Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	0	31	12	0	22	16	318	5	10	550	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	0	34	13	0	24	17	346	5	11	598	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						8						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	772	1008	202	638	1008	118	603			351		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	772	1008	202	638	1008	118	603			351		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	84	100	96	96	100	97	98			99		
cM capacity (veh/h)	276	233	805	339	233	912	970			1204		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	77	37	17	138	138	75	11	239	239	125
Volume Left	43	13	17	0	0	0	11	0	0	0
Volume Right	34	24	0	0	0	5	0	0	0	5
cSH	387	961	970	1700	1700	1700	1204	1700	1700	1700
Volume to Capacity	0.20	0.04	0.02	0.08	0.08	0.04	0.01	0.14	0.14	0.07
Queue Length 95th (ft)	18	3	1	0	0	0	1	0	0	0
Control Delay (s)	16.6	11.5	8.8	0.0	0.0	0.0	8.0	0.0	0.0	0.0
Lane LOS	C	B	A				A			
Approach Delay (s)	16.6	11.5	0.4				0.1			
Approach LOS	C	B								

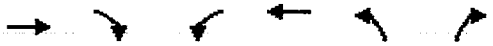
Intersection Summary					
Average Delay	1.8				
Intersection Capacity Utilization	30.7%	ICU Level of Service		A	
Analysis Period (min)	15				

ATTACHMENT NO. 4-50

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	155	319	16	41	578	100	107	882	73	270	563	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	0.99		1.00	0.98		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3514		1770	3461		1770	5027		1770	5006	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3514		1770	3461		1770	5027		1770	5006	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	347	17	45	628	109	116	959	79	293	612	71
RTOR Reduction (vph)	0	2	0	0	12	0	0	8	0	0	11	0
Lane Group Flow (vph)	168	362	0	45	725	0	116	1030	0	293	672	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	14.2	34.4		7.4	27.6		13.2	39.7		22.5	49.0	
Effective Green, g (s)	14.2	34.4		7.4	27.6		13.2	39.7		22.5	49.0	
Actuated g/C Ratio	0.12	0.29		0.06	0.23		0.11	0.33		0.19	0.41	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	209	1007		109	796		195	1663		332	2044	
v/s Ratio Prot	c0.09	0.10		0.03	c0.21		0.07	c0.20		c0.17	0.13	
v/s Ratio Perm												
v/c Ratio	0.80	0.36		0.41	0.91		0.59	0.62		0.88	0.33	
Uniform Delay, d1	51.5	34.0		54.2	45.0		50.9	33.8		47.5	24.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	19.6	0.2		2.5	14.6		4.8	1.7		22.9	0.4	
Delay (s)	71.2	34.3		56.7	59.6		55.7	35.5		70.4	24.7	
Level of Service	E	C		E	E		E	D		E	C	
Approach Delay (s)		45.9			59.4			37.6			38.4	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM Average Control Delay	44.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

ATTACHMENT NO. 4.51



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	616	46	20	709	17	30
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	670	50	22	771	18	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	100					
pX, platoon unblocked			0.92		0.92	0.92
vC, conflicting volume			720		995	360
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			523		822	132
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		93	96
cM capacity (veh/h)			957		281	822

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	446	273	176	308	308	18	33
Volume Left	0	0	22	0	0	18	0
Volume Right	0	50	0	0	0	0	33
cSH	1700	1700	957	1700	1700	281	822
Volume to Capacity	0.26	0.16	0.02	0.18	0.18	0.07	0.04
Queue Length 95th (ft)	0	0	2	0	0	5	3
Control Delay (s)	0.0	0.0	1.3	0.0	0.0	18.7	9.6
Lane LOS			A			C	A
Approach Delay (s)	0.0		0.3			12.9	
Approach LOS						B	

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		

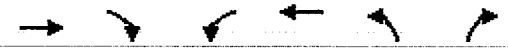
ATTACHMENT NO. 4.52

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	592	50	70	674	51	58
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	643	54	76	733	55	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	390					
pX, platoon unblocked			0.93		0.93	0.93
vC, conflicting volume			698		1189	349
vC1, stage 1 conf vol					671	
vC2, stage 2 conf vol					518	
vCu, unblocked vol			527		1055	152
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			92		86	92
cM capacity (veh/h)			965		405	807

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	429	269	76	366	366	118
Volume Left	0	0	76	0	0	55
Volume Right	0	54	0	0	0	63
cSH	1700	1700	965	1700	1700	551
Volume to Capacity	0.25	0.16	0.08	0.22	0.22	0.22
Queue Length 95th (ft)	0	0	6	0	0	20
Control Delay (s)	0.0	0.0	9.1	0.0	0.0	13.3
Lane LOS			A			B
Approach Delay (s)	0.0		0.9			13.3
Approach LOS						B

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 453



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	648	0	0	729	9	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	704	0	0	792	10	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	590					
pX, platoon unblocked			0.95		0.95	0.95
vC, conflicting volume			704		1101	352
vC1, stage 1 conf vol					704	
vC2, stage 2 conf vol					396	
vCu, unblocked vol			577		995	206
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	97
cM capacity (veh/h)			940		433	759

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	470	235	0	396	396	29
Volume Left	0	0	0	0	0	10
Volume Right	0	0	0	0	0	20
cSH	1700	1700	1700	1700	1700	607
Volume to Capacity	0.28	0.14	0.00	0.23	0.23	0.05
Queue Length 95th (ft)	0	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	11.2
Lane LOS						B
Approach Delay (s)	0.0		0.0			11.2
Approach LOS						B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	30.2%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.54

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	8	39	3	12	54
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	9	42	3	13	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	129	44			46	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	129	44			46	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			99	
cM capacity (veh/h)	858	1026			1562	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	11	46	72
Volume Left	2	0	13
Volume Right	9	3	0
cSH	987	1700	1562
Volume to Capacity	0.01	0.03	0.01
Queue Length 95th (ft)	1	0	1
Control Delay (s)	8.7	0.0	1.4
Lane LOS	A		A
Approach Delay (s)	8.7	0.0	1.4
Approach LOS	A		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

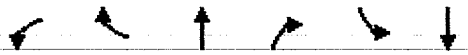
ATTACHMENT NO. 4.55

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	10	32	6	24	32
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	11	35	7	26	35
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	125	38			41	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	125	38			41	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			98	
cM capacity (veh/h)	855	1034			1568	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	14	41	61
Volume Left	3	0	26
Volume Right	11	7	0
cSH	986	1700	1568
Volume to Capacity	0.01	0.02	0.02
Queue Length 95th (ft)	1	0	1
Control Delay (s)	8.7	0.0	3.2
Lane LOS	A		A
Approach Delay (s)	8.7	0.0	3.2
Approach LOS	A		

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	19.7%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 4.56



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	17	14	24	12	16	19
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	15	26	13	17	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	88	33			39	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	88	33			39	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	99			99	
cM capacity (veh/h)	903	1041			1571	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	34	39	38
Volume Left	18	0	17
Volume Right	15	13	0
cSH	960	1700	1571
Volume to Capacity	0.04	0.02	0.01
Queue Length 95th (ft)	3	0	1
Control Delay (s)	8.9	0.0	3.4
Lane LOS	A		A
Approach Delay (s)	8.9	0.0	3.4
Approach LOS	A		

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		

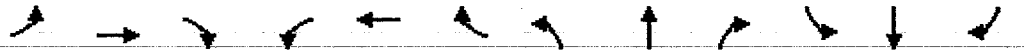
ATTACHMENT NO. 4.57

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	0	10	14	3	18	13	815	26	50	512	47
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	11	15	3	20	14	886	28	54	557	51
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						8						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1016	1633	211	1233	1645	309	608			914		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1016	1633	211	1233	1645	309	608			914		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	91	100	99	88	96	97	99			93		
cM capacity (veh/h)	170	92	794	122	90	686	967			741		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	26	38	14	354	354	205	54	223	223	162
Volume Left	15	15	14	0	0	0	54	0	0	0
Volume Right	11	20	0	0	0	28	0	0	0	51
cSH	252	240	967	1700	1700	1700	741	1700	1700	1700
Volume to Capacity	0.10	0.16	0.01	0.21	0.21	0.12	0.07	0.13	0.13	0.10
Queue Length 95th (ft)	9	14	1	0	0	0	6	0	0	0
Control Delay (s)	20.9	25.5	8.8	0.0	0.0	0.0	10.2	0.0	0.0	0.0
Lane LOS	C	D	A				B			
Approach Delay (s)	20.9	25.5	0.1				0.8			
Approach LOS	C	D								

Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	37.7%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.59



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	205	352	96	155	452	124	67	490	142	205	616	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	0.97		1.00	0.97		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3426		1770	3425		1770	4914		1770	4998	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3426		1770	3425		1770	4914		1770	4998	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	223	383	104	168	491	135	73	533	154	223	670	87
RTOR Reduction (vph)	0	19	0	0	21	0	0	40	0	0	11	0
Lane Group Flow (vph)	223	468	0	168	605	0	73	647	0	223	746	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	15.0	23.4		16.6	25.0		9.0	44.4		19.6	55.0	
Effective Green, g (s)	15.0	23.4		16.6	25.0		9.0	44.4		19.6	55.0	
Actuated g/C Ratio	0.12	0.19		0.14	0.21		0.08	0.37		0.16	0.46	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	221	668		245	714		133	1818		289	2291	
v/s Ratio Prot	c0.13	0.14		0.09	c0.18		0.04	c0.13		c0.13	0.15	
v/s Ratio Perm												
v/c Ratio	1.01	0.70		0.69	0.85		0.55	0.36		0.77	0.33	
Uniform Delay, d1	52.5	45.0		49.2	45.7		53.5	27.4		48.1	20.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	62.9	3.3		7.7	9.2		4.6	0.5		12.0	0.4	
Delay (s)	115.4	48.3		56.9	54.8		58.1	28.0		60.1	21.1	
Level of Service	F	D		E	D		E	C		E	C	
Approach Delay (s)		69.4			55.3			30.9			29.9	
Approach LOS		E			E			C			C	

Intersection Summary					
HCM Average Control Delay	45.0	HCM Level of Service	D		
HCM Volume to Capacity ratio	0.62				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	65.1%	ICU Level of Service	C		
Analysis Period (min)	15				
c Critical Lane Group					

ATTACHMENT NO. 4.60

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	636	32	43	592	29	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	691	35	47	643	32	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	416					
pX, platoon unblocked			0.90		0.90	0.90
vC, conflicting volume			726		1124	363
vC1, stage 1 conf vol					709	
vC2, stage 2 conf vol					415	
vCu, unblocked vol			462		906	57
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			95		93	95
cM capacity (veh/h)			981		450	893

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	461	265	47	322	322	74
Volume Left	0	0	47	0	0	32
Volume Right	0	35	0	0	0	42
cSH	1700	1700	981	1700	1700	629
Volume to Capacity	0.27	0.16	0.05	0.19	0.19	0.12
Queue Length 95th (ft)	0	0	4	0	0	10
Control Delay (s)	0.0	0.0	8.9	0.0	0.0	11.5
Lane LOS			A			B
Approach Delay (s)	0.0		0.6			11.5
Approach LOS						B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 4.61

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	656	17	4	620	16	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	713	18	4	674	17	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	616					
pX, platoon unblocked			0.92		0.92	0.92
vC, conflicting volume			732		1068	366
vC1, stage 1 conf vol					722	
vC2, stage 2 conf vol					346	
vCu, unblocked vol			528		895	130
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	99
cM capacity (veh/h)			950		457	822

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	475	256	4	337	337	22
Volume Left	0	0	4	0	0	17
Volume Right	0	18	0	0	0	4
cSH	1700	1700	950	1700	1700	501
Volume to Capacity	0.28	0.15	0.00	0.20	0.20	0.04
Queue Length 95th (ft)	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	8.8	0.0	0.0	12.5
Lane LOS			A			B
Approach Delay (s)	0.0		0.1			12.5
Approach LOS						B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	28.7%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.62

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	22	101	580	19	152	733
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	110	630	21	165	797
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						841
pX, platoon unblocked						
vC, conflicting volume	1237	220			651	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1237	220			651	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	83	86			82	
cM capacity (veh/h)	138	783			931	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	24	110	252	252	147	165	266	266	266
Volume Left	24	0	0	0	0	165	0	0	0
Volume Right	0	110	0	0	21	0	0	0	0
cSH	138	783	1700	1700	1700	931	1700	1700	1700
Volume to Capacity	0.17	0.14	0.15	0.15	0.09	0.18	0.16	0.16	0.16
Queue Length 95th (ft)	15	12	0	0	0	16	0	0	0
Control Delay (s)	36.4	10.3	0.0	0.0	0.0	9.7	0.0	0.0	0.0
Lane LOS	E	B				A			
Approach Delay (s)	15.0		0.0			1.7			
Approach LOS	C								

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	33.4%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.63

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	28	571	4	0	756
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	30	621	4	0	822
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						1096
pX, platoon unblocked						
vC, conflicting volume	897	209			625	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	897	209			625	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	96			100	
cM capacity (veh/h)	279	797			952	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	248	248	128	274	274	274
Volume Left	0	0	0	0	0	0	0
Volume Right	30	0	0	4	0	0	0
cSH	797	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.04	0.15	0.15	0.08	0.16	0.16	0.16
Queue Length 95th (ft)	3	0	0	0	0	0	0
Control Delay (s)	9.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.7	0.0			0.0		
Approach LOS	A						

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	21.1%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.64

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	11	564	2	0	756
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	12	613	2	0	822
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	888	205			615	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	888	205			615	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	283	801			960	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	12	245	245	125	274	274	274
Volume Left	0	0	0	0	0	0	0
Volume Right	12	0	0	2	0	0	0
cSH	801	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.14	0.14	0.07	0.16	0.16	0.16
Queue Length 95th (ft)	1	0	0	0	0	0	0
Control Delay (s)	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.6	0.0			0.0		
Approach LOS	A						

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	20.9%	ICU Level of Service	A	
Analysis Period (min)	15			

ATTACHMENT NO. 4.65

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	47	0	37	18	0	70	18	402	6	18	649	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	0	40	20	0	76	20	437	7	20	705	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						8						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	933	1230	238	794	1230	149	712			443		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	933	1230	238	794	1230	149	712			443		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	74	100	95	92	100	91	98			98		
cM capacity (veh/h)	196	169	763	256	169	871	884			1113		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	91	96	20	175	175	94	20	282	282	148
Volume Left	51	20	20	0	0	0	20	0	0	0
Volume Right	40	76	0	0	0	7	0	0	0	7
cSH	291	1095	884	1700	1700	1700	1113	1700	1700	1700
Volume to Capacity	0.31	0.09	0.02	0.10	0.10	0.06	0.02	0.17	0.17	0.09
Queue Length 95th (ft)	33	7	2	0	0	0	1	0	0	0
Control Delay (s)	22.9	11.7	9.2	0.0	0.0	0.0	8.3	0.0	0.0	0.0
Lane LOS	C	B	A				A			
Approach Delay (s)	22.9	11.7	0.4				0.2			
Approach LOS	C	B								

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	33.2%	ICU Level of Service	A	
Analysis Period (min)	15			

ATTACHMENT NO. 4.66

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	176	353	115	139	622	95	203	1074	186	287	716	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	0.96		1.00	0.98		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3409		1770	3469		1770	4973		1770	5014	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3409		1770	3469		1770	4973		1770	5014	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	384	125	151	676	103	221	1167	202	312	778	80
RTOR Reduction (vph)	0	24	0	0	10	0	0	20	0	0	10	0
Lane Group Flow (vph)	191	485	0	151	769	0	221	1349	0	312	848	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	14.7	26.5		15.5	27.3		19.3	38.8		23.2	42.7	
Effective Green, g (s)	14.7	26.5		15.5	27.3		19.3	38.8		23.2	42.7	
Actuated g/C Ratio	0.12	0.22		0.13	0.23		0.16	0.32		0.19	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	753		229	789		285	1608		342	1784	
v/s Ratio Prot	c0.11	0.14		0.09	c0.22		0.12	c0.27		c0.18	c0.17	
v/s Ratio Perm												
v/c Ratio	0.88	0.64		0.66	0.97		0.78	0.84		0.91	0.48	
Uniform Delay, d1	51.8	42.5		49.7	46.0		48.3	37.7		47.4	30.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	31.2	1.9		6.7	25.7		12.4	5.4		27.6	0.9	
Delay (s)	83.0	44.4		56.4	71.7		60.7	43.1		75.0	30.9	
Level of Service	F	D		E	E		E	D		E	C	
Approach Delay (s)		54.9			69.2			45.6			42.6	
Approach LOS		D			E			D			D	

Intersection Summary				
HCM Average Control Delay	51.3	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.88			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	84.1%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

ATTACHMENT NO. 4.67

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	734	53	71	834	43	58
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	798	58	77	907	47	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	416					
pX, platoon unblocked			0.90		0.90	0.90
vC, conflicting volume			855		1434	428
vC1, stage 1 conf vol					827	
vC2, stage 2 conf vol					608	
vCu, unblocked vol			614		1258	138
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			91		86	92
cM capacity (veh/h)			864		346	796

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	532	324	77	453	453	110
Volume Left	0	0	77	0	0	47
Volume Right	0	58	0	0	0	63
cSH	1700	1700	864	1700	1700	512
Volume to Capacity	0.31	0.19	0.09	0.27	0.27	0.21
Queue Length 95th (ft)	0	0	7	0	0	20
Control Delay (s)	0.0	0.0	9.6	0.0	0.0	13.9
Lane LOS			A			B
Approach Delay (s)	0.0		0.8			13.9
Approach LOS						B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 4.68

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	761	28	8	876	23	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	827	30	9	952	25	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	616					
pX, platoon unblocked			0.93		0.93	0.93
vC, conflicting volume			858		1336	429
vC1, stage 1 conf vol					842	
vC2, stage 2 conf vol					493	
vCu, unblocked vol			699		1213	239
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			99		93	99
cM capacity (veh/h)			832		366	710

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	551	306	9	476	476	33
Volume Left	0	0	9	0	0	25
Volume Right	0	30	0	0	0	8
cSH	1700	1700	832	1700	1700	413
Volume to Capacity	0.32	0.18	0.01	0.28	0.28	0.08
Queue Length 95th (ft)	0	0	1	0	0	6
Control Delay (s)	0.0	0.0	9.4	0.0	0.0	14.5
Lane LOS			A			B
Approach Delay (s)	0.0		0.1			14.5
Approach LOS						B

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	34.2%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.69

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	33	149	1257	30	251	707
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	36	162	1366	33	273	768
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						841
pX, platoon unblocked						
vC, conflicting volume	2184	472			1399	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2184	472			1399	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	70			44	
cM capacity (veh/h)	17	539			484	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	36	162	547	547	306	273	256	256	256
Volume Left	36	0	0	0	0	273	0	0	0
Volume Right	0	162	0	0	33	0	0	0	0
cSH	17	539	1700	1700	1700	484	1700	1700	1700
Volume to Capacity	2.10	0.30	0.32	0.32	0.18	0.56	0.15	0.15	0.15
Queue Length 95th (ft)	126	31	0	0	0	86	0	0	0
Control Delay (s)	975.9	14.5	0.0	0.0	0.0	21.6	0.0	0.0	0.0
Lane LOS	F	B				C			
Approach Delay (s)	188.9		0.0			5.7			
Approach LOS	F								

Intersection Summary				
Average Delay	16.4			
Intersection Capacity Utilization	52.2%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.70

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	41	1247	7	0	740
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	1355	8	0	804
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						1096
pX, platoon unblocked						
vC, conflicting volume	1627	456			1363	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1627	456			1363	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	92			100	
cM capacity (veh/h)	93	552			500	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	45	542	542	279	268	268	268
Volume Left	0	0	0	0	0	0	0
Volume Right	45	0	0	8	0	0	0
cSH	552	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.08	0.32	0.32	0.16	0.16	0.16	0.16
Queue Length 95th (ft)	7	0	0	0	0	0	0
Control Delay (s)	12.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	12.1	0.0			0.0		
Approach LOS	B						

