDITION:		ARTIC- Existing Conditions						
INTERSECTION:		5 Sportstown/ Katella						
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		PM PEAK HOUR			
			VOLUME	V/C	CAPACITY	VOLUME	V/C	
NBL	1	1700	29	0.02	1700	65	0.04	
NBT	0.5	291	3	0.01 *	325	11	0.03 *	
NBR	1.5	3109	32	0.01	3075	104	0.03	
SBL	1	1700	50	0.03 *	1700	134	0.08 *	
SBT	1	1700	3	0.00	1700	3	0.00	
SBR	1	1700	70	0.04 *	1700	104	0.06 *	
EBL	1	1700	33	0.02	1700	19	0.01 *	
EBT	3	5100	912	0.19 *	5100	874	0.18	
EBR	0		60			65		
WBL	1	1700	56	0.03 *	1700	44	0.03	
WBT	3	5100	786	0.15	5100	1219	0.24 *	
WBR	1	1700	102	0.06	1700	104	0.06	
		N/S Movements		0.04			0.11	
		E/W Movements		0.22			0.25	
		Rt. Turn Component		0.02			0.05	
		Yellow Clearance		0.05			0.05	
<b>TOTAL CAPACITY UTILIZATION</b>				<b>0.333</b>	<b>0.461</b>			
<b>LEVEL OF SERVICE (LOS)</b>				<b>A</b>	<b>A</b>			

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim					
ANALYSIS CONDITION:		ARTIC- Existing Conditions					
INTERSECTION:		6 Howell/ Katella					
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		PM PEAK HOUR		
			VOLUME	V/C	VOLUME	V/C	
NBL	1	1700	14	0.01	99	0.06	
NBT	1	1700	8	0.00 *	29	0.02 *	
NBR	1	1700	30	0.02	190	0.11 *	
SBL	2	3400	201	0.06 *	311	0.09 *	
SBT	1	1700	34	0.05	14	0.03	
SBR	0		43		36		
EBL	2	3400	46	0.01 *	46	0.01 *	
EBT	3	5100	886	0.19	988	0.20	
EBR	0		66		47		
WBL	2	3400	150	0.04	69	0.02	
WBT	3	5100	917	0.25 *	1256	0.30 *	
WBR	0		358		297		
		N/S Movements		0.06		0.11	
		E/W Movements		0.26		0.32	
		Rt. Turn Component		0.00		0.07	
		Yellow Clearance		0.05		0.05	
<b>TOTAL CAPACITY UTILIZATION</b>			<b>0.377</b>		<b>0.551</b>		
<b>LEVEL OF SERVICE (LOS)</b>			<b>A</b>		<b>A</b>		



**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim						
ANALYSIS CONDITION:		ARTIC- Existing Conditions						
INTERSECTION:		7 SR 57 SB Ramps/ Katella						
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		PM PEAK HOUR			
			VOLUME	V/C	CAPACITY	VOLUME	V/C	
NBL	0		0			0		
NBT	0		0	0.00 *		0	0.00 *	
NBR	0		0			0		
SBL	1.5	1904	324	0.17 *	1700	227	0.12 *	
SBT	0	0	0	0.00	0	0	0.00	
SBR	1.5	3196	544	0.17 *	3400	465	0.15 *	
EBL	0		0	*		0		
EBT	3	5100	807	0.16	5100	1077	0.21 *	
EBR (free)			158	0.00		363	0.00	
WBL	0		0			0	*	
WBT	3	5100	925	0.18 *	5100	976	0.19	
WBR (free)			235	0.00		459	0.00	
		N/S Movements		0.17			0.12	
		E/W Movements		0.18			0.21	
		Rt. Turn Component		0.00			0.03	
		Yellow Clearance		0.05			0.05	
<b>TOTAL CAPACITY UTILIZATION</b>			<b>0.402</b>		<b>0.407</b>			
<b>LEVEL OF SERVICE (LOS)</b>			<b>A</b>		<b>A</b>			

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim						
ANALYSIS CONDITION:		ARTIC- Existing Conditions						
INTERSECTION:		8 SR 57 NB Ramps/ Katella						
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR			PM PEAK HOUR		
			VOLUME	V/C	CAPACITY	VOLUME	V/C	
NBL	1.5	2792	404	0.14 *	2053	225	0.11 *	
NBT	0	0	0	0.00	0	0	0.00	
NBR	1.5	2308	334	0.14 *	3047	334	0.11 *	
SBL	0		0			0		
SBT	0		0	0.00 *		0	0.00 *	
SBR	0		0			0		
EBL	0		0			0	*	
EBT	3	5100	859	0.17 *	5100	847	0.17	
EBR (free)			295	0.00		453	0.00	
WBL	0		0	*		0		
WBT	3	5100	800	0.16	5100	1229	0.24 *	
WBR (free)			154	0.00		236	0.00	
		N/S Movements		0.14			0.11	
		E/W Movements		0.17			0.24	
		Rt. Turn Component		0.00			0.00	
		Yellow Clearance		0.05			0.05	
<b>TOTAL CAPACITY UTILIZATION</b>				<b>0.363</b>				<b>0.401</b>
<b>LEVEL OF SERVICE (LOS)</b>				<b>A</b>				<b>A</b>

