

APPENDIX E

CUMULATIVE PROJECT VOLUME DEVELOPMENT WORKSHEETS

Table E-1 - Cumulative Project Trip Generation

No.	Location	Area	Land Use	No. of Units Unit			A.M. Peak Hour			P.M. Peak Hour			Daily
							In	Out	Total	In	Out	Total	
1	Southeast corner of Fifth Street/Orange Street	A	Multi-family attached	300	DU	Rate ¹ Trips	0.07 21	0.37 111	0.44 132	0.35 105	0.17 51	0.52 156	5.86 1,758
2	Northeast corner of Fifth Street and Boulder Avenue	A	Single Family Detached	123	DU	Rate ² Trips	0.19 23	0.56 69	0.75 92	0.64 79	0.37 46	1.01 125	9.57 1,177
3	Southeast corner of Fifth Street/Boulder	A	Pharmacy	13.000	TSF	Rate ³ Trips	1.52 20	1.14 15	2.66 35	4.22 55	4.40 57	8.62 112	88.16 1,146
Area A Total Traffic							64	195	259	239	154	393	4081
4	Southwest corner of Fifth Street/Boulder	B	Gas Station	12	Pumps	Rate ⁴ Trips	5.03 60	5.03 60	10.06 120	6.69 80	6.69 80	13.38 160	162.78 1,953
4	Southwest corner of Fifth Street/Boulder	B	Fast-food restaurant	3.000	TSF	Rate ⁵ Trips	27.09 81	26.02 78	53.11 159	18.01 54	16.63 50	34.64 104	496.12 1,488
5	Fifth Street east of SR-30	B	Office Park	40.000	TSF	Rate ⁶ Trips	1.36 54	0.19 8	1.55 62	0.25 10	1.24 50	1.49 60	11.01 440
Area B Total Traffic							195	146	341	144	180	324	3,881
Total Traffic							259	341	600	383	334	717	7,962

1 Trip generation based on rates from Land Use 230 - "Residential Condominium/Townhouse" from Institute of Transportation Engineers (ITE), *Trip Generation* (7th Edition)

2 Trip generation based on rates from Land Use 210 - "Single Family Detached Housing" from Institute of Transportation Engineers (ITE), *Trip Generation* (7th Edition)

3 Trip generation based on rates from Land Use 881 - "Pharmacy/Drugstore with Drive-Through Window" from ITE *Trip Generation* (7th Edition). Because precise floor area is not known, an estimate has been used.

4 Trip generation based on rates from Land Use 945 - "Gasoline/Service Station with Convenience Market" from ITE *Trip Generation* (7th Edition). Because the precise number of pumps is not known, an estimate has been used.

5 Trip generation based on rates from Land Use 934 - "Fast-food Restaurant with Drive-Through Window" from ITE *Trip Generation* (7th Edition). Because the exact floor area is not known, an estimate has been used.

6 Trip generation based on rates from Land Use 710 - "General Office Building" from ITE *Trip Generation* (7th Edition)

		INTERSECTION									
		1	2	3	4	5	6	7	8	9	10
TOTAL CUMULATIVE PROJECT VOLUME	AM										
	NBL									20	
	NBT		13	13	13						26
	NBR	26							39	6	
	SBL	26				13		13		13	
	SBT		17	17	17						35
	SBR		17							39	
	EBL		13							29	
	EBT	39				90	104	104	117	53	
	EBR									15	
	WBL	35						51		20	
	WBT	51				119	136	136	187	137	
	WBR	35				17			17	39	
		PM									
	NBL									14	
	NBT		19	19	19						38
NBR	38							58	24		
SBL	38				19		19		48		
SBT		17	17	17						33	
SBR		17							29		
EBL		19							36		
EBT	58				134	154	154	173	161		
EBR									18		
WBL	33						50		15		
WBT	50				117	134	134	184	106		
WBR	33				17			17	31		

AREA A (A.M. Peak Hour)

DISTRIBUTION

		INTERSECTION									
OUT		1	2	3	4	5	6	7	8	9	10
NBL											
NBT											
NBR											
SBL											
SBT			5	5	5						10
SBR			5								
EBL											
EBT											
EBR											
WBL	10							15		10	
WBT	15					35	40	40	55	60	
WBR	10					5			5	20	
AM											
IN		1	2	3	4	5	6	7	8	9	10
NBL											
NBT			5	5	5						10
NBR	10								15	10	
SBL	10					5		5		20	
SBT											
SBR											
EBL			5								
EBT	15					35	40	40	45	60	
EBR											
WBL											
WBT											
WBR											

ASSIGNMENT

		INTERSECTION									
OUT		1	2	3	4	5	6	7	8	9	10
NBL											
NBT											
NBR											
SBL											
SBT			10	10	10						20
SBR			10								
EBL											
EBT											
EBR											
WBL	20								29		20
WBT	29					68	78	78	107	117	
WBR	20					10			10	39	
AM											
IN		1	2	3	4	5	6	7	8	9	10
NBL											
NBT			3	3	3						6
NBR	6								10	6	
SBL	6					3		3		13	
SBT											
SBR											
EBL			3								
EBT	10					22	26	26	29	38	
EBR											
WBL											
WBT											
WBR											

TOTAL

	1	2	3	4	5	6	7	8	9	10
NBL										
NBT			3	3	3					6
NBR	6								10	6
SBL	6					3		3		13
SBT		10	10	10						20
SBR		10								
EBL			3							
EBT	10				22	26	26	29	38	
EBR										
WBL	20							29		20
WBT	29				68	78	78	107	117	
WBR	20				10				10	39