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	34.2%	ICU Level of Service		A
Analysis Period (min)	15			

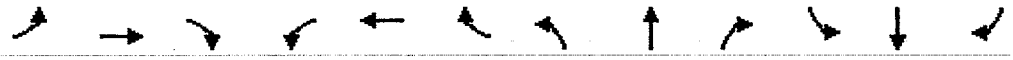
ATTACHMENT NO. 4.71

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	16	1238	3	0	740
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	17	1346	3	0	804
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1615	450			1349	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1615	450			1349	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	97			100	
cM capacity (veh/h)	95	556			506	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	17	538	538	272	268	268	268
Volume Left	0	0	0	0	0	0	0
Volume Right	17	0	0	3	0	0	0
cSH	556	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.03	0.32	0.32	0.16	0.16	0.16	0.16
Queue Length 95th (ft)	2	0	0	0	0	0	0
Control Delay (s)	11.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	11.7	0.0			0.0		
Approach LOS	B						

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	34.0%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.72



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	0	12	19	4	45	14	936	28	67	587	49
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	0	13	21	4	49	15	1017	30	73	638	53
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						8						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1182	1889	239	1434	1900	354	691			1048		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1182	1889	239	1434	1900	354	691			1048		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	100	98	75	93	92	98			89		
cM capacity (veh/h)	115	61	762	84	60	642	899			660		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	30	74	15	407	407	234	73	255	255	181
Volume Left	17	21	15	0	0	0	73	0	0	0
Volume Right	13	49	0	0	0	30	0	0	0	53
cSH	180	235	899	1700	1700	1700	660	1700	1700	1700
Volume to Capacity	0.17	0.31	0.02	0.24	0.24	0.14	0.11	0.15	0.15	0.11
Queue Length 95th (ft)	15	32	1	0	0	0	9	0	0	0
Control Delay (s)	29.0	30.9	9.1	0.0	0.0	0.0	11.1	0.0	0.0	0.0
Lane LOS	D	D	A				B			
Approach Delay (s)	29.0	30.9	0.1				1.1			
Approach LOS	D	D								

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	40.7%	ICU Level of Service	A	
Analysis Period (min)	15			

ATTACHMENT NO. 4.73

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	205	352	96	168	452	124	79	490	151	205	616	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	0.97		1.00	0.97		1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3426		1770	3425		1770	4906		1770	4998	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3426		1770	3425		1770	4906		1770	4998	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	223	383	104	183	491	135	86	533	164	223	670	87
RTOR Reduction (vph)	0	19	0	0	21	0	0	43	0	0	11	0
Lane Group Flow (vph)	223	468	0	183	605	0	86	654	0	223	746	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	15.0	22.6		17.4	25.0		9.8	44.4		19.6	54.2	
Effective Green, g (s)	15.0	22.6		17.4	25.0		9.8	44.4		19.6	54.2	
Actuated g/C Ratio	0.12	0.19		0.14	0.21		0.08	0.37		0.16	0.45	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	221	645		257	714		145	1815		289	2257	
v/s Ratio Prot	c0.13	0.14		0.10	c0.18		0.05	c0.13		c0.13	0.15	
v/s Ratio Perm												
v/c Ratio	1.01	0.72		0.71	0.85		0.59	0.36		0.77	0.33	
Uniform Delay, d1	52.5	45.8		48.9	45.7		53.2	27.5		48.1	21.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	62.9	4.0		9.0	9.2		6.4	0.6		12.0	0.4	
Delay (s)	115.4	49.8		57.9	54.8		59.5	28.0		60.1	21.6	
Level of Service	F	D		E	D		E	C		E	C	
Approach Delay (s)		70.4			55.5			31.5			30.4	
Approach LOS		E			E			C			C	

Intersection Summary				
HCM Average Control Delay	45.5	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.62			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	65.3%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

ATTACHMENT NO. 4.74

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	644	32	43	596	37	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	700	35	47	648	40	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	416					
pX, platoon unblocked			0.90		0.90	0.90
vC, conflicting volume			735		1135	367
vC1, stage 1 conf vol					717	
vC2, stage 2 conf vol					417	
vCu, unblocked vol			469		916	59
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			95		91	95
cM capacity (veh/h)			975		447	890

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	467	268	47	324	324	83
Volume Left	0	0	47	0	0	40
Volume Right	0	35	0	0	0	42
cSH	1700	1700	975	1700	1700	600
Volume to Capacity	0.27	0.16	0.05	0.19	0.19	0.14
Queue Length 95th (ft)	0	0	4	0	0	12
Control Delay (s)	0.0	0.0	8.9	0.0	0.0	12.0
Lane LOS			A			B
Approach Delay (s)	0.0		0.6			12.0
Approach LOS						B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 4.75

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	664	17	4	620	19	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	722	18	4	674	21	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	616					
pX, platoon unblocked			0.92		0.92	0.92
vC, conflicting volume			740		1077	370
vC1, stage 1 conf vol					731	
vC2, stage 2 conf vol					346	
vCu, unblocked vol			535		902	131
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		95	99
cM capacity (veh/h)			943		453	820

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	481	259	4	337	337	25
Volume Left	0	0	4	0	0	21
Volume Right	0	18	0	0	0	4
cSH	1700	1700	943	1700	1700	491
Volume to Capacity	0.28	0.15	0.00	0.20	0.20	0.05
Queue Length 95th (ft)	0	0	0	0	0	4
Control Delay (s)	0.0	0.0	8.8	0.0	0.0	12.7
Lane LOS			A			B
Approach Delay (s)	0.0		0.1			12.7
Approach LOS						B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	28.9%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.76

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	121	580	19	152	756
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	132	630	21	165	822
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						841
pX, platoon unblocked	1.00					
vC, conflicting volume	1245	220			651	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1238	220			651	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	83			82	
cM capacity (veh/h)	138	783			931	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	132	252	252	147	165	274	274	274
Volume Left	0	0	0	0	165	0	0	0
Volume Right	132	0	0	21	0	0	0	0
cSH	783	1700	1700	1700	931	1700	1700	1700
Volume to Capacity	0.17	0.15	0.15	0.09	0.18	0.16	0.16	0.16
Queue Length 95th (ft)	15	0	0	0	16	0	0	0
Control Delay (s)	10.5	0.0	0.0	0.0	9.7	0.0	0.0	0.0
Lane LOS	B				A			
Approach Delay (s)	10.5	0.0			1.6			
Approach LOS	B							

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	26.7%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.11

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	28	571	4	0	756
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	30	621	4	0	822
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						1096
pX, platoon unblocked						
vC, conflicting volume	897	209			625	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	897	209			625	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	96			100	
cM capacity (veh/h)	279	797			952	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	248	248	128	274	274	274
Volume Left	0	0	0	0	0	0	0
Volume Right	30	0	0	4	0	0	0
cSH	797	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.04	0.15	0.15	0.08	0.16	0.16	0.16
Queue Length 95th (ft)	3	0	0	0	0	0	0
Control Delay (s)	9.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.7	0.0			0.0		
Approach LOS	A						

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	21.1%	ICU Level of Service	A
Analysis Period (min)	15		

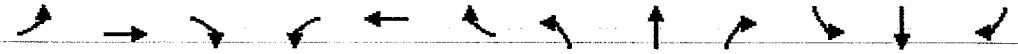
ATTACHMENT NO. 4.78

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	11	564	2	0	756
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	12	613	2	0	822
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	888	205			615	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	888	205			615	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	283	801			960	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	12	245	245	125	274	274	274
Volume Left	0	0	0	0	0	0	0
Volume Right	12	0	0	2	0	0	0
cSH	801	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.14	0.14	0.07	0.16	0.16	0.16
Queue Length 95th (ft)	1	0	0	0	0	0	0
Control Delay (s)	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.6	0.0			0.0		
Approach LOS	A						

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	20.9%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 4.79

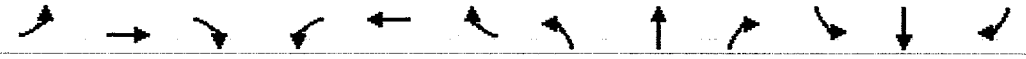


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	47	0	37	18	0	70	18	402	6	18	649	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	0	40	20	0	76	20	437	7	20	705	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						8						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	933	1230	238	794	1230	149	712			443		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	933	1230	238	794	1230	149	712			443		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	74	100	95	92	100	91	98			98		
cM capacity (veh/h)	196	169	763	256	169	871	884			1113		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	91	96	20	175	175	94	20	282	282	148
Volume Left	51	20	20	0	0	0	20	0	0	0
Volume Right	40	76	0	0	0	7	0	0	0	7
cSH	291	1095	884	1700	1700	1700	1113	1700	1700	1700
Volume to Capacity	0.31	0.09	0.02	0.10	0.10	0.06	0.02	0.17	0.17	0.09
Queue Length 95th (ft)	33	7	2	0	0	0	1	0	0	0
Control Delay (s)	22.9	11.7	9.2	0.0	0.0	0.0	8.3	0.0	0.0	0.0
Lane LOS	C	B	A				A			
Approach Delay (s)	22.9	11.7	0.4				0.2			
Approach LOS	C	B								

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	33.2%	ICU Level of Service	A	
Analysis Period (min)	15			

ATTACHMENT NO. 4.8V



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	176	353	115	156	622	95	220	1074	198	287	716	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	0.96		1.00	0.98		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3409		1770	3469		1770	4967		1770	5014	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3409		1770	3469		1770	4967		1770	5014	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	384	125	170	676	103	239	1167	215	312	778	80
RTOR Reduction (vph)	0	24	0	0	10	0	0	22	0	0	10	0
Lane Group Flow (vph)	191	485	0	170	769	0	239	1360	0	312	848	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	14.7	25.3		16.7	27.3		20.1	38.8		23.2	41.9	
Effective Green, g (s)	14.7	25.3		16.7	27.3		20.1	38.8		23.2	41.9	
Actuated g/C Ratio	0.12	0.21		0.14	0.23		0.17	0.32		0.19	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	719		246	789		296	1606		342	1751	
v/s Ratio Prot	c0.11	0.14		0.10	c0.22		0.14	c0.27		c0.18	c0.17	
v/s Ratio Perm												
v/c Ratio	0.88	0.67		0.69	0.97		0.81	0.85		0.91	0.48	
Uniform Delay, d1	51.8	43.6		49.2	46.0		48.1	37.8		47.4	30.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	31.2	2.5		8.1	25.7		14.8	5.7		27.6	1.0	
Delay (s)	83.0	46.1		57.3	71.7		62.9	43.6		75.0	31.6	
Level of Service	F	D		E	E		E	D		E	C	
Approach Delay (s)		56.1			69.1			46.4			43.1	
Approach LOS		E			E			D			D	

Intersection Summary				
HCM Average Control Delay	51.9	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.89			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	84.4%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

ATTACHMENT NO. 4.81

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	747	53	71	840	54	58
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	812	58	77	913	59	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	416					
pX, platoon unblocked			0.90		0.90	0.90
vC, conflicting volume			870		1452	435
vC1, stage 1 conf vol					841	
vC2, stage 2 conf vol					611	
vCu, unblocked vol			624		1273	139
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			91		83	92
cM capacity (veh/h)			855		342	792

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	541	328	77	457	457	122
Volume Left	0	0	77	0	0	59
Volume Right	0	58	0	0	0	63
cSH	1700	1700	855	1700	1700	485
Volume to Capacity	0.32	0.19	0.09	0.27	0.27	0.25
Queue Length 95th (ft)	0	0	7	0	0	25
Control Delay (s)	0.0	0.0	9.6	0.0	0.0	14.9
Lane LOS			A			B
Approach Delay (s)	0.0		0.8			14.9
Approach LOS						B

Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	42.8%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.82

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	774	28	8	876	29	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	841	30	9	952	32	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	616					
pX, platoon unblocked			0.93		0.93	0.93
vC, conflicting volume			872		1350	436
vC1, stage 1 conf vol					857	
vC2, stage 2 conf vol					493	
vCu, unblocked vol			708		1223	238
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			99		91	99
cM capacity (veh/h)			823		363	708

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	561	311	9	476	476	39
Volume Left	0	0	9	0	0	32
Volume Right	0	30	0	0	0	8
cSH	1700	1700	823	1700	1700	401
Volume to Capacity	0.33	0.18	0.01	0.28	0.28	0.10
Queue Length 95th (ft)	0	0	1	0	0	8
Control Delay (s)	0.0	0.0	9.4	0.0	0.0	15.0
Lane LOS			A			B
Approach Delay (s)	0.0		0.1			15.0
Approach LOS						B

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	34.2%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.B3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	178	1257	30	251	740
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	193	1366	33	273	804
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						841
pX, platoon unblocked	0.99					
vC, conflicting volume	2196	472			1399	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2166	472			1399	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	64			44	
cM capacity (veh/h)	17	539			484	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	193	547	547	306	273	268	268	268
Volume Left	0	0	0	0	273	0	0	0
Volume Right	193	0	0	33	0	0	0	0
cSH	539	1700	1700	1700	484	1700	1700	1700
Volume to Capacity	0.36	0.32	0.32	0.18	0.56	0.16	0.16	0.16
Queue Length 95th (ft)	41	0	0	0	86	0	0	0
Control Delay (s)	15.4	0.0	0.0	0.0	21.6	0.0	0.0	0.0
Lane LOS	C				C			
Approach Delay (s)	15.4	0.0			5.5			
Approach LOS	C							

Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	45.5%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.84

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	41	1247	7	0	740
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	1355	8	0	804
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						1096
pX, platoon unblocked						
vC, conflicting volume	1627	456			1363	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1627	456			1363	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	92			100	
cM capacity (veh/h)	93	552			500	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	45	542	542	279	268	268	268
Volume Left	0	0	0	0	0	0	0
Volume Right	45	0	0	8	0	0	0
cSH	552	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.08	0.32	0.32	0.16	0.16	0.16	0.16
Queue Length 95th (ft)	7	0	0	0	0	0	0
Control Delay (s)	12.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	12.1	0.0			0.0		
Approach LOS	B						

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

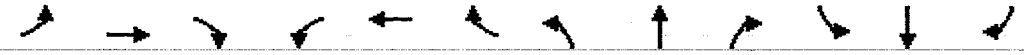
ATTACHMENT NO. 4.B5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	16	1238	3	0	740
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	17	1346	3	0	804
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1615	450			1349	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1615	450			1349	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	97			100	
cM capacity (veh/h)	95	556			506	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	17	538	538	272	268	268	268
Volume Left	0	0	0	0	0	0	0
Volume Right	17	0	0	3	0	0	0
cSH	556	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.03	0.32	0.32	0.16	0.16	0.16	0.16
Queue Length 95th (ft)	2	0	0	0	0	0	0
Control Delay (s)	11.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	11.7	0.0			0.0		
Approach LOS	B						

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 4.86



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	0	12	19	4	45	14	936	28	67	586	49
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	0	13	21	4	49	15	1017	30	73	637	53
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						8						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1181	1888	239	1434	1899	354	690			1048		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1181	1888	239	1434	1899	354	690			1048		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	100	98	75	93	92	98			89		
cM capacity (veh/h)	115	61	762	84	60	642	900			660		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	30	74	15	407	407	234	73	255	255	181
Volume Left	17	21	15	0	0	0	73	0	0	0
Volume Right	13	49	0	0	0	30	0	0	0	53
cSH	180	236	900	1700	1700	1700	660	1700	1700	1700
Volume to Capacity	0.17	0.31	0.02	0.24	0.24	0.14	0.11	0.15	0.15	0.11
Queue Length 95th (ft)	15	32	1	0	0	0	9	0	0	0
Control Delay (s)	29.0	30.9	9.1	0.0	0.0	0.0	11.1	0.0	0.0	0.0
Lane LOS	D	D	A				B			
Approach Delay (s)	29.0	30.9	0.1				1.1			
Approach LOS	D	D								

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	40.7%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.87

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	205	414	34	112	452	124	79	490	151	248	573	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	0.99		1.00	0.97		1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3499		1770	3425		1770	4906		1770	4992	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3499		1770	3425		1770	4906		1770	4992	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	223	450	37	122	491	135	86	533	164	270	623	87
RTOR Reduction (vph)	0	5	0	0	21	0	0	44	0	0	12	0
Lane Group Flow (vph)	223	482	0	122	605	0	86	653	0	270	698	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	15.0	26.4		13.6	25.0		9.8	42.2		21.8	54.2	
Effective Green, g (s)	15.0	26.4		13.6	25.0		9.8	42.2		21.8	54.2	
Actuated g/C Ratio	0.12	0.22		0.11	0.21		0.08	0.35		0.18	0.45	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	221	770		201	714		145	1725		322	2255	
v/s Ratio Prot	c0.13	0.14		0.07	c0.18		0.05	c0.13		c0.15	0.14	
v/s Ratio Perm												
v/c Ratio	1.01	0.63		0.61	0.85		0.59	0.38		0.84	0.31	
Uniform Delay, d1	52.5	42.3		50.7	45.7		53.2	29.1		47.4	21.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	62.9	1.6		5.1	9.2		6.4	0.6		17.1	0.4	
Delay (s)	115.4	43.9		55.8	54.8		59.5	29.7		64.5	21.3	
Level of Service	F	D		E	D		E	C		E	C	
Approach Delay (s)		66.4			55.0			33.0			33.2	
Approach LOS		E			D			C			C	

Intersection Summary			
HCM Average Control Delay	45.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

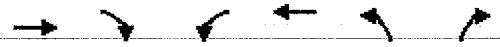
ATTACHMENT NO. 4.88

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	644	136	81	548	37	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	700	148	88	596	40	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	416					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			848		1248	424
vC1, stage 1 conf vol					774	
vC2, stage 2 conf vol					474	
vCu, unblocked vol			572		1023	94
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			90		90	95
cM capacity (veh/h)			884		401	837

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	467	381	88	298	298	83
Volume Left	0	0	88	0	0	40
Volume Right	0	148	0	0	0	42
cSH	1700	1700	884	1700	1700	548
Volume to Capacity	0.27	0.22	0.10	0.18	0.18	0.15
Queue Length 95th (ft)	0	0	8	0	0	13
Control Delay (s)	0.0	0.0	9.5	0.0	0.0	12.7
Lane LOS			A			B
Approach Delay (s)	0.0		1.2			12.7
Approach LOS						B

Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	41.1%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.89



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	664	17	14	610	19	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	722	18	15	663	21	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	616					
pX, platoon unblocked			0.92		0.92	0.92
vC, conflicting volume			740		1093	370
vC1, stage 1 conf vol					731	
vC2, stage 2 conf vol					362	
vCu, unblocked vol			537		921	133
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			98		95	99
cM capacity (veh/h)			943		447	818

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	481	259	15	332	332	25
Volume Left	0	0	15	0	0	21
Volume Right	0	18	0	0	0	4
cSH	1700	1700	943	1700	1700	485
Volume to Capacity	0.28	0.15	0.02	0.20	0.20	0.05
Queue Length 95th (ft)	0	0	1	0	0	4
Control Delay (s)	0.0	0.0	8.9	0.0	0.0	12.8
Lane LOS			A			B
Approach Delay (s)	0.0		0.2			12.8
Approach LOS						B

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	28.9%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.90

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	121	580	19	0	756
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	132	630	21	0	822
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						841
pX, platoon unblocked	0.96					
vC, conflicting volume	915	220			651	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	782	220			651	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	83			100	
cM capacity (veh/h)	319	783			931	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	132	252	252	147	274	274	274
Volume Left	0	0	0	0	0	0	0
Volume Right	132	0	0	21	0	0	0
cSH	783	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.17	0.15	0.15	0.09	0.16	0.16	0.16
Queue Length 95th (ft)	15	0	0	0	0	0	0
Control Delay (s)	10.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	10.5	0.0			0.0		
Approach LOS	B						