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim						
ANALYSIS CONDITION:		ARTIC- Existing Conditions						
INTERSECTION:		9 Douglass/ Katella						
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		PM PEAK HOUR			
			VOLUME	V/C	CAPACITY	VOLUME	V/C	
NBL	1	1700	33	0.02	1700	145	0.09 *	
NBT	1	1700	17	0.01 *	1700	25	0.02	
NBR	0		7			15		
SBL	1	1700	106	0.06 *	1700	148	0.09	
SBT	0.5	638	12	0.02	46	5	0.11 *	
SBR	1.5	2763	52	0.02	3354	364	0.11	
EBL	2	3400	356	0.10 *	3400	119	0.04 *	
EBT	3	5100	853	0.17	5100	880	0.17	
EBR	1	1700	51	0.03	1700	26	0.02	
WBL	2	3400	20	0.01	3400	30	0.01	
WBT	3	5100	901	0.18 *	5100	1089	0.21 *	
WBR	1	1700	95	0.06	1700	159	0.09	
		N/S Movements		0.08			0.19	
		E/W Movements		0.28			0.25	
		Rt. Turn Component		0.00			0.00	
		Yellow Clearance		0.05			0.05	
<b>TOTAL CAPACITY UTILIZATION</b>			<b>0.408</b>		<b>0.492</b>			
<b>LEVEL OF SERVICE (LOS)</b>			<b>A</b>		<b>A</b>			

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim						
ANALYSIS CONDITION:		ARTIC- Existing Conditions						
INTERSECTION:		10 Struck/ Katella						
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		PM PEAK HOUR			
			VOLUME	V/C	CAPACITY	VOLUME	V/C	
NBL	1.5	3106	116	0.04	3219	356	0.11	
NBT	0.5	294	0	0.04	181	0	0.11	
NBR	0		11			20		
SBL	0		0			0		
SBT	0		0	0.00		0	0.00	
SBR	0		0			0		
EBL	0		0			0	*	
EBT	3	5100	914	0.18 *	5100	861	0.17	
EBR	1	1700	264	0.16	1700	208	0.12	
WBL	1	1700	23	0.01 *	1700	7	0.00	
WBT	3	5100	705	0.14	5100	933	0.18 *	
WBR	0		4			0		
		N/S Movements		0.04			0.11	
		E/W Movements		0.19			0.18	
		Rt. Turn Component		0.00			0.00	
		Yellow Clearance		0.05			0.05	
<b>TOTAL CAPACITY UTILIZATION</b>				<b>0.280</b>	<b>0.344</b>			
<b>LEVEL OF SERVICE (LOS)</b>				<b>A</b>	<b>A</b>			

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim					
ANALYSIS CONDITION:		ARTIC- Existing Conditions					
INTERSECTION:		11 Main/ Katella					
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		PM PEAK HOUR		
			VOLUME	V/C	VOLUME	V/C	
NBL	2	3400	47	0.01 *	117	0.03	
NBT	2	3400	216	0.06	389	0.11 *	
NBR	1	1700	144	0.08	295	0.17	
SBL	1	1700	45	0.03	91	0.05 *	
SBT	2	3400	418	0.12 *	260	0.08	
SBR	1	1700	71	0.04	123	0.07	
EBL	1	1700	109	0.06	92	0.05	
EBT	3	5100	537	0.11 *	761	0.15 *	
EBR	1	1700	67	0.04	75	0.04	
WBL	1	1700	355	0.21 *	218	0.13 *	
WBT	3	5100	780	0.17	701	0.16	
WBR	0		63		127		
		N/S Movements		0.14		0.17	
		E/W Movements		0.31		0.28	
		Rt. Turn Component		0.00		0.00	
		Yellow Clearance		0.05		0.05	
<b>TOTAL CAPACITY UTILIZATION</b>				<b>0.501</b>	<b>0.495</b>		
<b>LEVEL OF SERVICE (LOS)</b>				<b>A</b>	<b>A</b>		

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT:		Anaheim					
ANALYSIS CONDITION:		ARTIC- Existing Conditions					
INTERSECTION:		12 Batavia/ Katella					
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		PM PEAK HOUR		
			VOLUME	V/C	VOLUME	V/C	
NBL	1	1700	50	0.03 *	89	0.05	
NBT	2	3400	229	0.07	308	0.09 *	
NBR	1	1700	94	0.06	116	0.07	
SBL	1	1700	96	0.06	119	0.07 *	
SBT	2	3400	402	0.12 *	216	0.06	
SBR	1	1700	125	0.07	128	0.08	
EBL	1	1700	121	0.07 *	123	0.07	
EBT	3	5100	436	0.10	1164	0.24 *	
EBR	0		54		42		
WBL	1	1700	197	0.12	90	0.05 *	
WBT	3	5100	1148	0.23 *	745	0.15	
WBR	0		10		20		
Split Phase		N/S Movements		0.19		0.16	
		E/W Movements		0.30		0.29	
		Rt. Turn Component		0.00		0.00	
		Yellow Clearance		0.05		0.05	
<b>TOTAL CAPACITY UTILIZATION</b>				<b>0.534</b>	<b>0.500</b>		
<b>LEVEL OF SERVICE (LOS)</b>				<b>A</b>	<b>A</b>		