AREA A (P.M. Peak Hour)

DISTRIBUTION

	INTERSECTION									
OUT	1	2	3	4	5	6	7	8	9	10
NBL										
NBT										
NBR										
SBL										
SBT		5	5	5						10
SBR		5								
EBL										
EBT										
EBR										
WBL	10						15			10
WBT	15				35	40	40	55	60	
WBR	10				5			5	20	
PM										
IN	1	2	3	4	5	6	7	8	9	10
NBL										
NBT		5	5	5						10
NBR	10							15	10	
SBL	10				5		5		20	
SBT										
SBR										
EBL		5								
EBT	15				35	40	40	45	60	
EBR										
WBL										
WBT										
WBR										

ASSIGNMENT

	INTERSECTION									
OUT	1	2	3	4	5	6	7	8	9	10
NBL										
NBT										
NBR										
SBL										
SBT		8	8	8						15
SBR		8								
EBL										
EBT										
EBR										
WBL	15							23		15
WBT	23				54	62	62	85	92	
WBR	15				8			8	31	
PM										
IN	1	2	3	4	5	6	7	8	9	10
NBL										
NBT		12	12	12						24
NBR	24							36	24	
SBL	24				12		12		48	
SBT										
SBR										
EBL		12								
EBT	36				84	96	96	108	143	
EBR										
WBL										
WBT										
WBR										

TOTAL

	1	2	3	4	5	6	7	8	9	10
NBL										
NBT		12	12	12						24
NBR	24							36	24	
SBL	24				12		12		48	
SBT		8	8	8						15
SBR		8								
EBL		12								
EBT	36				84	96	96	108	143	
EBR										
WBL	15							23		15
WBT	23				54	62	62	85	92	
WBR	15				8			8	31	

AREA B (A.M. Peak Hour)

	INTERSECTION											INTERSECTION											
	OUT	1	2	3	4	5	6	7	8	9		10	OUT	1	2	3	4	5	6	7	8	9	10
DISTRIBUTION	NBL											NBL											
	NBT											NBT											
	NBR											NBR											
	SBL											SBL											
	SBT		5	5	5						10	SBT		7	7	7							15
	SBR		5									SBR		7									
	EBL									20		EBL										29	
	EBT									10		EBT										15	
	EBR									10		EBR										15	
	WBL	10							15			WBL	15							22			
WBT	15				35	40	40	55			WBT	22				51	58	58	80				
WBR	10				5			5			WBR	15				7			7				
	AM											AM											
DISTRIBUTION	IN	1	2	3	4	5	6	7	8	9	10	IN	1	2	3	4	5	6	7	8	9	10	
	NBL									10		NBL									20		
	NBT		5	5	5						10	NBT		10	10	10						20	
	NBR	10							15			NBR	20								29		
	SBL	10				5		5				SBL	20				10		10				
	SBT											SBT											
	SBR									20		SBR										39	
	EBL		5									EBL		10									
	EBT	15				35	40	40	45			EBT	29				68	78	78	88			
	EBR											EBR											
WBL											WBL												
WBT									10		WBT										20		
WBR											WBR												
	TOTAL											TOTAL											
		1	2	3	4	5	6	7	8	9	10			1	2	3	4	5	6	7	8	9	10
NBL											20	NBL											20
NBT			10	10	10						20	NBT		10	10	10							20
NBR	20										29	NBR	20									29	
SBL	20					10		10				SBL	20				10		10				
SBT		7	7	7							15	SBT		7	7	7							15
SBR		7									39	SBR		7									39
EBL		10									29	EBL		10									29
EBT	29				68	78	78	88			15	EBT	29				68	78	78	88			15
EBR											15	EBR											15
WBL	15									22		WBL	15							22			
WBT	22				51	58	58	80		20		WBT	22				51	58	58	80		20	
WBR	15				7			7				WBR	15				7			7			

AREA B (P.M. Peak Hour)

DISTRIBUTION

		INTERSECTION									
OUT		1	2	3	4	5	6	7	8	9	10
NBL											
NBT											
NBR											
SBL											
SBT			5	5	5						10
SBR			5								
EBL										20	
EBT										10	
EBR										10	
WBL	10							15			
WBT	15				35	40	40	55			
WBR	10				5			5			
PM											
IN		1	2	3	4	5	6	7	8	9	10
NBL										10	
NBT			5	5	5						10
NBR	10								15		
SBL	10				5			5			
SBT											
SBR										20	
EBL		5									
EBT	15				35	40	40	45			
EBR											
WBL											
WBT										10	
WBR											

ASSIGNMENT

		INTERSECTION									
OUT		1	2	3	4	5	6	7	8	9	10
NBL											
NBT											
NBR											
SBL											
SBT			9	9	9						18
SBR			9								
EBL											36
EBT											18
EBR											18
WBL	18								27		
WBT	27				63	72	72	99			
WBR	18				9				9		
PM											
IN		1	2	3	4	5	6	7	8	9	10
NBL											14
NBT			7	7	7						14
NBR	14									22	
SBL	14				7			7			
SBT											
SBR											29
EBL		7									
EBT	22				50	58	58	65			
EBR											
WBL											
WBT											14
WBR											

TOTAL

	1	2	3	4	5	6	7	8	9	10
NBL										14
NBT		7	7	7						14
NBR	14								22	
SBL	14				7			7		
SBT		9	9	9						18
SBR		9								29
EBL		7								36
EBT	22				50	58	58	65		18
EBR										18
WBL	18							27		
WBT	27				63	72	72	99		14
WBR	18				9				9	