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	25.8%	ICU Level of Service		A
Analysis Period (min)	15			

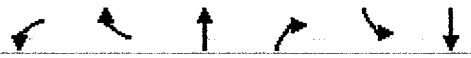
ATTACHMENT NO. 4.9L

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	28	571	4	0	756
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	30	621	4	0	822
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						1096
pX, platoon unblocked	0.99					
vC, conflicting volume	897	209			625	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	861	209			625	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	96			100	
cM capacity (veh/h)	292	797			952	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	248	248	128	274	274	274
Volume Left	0	0	0	0	0	0	0
Volume Right	30	0	0	4	0	0	0
cSH	797	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.04	0.15	0.15	0.08	0.16	0.16	0.16
Queue Length 95th (ft)	3	0	0	0	0	0	0
Control Delay (s)	9.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.7	0.0			0.0		
Approach LOS	A						

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	21.1%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 4.92

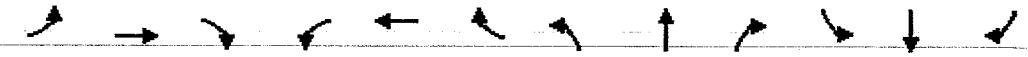


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	11	564	2	0	756
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	12	613	2	0	822
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	888	205			615	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	888	205			615	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	283	801			960	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	12	245	245	125	274	274	274
Volume Left	0	0	0	0	0	0	0
Volume Right	12	0	0	2	0	0	0
cSH	801	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.14	0.14	0.07	0.16	0.16	0.16
Queue Length 95th (ft)	1	0	0	0	0	0	0
Control Delay (s)	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						
Approach Delay (s)	9.6	0.0			0.0		
Approach LOS	A						

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	20.9%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 4.93

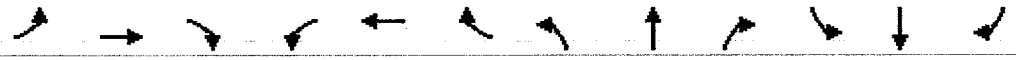


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	47	0	37	18	0	70	18	402	6	18	649	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	0	40	20	0	76	20	437	7	20	705	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						8						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	933	1230	238	794	1230	149	712			443		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	933	1230	238	794	1230	149	712			443		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	74	100	95	92	100	91	98			98		
cM capacity (veh/h)	196	169	763	256	169	871	884			1113		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	91	96	20	175	175	94	20	282	282	148
Volume Left	51	20	20	0	0	0	20	0	0	0
Volume Right	40	76	0	0	0	7	0	0	0	7
cSH	291	1095	884	1700	1700	1700	1113	1700	1700	1700
Volume to Capacity	0.31	0.09	0.02	0.10	0.10	0.06	0.02	0.17	0.17	0.09
Queue Length 95th (ft)	33	7	2	0	0	0	1	0	0	0
Control Delay (s)	22.9	11.7	9.2	0.0	0.0	0.0	8.3	0.0	0.0	0.0
Lane LOS	C	B	A				A			
Approach Delay (s)	22.9	11.7	0.4				0.2			
Approach LOS	C	B								

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	33.2%	ICU Level of Service	A	
Analysis Period (min)	15			

ATTACHMENT NO. 4.94



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	176	449	18	78	622	95	220	1074	198	365	638	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frt	1.00	0.99		1.00	0.98		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3518		1770	3469		1770	4967		1770	5006	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3518		1770	3469		1770	4967		1770	5006	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	488	20	85	676	103	239	1167	215	397	693	80
RTOR Reduction (vph)	0	2	0	0	10	0	0	22	0	0	12	0
Lane Group Flow (vph)	191	506	0	85	769	0	239	1360	0	397	761	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	14.7	33.1		9.7	28.1		20.1	37.2		24.0	41.1	
Effective Green, g (s)	14.7	33.1		9.7	28.1		20.1	37.2		24.0	41.1	
Actuated g/C Ratio	0.12	0.28		0.08	0.23		0.17	0.31		0.20	0.34	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	970		143	812		296	1540		354	1715	
v/s Ratio Prot	c0.11	0.14		0.05	c0.22		0.14	c0.27		c0.22	c0.15	
v/s Ratio Perm												
v/c Ratio	0.88	0.52		0.59	0.95		0.81	0.88		1.12	0.44	
Uniform Delay, d1	51.8	36.8		53.3	45.2		48.1	39.3		48.0	30.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	31.2	0.5		6.5	19.7		14.8	7.7		84.9	0.8	
Delay (s)	83.0	37.3		59.7	64.9		62.9	47.0		132.9	31.4	
Level of Service	F	D		E	E		E	D		F	C	
Approach Delay (s)		49.8			64.4			49.4			65.9	
Approach LOS		D			E			D			E	

Intersection Summary				
HCM Average Control Delay	56.8	HCM Level of Service	E	
HCM Volume to Capacity ratio	0.97			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0	
Intersection Capacity Utilization	88.7%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

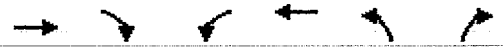
ATTACHMENT NO. 4.95

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	747	224	134	761	54	58
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	812	243	146	827	59	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	416					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			1055		1639	528
vC1, stage 1 conf vol					934	
vC2, stage 2 conf vol					705	
vCu, unblocked vol			808		1465	213
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			80		79	91
cM capacity (veh/h)			721		278	703

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	541	514	146	414	414	122
Volume Left	0	0	146	0	0	59
Volume Right	0	243	0	0	0	63
cSH	1700	1700	721	1700	1700	405
Volume to Capacity	0.32	0.30	0.20	0.24	0.24	0.30
Queue Length 95th (ft)	0	0	19	0	0	31
Control Delay (s)	0.0	0.0	11.2	0.0	0.0	17.7
Lane LOS			B			C
Approach Delay (s)	0.0		1.7			17.7
Approach LOS						C

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	51.8%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.96



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	774	28	23	860	29	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	841	30	25	935	32	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	616					
pX, platoon unblocked			0.93		0.93	0.93
vC, conflicting volume			872		1374	436
vC1, stage 1 conf vol					857	
vC2, stage 2 conf vol					517	
vCu, unblocked vol			702		1244	231
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			97		91	99
cM capacity (veh/h)			825		356	714

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	561	311	25	467	467	39
Volume Left	0	0	25	0	0	32
Volume Right	0	30	0	0	0	8
cSH	1700	1700	825	1700	1700	395
Volume to Capacity	0.33	0.18	0.03	0.27	0.27	0.10
Queue Length 95th (ft)	0	0	2	0	0	8
Control Delay (s)	0.0	0.0	9.5	0.0	0.0	15.1
Lane LOS			A			C
Approach Delay (s)	0.0		0.2			15.1
Approach LOS						C

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	33.8%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4-97

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	178	1257	30	0	740
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	193	1366	33	0	804
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						841
pX, platoon unblocked	0.92					
vC, conflicting volume	1651	472			1399	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1415	472			1399	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	64			100	
cM capacity (veh/h)	119	539			484	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	193	547	547	306	268	268	268
Volume Left	0	0	0	0	0	0	0
Volume Right	193	0	0	33	0	0	0
cSH	539	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.36	0.32	0.32	0.18	0.16	0.16	0.16
Queue Length 95th (ft)	41	0	0	0	0	0	0
Control Delay (s)	15.4	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C						
Approach Delay (s)	15.4	0.0			0.0		
Approach LOS	C						

Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	42.6%	ICU Level of Service		A
Analysis Period (min)	15			

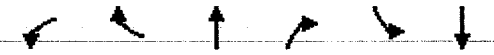
ATTACHMENT NO. 4.98

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	41	1247	7	0	740
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	45	1355	8	0	804
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						1096
pX, platoon unblocked	0.94					
vC, conflicting volume	1627	456			1363	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1455	456			1363	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	92			100	
cM capacity (veh/h)	114	552			500	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	45	542	542	279	268	268	268
Volume Left	0	0	0	0	0	0	0
Volume Right	45	0	0	8	0	0	0
cSH	552	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.08	0.32	0.32	0.16	0.16	0.16	0.16
Queue Length 95th (ft)	7	0	0	0	0	0	0
Control Delay (s)	12.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	12.1	0.0			0.0		
Approach LOS	B						

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

ATTACHMENT NO. 4.99



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	16	1238	3	0	740
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	17	1346	3	0	804
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1615	450			1349	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1615	450			1349	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	97			100	
cM capacity (veh/h)	95	556			506	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	17	538	538	272	268	268	268
Volume Left	0	0	0	0	0	0	0
Volume Right	17	0	0	3	0	0	0
cSH	556	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.03	0.32	0.32	0.16	0.16	0.16	0.16
Queue Length 95th (ft)	2	0	0	0	0	0	0
Control Delay (s)	11.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	11.7	0.0			0.0		
Approach LOS	B						

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	34.0%	ICU Level of Service	A	
Analysis Period (min)	15			

ATTACHMENT NO. 4.100

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	0	12	19	4	45	14	936	28	67	587	49
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	0	13	21	4	49	15	1017	30	73	638	53
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						8						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1182	1889	239	1434	1900	354	691			1048		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1182	1889	239	1434	1900	354	691			1048		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	100	98	75	93	92	98			89		
cM capacity (veh/h)	115	61	762	84	60	642	899			660		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	30	74	15	407	407	234	73	255	255	181
Volume Left	17	21	15	0	0	0	73	0	0	0
Volume Right	13	49	0	0	0	30	0	0	0	53
cSH	180	235	899	1700	1700	1700	660	1700	1700	1700
Volume to Capacity	0.17	0.31	0.02	0.24	0.24	0.14	0.11	0.15	0.15	0.11
Queue Length 95th (ft)	15	32	1	0	0	0	9	0	0	0
Control Delay (s)	29.0	30.9	9.1	0.0	0.0	0.0	11.1	0.0	0.0	0.0
Lane LOS	D	D	A				B			
Approach Delay (s)	29.0	30.9	0.1				1.1			
Approach LOS	D	D								

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	40.7%	ICU Level of Service		A
Analysis Period (min)	15			

ATTACHMENT NO. 4.101

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Beach Blvd/Atlanta Ave.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.562
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Beach Blvd.						Atlanta Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	12	391	55	205	556	78	171	291	28	63	339	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	391	55	205	556	78	171	291	28	63	339	96
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	391	55	205	556	78	171	291	28	63	339	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.97	0.97	0.97	0.83	0.83	0.83	0.77	0.77	0.77
PHF Volume:	14	447	63	211	573	80	205	349	34	82	443	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	447	63	211	573	80	205	349	34	82	443	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	447	63	211	573	80	205	349	34	82	443	125
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.63	0.37	1.00	2.63	0.37	1.00	1.82	0.18	1.00	1.56	0.44
Final Sat.:	1700	4471	629	1700	4473	627	1700	3102	298	1700	2650	750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.10	0.12	0.13	0.13	0.12	0.11	0.11	0.05	0.17	0.17
Crit Moves:		****			****			****			****	

ATTACHMENT NO. 4.102

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Beach Blvd/Atlanta Ave.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	C

Street Name:	Beach Blvd.						Atlanta Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	107	882	73	270	563	65	155	319	16	41	578	100
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	882	73	270	563	65	155	319	16	41	578	100
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	107	882	73	270	563	65	155	319	16	41	578	100
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.92
PHF Volume:	123	1010	84	306	638	74	176	363	18	45	630	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	1010	84	306	638	74	176	363	18	45	630	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	1010	84	306	638	74	176	363	18	45	630	109
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.77	0.23	1.00	2.69	0.31	1.00	1.90	0.10	1.00	1.71	0.29
Final Sat.:	1700	4710	390	1700	4572	528	1700	3238	162	1700	2899	501
Capacity Analysis Module:												
Vol/Sat:	0.07	0.21	0.21	0.18	0.14	0.14	0.10	0.11	0.11	0.03	0.22	0.22
Crit Moves:		****		****			****				****	

ATTACHMENT NO. 4.103

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Beach Blvd/Atlanta Ave.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.585
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Street Name:	Beach Blvd.						Atlanta Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	12	391	55	205	556	78	171	291	28	63	339	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	391	55	205	556	78	171	291	28	63	339	96
Added Vol:	47	38	54	7	42	0	0	22	52	57	20	7
Exist. Trip:	0	0	15	-13	0	0	0	-20	0	-1	-13	-8
Initial Fut:	59	429	124	199	598	78	171	293	80	119	346	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.97	0.97	0.97	0.83	0.83	0.83	0.77	0.77	0.77
PHF Volume:	67	490	142	205	616	80	205	352	96	155	452	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	490	142	205	616	80	205	352	96	155	452	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	490	142	205	616	80	205	352	96	155	452	124
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.33	0.67	1.00	2.65	0.35	1.00	1.57	0.43	1.00	1.57	0.43
Final Sat.:	1700	3956	1144	1700	4512	588	1700	2671	729	1700	2668	732
Capacity Analysis Module:												
Vol/Sat:	0.04	0.12	0.12	0.12	0.14	0.14	0.12	0.13	0.13	0.09	0.17	0.17
Crit Moves:		****		****			****				****	

ATTACHMENT NO. 4.104

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Beach Blvd/Atlanta Ave.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	C

Street Name:	Beach Blvd.						Atlanta Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	107	882	73	270	563	65	155	319	16	41	578	100
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	882	73	270	563	65	155	319	16	41	578	100
Added Vol:	70	56	83	12	69	0	0	37	85	91	30	10
Exist. Trip:	0	0	6	-29	0	0	0	-46	0	-4	-37	-23
Initial Fut:	177	938	162	253	632	65	155	310	101	128	571	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.92
PHF Volume:	203	1074	186	287	716	74	176	353	115	139	622	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	203	1074	186	287	716	74	176	353	115	139	622	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	203	1074	186	287	716	74	176	353	115	139	622	95
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.56	0.44	1.00	2.72	0.28	1.00	1.51	0.49	1.00	1.74	0.26
Final Sat.:	1700	4349	751	1700	4624	476	1700	2564	836	1700	2950	450
Capacity Analysis Module:												
Vol/Sat:	0.12	0.25	0.25	0.17	0.15	0.15	0.10	0.14	0.14	0.08	0.21	0.21
Crit Moves:		****		****			****				****	

ATTACHMENT NO. 4.105

Left-In Only Alternative

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Beach Blvd/Atlanta Ave.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.568
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	A

Street Name:	Beach Blvd.						Atlanta Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 2	1 0	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	12	391	55	205	556	78	171	291	28	63	339	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	391	55	205	556	78	171	291	28	63	339	96
Added Vol:	57	38	54	7	42	0	0	22	52	67	20	7
Exist. Trip:	0	0	15	-13	0	0	0	-20	0	-1	-13	-8
Initial Fut:	69	429	124	199	598	78	171	293	80	129	346	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.97	0.97	0.97	0.83	0.83	0.83	0.77	0.77	0.77
PHF Volume:	79	490	142	205	616	80	205	352	96	168	452	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	490	142	205	616	80	205	352	96	168	452	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	79	490	142	205	616	80	205	352	96	168	452	124
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.33	0.67	1.00	2.65	0.35	1.00	1.57	0.43	1.00	1.57	0.43
Final Sat.:	1600	3724	1076	1600	4246	554	1600	2514	686	1600	2511	689
Capacity Analysis Module:												
Vol/Sat:	0.05	0.13	0.13	0.13	0.15	0.15	0.13	0.14	0.14	0.11	0.18	0.18
Crit Moves:		****		****			****				****	

ATTACHMENT NO. 4.106

Left-In Only Alternative

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Beach Blvd/Atlanta Ave.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.776
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	C

Street Name:	Beach Blvd.						Atlanta Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	107	882	73	270	563	65	155	319	16	41	578	100
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	882	73	270	563	65	155	319	16	41	578	100
Added Vol:	85	56	83	12	69	0	0	37	85	106	30	10
Exist. Trip:	0	0	6	-29	0	0	0	-46	0	-4	-37	-23
Initial Fut:	192	938	162	253	632	65	155	310	101	143	571	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.92
PHF Volume:	220	1074	186	287	716	74	176	353	115	156	622	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	1074	186	287	716	74	176	353	115	156	622	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	220	1074	186	287	716	74	176	353	115	156	622	95
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.56	0.44	1.00	2.72	0.28	1.00	1.51	0.49	1.00	1.74	0.26
Final Sat.:	1600	4093	707	1600	4352	448	1600	2414	786	1600	2777	423
Capacity Analysis Module:												
Vol/Sat:	0.14	0.26	0.26	0.18	0.16	0.16	0.11	0.15	0.15	0.10	0.22	0.22
Crit Moves:		****		****			****				****	

ATTACHMENT NO. 4.107

Right-In/Right-Out Alternative

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Beach Blvd/Atlanta Ave.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.595
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	A

Street Name:	Beach Blvd.						Atlanta Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 2	1 0	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	12	391	55	205	556	78	171	291	28	63	339	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	391	55	205	556	78	171	291	28	63	339	96
Added Vol:	57	38	54	49	0	0	0	74	0	24	20	7
Exist. Trip:	0	0	15	-13	0	0	0	-20	0	-1	-13	-8
Initial Fut:	69	429	124	241	556	78	171	345	28	86	346	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.97	0.97	0.97	0.83	0.83	0.83	0.77	0.77	0.77
PHF Volume:	79	490	142	248	573	80	205	414	34	112	452	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	490	142	248	573	80	205	414	34	112	452	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	79	490	142	248	573	80	205	414	34	112	452	124
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.33	0.67	1.00	2.63	0.37	1.00	1.85	0.15	1.00	1.57	0.43
Final Sat.:	1600	3724	1076	1600	4209	591	1600	2960	240	1600	2511	689
Capacity Analysis Module:												
Vol/Sat:	0.05	0.13	0.13	0.16	0.14	0.14	0.13	0.14	0.14	0.07	0.18	0.18
Crit Moves:		****		****			****				****	

Right-In/Right-Out Alternative

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

****

Intersection #1 Beach Blvd/Atlanta Ave.

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.825
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	130	Level Of Service:	D

****

Street Name:	Beach Blvd.						Atlanta Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	107	882	73	270	563	65	155	319	16	41	578	100
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	882	73	270	563	65	155	319	16	41	578	100
Added Vol:	85	56	83	81	0	0	0	122	0	35	30	10
Exist. Trip:	0	0	6	-29	0	0	0	-46	0	-4	-37	-23
Initial Fut:	192	938	162	322	563	65	155	395	16	72	571	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.92
PHF Volume:	220	1074	186	365	638	74	176	449	18	78	622	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	1074	186	365	638	74	176	449	18	78	622	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	220	1074	186	365	638	74	176	449	18	78	622	95
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.56	0.44	1.00	2.69	0.31	1.00	1.92	0.08	1.00	1.74	0.26
Final Sat.:	1600	4093	707	1600	4303	497	1600	3075	125	1600	2777	423
Capacity Analysis Module:												
Vol/Sat:	0.14	0.26	0.26	0.23	0.15	0.15	0.11	0.15	0.15	0.05	0.22	0.22
Crit Moves:		****		****			****				****	

****

ATTACHMENT NO. 4.109

APPENDIX C

PARKING SURVEY DATA

ATTACHMENT NO. 4.110

PARKING STUDY HUNTINGTON BEACH

Project # 08-1177-001
City: Huntington Beach
Location: Atlanta & Beach Blvd

Day: Tuesday
Date: 07/15/08

TIME	ZONE-1		ZONE-2		ZONE-3		ZONE-4		TOTAL
	81	3	67	6	62	1	53	1	
	Reg	♿	Reg	♿	Reg	♿	Reg	♿	
7:00 AM	2	0	5	0	4	0	7	0	18
8:00 AM	4	0	7	0	6	0	6	0	23
9:00 AM	6	0	11	0	7	0	11	0	35
10:00 AM	20	0	24	0	15	0	17	0	76
11:00 AM	21	0	22	2	13	0	20	0	78
12:00 PM	34	1	26	1	12	0	16	0	90
1:00 PM	32	0	28	3	11	0	22	0	96
2:00 PM	29	0	27	2	13	0	24	0	95
3:00 PM	23	0	31	2	18	0	20	0	94
4:00 PM	22	0	23	1	17	0	16	0	79
5:00 PM	23	1	28	1	21	0	15	0	89
6:00 PM	21	1	34	0	19	0	18	0	93
7:00 PM	23	0	28	0	21	0	23	0	95
8:00 PM	31	0	25	0	22	0	14	0	92
9:00 PM	26	0	23	0	18	0	13	0	80
TOTAL	317	3	342	12	217	0	242	0	1133

ATTACHMENT NO. 4.111

PARKING STUDY HUNTINGTON BEACH

Project # 08-1177-001
City: Huntington Beach
Location: Atlanta & Beach Blvd

Wednesday
Date: 07/16/08

TIME	ZONE-1		ZONE-2		ZONE-3		ZONE-4		TOTAL
	81	3	67	6	62	1	53	1	
	Reg	♿	Reg	♿	Reg	♿	Reg	♿	
7:00 AM	2	0	8	0	5	0	4	0	19
8:00 AM	3	0	10	0	6	0	6	0	25
9:00 AM	7	0	12	0	8	0	9	0	36
10:00 AM	9	0	17	0	11	0	18	0	55
11:00 AM	20	0	24	0	13	0	20	0	77
12:00 PM	24	1	30	0	15	1	22	1	94
1:00 PM	25	1	33	1	17	0	19	0	96
2:00 PM	27	1	36	1	19	0	25	0	109
3:00 PM	18	0	38	3	12	0	27	0	98
4:00 PM	21	0	40	1	18	0	19	0	99
5:00 PM	19	0	28	0	21	1	26	1	96
6:00 PM	17	0	30	0	18	0	18	0	83
7:00 PM	20	0	32	2	19	0	20	0	93
8:00 PM	16	0	30	2	13	0	11	0	72
9:00 PM	11	0	15	0	5	0	7	0	38
TOTAL	239	3	383	10	200	2	251	2	1090

ATTACHMENT NO. 4.12

PARKING STUDY HUNTINGTON BEACH

Project # 08-1177-001
City: Huntington Beach
Location: Atlanta & Beach Blvd

Day: Saturday
Date: 07/19/08

TIME	ZONE-1		ZONE-2		ZONE-3		ZONE-4		TOTAL
	81	3	67	5	62	1	53	1	
	Reg	♿	Reg	♿	Reg	♿	Reg	♿	
7:00 AM	3	6	6	0	4	0	5	0	24
8:00 AM	5	0	11	0	7	0	6	0	29
9:00 AM	10	1	25	1	7	0	8	0	52
10:00 AM	22	1	36	0	11	0	7	0	77
11:00 AM	28	0	33	2	19	0	12	0	94
12:00 PM	32	0	36	2	20	0	13	0	103
1:00 PM	34	0	32	1	22	0	15	0	104
2:00 PM	30	0	37	1	21	0	6	0	95
3:00 PM	33	0	44	2	23	0	10	0	112
4:00 PM	27	0	36	1	24	0	15	0	103
5:00 PM	26	0	31	2	22	1	15	0	97
6:00 PM	20	0	32	2	26	1	19	0	100
7:00 PM	24	0	31	0	23	1	21	0	100
8:00 PM	28	0	27	0	21	0	24	0	100
9:00 PM	25	0	25	0	20	0	17	0	87
TOTAL	347	8	442	14	270	3	193	0	1277

ATTACHMENT NO. 4.113

LSA

LSA ASSOCIATES, INC.
20 EXECUTIVE PARK, SUITE 200
IRVINE, CALIFORNIA 92614
949.553.0666 TEL
949.553.8076 FAX

BERKELEY
CARLSBAD
FORT COLLINS
FRESNO
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROCKLIN
SAN LUIS OBISPO
SOUTH SAN FRANCISCO

May 14, 2010

Bijan Sassounian
Beach Promenade, LLC
21190 Beach Boulevard
Huntington Beach, CA 92648

Subject: Beach Promenade Parking Demand Analysis

Dear Bijan:

LSA Associates, Inc. (LSA) has prepared this parking analysis to identify the forecast parking demand for the Beach Promenade site at the southeast corner of Beach Boulevard/Atlanta Avenue in the City of Huntington Beach (City).

PROJECT DESCRIPTION

The approved Beach Promenade site consists of 90,977 square feet (sf) of retail use in six buildings (Building A [12,000 sf], Building B [8,160 sf], Building C [26,340 sf], Building D [7,000 sf], Building E [23,437 sf], and Building F [14,040 sf]) and a 340-space parking lot. The project proposes to upgrade/revise some of the existing land uses, construct three new buildings for restaurant and retail uses, and increase the parking supply on site. A description of the two proposed project alternatives (Alternatives A and B) is provided below.

Alternative A (117,858 sf)

- **Building A:** The conversion of 12,000 sf of existing retail use to 9,200 sf of restaurant (plus 900 sf of outdoor dining area) and 2,800 sf of office uses (i.e., an increase of 900 sf)
- **Building B:** No change to the existing 8,160 sf of retail use
- **Building C:** No change to the existing 26,340 sf of retail use
- **Building D:** No change to the existing 7,000 sf of retail use
- **Building E:** Conversion of the existing 23,437 of retail use to a 19,962 sf market (i.e., a reduction of 3,475 sf)
- **Building F:** Expansion of the existing 14,040 sf to 15,170 sf of retail use (i.e., an increase of 1,130 sf)
- **Building G (new building):** Addition of 9,000 sf of restaurant use
- **Building H (new building):** Addition of 4,260 sf of restaurant use
- **Building I (new building):** Addition of 12,166 sf of retail and 2,900 sf of restaurant uses (i.e., a total of 15,066 sf)
- **Parking:** A total parking supply of 539 spaces (i.e., an increase of 199 spaces)

Alternative B (124,641 sf)

- **Building A:** Same as Alternative A
- **Building B:** Same as Alternative A
- **Building C:** Same as Alternative A
- **Building D:** Same as Alternative A
- **Building E:** Conversion of the existing 23,437 of retail use to a 10,908 sf market and a 19,962 sf pharmacy (i.e., an increase of 7,433 sf)
- **Building F:** Reduction of the existing 14,040 sf to 11,045 sf of retail use (i.e., a reduction of 2,995 sf)
- **Building G (new building):** Same as Alternative A
- **Building H (new building):** Same as Alternative A
- **Building I (new building):** Addition of 11,166 sf of retail and 3,900 sf of restaurant uses (i.e., a total of 15,066 sf)
- **Parking:** A total parking supply of 526 spaces (i.e., an increase of 186 spaces)

PROJECT PARKING DEMAND

Observed Parking Demand and City Code

Parking surveys were conducted on 2 weekdays and 1 weekend day (July 15, 16, and 19, 2008) to determine the actual peak parking demand of the existing retail center. Based on these surveys (i.e., a peak parking demand of 112 spaces for 73,327 sf of existing occupied square footage), the observed parking rate is 1 space per 654 sf. To provide adequate parking for the proposed project alternatives, it is recommended that all new uses provide parking per the rates required by the City Zoning Code. The Zoning Code requires 1 space per 100 sf of restaurant use (for restaurants with more than 12 seats), 1 space per 250 sf of office use, and 1 space per 200 sf of retail use. Because the Zoning Code does not include specific rates for a market (both Alternatives A and B) or a pharmacy (Alternative B only), LSA has consulted parking rates in the Institute of Transportation Engineers (ITE), *Parking Generation*, 3rd Edition. According to this source, a market and a pharmacy generate a parking demand of approximately 5.45 spaces per thousand square feet (TSF) and 2.07 spaces per TSF, respectively.

The total parking demand of the site was determined for Alternatives A and B using the observed parking rate for the existing approved retail uses and the rates from the Zoning Code and *Parking Generation* for the proposed new land uses.

As shown in Table A (all tables attached), the forecast parking demand of Alternative A is 538 spaces. Based on a proposed parking supply of 539 spaces (surplus of 1 space), adequate parking would be provided on site for Alternative A.

The forecast parking demand of Alternative B is 525 spaces, as shown in Table B. With a proposed supply of 526 parking spaces (surplus of 1 space), Alternative B would also have adequate parking on site.

ATTACHMENT NO. 5.2

Beach Corridor Specific Plan Area 14

Although the City provides parking rates in its Zoning Code, the Beach Promenade project site is located within the Beach Corridor Specific Plan Area 14. According to the Beach and Edinger Corridors Specific Plan Vision Statement, the underlying principle of the Specific Plan is "Smart Growth," or development that takes into account the economy, the community, and the environment. Design Principle 4 of Smart Growth with the Beach Corridor is creating parking alternatives because mixed use areas help minimize demand for parking by allowing people to park once and reach a number of shops. The Beach Corridor Specific Plan parking regulations require 3 spaces per TSF of retail use, 6 spaces per TSF of restaurant use, and 3 spaces per TSF of office use.

The total parking demand of the site was determined for Alternatives A and B using the parking requirements of the Beach Corridor Specific Plan for all uses. The forecast parking demand of Alternative A is 439 spaces, as shown in Table C. Based on a proposed parking supply of 539 spaces (surplus of 100 spaces), adequate parking would be provided on site for Alternative A. As shown in Table D, the forecast parking demand of Alternative B is 462 spaces. With a proposed supply of 526 parking spaces (surplus of 64 spaces), Alternative B would also have adequate parking on site.

CONCLUSION

Based on the two proposed land use alternatives (Alternative A [117,858 sf and 539 parking spaces] and Alternative B [124,641 sf and 526 parking spaces]), adequate parking would be provided per City Code requirements (including actual observed retail parking demand and *Parking Generation* rates for market and pharmacy uses) and Beach Corridor Specific Plan requirements. A surplus of parking would be provided on the Beach Promenade site for both Alternatives A and B.

If you have any questions regarding this analysis, please contact me at (949) 553-0666.

Sincerely,

LSA ASSOCIATES, INC.

Meghan Macias

Meghan Macias
Principal

Attachments: Tables A – D

ATTACHMENT NO. 5.3

Table A: Beach Promenade Parking Requirement Summary
Alternative A (Maximum Eating/Drinking) - City Code

Land Use	Size	Unit	Parking Spaces
Parking Rates [1]			
Existing Retail [2]	654	sf	1
Restaurant (Eating/Drinking/Outdoor Dining)	100	sf	1
Office	250	sf	1
Retail	200	sf	1
Market [3]	1,000	sf	5.45
Drugstore [3]	1,000	sf	2.07
Parking Required for Existing and New Uses			
Building A			
Eating/Drinking (New)	9,200	sf	92
Outdoor Dining (New)	900	sf	9
Office (New)	2,800	sf	12
Total	*12,900*	*sf*	*113*
Building B			
Existing Retail	*8,160*	*sf*	*13*
Building C			
Existing Retail	*26,340*	*sf*	*41*
Building D			
Existing Retail	*7,000*	*sf*	*11*
Building E			
Market (New)	*19,962*	*sf*	*109*
Building F			
Existing Retail	14,040	sf	22
Retail (New)	1,130	sf	6
Total	*15,170*	*sf*	*28*
Building G			
Eating/Drinking (New)	*9,000*	*sf*	*90*
Building H			
Eating/Drinking (New)	*4,260*	*sf*	*43*
Building I			
Retail (New)	12,166	sf	61
Eating/Drinking (New)	2,900	sf	29
Total	*15,066*	*sf*	*90*
Total Project Parking Required	**116,958** [4]	**sf**	**538**
Project Parking Supply			**539**
Project Parking Surplus/(Deficit)			**1**

Notes:

sf = square feet

[1] Parking rates from the City of Huntington Beach Zoning Ordinance.

[2] Parking rates based on parking surveys conducted at the existing center on July 15, 16, and 19, 2008.

[3] Institute of Transportation Engineers, *Parking Generation*, 3rd Edition.

[4] Plus 900 sf of outdoor dining.

Land Use Code 850 - Supermarket

Land Use Code 880 - Pharmacy/Drugstore without Drive-Through Window

ATTACHMENT NO. 5.4

Table B: Beach Promenade Parking Requirement Summary
Alternative B (Maximum Eating/Drinking) - City Code

Land Use	Size	Unit	Parking Spaces
Parking Rates [1]			
Existing Retail [2]	654	sf	1
Restaurant (Eating/Drinking/Outdoor Dining)	100	sf	1
Office	250	sf	1
Retail	200	sf	1
Market [3]	1,000	sf	5.45
Drugstore [3]	1,000	sf	2.07
Parking Required for Existing and New Uses			
Building A			
Eating/Drinking (New)	9,200	sf	92
Outdoor Dining (New)	900	sf	9
Office (New)	2,800	sf	12
Total	*12,900*	*sf*	*113*
Building B			
Existing Retail	*8,160*	*sf*	*13*
Building C			
Existing Retail	*26,340*	*sf*	*41*
Building D			
Existing Retail	*7,000*	*sf*	*11*
Building E			
Market (New)	10,908	sf	60
Drugstore (New)	19,962	sf	42
Total	*30,870*	*sf*	*102*
Building F			
Existing Retail	*11,045*	*sf*	*17*
Building G			
Eating/Drinking (New)	*9,000*	*sf*	*90*
Building H			
Eating/Drinking (New)	*4,260*	*sf*	*43*
Building I			
Retail (New)	11,166	sf	56
Eating/Drinking (New)	3,900	sf	39
Total	*15,066*	*sf*	*95*
Total Project Parking Required	**123,741** [4]	**sf**	**525**
Project Parking Supply			**526**
Project Parking Surplus/(Deficit)			**1**

Notes:

sf = square feet

[1] Parking rates from the City of Huntington Beach Zoning Ordinance.

[2] Parking rates based on parking surveys conducted at the existing center on July 15, 16, and 19, 2008.

[3] Institute of Transportation Engineers, *Parking Generation*, 3rd Edition.

[4] Plus 900 sf of outdoor dining.

Land Use Code 850 - Supermarket

Land Use Code 880 - Pharmacy/Drugstore without Drive-Through Window

ATTACHMENT NO. 5.5

Table C: Beach Promenade Parking Requirement Summary
Alternative A (Maximum Eating/Drinking) - Beach Corridor Specific Plan

Land Use	Size	Unit	Parking Spaces
Parking Rates [1]			
Retail	1,000	sf	3
Restaurant (Eating/Drinking/Outdoor Dining)	1,000	sf	6
Office	1,000	sf	3
Parking Required for Existing and New Uses			
Building A			
Eating/Drinking (New)	9,200	sf	56
Outdoor Dining (New)	900	sf	6
Office (New)	2,800	sf	9
Total	*12,900*	*sf*	*71*
Building B			
Existing Retail	*8,160*	*sf*	*25*
Building C			
Existing Retail	*26,340*	*sf*	*80*
Building D			
Existing Retail	*7,000*	*sf*	*21*
Building E			
Market (Retail) (New)	*19,962*	*sf*	*60*
Building F			
Existing Retail	14,040	sf	43
Retail (New)	1,130	sf	4
Total	*15,170*	*sf*	*47*
Building G			
Eating/Drinking (New)	*9,000*	*sf*	*54*
Building H			
Eating/Drinking (New)	*4,260*	*sf*	*26*
Building I			
Retail (New)	12,166	sf	37
Eating/Drinking (New)	2,900	sf	18
Total	*15,066*	*sf*	*55*
Total Project Parking Required	**116,958** [2]	**sf**	**439**
Project Parking Supply			**539**
Project Parking Surplus/(Deficit)			**100**

Notes:

sf = square feet

[1] Parking rates from the Beach and Edinger Corridors Specific Plan Area 14.

[2] Plus 900 sf of outdoor dining.

ATTACHMENT NO. 5.6

Table D: Beach Promenade Parking Requirement Summary
Alternative B (Maximum Eating/Drinking) - Beach Corridor Specific Plan

Land Use	Size	Unit	Parking Spaces
Parking Rates [1]			
Retail	1,000	sf	3
Restaurant (Eating/Drinking/Outdoor Dining)	1,000	sf	6
Office	1,000	sf	3
Parking Required for Existing and New Uses			
Building A			
Eating/Drinking (New)	9,200	sf	56
Outdoor Dining (New)	900	sf	6
Office (New)	2,800	sf	9
Total	*12,900*	*sf*	*71*
Building B			
Existing Retail	*8,160*	*sf*	*25*
Building C			
Existing Retail	*26,340*	*sf*	*80*
Building D			
Existing Retail	*7,000*	*sf*	*21*
Building E			
Market (Retail) (New)	10,908	sf	33
Drugstore (Retail) (New)	19,962	sf	60
Total	*30,870*	*sf*	*93*
Building F			
Existing Retail	*11,045*	*sf*	*34*
Building G			
Eating/Drinking (New)	*9,000*	*sf*	*54*
Building H			
Eating/Drinking (New)	*4,260*	*sf*	*26*
Building I			
Retail (New)	11,166	sf	34
Eating/Drinking (New)	3,900	sf	24
Total	*15,066*	*sf*	*58*
Total Project Parking Required	**123,741** [2]	**sf**	**462**
Project Parking Supply			**526**
Project Parking Surplus/(Deficit)			**64**

Notes:

sf = square feet

[1] Parking rates from the Beach and Edinger Corridors Specific Plan Area 14.

[2] Plus 900 sf of outdoor dining.

ATTACHMENT NO. 5.7

City of Huntington Beach

2000 MAIN STREET CALIFORNIA 92648

DEPARTMENT OF PLANNING

February 23, 2010

Bill Holman
WDH Consulting Services
21190 Beach Boulevard
Huntington Beach CA 92648

SUBJECT: ENTITLEMENT PLAN AMENDMENT NO. 09-009, TENTATIVE PARCEL MAP NO. 09-079, CONDITIONAL USE PERMIT NO. 10-005, VARIANCE NO. 10-001 (BEACH PROMENADE PHASE II)—21022-21190 BEACH BOULEVARD PROJECT IMPLEMENTATION CODE REQUIREMENTS

Dear Mr. Holman:

In order to assist you with your development proposal, staff has reviewed the project and identified applicable city policies, standard plans, and development and use requirements, excerpted from the City of Huntington Beach Zoning & Subdivision Ordinance and Municipal Codes. This list is intended to help you through the permitting process and various stages of project implementation.

It should be noted that this requirement list is in addition to any "conditions of approval" adopted by the Planning Commission. Please note that if the design of your project or if site conditions change, the list may also change.

If you would like a clarification of any of these requirements, an explanation of the Huntington Beach Zoning & Subdivision Ordinance and Municipal Codes, or believe some of the items listed do not apply to your project, and/or you would like to discuss them in further detail, please contact me at 714-374-1744 (tnguyen@surfcity-hb.org) and/or the respective source department (contact person below).

Sincerely,

Tess Nguyen

TESS NGUYEN
Associate Planner

Enclosures

cc: Gerald Caraig, Building & Safety Department – 714-374-1575
Darin Maresh, Fire Department – 714-536-5531
Kellee Fritzal, Economic Department – 714-374-1519
Herb Fauland, Planning Manager
Bijian Sassounian, Property Owner
James Diebold, PNS Stores, Inc., Property Owner
Steve Bogart, Public Works – 714-536-5431
Ken Small, Police – 714-536-5902
Jason Kelly, Planning Department
Project File
Phillip Silver, Property Owner

CITY OF HUNTINGTON BEACH

PROJECT IMPLEMENTATION CODE REQUIREMENTS

DATE:	FEBRUARY 22, 2010
PROJECT NAME:	BEACH PROMENADE PHASE II
PLANNING APPLICATION NO.:	PLANNING APPLICATION NO. 09-202
ENTITLEMENTS:	ENTITLEMENT PLAN AMENDMENT NO. 09-009; TENTATIVE PARCEL MAP NO. 09-079; CONDITIONAL USE PERMIT NO. 10-005; VARIANCE NO. 10-001
DATE OF PLANS:	JANUARY 20, 2010
PROJECT LOCATION:	21022-21190 BEACH BOULEVARD, HUNTINGTON BEACH
PLAN REVIEWER:	TESS NGUYEN, ASSOCIATE PLANNER
TELEPHONE/E-MAIL:	(714) 374-1744/ tnguyen@surfcity-hb.org
PROJECT DESCRIPTION:	ENTITLEMENT PLAN AMENDMENT: TO AMEND THE APPROVED SITE PLAN FOR CONDITIONAL USE PERMIT NO. 08-013 AND VARIANCE NO. 08-007 TO PERMIT A 25,981 SQ. FT. ADDITION TO AN EXISTING SHOPPING CENTER. TENTATIVE PARCEL MAP: TO INCORPORATE THE FRONTAGE ROAD AND ADJACENT PROPERTY TO ENLARGE THE SITE FROM 6.74 ACRES TO 9.42 ACRES, RECONFIGURE TWO PARCELS, AND CREATE THREE NEW PARCELS FOR FUTURE BUILDING PADS. CONDITIONAL USE PERMIT: TO PERMIT A PARKING REDUCTION IN CONJUNCTION WITH THE ADDITION OF 25,981 SQ. FT. TO THE SHOPPING CENTER. VARIANCE: TO ALLOW A FRONT SETBACK OF 5 FEET FOR BUILDINGS G, H, AND I IN LIEU OF THE REQUIRED 25 FEET AND TO ALLOW OUTDOOR SEATING WITHIN THE SETBACK AT BUILDING A.

The following is a list of code requirements deemed applicable to the proposed project based on plans received and dated January 20, 2010. The list is intended to assist the applicant by identifying requirements which must be satisfied during the various stages of project permitting and implementation. A list of conditions of approval adopted by the Planning Commission in conjunction with the requested entitlement(s), if any, will also be provided upon final project approval. If you have any questions regarding these requirements, please contact the Plan Reviewer.

1. The site plan approved by the Planning Commission shall be the conceptually approved design with the following modifications:

ATTACHMENT NO. 6.2

a. Parking lot striping shall comply with Chapter 231 of the Zoning and Subdivision Ordinance and Title 24, California Administrative Code.

b. Depict all utility apparatus, such as but not limited to, back flow devices and Edison transformers on the site plan. Utility meters shall be screened from view from public right-of-ways. Electric transformers in a required front or street side yard shall be enclosed in subsurface vaults. Backflow prevention devices shall be prohibited in the front yard setback and shall be screened from view.

c. All exterior mechanical equipment shall be screened from view on all sides. Rooftop mechanical equipment shall be setback a minimum of 15 feet from the exterior edges of the building. Equipment to be screened includes, but is not limited to, heating, air conditioning, refrigeration equipment, plumbing lines, ductwork and transformers. Said screening shall be architecturally compatible with the building in terms of materials and colors. If screening is not designed specifically into the building, a rooftop mechanical equipment plan showing proposed screening must be submitted for review and approval with the application for building permit(s).

d. Depict the location of all gas meters, water meters, electrical panels, air conditioning units, mailboxes (as approved by the United States Postal Service), and similar items on the site plan and elevations. If located on a building, they shall be architecturally integrated with the design of the building, non-obtrusive, not interfere with sidewalk areas and comply with required setbacks.

e. All parking area lighting shall be energy efficient and designed so as not to produce glare on adjacent residential properties. Security lighting shall be provided in areas accessible to the public during nighttime hours, and such lighting shall be on a time-clock or photo-sensor system. (HBZSO 231.18(C))

f. Bicycle parking facilities shall be provided in accordance with the provisions of HBZSO Section 231.20 – *Bicycle Parking.*

2. Prior to issuance of demolition permits, the following shall be completed:

   a. The applicant shall follow all procedural requirements and regulations of the South Coast Air Quality Management District (SCAQMD) and any other local, state, or federal law regarding the removal and disposal of any hazardous material including asbestos, lead, and PCB's. These requirements include but are not limited to: survey, identification of removal methods, containment measures, use and treatment of water, proper truck hauling, disposal procedures, and proper notification to any and all involved agencies.

   b. Pursuant to the requirements of the South Coast Air Quality Management District, an asbestos survey shall be completed.

   c. The applicant shall complete all Notification requirements of the South Coast Air Quality Management District.

   d. The City of Huntington Beach shall receive written verification from the South Coast Air Quality Management District that the Notification procedures have been completed.

   e. All asbestos shall be removed from all buildings prior to demolition of any portion of any building.

3. Prior to issuance of grading permits, the following shall be completed:

   b. At least 14 days prior to any grading activity, the applicant/developer shall provide notice in writing to property owners of record and tenants of properties within a 500-ft radius of the project site as noticed for the public hearing. The notice shall include a general

description of planned grading activities and an estimated timeline for commencement and completion of work and a contact person name with phone number. Prior to issuance of the grading permit, a copy of the notice and list of recipients shall be submitted to the Planning Department.

c. Blockwall/fencing plans (including a site plan, section drawings and elevations, depicting the height and material of all retaining walls, freestanding walls and fences) consistent with the grading plan, shall be submitted to and approved by the Planning Department. Double walls shall be prohibited. Prior to construction of any new property line walls or fences, a plan, approved by the owners of adjacent properties, and identifying the removal of any existing walls, shall be submitted to the Planning Department for review and approval. The plans shall identify proposed wall and fence materials, seep holes and drainage.

4. Prior to submittal for building permits, the following shall be completed:

   a. One set of project plans, revised pursuant to Condition of Approval No. 1, shall be submitted for review, approval and inclusion in the entitlement file, to the Planning Department.

   b. Zoning entitlement conditions of approval, code requirements identified herein and code requirements identified in separately transmitted memorandum from the Departments of Fire and Public Works shall be printed verbatim on one of the first three pages of all the working drawing sets used for issuance of building permits (architectural, structural, electrical, mechanical and plumbing) and shall be referenced in the sheet index. The minimum font size utilized for printed text shall be 12 point.

   c. Submit three (3) copies of the site plan and floor plans and the processing fee to the Planning Department for addressing purposes.

   d. The Design Review Board shall review and approve proposed structures and/or buildings additions for architectural compatibility with existing structures.

5. Prior to issuance of building permits, the following shall be completed:

   a. An agreement for joint use parking and reciprocal access between property owners shall be recorded prior to the issuance of permits or occupancy. The legal instrument shall be submitted to the Planning Department a minimum of 30 days prior to building permit issuance. A copy of the legal instrument shall be approved by the City Attorney as to form and content and, when approved, shall be recorded in the Office of the County Recorder. A copy of the recorded agreement shall be filed with the Planning Department. The recorded agreement shall remain in effect in perpetuity, except as modified and rescinded pursuant to the expressed written approval of the City of Huntington Beach.

   b. An "Acceptance of Conditions" form shall be properly executed by the applicant and an authorized representative of the owner of the property, recorded with the County Recorder's Office, and returned to the Planning Department for inclusion in the entitlement file. Conditions of approval shall remain in effect in the recorded form in perpetuity, except as modified or rescinded pursuant to the expressed written approval of the City of Huntington Beach.

c. A planned sign program for all signage shall be submitted to the Planning Department. Said program shall be approved prior to the first sign request.

d. All new commercial shall pay a park fee, pursuant to the provisions of HBZSO Section 230.20 – *Payment of Park Fee.* The fees shall be paid and calculated according to a schedule adopted by City Council resolution (*City of Huntington Beach Planning Department Fee Schedule*).

6. During demolition, grading, site development, and/or construction, the following shall be adhered to:

   a. Construction equipment shall be maintained in peak operating condition to reduce emissions.

   b. Use low sulfur (0.5%) fuel by weight for construction equipment.

   c. Truck idling shall be prohibited for periods longer than 10 minutes.

   d. Attempt to phase and schedule activities to avoid high ozone days first stage smog alerts.

   e. Discontinue operation during second stage smog alerts.

   f. Ensure clearly visible signs are posted on the perimeter of the site identifying the name and phone number of a field supervisor to contact for information regarding the development and any construction/ grading activity.

   g. All Huntington Beach Zoning and Subdivision Ordinance and Municipal Code requirements including the Noise Ordinance. All activities including truck deliveries associated with construction, grading, remodeling, or repair shall be limited to Monday - Saturday 7:00 AM to 8:00 PM. Such activities are prohibited Sundays and Federal holidays.

7. The new structure(s) cannot be occupied and the final building permit(s) cannot be approved until the following has been completed:

   a. All improvements must be completed in accordance with approved plans, except as provided for by conditions of approval.

   b. The applicant shall obtain the necessary permits from the South Coast Air Quality Management District and submit a copy to Planning Department.

   c. All existing signs which do not conform with Chapter 233 - *Signs* of the Huntington Beach Zoning & Subdivision Ordinance shall be removed or modified to conform.

   d. Compliance with all conditions of approval specified herein shall be verified by the Planning Department.

   e. All building spoils, such as unusable lumber, wire, pipe, and other surplus or unusable material, shall be disposed of at an off-site facility equipped to handle them.

   f. A Certificate of Occupancy must be approved by the Planning Department and issued by the Building and Safety Department.

8. The Development Services Departments (Building & Safety, Fire, Planning and Public Works) shall be responsible for ensuring compliance with all applicable code requirements and conditions of approval. The Director of Planning may approve minor amendments to plans and/or conditions of approval as appropriate based on changed circumstances, new

information or other relevant factors. Any proposed plan/project revisions shall be called out on the plan sets submitted for building permits. Permits shall not be issued until the Development Services Departments have reviewed and approved the proposed changes for conformance with the intent of the Planning Commission's action. If the proposed changes are of a substantial nature, an amendment to the original entitlement reviewed by the Planning Commission may be required pursuant to the provisions of HBZSO Section 241.18.

9. The applicant and/or applicant's representative shall be responsible for ensuring the accuracy of all plans and information submitted to the City for review and approval.

10. Entitlement Plan Amendment No. 09-009, Tentative Parcel Map No. 09-079, Conditional Use Permit No. 10-005, and Variance No. 10-001 shall not become effective until the ten calendar day appeal period following the approval of the entitlements has elapsed.

11. Entitlement Plan Amendment No. 09-009, Tentative Parcel Map No. 09-079, Conditional Use Permit No. 10-005, and Variance No. 10-001 shall become null and void unless exercised within one year of the date of final approval or such extension of time as may be granted by the Director pursuant to a written request submitted to the Planning Department a minimum 30 days prior to the expiration date.

12. The Planning Commission reserves the right to revoke Entitlement Plan Amendment No. 09-009, Tentative Parcel Map No. 09-079, Conditional Use Permit No. 10-005, and Variance No. 10-001 pursuant to a public hearing for revocation, if any violation of the conditions of approval, Huntington Beach Zoning and Subdivision Ordinance or Municipal Code occurs.

13. The project shall comply with all applicable requirements of the Municipal Code, Building & Safety Department and Fire Department, as well as applicable local, State and Federal Fire Codes, Ordinances, and standards, except as noted herein.

14. Construction shall be limited to Monday – Saturday 7:00 AM to 8:00 PM. Construction shall be prohibited Sundays and Federal holidays.

15. The applicant shall submit a check in the amount of $50.00 for the posting of the Notice of Exemption at the County of Orange Clerk's Office. The check shall be made out to the County of Orange and submitted to the Planning Department within two (2) days of the Planning Commission's approval of entitlements.

16. All landscaping shall be maintained in a neat and clean manner, and in conformance with the HBZSO. Prior to removing or replacing any landscaped areas, check with the Departments of Planning and Public Works for Code requirements. Substantial changes may require approval by the Planning Commission.

17. All permanent, temporary, or promotional signs shall conform to Chapter 233 of the HBZSO. Prior to installing any new signs, changing sign faces, or installing promotional signs, applicable permit(s) shall be obtained from the Planning Department. Violations of this ordinance requirement may result in permit revocation, recovery of code enforcement costs, and removal of installed signs.

18. Live entertainment and/or outdoor dining in excess of 400 sq. ft. shall not be permitted unless a conditional use permit for this specific use is reviewed and approved. Outdoor

dining occupying less than 400 sq. ft. is subject to Neighborhood Notification and approval by the Director of Planning.

19. Alcoholic beverage sales shall be prohibited unless a conditional use permit for this particular use is reviewed and approved.

ATTACHMENT NO. 6.7

CITY OF HUNTINGTON BEACH
DEPARTMENT OF BUILDING & SAFETY
PROJECT IMPLEMENTATION CODE REQUIREMENTS

DATE:	JANUARY 22, 2010
PROJECT NAME:	BEACH PROMENADE PHASE II
PLANNING APPLICATION NO.:	PLANNING APPLICATION NO. 09-202
ENTITLEMENTS:	ENTITLEMENT PLAN AMENDMENT NO. 09-009; TENTATIVE PARCEL MAP NO. 09-079
DATE OF PLANS:	JANUARY 20, 2010
PROJECT LOCATION:	21120-21190 BEACH BOULEVARD, HUNTINGTON BEACH
PROJECT PLANNER:	TESS NGUYEN, ASSOCIATE PLANNER
PLAN REVIEWER:	JASON KWAK, PLAN CHECK ENGINEER
TELEPHONE/E-MAIL:	(714) 536-5278 / jkwak@surfcity-hb.org
PROJECT DESCRIPTION:	**ENTITLEMENT PLAN AMENDMENT:** TO AMEND CONDITIONAL USE PERMIT NO. 08-013 AND VARIANCE NO. 08-007 TO PERMIT A 25,981 SQ. FT. ADDITION TO AN EXISTING SHOPPING CENTER; **TENTATIVE PARCEL MAP:** TO INCORPORATE THE FRONTAGE ROAD AND ADJACENT PROPERTY TO ENLARGE THE SITE FROM 6.74 ACRES TO 9.42 ACRES, RECONFIGURE SOME PARCELS, AND CREATE THREE NEW PARCELS FOR FUTURE BUILDING PADS; **VARIANCE:** TO ALLOW A FRONT SETBACK OF 5 FEET FOR BUILDINGS G, H, AND I IN LIEU OF THE REQUIRED 25 FEET AND TO ALLOW OUTDOOR SEATING WITHIN THE SETBACK AT BUILDING A; **CONDITIONAL USE PERMIT:** TO PERMIT A PARKING REDUCTION OF 39 PARKING SPACES IN CONJUNCTION WITH THE ADDITION OF 25,981 SQ. FT. TO THE SHOPPING CENTER.

The following is a list of code requirements deemed applicable to the proposed project based on plans received as stated above. The list is intended to assist the applicant by identifying requirements which must be satisfied during the various stages of project permitting and implementation. This list is not intended to be a full and complete list and serves only to highlight possible building code issues on the proposed preliminary plans. Electrical, plumbing, and mechanical items are not included in this review. If you have any questions regarding these comments, please contact the plan reviewer.

I. SPECIAL CONDITIONS:

1. None

II. CODE ISSUES BASED ON PLANS & DRAWINGS SUBMITTED:

1. Project shall comply with the current state building codes adopted by the City at the time of permit application submittal. Currently they are 2007 California Building Code (CBC), 2007 California Mechanical Code, 2007 California Plumbing Code, 2007 California Electrical Code, 2007 California Energy Code and the Huntington Beach Municipal Code (HBMC). Compliance to all applicable state and local codes is required prior to issuance of building permit.

ATTACHMENT NO. 6.8

CITY OF HUNTINGTON BEACH

PROJECT IMPLEMENTATION CODE REQUIREMENTS

DATE:	FEBRUARY 18, 2010
PROJECT NAME:	BEACH PROMENADE
PLANNING APPLICATION NO.:	PLANNING APPLICATION NO. 09-202
ENTITLEMENTS:	ENTITLEMENT PLAN AMENDMENT NO. 09-009; TENTATIVE PARCEL MAP NO. 09-079
DATE OF PLANS:	JANUARY 20, 2010
PROJECT LOCATION:	21120-21190 BEACH BOULEVARD, HUNTINGTON BEACH
PROJECT PLANNER:	TESS NGUYEN, ASSOCIATE PLANNER
PLAN REVIEWER:	SIMONE SLIFMAN, PROJECT MANAGER
TELEPHONE/E-MAIL:	(714) 375-5186 / simone.slifman@surfcity-hb.org
PROJECT DESCRIPTION:	**ENTITLEMENT PLAN AMENDMENT:** TO AMEND CONDITIONAL USE PERMIT NO. 08-013 AND VARIANCE NO. 08-007 TO PERMIT A 25,659 SQ. FT. ADDITION TO AN EXISTING SHOPPING CENTER; **TENTATIVE PARCEL MAP:** TO INCORPORATE THE FRONTAGE ROAD AND ADJACENT PROPERTY TO ENLARGE THE SITE FROM 6.74 ACRES TO 9.42 ACRES, RECONFIGURE SOME PARCELS, AND CREATE THREE NEW PARCELS FOR FUTURE BUILDING PADS.

The following is a list of code requirements deemed applicable to the proposed project based on plans stated above. The list is intended to assist the applicant by identifying requirements which must be satisfied during the various stages of project permitting and implementation. A list of conditions of approval adopted by the Planning Commission in conjunction with the requested entitlement(s), if any, will also be provided upon final project approval. If you have any questions regarding these requirements, please contact the Plan Reviewer.

The Economic Development Department recommends that the buildings bordering Beach Boulevard, which are currently described as a food court and a new restaurant, focus more on attracting retail instead of food uses.

ATTACHMENT NO. 6.9

HUNTINGTON BEACH FIRE DEPARTMENT

PROJECT IMPLEMENTATION CODE REQUIREMENTS

DATE:	FEBUARY 10, 2010
PROJECT NAME:	BEACH PROMENADE PHASE II
ENTITLEMENTS:	PLANNING APPLICATION NO. 09-202
PROJECT LOCATION:	21120-21190 BEACH, HUNTINGTON BEACH, CA
PLANNER:	TESS NGUYEN, ASSOCIATE PLANNER
TELEPHONE/E-MAIL:	(714) 374-1744/ tnguyen@surfcity-hb.org
PLAN REVIEWER-FIRE:	DARIN MARESH, FIRE DEVELOPMENT SPECIALIST
TELEPHONE/E-MAIL:	(714) 536-5531/ dmaresh@surfcity-hb.org

PROJECT DESCRIPTION: **ENTITLEMENT PLAN AMENDMENT:** TO AMEND CONDITIONAL USE PERMIT NO. 08-013 AND VARIANCE NO. 08-007 TO PERMIT A 25,981 SQ. FT. ADDITION TO AN EXISTING SHOPPING CENTER; **TENTATIVE PARCEL MAP:** TO INCORPORATE THE FRONTAGE ROAD AND ADJACENT PROPERTY TO ENLARGE THE SITE FROM 6.74 ACRES TO 9.42 ACRES, RECONFIGURE SOME PARCELS, AND CREATE THREE NEW PARCELS FOR FUTURE BUILDING PADS; **VARIANCE:** TO ALLOW A FRONT SETBACK OF 5 FEET FOR BUILDINGS G, H, AND I IN LIEU OF THE REQUIRED 25 FEET AND TO ALLOW OUTDOOR SEATING WITHIN THE SETBACK AT BUILDING A; **CONDITIONAL USE PERMIT:** TO PERMIT A PARKING REDUCTION OF 39 PARKING SPACES IN CONJUNCTION WITH THE ADDITION OF 25,981 SQ. FT. TO THE SHOPPING CENTER.

The following is a list of code requirements deemed applicable to the proposed project based on plans received and dated January 22, 2010. The list is intended to assist the applicant by identifying requirements which must be satisfied during the various stages of project permitting and implementation. A list of conditions of approval adopted by the Planning Commission in conjunction with the requested entitlement(s), if any, will also be provided upon final project approval. If you have any questions regarding these requirements, please contact the Plan Reviewer- Fire: DARIN MARESH, FIRE DEVELOPMENT SPECIALIST.

PRIOR TO DEMOLITION, GRADING, SITE DEVELOPMENT, ISSUANCE OF GRADING PERMITS, BUILDING PERMITS, AND/OR CONSTRUCTION, THE FOLLOWING SHALL BE REQUIRED:

Environmental – Oil well on property.

Methane Mitigation District Requirements. The proposed construction is within the City of Huntington Beach Methane Mitigation District.

ATTACHMENT NO. 6.10

The following City Specifications are applicable and compliance needs to be referenced in the grading, building, and methane plans:

- City Specification # 422, Oil Well Abandonment Permit Process.
- City Specification # 429, Methane District Building Permit Requirements.
- City Specification # 431-92 Soil Clean-Up Standards.

NOTE: An abandoned oil well is thought to be within 100 feet of the footprint of the proposed structure.

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A BUILDING PERMIT:

1. ***DOGGR "CONSTRUCTION SITE REVIEW"* is required.** A California Division of Oil, Gas & Geothermal Resources (DOGGR – 714-816-6847), *Site Plan Review* is required for this project.

   Identify the well name and well API number. Show the location of the abandoned oil well in question. Accurately locate with "x" and "y" parameters delineated. A completed DOGGR *Site Plan Review* must be on-file with the Fire Department prior to plan approval.

   Wells identified in the Site Review not meeting current DOGGR requirements may require re-abandonment. If required, the following permits shall be obtained and submitted:

   - From the Division of Oil, Gas & Geothermal Resources (DOGGR – (714) 816-6847), provide a *Permit to Conduct Well Operations* for all on-site active/abandoned oil wells.

   - Obtain a Huntington Beach Fire Department *Permit to Abandon Oil Well* and follow the requirements of *City Specification #422, Oil Well Abandonment Permit Process.* Reference compliance with *City Specification #422, Oil Well Abandonment Permit Process* in the plan notes.

DEPENDING ON THE LOCATION OF THE ABANDONED WELL(S) TO THE PROPOSED CONSTRUCTION, THE FOLLOWING CONDITIONS MAY BE REQUIRED PRIOR TO ISSUANCE OF A BUILDING PERMIT:

2. "***OIL WELL HISTORY DISPOSITION REPORT*" is required**. A California licensed third-party petroleum engineer or geologist compiles a disposition report for submittal to the Fire Department – Development Section. (see *City Specification # 429, section 3.2*)

3. ***"CITY CONSULTANT - OIL WELL HISTORY REVIEW"* is required**. The city consultant reviews the submitted *OIL WELL HISTORY DISPOSITION* REPORT for completeness,

well integrity, and recommended safety measures. (see *City Specification # 429, section 3.3)*

4. ***"SOIL TESTING"* is required**. Based on site characteristics, suspected soil contamination, proximity to a producing or abandoned oil well, Phase I,II, or III Site Audit, soil testing is required. Soil testing plan must be approved by the Fire Department. (See *City Specification # 429, section 3.4* and *City Specification #431-92 Soil Clean-Up Standards).*

5. ***"REMEDIATION ACTION PLAN"*** If contamination is identified, provide a Fire Department approved Remediation Action Plan (RAP) based on requirements found in Huntington Beach *City Specification #431-92, Soil Cleanup Standard.* Upon remediation action plan approval, a rough grading permit may be issued.

6. ***"METHANE SAFETY MEASURES" are required***. *City Specification # 429, Methane District Building Permit Requirements.*

Methane safety measures shall be detailed on a separate sheet titled "METHANE PLAN" and three copies submitted to the Fire Department Development Section for approval. Requirements include:

- **Abandoned Well Gas Test.**
- **Well Vent System.**
- **Sub-Slab Collection System.**
- **Sub-Grade Collection System.**
- **Methane Barrier and Sub-Slab Collection System**.

Reference compliance with *City Specification #429* in the plan notes.

Discovery of additional soil contamination or underground pipelines, etc., must be reported to the Fire Department immediately and the approved work plan modified accordingly. Reference that all soils shall be in compliance with *City Specification #431-92 Soil Clean-Up Standards,* in the plan notes.

Fire Hydrants and Water Systems

Fire Flow Requirements – 3,250 gpm for 3 hours out of 3 hydrants

Private Fire Hydrant are required. Hydrant must be portrayed on the site plan. Hydrants shall be installed and in service **before** combustible construction begins. Installation of hydrants and service mains shall meet NFPA 13 and 24, 2002 Edition, Huntington Beach Fire Code Appendix B and C, and City Specification # 407 Fire Hydrant Installation Standards requirements. Private fire hydrants shall not be pressurized by Fire Department Connections to the sprinkler system. The system design shall ensure that recirculation of pressurized water from the hydrant, thru the FDC and back through the sprinkler system supply to the hydrant does not occur. Installation of the private fire service main, including fire department connections, shall meet NFPA 13 and 24,

2002 Edition requirements. Maximum allowed velocity of fire flow in supply piping is 12 fps. The maintenance of private fire hydrants is the responsibility of the owner or facility association. Shop drawings shall be submitted to and approved by the Fire Department. For Fire Department approval, portray the fire hydrants and reference compliance with City Specification #407 Fire Hydrant Installation Standards in the plan notes. **(FD)**

Note: Fire Department is requiring the Private Fire Hydrant to be located adjacent to the South East Corner of building #3 as well as some additional hydrants in front of the existing businesses. We ask the developer to contact the Fire Department for additional information on hydrant location to be plotted on architectural plans.

Private Fire Service Piping (FSP) Application for permit shall be made for private on-site Fire Service Piping (FSP), including but not limited to, private fire service mains and underground sprinkler laterals. Maximum allowed velocity of fire flow in supply piping is 12 fps. Additionally, application for permit shall be made for fire protections systems (sprinklers, alarms, chemical, fire pumps, etc.) as applicable.

> Permits may be obtained at the City of Huntington Beach Department Fire Department by completing a Fire Permit Form (available at Fire Administration) and submitting such plans and specifications as required by the bureau of fire prevention. A permit constitutes permission to begin work in accordance with approved plans and specifications. The permit fee includes plan checking and inspections by an authorized fire prevention inspector. Development reviews/approvals by the bureau of fire prevention during planning do not constitute approval to perform FSP or fire protection system work, unless otherwise noted. **(FD)**

Private Fire Service Connection to the Public Water Supply - Separate plans shall be submitted to the Public Works Department detailing the connection, piping, valves and back-flow prevention assembly (DDCA) for approval and permits. Approval by Public Works and the Fire Department must be completed prior to issuance of a grading permit. The dedicated private fire water service off-site improvements shall be shown on a precise grading plan, prepared by a Licensed Civil Engineer. **(FD)**

Fire Access Roads (currently existing) shall be maintained in compliance with City Specification # 401, *Minimum Standards for Fire Apparatus Access*. Driving area shall be capable of supporting a fire apparatus (75,000 lbs and 12,000 lb point load). Minimum fire access road width is twenty-four feet (24') wide, with thirteen feet six inches (13' 6") vertical clearance. Fire access roads fronting commercial buildings shall be a minimum width of twenty-six feet (26') wide, with thirteen feet six inches (13' 6") vertical clearance. For Fire Department approval, reference and demonstrate compliance with City Specification # 401 *Minimum Standards for Fire Apparatus Access* on the plans. **(FD)**

Fire Access Road Turns and Corners (currently existing) shall be maintained with a minimum inner radius of seventeen feet (17') and a minimum outer radius of forty five feet (45') per City Specification # 401 *Minimum Standards for Fire Apparatus Access*. For Fire Department

approval, reference and demonstrate compliance with City Specification # 401 *Minimum Standards for Fire Apparatus Access* on the plans. **(FD)**

Fire Lanes (currently existing), as determined by the Fire Department, shall be posted, marked, and maintained per City Specification #415, *Fire Lanes Signage and Markings on Private, Residential, Commercial and Industrial Properties*. The site plan shall clearly identify all red fire lane curbs, both in location and length of run. The location of fire lane signs shall be depicted. No parking shall be allowed in the designated 24 foot wide fire apparatus access road or supplemental fire access per City Specification # 415. For Fire Department approval, reference and demonstrate compliance with City Specification # 401 *Minimum Standards for Fire Apparatus Access* on the plans. **(FD)**

Automatic Fire Sprinklers. NFPA13 Automatic fire sprinkler systems are required per Huntington Beach Fire Code for new buildings with "fire areas" 5000 square feet or more or for buildings 10,000 square feet or more. An addition of square footage to an existing building also triggers this requirement.

Separate plans (three sets) shall be submitted to the Fire Department for permits and approval. The system shall provide water flow, tamper and trouble alarms, manual pull stations, interior and exterior horns and strobes, and 24-hour central station monitoring.

Automatic fire sprinkler systems must be maintained operational at all times, with maintenance inspections performed quarterly and the system serviced every five years by a state licensed C-16 Fire Protection Contractor.

For Fire Department approval, reference that a fire sprinkler system will be installed in compliance with the Huntington Beach Fire Code, NFPA 13, and City Specification # 420 - *Automatic Fire Sprinkler Systems* in the plan notes.

NOTE: When buildings under construction are more than one (1) story in height and required to have automatic fire sprinklers, the fire sprinkler system shall be installed and operational to protect all floors lower than the floor currently under construction. Fire sprinkler systems for the current floor under construction shall be installed, in-service, inspected and approved prior to beginning construction on the next floor above. **(FD)**

Modification, additions, or deletions to an existing automatic fire sprinkler system or fire alarm system shall require that separate plans (three sets) shall be submitted to the Fire Department for permits and approval. Any extended interruption of the fire sprinkler system operation will require a "fire watch", approved by the Fire Department. Reference compliance with City Specification # 420 - Automatic Fire Sprinkler Systems and NFPA 13 in the plan notes. **(FD)**

Fire Department Connections (FDC) to the automatic fire sprinkler systems shall be located to the front of the building, at least 25 feet from and no farther than 150 feet of a properly rated fire hydrant. **(FD)**

NPFA 13 Commercial Fire Sprinkler Systems Supply shall be from a dedicated fire water service installed per Fire Department, Public Works, and Water Division Standards. The dedicated fire water service connection shall be a minimum of four inches (4") in size. Depending on fire sprinkler system demands, larger water service may be required. Separate plans shall be submitted to the Public Works Department for approval and permits, and must be completed prior to issuance of a grading permit. The dedicated fire water service off-site improvements shall be shown on a precise grading plan, prepared by a Licensed Civil Engineer. Contact Huntington Beach Public Works Department (714-536-5431) for offsite water improvement requirements. **(FD)**

Trash Dumpsters or containers with an individual capacity of 1.5 cubic yards (40.5 cubic feet) or more shall not be stored in buildings or placed within 5 feet of combustible walls, openings or combustible roof eave lines unless protected by an approved fire sprinkler system. HBFC 1103.2.2 For Fire Department approval, reference and demonstrate compliance with HBFC 1103.2.2 **(FD)**

Commercial Food Preparation Fire Protection System required for commercial cooking. Plans (three sets) shall be submitted to the Fire Department as separate plans for permits and approval. Reference compliance with *City Specification # 412 Protection Of Commercial Cooking Operations* in the plan notes. **(FD)**

Fire Extinguishers shall be installed and located in all areas to comply with Huntington Beach Fire Code standards found in *City Specification #424.* The minimum required dry chemical fire extinguisher size is 2A 10BC and shall be installed within 75 feet travel distance to all portions of the building. Extinguishers are required to be serviced or replaced annually. **(FD)**

Main Secured Building Entries shall utilize a KNOX® Fire Department Access Key Box, installed and in compliance with City Specification #403, Fire Access for Pedestrian or Vehicular Security Gates & Buildings. Please contact the Huntington Beach Fire Department Administrative Office at (714) 536-5411 for information. Reference compliance with City Specification #403 - KNOX® Fire Department Access in the building plan notes. **(FD)**

Fire Sprinkler System Controls access shall be provided, utilizing a KNOX® Fire Department Access Key Box, installed and in compliance with City Specification #403, Fire Access for Pedestrian or Vehicular Security Gates & Buildings. The approximate location of the system controls shall be noted on the plans. Reference compliance in the plan notes. (FD)

Structure or Building Address Assignments. The Planning Department shall review and make address assignments. The individual dwelling units shall be identified with numbers per City Specification # 409 Street Naming and Address Assignment Process. For Fire Department approval, reference compliance with City Specification #409 Street Naming and Address Assignment Process in the plan notes. **(FD)**

GIS Mapping Information shall be provided to the Fire Department in compliance with GIS Department CAD Submittal Guideline requirements. Minimum submittals shall include the following:

- Site plot plan showing the building footprint.
- Specify the type of use for the building
- Location of electrical, gas, water, sprinkler system shut-offs.
- Fire Sprinkler Connections (FDC) if any.
- Knox Access locations for doors, gates, and vehicle access.
- Street name and address.

Final site plot plan shall be submitted in the following digital format and shall include the following:

- Submittal media shall be via CD rom to the Fire Department.
- Shall be in accordance with County of Orange Ordinance 3809.
- File format shall be in .shp, AutoCAD, AUTOCAD MAP (latest possible release) drawing file - .DWG (preferred) or Drawing Interchange File - .DXF.
- Data should be in NAD83 State Plane, Zone 6, Feet Lambert Conformal Conic Projection.
- Separate drawing file for each individual sheet.
  In compliance with Huntington Beach Standard Sheets, drawing names, pen colors, and layering convention. and conform to *City of Huntington Beach Specification # 409 – Street Naming and Addressing.*

  For specific GIS technical requirements, contact the Huntington Beach GIS Department at (714) 536-5574.

  For Fire Department approval, reference compliance with *GIS Mapping Information* in the building plan notes. **(FD)**

Exit Signs And Exit Path Markings will be provided in compliance with the Huntington Beach Fire Code and Title 24 of the California Administrative Code. Reference compliance in the plan notes. (FD)

THE FOLLOWING CONDITIONS SHALL BE MAINTAINED <u>DURING</u> CONSTRUCTION:

a. Fire/Emergency Access And Site Safety shall be maintained during project construction phases in compliance with HBFC Chapter 14, Fire Safety During Construction And Demolition. **(FD)**

b. Fire/Emergency Access And Site Safety shall be maintained during project construction phases in compliance with City Specification #426, Fire Safety Requirements for Construction Sites. **(FD)**

OTHER:

a. Discovery of additional soil contamination or underground pipelines, etc., must be reported to the Fire Department immediately and the approved work plan modified accordingly in compliance with City Specification #431-92 Soil Clean-Up Standards. **(FD)**

b. Outside City Consultants The Fire Department review of this project and subsequent plans may require the use of City consultants. The Huntington Beach City Council approved fee schedule allows the Fire Department to recover consultant fees from the applicant, developer or other responsible party. **(FD)**

Fire Department City Specifications may be obtained at:

Huntington Beach Fire Department Administrative Office

City Hall 2000 Main Street, 5th floor

Huntington Beach, CA 92648

or through the City's website at **www.surfcity-hb.org**

If you have any questions, please contact the Fire Prevention Division at (714) 536-5411.

ATTACHMENT NO. 6.17

CITY OF HUNTINGTON BEACH
PLANNING DEPARTMENT

PROJECT IMPLEMENTATION CODE REQUIREMENTS

DATE:	**FEBRUARY 13, 2010**
PROJECT:	**BEACH PROMENADE**
PROJECT LOCATION:	**21022-21190 BEACH BLVD.**
REQUESTS:	**ARCHITECTURAL CHANGES TO SITE PLAN AND CREATE THREE FUTURE BUSINESS PADS ALONG BEACH BLVD.**
PROJECT PLANNER:	**TESS NGUYEN**
PLAN REVIEWER:	**JAN THOMAS**
TELEPHONE/E-MAIL:	**(949) 348-8186** JCKTHOMAS@COX.NET

The following is a list of code requirements deemed applicable to the proposed project based on plans received. The list is intended to assist the applicant by identifying requirements which must be satisfied during the various stages of project permitting and implementation. A list of conditions of approval adopted by the Zoning Administrator in conjunction with the requested entitlement(s), if any, will also be provided should the project be approved. If you have any questions regarding these requirements, please contact the Plan Reviewer.

Recommended conditions of approval

Concern:

The three parcels along Beach Boulevard, by providing outdoor dining, bring passive observers to Beach Boulevard. This is a benefit to public safety. However, in case of an accident involving a vehicle on Beach Boulevard, the diners may be impacted.

Recommendation:

It is recommended to include bollards between the outdoor dining and the street. In this case, the bollards may protect the diners and the building from harm.

All police recommendations dated September 14, 2009 still apply. Please see the attached comments dated September 14, 2009

ATTACHMENT NO. 6.18

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT REVIEW

TO: Steve Bogart

FROM: Darren Sam

SUBJECT: Beach Promenade Traffic Impact Analysis Review Comments
Studies: (1) Beach Boulevard Frontage Road Vacation Analysis
(2) Beach Promenade Phase II Traffic Analysis
EPA 09-09, TPM 09-79
Transportation Review Comments

DATE: February 2, 2010, *updated February 10, 2010*

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1. Beach Promenade Traffic Impact Analysis

No comments.

2. Beach Promenade Phase II Traffic Analysis.

Comment #1 – Page 5

The City has no LOS criteria for non-signalized intersections.

Comment #2 – Page 5

Appendix C-3 is missing

Comment #3 – Page 11

Figure 6 information is not consistent with the analysis.

Comment #4 – Page 13

The throat length of the proposed driveway is 110 feet. The study states the length is 140 feet.

ATTACHMENT NO. 6.19

Comment #5 – *Staff had questions regarding the following:*

- *The project traffic turning movement volumes do match the trip generation numbers and distribution percentages – was it clearly explained in the traffic study the reason why the numbers do not correspond?*
- *Did any reason exist why both the left-in only alternative and right-in right-out alternative did not project traffic to Sunrise Drive via the frontage road south of the project site.*
- *On page 20, to assist showing that less impacts will result with a full access driveway, it is preferable that the language in the first paragraph states "To identify the potential benefits of a new full access driveway" rather than "At the request of the City".*

ATTACHMENT NO. 6, 20

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

DATE:	JANUARY 22, 2010
PROJECT NAME:	BEACH PROMENADE PHASE II
PLANNING APPLICATION NO.:	PLANNING APPLICATION NO. 09-202
ENTITLEMENTS:	ENTITLEMENT PLAN AMENDMENT NO. 09-009; TENTATIVE PARCEL MAP NO. 09-079
DATE OF PLANS/STUDY:	JANUARY 13, 2010
STUDIES:	PRELIMINARY WATER QUALITY MANAGEMENT PLAN (01/13/10)
PROJECT LOCATION:	21120-21190 BEACH BOULEVARD, HUNTINGTON BEACH
PROJECT PLANNER:	TESS NGUYEN, ASSOCIATE PLANNER
TELEPHONE/E-MAIL:	714-374-1744 / TNGUYEN@SURFCITY-HB.ORG
PLAN REVIEWER:	STEVE BOGART, SENIOR CIVIL ENGINEER
TELEPHONE/E-MAIL:	714-374-1692 / SBOGART@SURFCITY-HB.ORG
PROJECT DESCRIPTION:	**ENTITLEMENT PLAN AMENDMENT:** TO AMEND CONDITIONAL USE PERMIT NO. 08-013 AND VARIANCE NO. 08-007 TO PERMIT A 25,981 SQ. FT. ADDITION TO AN EXISTING SHOPPING CENTER; **TENTATIVE PARCEL MAP:** TO INCORPORATE THE FRONTAGE ROAD AND ADJACENT PROPERTY TO ENLARGE THE SITE FROM 6.74 ACRES TO 9.42 ACRES, RECONFIGURE SOME PARCELS, AND CREATE THREE NEW PARCELS FOR FUTURE BUILDING PADS; **VARIANCE:** TO ALLOW A FRONT SETBACK OF 5 FEET FOR BUILDINGS G, H, AND I IN LIEU OF THE REQUIRED 25 FEET AND TO ALLOW OUTDOOR SEATING WITHIN THE SETBACK AT BUILDING A; **CONDITIONAL USE PERMIT:** TO PERMIT A PARKING REDUCTION OF 39 PARKING SPACES IN CONJUNCTION WITH THE ADDITION OF 25,981 SQ. FT. TO THE SHOPPING CENTER.

THE FOLLOWING COMMENTS ARE PROVIDED BY PUBLIC WORKS AFTER REVIEW OF THE PRELIMINARY WATER QUALITY MANAGEMENT PLAN (WQMP) AND SHALL BE ADDRESSED PRIOR TO SUBMITTAL FOR THE FINAL PLAN CHECK PROCESS AFTER THE PROJECT ENTITLEMENTS ARE APPROVED BY THE CITY OF HUNTINGTON BEACH:

ATTACHMENT NO. 6.21

Comments on Preliminary WQMP dated January 13, 2010

1. Page 2, Section II, Project Description does not give any description of the proposed landscape area for the site.

2. Page 2, Section II, Project Description does not provide Standard Industrial Classification (SIC) code which best describes the facilities operations.

3. Page 2, Section II, Project Description shall specify the location of all proposed eating areas onsite.

4. Page 2, Section II, Project Description shall include a description of the onsite delivery areas and loading docks (and their design –whether at of below grade and the types of materials to be stored and handled).

5. Page 3, Section III, Site Description shall identify the zoning or land use for the subject site.

6. Page 4, Section IV, Best Management Practices (BMPs) shall include a narrative which describes how all expected pollutants of concern will be addressed through the implementation of the proposed BMPs.

7. Page 4, Section IV, Best Management Practices (BMPs) shall include a narrative which describes how the site design BMP concepts will be considered and incorporated into the project plans.
    a. "Maximizing permeability and infiltration by employing appropriate Bio-filtration BMPs" will require significant coordination with the project's soils report. The bottom of any proposed infiltration methods (basins, swales, etc.) shall be a minimum of 10 feet from the existing groundwater level at the site. In addition, the infiltration rate of the site's soil will require testing by an in-situ permeability test to establish an acceptable rate of infiltration.
    b. "Minimizing directly connected impervious areas" shall be explained further in this section of the report to establish where and by what means this will occur.

8. Page 9, Section IV.3, Treatment Control BMPs shall be explained further in this section of the report to establish where and by what means this will occur. Additional details and sizing calculations will be required for the Final WQMP.

9. Page 13, Section VI shall include an legible location map and site plan and also provide adequate BMP details. In addition, the site plan shall indicate all locations of proposed BMP on the subject site, all onsite areas of outdoor dining and proposed drainage flow patterns.

ATTACHMENT NO. 6.22

This checklist can be used as a guideline to develop the preliminary WQMP. Please note, the items required vary from the final WQMP. Instead of a list of BMPs, a narrative description is required. It is critical that the potential pollutants of concern are identified and appropriate BMPs are selected to address the pollutants. Do not attach the standard educational material.

Preliminary WQMP REQUIREMENT	Requirement Satisfied?		
	Yes	No	N/A
Title Page			
Name of project	✓		
Application and/or Tract Number	✓		
Lot number(s) if site is a portion of a Tract			✓
Site address (or addresses) and planning area number	✓		
Owner/Developer name & contact information	✓		
Consulting/Engineering firm that prepared WQMP w/ contact info.	✓		
Date Preliminary WQMP was prepared/revised	✓		
Table of Contents			
A Table of Contents, including a list of all figures and attachments is included.	✓		
Project Description			
Identifies planning area or community name.	✓		
Does the project description provide a general description of where facilities will be located, what activities will be conducted, what kinds of materials and products will be used, and what kinds of wastes will be generated?	✓		
Describes landscaped areas.		✓	
Identifies the potential stormwater or urban runoff pollutants reasonably expected to be associated with the project.	✓		
Describes activities that will be routinely conducted outdoors	✓		
For Commercial and Industrial Projects:			
– Provides Standard Industrial Classification (SIC) Code which best describes the facilities operations?		✓	
– Does project include food preparation, cooking, and eating areas (specify location and type of area)		✓	
– Describes delivery areas and loading docks (specify location and design and if below grade and types of materials expected to be stored		✓	
– Describes outdoor materials storage areas (describe and depict location(s), specify type(s) of materials expected to be stored)	✓		
– Describes any activities associated with equipment or vehicle maintenance and repair, including washing or cleaning. Indicates number of service bays or number of fueling islands/fuel pumps, if applicable.			✓
Residential Projects			
– Range of lot and home sizes;			✓

ATTACHMENT NO. 6.23

Preliminary WQMP REQUIREMENT	Requirement Satisfied?		
	Yes	No	N/A
– Generally Describe all community facilities such as, laundry, car wash, swimming pools, Jacuzzi, parks, open spaces, tot lots, etc.			✓
Site Description			
Generally describe project area and surrounding planning areas.	✓		
Identifies the zoning or land use designation.		✓	
Identifies soil types and the quantity and estimated percentage of pervious and impervious surface for pre-project and project conditions.	✓		
Describes pre-project site drainage and how it ties into drainage of surrounding or adjacent areas and describes how planned project drainage and how it will tie into drainage of surrounding or adjacent areas.	✓		
Identifies the watershed in which the project is located and the: – Downstream receiving waters – Known water quality impairments as included in the 303(d) List	✓		
Best Management Practices			
Narrative describing how all expected pollutants of concern will be addressed through the implementation of BMPs		✓	
Narrative describing how site design BMP concepts will be considered and incorporated into project plans.		✓	
Narrative describing how Routine Source Control BMPs (Non-structural and Structural) will be considered and incorporated into the project.	✓		
Narrative describing how Treatment Control BMPs will be considered and incorporated into the project.		✓	
Location Map and Plot Plan			
Has a plot plan been included?	✓		
Do all figures, maps, plot plans, etc. have a legend, including a North arrow and scale?	✓		
Are facilities labeled for the intended function?			
Are areas of outdoor activity labeled? outdoor dining?		✓	
Are all BMPs indicated?		✓	
Is drainage flow information, including general surface flow lines, concrete or other surface ditches or channels, and storm drain facilities such as catch basins and storm drain pipes depicted?		✓	
Depicts where and how on-site drainage ties into the off-site drainage system.		✓	

PLEASE NOTE: Checklist items that indicate "yes" under "requirement satisfied" are preliminary review comments only and are not intended to indicate acceptance. Acceptance of the Water Quality Management Plan occurs only after the final WQMP is reviewed in Public Works during the plan check process prior to issuance of a grading permit.

ATTACHMENT NO. 6.24

CITY OF HUNTINGTON BEACH

PUBLIC WORKS INTERDEPARTMENTAL COMMUNICATION

PROJECT IMPLEMENTATION CODE REQUIREMENTS

DATE:	FEBRUARY 10, 2010
PROJECT NAME:	BEACH PROMENADE
ENTITLEMENTS:	ENTITLEMENT PLAN AMENDMENT NO. 09-009; TENTATIVE PARCEL MAP NO. 09-079
PLNG APPLICATION NO:	2009-0202
DATE OF PLANS:	JANUARY 20, 2010
PROJECT LOCATION:	21120-21190 BEACH BLVD.
PROJECT PLANNER:	TESS NGUYEN, ASSOCIATE PLANNER
TELEPHONE/E-MAIL:	(714) 374-1744 / TNGUYEN@SURFCITY-HB.ORG
PLAN REVIEWER:	STEVE BOGART, SENIOR CIVIL ENGINEER
TELEPHONE/E-MAIL:	714-374-1692 / SBOGART@SURFCITY-HB.ORG
PROJECT DESCRIPTION:	**ENTITLEMENT PLAN AMENDMENT: TO AMEND** CONDITIONAL USE PERMIT NO. 08-013 AND VARIANCE NO. 08-007 TO PERMIT A 25,981 SQ. FT. ADDITION TO AN EXISTING SHOPPING CENTER; **TENTATIVE PARCEL MAP:** TO INCORPORATE THE FRONTAGE ROAD AND ADJACENT PROPERTY TO ENLARGE THE SITE FROM 6.74 ACRES TO 9.42 ACRES, RECONFIGURE SOME PARCELS, AND CREATE THREE NEW PARCELS FOR FUTURE BUILDING PADS; **VARIANCE:** TO ALLOW A FRONT SETBACK OF 5 FEET FOR BUILDINGS G, H, AND I IN LIEU OF THE REQUIRED 25 FEET AND TO ALLOW OUTDOOR SEATING WITHIN THE SETBACK AT BUILDING A; **CONDITIONAL USE PERMIT:** TO PERMIT A PARKING REDUCTION OF 39 PARKING SPACES IN CONJUNCTION WITH THE ADDITION OF 25,981 SQ. FT. TO THE SHOPPING CENTER.

The following is a list of code requirements deemed applicable to the proposed project based on plans as stated above. The items below are to meet the City of Huntington Beach's Municipal Code (HBMC), Zoning and Subdivision Ordinance (ZSO), Department of Public Works Standard Plans (Civil, Water and Landscaping) and the American Public Works Association (APWA) Standards Specifications for Public Works Construction (Green Book), the Orange County Drainage Area management Plan (DAMP), and the City Arboricultural and Landscape Standards and Specifications. The list is intended to assist the applicant by identifying requirements which shall be satisfied during the various stages of project permitting, implementation and construction. If you have any questions regarding these requirements, please contact the Plan Reviewer or Project Planner.

ATTACHMENT NO. 6.25

TENTATIVE PARCEL MAP

THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO RECORDATION OF THE FINAL PARCEL MAP:

1. The Final Parcel Map shall be submitted to the City of Huntington Beach Public Works Department for review and approval and shall include a title report to indicate the fee title owner(s) for the subject properties. The title report shall not be more than six (6) weeks old at the time of submittal of the Final Parcel Map.
2. The Final Parcel Map shall be consistent with the approved Tentative Parcel Map. (ZSO 253.14)
3. The following dedications to the City of Huntington Beach shall be shown on the Final Parcel Map: (ZSO 230.084A & 253.10K)
   a. Twenty feet (20') of right-of-way shall be dedicated in fee at the Atlanta Avenue frontage, at the median located at the westerly side of the existing frontage road, for a half-street right-of-way width of 50 feet. The dimension to the ultimate right-of-way line on Atlanta Avenue shall be explicitly shown on the Final Parcel Map. Atlanta Avenue is designated as a Primary Arterial highway with an ultimate right-of-way width of 100 feet. (ZSO 230.84)
   b. A 30-foot radius right-of-way dedication for pedestrian access and public utilities at the southeast corner of Beach Boulevard and Atlanta Avenue per Public Works Standard Plan No. 207. (ZSO 230.84)
   c. A storm drain easement, consistent with Public Works Standard Plan No. 300, over the subject site for public storm drain purposes.
4. A Traffic Impact Analysis for the Phase 2 Site Plan, received and dated January 20, 2010, shall be prepared by a Licensed Traffic Engineer and submitted to Public Works for review and approval. (GP I-CE 4)
5. A reproducible Mylar copy and a print of the recorded final tract map shall be submitted to the Department of Public Works at the time of recordation.
6. The engineer or surveyor preparing the final map shall comply with Sections 7-9-330 and 7-9-337 of the Orange County Subdivision Code and Orange County Subdivision Manual, Subarticle 18 for the following item:
   a. Tie the boundary of the map into the Horizontal Control System established by the County Surveyor.
   b. Provide a digital-graphics file of said map to the County of Orange.
7. Provide a digital-graphics file of said map to the City per the following design criteria:
   a. Design Specification:
      i. Digital data shall be full size (1:1) and in compliance with the California coordinate system – STATEPLANE Zone 6 (Lambert Conformal Conic projection), NAD 83 datum in accordance with the County of Orange Ordinance 3809.
      ii. Digital data shall have double precision accuracy (up to fifteen significant digits).
      iii. Digital data shall have units in US FEET.
      iv. A separate drawing file shall be submitted for each individual sheet.

ATTACHMENT NO. 6.26

v. Digital data shall be in compliance with the Huntington Beach Standard Sheets, drawing names, pen color and layering conventions.

vi. Feature compilation shall include, but shall not be limited to: Assessor's Parcel Numbers (APN), street addresses and street names with suffix.

b. File Format and Media Specification:

i. Shall be in compliance with one of the following file formats (AutoCAD DWG format preferred):

- AutoCAD (version 2000, release 4) drawing file: ___.DWG
- Drawing Interchange file: _____.DXF

ii. Shall be in compliance with the following media type:

- CD Recordable (CD-R) 650 Megabytes

8. The grading and improvement plans shall be submitted to the Department of Public Works for review and approval. The engineer shall submit cost estimates for determining bond amounts. (ZSO 255.16C & MC 17.05)

9. The existing CC&R's for the subject shopping center shall be amended to include management responsibilities of the center's property owners, or be modified to create a "Business Owners Association" that is in responsible charge of aesthetics, colors, design, construction overview for the following items (for the total project area):

a. Onsite landscaping and irrigation, public sidewalks and enriched paving improvements.

b. Landscape License Agreement maintenance areas within the public right-of-way.

c. On-site sewer and drainage systems

d. Best Management Practices (BMP's) as per the approved Water Quality Management Plan (WQMP)

10. If the project is developed in phases, then a phasing map shall be submitted for approval by the Planning, Public Works and Fire Departments showing improvements to be constructed. All required infrastructures including all public streets shall be designed with the first phase. The phasing plan shall include public improvements, construction employee parking, utility relocation, material location, and fire access. (ZSO 253.12L)

11. All improvement securities (Faithful Performance, Labor & Material and Monument Bonds) shall be posted with the Public Works Department and approved as to form by the City Attorney. (ZSO 255.16)

12. A Certificate of Insurance shall be filed with the Public Works Department and approved as to form by the City Attorney. (ZSO 253.12K)

13. The Final Parcel Map and any phased maps shall be consistent with the approved Tentative Parcel Map. (ZSO 253.04)

14. All applicable Public Works fees shall be paid. Fees shall be calculated based on the currently approved rate at the time of payment unless otherwise stated. (ZSO 250.16)

THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A DEMOLITION PERMIT:

15. Applicant shall provide a consulting arborist report on all the existing trees within thirty feet of new grading or construction. Said report shall quantify, identify, size and analyze the

health of the existing trees. The report shall also recommend how the existing trees that are to remain (if any) shall be protected and how far construction/grading shall be kept from the trunk. (Resolution 4545)

a. Existing mature trees that are to be removed must be replaced at a 2 for 1 ratio with a 36" box tree or palm equivalent (13'-14' of trunk height for Queen Palms and 8'-9' of brown trunk).

THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A GRADING PERMIT:

16. The Final Parcel Map shall be recorded with the County of Orange.

17. A Street Improvement Plan, prepared by a Licensed Civil Engineer, shall be submitted to the Public Works Department for review and approval. (MC 17.05/ZSO 230.84) The plans shall comply with Public Works plan preparation guidelines and include the following improvements on the plan:

    a. An ADA compliant curb access ramp shall be constructed at the southeast corner of Beach Boulevard and Atlanta Avenue per Caltrans Standard Plan A88A. (ZSO 230.84)

    b. The existing driveway approaches, curb, gutter and sidewalk on the Beach Boulevard frontage road shall be removed. (GP CE 2.3.2)

    c. The existing easterly driveway approach on the Atlanta Avenue shall be removed and replaced with ADA compliant driveway approaches per Public Works Standard Plan No. 211. (ZSO 230.84)

    d. The proposed driveway approach on Atlanta Avenue shall be constructed per Public Works Standard Plan No. 211. (ZSO 230.84)

    e. The existing westerly driveway approach on the Atlanta Avenue shall be removed and replaced with curb, gutter and sidewalk per Public Works Standard Plan Nos. 202 and 207. (ZSO 230.84)

    f. Curb, gutter and sidewalk along the Atlanta Avenue frontage shall be removed and replaced per Public Works Standard Plan Nos. 202 and 207. (ZSO 230.84)

    g. Half-street AC paving shall be removed and replace along the project's entire frontage at the southerly half of Atlanta Avenue. (ZSO 230.84)

    h. Curb, gutter and sidewalk along the Beach Boulevard frontage shall be constructed per applicable Caltrans and City Standards. (ZSO 230.84)

    i. Proposed driveways constructed on the Beach Boulevard frontage shall comply with City and Caltrans Standards. (ZSO. 230.84, Caltrans)

    j. All proposed driveways along the project's Atlanta Avenue and Beach Boulevard frontages shall meet sight distance requirements per Caltrans Highway Design Manual. (GP CE 2.3.1, Caltrans)

18. A Precise Grading Plan, prepared by a Licensed Civil Engineer, shall be submitted to the Public Works Department for review and approval. (MC 17.05/ZSO 230.84) The plans shall comply with Public Works plan preparation guidelines and include the following improvements on the plan:

    a. New sewer laterals (to each of the proposed buildings) shall be installed connecting to the existing onsite private sewer main. (ZSO 230.84)

b. The existing private sewer main, serving the subject site, may potentially be utilized if it is of adequate size, conforms to current Public Works Standards and is determined to be in serviceable condition by submitting (to Public works) a video of said private sewer main. If the existing private sewer main is determined to be inadequate, a private sewer main shall be installed, connecting to the main in the Atlanta Avenue, per Public Works Standards. (ZSO 230.84)

c. The existing 8-inch public waterline located south of Atlanta Avenue and east of Beach Boulevard affected by the Frontage Road Street Vacation shall be abandoned, and appurtenances relocated to the public right-of-way per Water Standards. Upon completing the relocation of the public water facilities, the applicant shall abandon the waterline easement that was dedicated to the City per the General Street Vacation of the Frontage Road Area. The applicant shall prepare and provide the City with the necessary documentation required to abandon the waterline easement. All water facilities located on private property shall be privately owned and maintained by the property owner(s) and shall require backflow devices at all point of connections to the City's water system. (ZSO 230.84)

d. Each parcel shall have its own separate water service and meter for domestic, irrigation, and fire water purposes and shall not supply water to any other premises. The new meters shall be placed at the curb line of the street along the public right-of-way. (MC 14.16.070 and MC 14.08.020)

e. All existing domestic, irrigation and fire water services to the existing buildings (Buildings A, B, C, D, E, and F) impacted by the Frontage Road Street Vacation shall be abandoned and relocated to the public right-of-way per Water Standards. Each retail unit and building may be served by individual water services or a master meter, sized to meet the minimum requirements set by the California Plumbing Code (CPC). (MC 14.16.070 and MC 14.08.20)

f. Separate domestic water service and meter to the new buildings (Buildings G, H and I) shall be constructed per Water Standards, and sized to meet the minimum requirements set by the California Plumbing Code (CPC). (MC 14.16.070 and MC 14.08.20)

g. All existing fire hydrants impacted by the Frontage Road Street Vacation shall be abandoned and relocated along Beach Boulevard, per Water Standards. The location and number of fire hydrants shall be determined by the Fire Department. (ZSO 230.84)

h. The existing backflow protection device on the fire service to Building C affected by the proposed on-site improvements shall be removed, relocated and replaced with a backflow protection device that conforms to current Water Standards. (Resolution 5921, Title 17 State Regulation, and ZSO 230.84)

i. Each parcel shall have separate dedicated fire service line(s) with backflow protection device(s) constructed per Water Standards for all buildings requiring fire sprinklers system(s) and on-site private fire hydrants as determined by the Fire Department. (Resolution 5921, Title 17 State Regulation, and ZSO 230.84)

j. A separate irrigation water service and meter shall be required for each parcel where the landscaping area is greater than 2,500 square feet. Otherwise, the irrigation water service may be combined with the domestic water service serving the parcel. (MC 14.16.070, MC 14.08.020 and MC 14.52)

k. Separate backflow protection devices shall be installed per Water Standards on all domestic, irrigation and fire water services. The backflow devices shall be screened from view through landscaping in accordance with the City's Water Efficient Landscape Requirements. The applicant must apply for a variance from the Planning Department

for backflow device location compliance with Water Standards. (Resolution 5921, Title 17 State Regulation, MC 14.52, and ZSO 230.76)

19. Street lights shall be installed along the Beach Boulevard frontage. Street lighting plans shall be prepared by a Licensed Civil or Electrical Engineer and submitted to the Public Works Department for review and approval. Lighting standards shall be per the City of Huntington Beach guidelines. (ZSO 230.84)

20. A Signing and Striping plan for Beach Boulevard shall be prepared by a Licensed Civil or Traffic Engineer and shall be submitted to the Department of Public Works and Caltrans for review and approval. The plans shall be prepared according to the City of Huntington Beach Signing and Striping Plan Preparation Guidelines and Caltrans Standards and Guidelines. (ZSO 230.84)

21. Caltrans review of the revised Traffic Impact Analysis and off-site improvements along Beach Boulevard is required. Caltrans approval may be contingent on additional requirements. (GP I-CE 3, Caltrans)

22. The applicant shall provide truck turning exhibits demonstrating that a WB-50 vehicle can enter the proposed driveways northbound on Beach Boulevard from the curb lane. (GP CE 2.3.2)

23. A Landscape and Irrigation Plan, prepared by a Licensed Landscape Architect shall be submitted to the Public Works Department for review and approval by the Public Works and Planning Departments. (ZSO 232.04)

    a. Existing mature trees that are to be removed must be replaced at a 2 for 1 ratio with a 36" box tree or palm equivalent (13'-14' of trunk height for Queen Palms and 8'-9' of brown trunk).

    b. "Smart irrigation controllers" and/or other innovative means to reduce the quantity of runoff shall be installed. (ZSO 232.04D)

    c. Standard landscape code requirements apply. (ZSO 232)

24. All landscape planting, irrigation and maintenance shall comply with the City Arboricultural and Landscape Standards and Specifications. (ZSO 232.04B)

25. Landscaping plans should utilize native, drought-tolerant landscape materials where appropriate and feasible. (DAMP)

26. The Consulting Arborist (approved by the City Landscape Architect) shall review the final landscape tree planting plan and approve in writing the selection and locations proposed for new trees and the protection measures and locations of existing trees to remain. Said Arborist report shall be incorporated onto the Landscape Architect's plans as construction notes and/or construction requirements. The report shall include the Arborist's name, certificate number and the Arborist's wet signature on the final plan. (Resolution-4545)

27. A Hydrology and Hydraulic study for the runoff from this project, and its impact to the existing downstream storm drainage system including the Atlanta pump station, shall be submitted for Public Works review and approval (10, 25, and 100-year storms and back to back storms shall be analyzed). In addition, this study shall include 24-hour peak back-to-back 100-year storms for onsite detention analysis. The drainage improvements shall be designed and constructed as required by the Department of Public Works to mitigate impact of increased runoff due to development or deficient downstream systems. Possible mitigation measures to manage increased storm water runoff may include on-site attenuation and/or construction of downstream drainage improvements including the Atlanta

Pump Station Design of all necessary drainage improvements shall provide mitigation for all rainfall event frequencies up to a 100-year frequency. The study and the proposed drainage improvements shall also include on-site, privately maintained clarifiers or other devices to control the quality of run-off water from the development.

28. A sewer study shall be prepared and submitted to Public Works for review and approval. A fourteen (14)-day or longer flow test data shall be included in the study. The sanitary sewer system shall be designed and constructed to serve the development, including any offsite improvements necessary to accommodate any increased flow associated with the project. The location and number of monitoring test sites, not to exceed three, to be determined by the Public Works Department. (ZSO 230.84/MC 14.36.010)

29. Prior to the issuance of any grading or building permits for projects that will result in soil disturbance of one or more acres of land, the applicant shall demonstrate that coverage has been obtained under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) conforming to the current National Pollution Discharge Elimination System (NPDES) requirements shall be submitted to the Department of Public Works for review and acceptance. A copy of the current SWPPP shall be kept at the project site and another copy to be submitted to the City. (DAMP)

30. A Project Water Quality Management Plan (WQMP) conforming to the City of Huntington Beach's Project WQMP Preparation Guidance Manual dated June 2006 and prepared by a Licensed Civil Engineer, shall be submitted to the Department of Public Works for review and acceptance and shall include the following:

    a. Discusses regional or watershed programs (if applicable)

    b. Addresses Site Design BMPs (as applicable) such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas

    c. Incorporates the applicable Routine Source Control BMPs as defined in the Drainage Area Management Plan (DAMP)

    d. Incorporates Treatment Control BMPs as defined in the DAMP

    e. Generally describes the long-term operation and maintenance requirements for the Treatment Control BMPs

    f. Identifies the entity that will be responsible for long-term operation and maintenance of the Treatment Control BMPs

    g. Describes the mechanism for funding the long-term operation and maintenance of the Treatment Control BMPs

    h. Includes an Operations and Maintenance (O&M) Plan for all structural BMPs

    i. After incorporating plan check comments of Public Works, three final WQMPs (signed by the owner and the Registered Civil Engineer of record) shall be submitted to Public Works for acceptance. After acceptance, two copies of the final report shall be returned to applicant for the production of a single complete electronic copy of the accepted version of the WQMP on CD media that includes:

        i. The 11" by 17" Site Plan in .TIFF format (400 by 400 dpi minimum).

ii. The remainder of the complete WQMP in .PDF format including the signed and stamped title sheet, owner's certification sheet, Inspection/Maintenance Responsibility sheet, appendices, attachments and all educational material.

j. The applicant shall return one CD media to Public Works for the project record file.

31. Indicate the type and location of Water Quality Treatment Control Best Management Practices (BMPs) on the Grading Plan consistent with the Project WQMP. The WQMP shall follow the City of Huntington Beach; Project Water Quality Management Plan Preparation Guidance Manual dated June 2006. The WQMP shall be submitted with the first submittal of the Grading Plan.

32. A suitable location, as approved by the City, shall be depicted on the grading plan for the necessary trash enclosures. The areas shall be paved with an impervious surface, designed not to allow run-on from adjoining areas, designed to divert drainage from adjoining roofs and pavements diverted around the areas and screened or walled to prevent off-site transport of trash. The trash enclosure areas shall be covered or roofed with a solid, impervious material. Connection of trash area drains into the storm drain system is prohibited. If feasible, the trash enclosure areas shall be connected into the sanitary sewer. (DAMP)

33. A soils report, prepared by a Licensed Engineer shall be submitted for reference only. (MC 17.05.150)

34. The applicant's grading/erosion control plan shall abide by the provisions of AQMD's Rule 403 as related to fugitive dust control. (AQMD Rule 403)

35. The name and phone number of an on-site field supervisor hired by the developer shall be submitted to the Planning and Public Works Departments. In addition, clearly visible signs shall be posted on the perimeter of the site every 250 feet indicating who shall be contacted for information regarding this development and any construction/grading-related concerns. This contact person shall be available immediately to address any concerns or issues raised by adjacent property owners during the construction activity. He/She will be responsible for ensuring compliance with the conditions herein, specifically, grading activities, truck routes, construction hours, noise, etc. Signs shall include the applicant's contact number, regarding grading and construction activities, and "1-800-CUTSMOG" in the event there are concerns regarding fugitive dust and compliance with AQMD Rule No. 403.

36. The applicant shall notify all property owners and tenants within 300 feet of the perimeter of the property of a tentative grading schedule at least 30 days prior to such grading.

THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLIED WITH DURING GRADING OPERATIONS:

37. An Encroachment Permit is required for all work within the City's right-of-way. (MC 12.38.010/MC 14.36.030)

38. An Encroachment Permit is required for all work within Caltrans' right-of-way.

39. The developer shall coordinate the development of a truck haul route with the Department of Public Works if the import or export of material in excess of 5000 cubic yards is required. This plan shall include the approximate number of truck trips and the proposed truck haul routes. It shall specify the hours in which transport activities can occur and methods to mitigate construction-related impacts to adjacent residents. These plans must be submitted for approval to the Department of Public Works. (MC 17.05.210)

40. Water trucks will be utilized on the site and shall be available to be used throughout the day during site grading to keep the soil damp enough to prevent dust being raised by the operations. (California Stormwater BMP Handbook, Construction Wind Erosion WE-1)

41. All haul trucks shall arrive at the site no earlier than 8:00 a.m. or leave the site no later than 5:00 p.m., and shall be limited to Monday through Friday only. (MC 17.05)

42. Wet down the areas that are to be graded or that is being graded, in the late morning and after work is completed for the day. (WE-1/MC 17.05)

43. The construction disturbance area shall be kept as small as possible. (California Stormwater BMP Handbook, Construction Erosion Control EC-1) (DAMP)

44. All haul trucks shall be covered or have water applied to the exposed surface prior to leaving the site to prevent dust from impacting the surrounding areas. (DAMP)

45. Prior to leaving the site, all haul trucks shall be washed off on-site on a gravel surface to prevent dirt and dust from leaving the site and impacting public streets. (DAMP)

46. Comply with appropriate sections of AQMD Rule 403, particularly to minimize fugitive dust and noise to surrounding areas. (AQMD Rule 403)

47. Wind barriers shall be installed along the perimeter of the site. (DAMP)

48. All construction materials, wastes, grading or demolition debris and stockpiles of soils, aggregates, soil amendments, etc. shall be properly covered, stored and secured to prevent transport into surface or ground waters by wind, rain, tracking, tidal erosion or dispersion. (DAMP)

THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A BUILDING PERMIT:

49. A Precise Grading Permit shall be issued. (MC 17.05)

50. Traffic impact fees for commercial development shall be paid at the rate applicable at the time of final inspection for each commercial unit. The current rate of $163 per net new added daily trip is adjusted annually. This project will be assessed a traffic impact fee based on the projected additional trips calculated by City staff or by the approved Traffic Impact Analysis. (MC 17.65)

THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO FINAL INSPECTION OR OCCUPANCY:

51. Complete all improvements as shown on the approved grading, landscape and improvement plans. (MC 17.05)

52. All new utilities shall be undergrounded. (MC 17.64)

53. All applicable Public Works fees shall be paid at the current rate unless otherwise stated, per the Public Works Fee Schedule adopted by the City Council and available on the city web site at http://www.surfcity-hb.org/files/users/public_works/fee_schedule.pdf. (ZSO 240.06/ZSO 250.16)

54. The current tree code requirements shall apply to this site. (ZSO 232)

    a. Existing trees to remain on site shall not be disfigured or mutilated. (ZSO 232.04E)

    b. General tree requirements, regarding quantities and sizes. (ZSO 232.08B and C)

ATTACHMENT NO. 6.33

55. All landscape irrigation and planting installation shall be certified to be in conformance to the City approved landscape plans by the Landscape Architect of record in written form to the City Landscape Architect. (ZSO 232.04D)

56. Applicant shall provide City with CD media TIFF images (in City format) and CD (AutoCAD only) copy of complete City Approved landscape construction drawings as stamped "Permanent File Copy" prior to starting landscape work. Copies shall be given to the City Landscape Architect for permanent City record.

57. The Water Ordinance #14.52, the "Water Efficient Landscape Requirements" apply for projects with 2500 square feet of landscaping and larger. (MC 14.52)

58. Prior to grading or building permit close-out and/or the issuance of a certificate of use or a certificate of occupancy, the applicant shall:

    a. Demonstrate that all structural Best Management Practices (BMPs) described in the Project WQMP have been constructed and installed in conformance with approved plans and specifications.

    b. Demonstrate all drainage courses, pipes, gutters, basins, etc. are clean and properly constructed.

    c. Demonstrate that applicant is prepared to implement all non-structural BMPs described in the Project WQMP.

    d. Demonstrate that an adequate number of copies of the approved Project WQMP are available for the future occupiers.

HUNTINGTON BEACH
PUBLIC WORKS DEPARTMENT
SUGGESTED CONDITIONS OF APPROVAL

DATE:	FEBRUARY 10, 2010
PROJECT NAME:	BEACH PROMENADE
ENTITLEMENTS:	ENTITLEMENT PLAN AMENDMENT NO. 09-009; TENTATIVE PARCEL MAP NO. 09-079
PLNG APPLICATION NO:	2009-0202
DATE OF PLANS:	JANUARY 20, 2010
PROJECT LOCATION:	21120-21190 BEACH BLVD.
PROJECT PLANNER:	TESS NGUYEN, ASSOCIATE PLANNER
TELEPHONE/E-MAIL:	(714) 374-1744 / TNGUYEN@SURFCITY-HB.ORG
PLAN REVIEWER:	STEVE BOGART, SENIOR CIVIL ENGINEER
TELEPHONE/E-MAIL:	714-374-1692 / SBOGART@SURFCITY-HB.ORG
PROJECT DESCRIPTION:	**ENTITLEMENT PLAN AMENDMENT: TO AMEND** CONDITIONAL USE PERMIT NO. 08-013 AND VARIANCE NO. 08-007 TO PERMIT A 25,981 SQ. FT. ADDITION TO AN EXISTING SHOPPING CENTER; **TENTATIVE PARCEL MAP:** TO INCORPORATE THE FRONTAGE ROAD AND ADJACENT PROPERTY TO ENLARGE THE SITE FROM 6.74 ACRES TO 9.42 ACRES, RECONFIGURE SOME PARCELS, AND CREATE THREE NEW PARCELS FOR FUTURE BUILDING PADS; **VARIANCE:** TO ALLOW A FRONT SETBACK OF 5 FEET FOR BUILDINGS G, H, AND I IN LIEU OF THE REQUIRED 25 FEET AND TO ALLOW OUTDOOR SEATING WITHIN THE SETBACK AT BUILDING A; **CONDITIONAL USE PERMIT:** TO PERMIT A PARKING REDUCTION OF 39 PARKING SPACES IN CONJUNCTION WITH THE ADDITION OF 25,981 SQ. FT. TO THE SHOPPING CENTER.

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A GRADING PERMIT:

1. The Tentative Parcel Map received and dated January 20, 2010 shall be the conditionally approved layouts, except for the following:
   a. Reciprocal easements for access and utility services shall be provided across the proposed parcels and the adjoining lots not part of the project for the benefit of each other.

b. Any unnecessary easements associated with the existing shopping center that will no longer be needed for the proposed project shall be vacated/cleaned up on the subject parcel map.

2. Any necessary easements (for temporary construction, reciprocal access, etc.) for construction of the required public improvements shall be coordinated with the other owners of the adjoining shopping center and copies shall be provided to Planning and Public Works Departments.

3. Applicant shall provide improvements to the centerline medians of Atlanta Avenue and Beach Boulevard per the approved plans and City Standard Details. The required improvements shall include the removal of all existing soil in the new planting areas to a depth of thirty six inches (36"), and replacement with new soils meeting the Green Book specification for Class A topsoil and having acceptable Agricultural Suitability. Soil testing shall be performed by a City of Huntington Beach approved soil testing lab. Said lab shall obtain the soil samples, test for the suitability and provide the results to the City Landscape Architect for approval prior to the importation of any soil to the site. Improvements include water meter and electrical meter installations. An irrigation mainline shall be provided and placed in a sleeve that shall be bored across the northbound lanes of Beach Boulevard to the Centerline medians in Beach Boulevard and another into the centerline medians in Atlanta Avenue. The irrigation mains shall be connected to separate irrigation meters, Edison meters and controllers for each street.

4. The project shall be designed to provide a hierarchy of tree and palm material heights to accentuate the corner Plaza at Beach/Atlanta to set the theme, the main driveway entries as the major accent entry identity carrying that theme onto the entry corridors and the buildings as the tertiary element. Round headed trees should be utilized in the background so as to not obstruct visibility to the individual signage on the units.

5. In order to establish and sustain the size of tree and palm materials into the future it may be necessary to provide special sub surface construction elements under the driveways and parking areas to provide proper tree and palm roots proper and adequate places to grow to keep them from damaging the hardscape improvements.

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO ISSUANCE OF AN ENCROACHMENT FROM THE CITY OF HUNTINGTON BEACH DEPARTMENT OF PUBLIC WORKS:

6. CALTRANS Encroachment permits for work within the CALTRANS right-of-way (for construction of sidewalks, driveways, water connections, etc.) shall be obtained by the applicant or contractor from CALTRANS prior to start of work. A copy of each permit, traffic control plans and other permission granted by CALTRANS shall be transmitted to Public Works.

THE FOLLOWING CONDITION SHALL BE COMPLETED PRIOR TO ISSUANCE OF A BUILDING PERMIT:

7. Applicant shall provide a Landscape License Agreement for maintenance of landscaping, irrigation, enriched paving and public sidewalks within public right-of-way.

ATTACHMENT NO. 636

THE FOLLOWING CONDITIONS SHALL BE COMPLETED PRIOR TO FINAL INSPECTION OR OCCUPANCY:

8. In lieu of relocating the existing 8-inch public water line (hydraulically sized for the property) located along Beach Blvd due to the parkway and sidewalk improvements (improvements) proposed over the public water facilities, the City shall require the Property Owner(s) to enter into a separate agreement with the City to address repair and replacement of the proposed improvements. The improvements shall include and not be limited to enhanced pavement, curb, gutter, sidewalk, driveway approaches, landscaping, etc. The Property Owner(s) shall be responsible for repair and replacement of the improvements resulting from the work performed by the City in the maintenance and repair of the 8-inch public water pipeline and appurtenances.
9. Applicant shall provide a separate and complete irrigation system for each Legal Parcel that meets the requirements of the Water Ordinance, (MC 14.52). Parcels with less than 2500 square feet of planting areas shall have a lockable main shut-off valve installed at the irrigation systems point of connection to the domestic water supply for that parcel, such that, in the case of an extreme water shortage and subsequent City Council Action, the irrigation system can be locked off, and still allow potable water to serve the building. Parcels with 2500 square feet of landscape planting areas and greater shall have a separate and dedicated irrigation water meter. Each irrigation system shall have it's own irrigation controller, Reduced Pressure Principal Device – (backflow preventer), rain sensor and electrical power source.
10. Applicant shall provide maintenance of all median improvements for a total of 15 months. (A 90 day plant establishment period and a 365 day maintenance period). All water and electrical meters shall be in the City of Huntington Beach name and the City will be responsible for the utility costs.
11. All existing non-compliant trash enclosures for the subject site shall be covered or roofed with a solid, impervious material. Connection of trash area drains into the storm drain system is prohibited. If feasible, the trash enclosure areas shall be connected into a sanitary sewer.
12. All existing overhead utilities that occur along the project's Atlanta Avenue frontage and all utilities that cross Atlanta Avenue, from the subject property's frontage, shall be under-grounded. This includes the Southern California Edison (SCE) aerial distribution lines and poles along the entire length of the northerly frontage of the subject project. This condition applies to all utilities, including but not limited to all telephone, electric, and Cable TV lines. However, this condition does not apply to any SCE aerial 66kV transmission lines. If required, easements shall be quitclaimed and/or new easements granted to the corresponding utility companies.