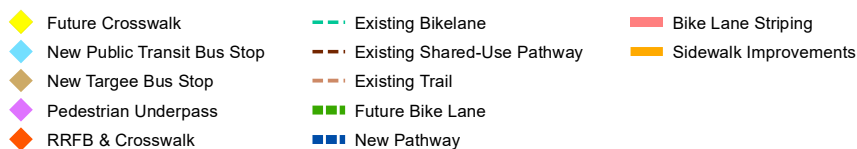




APPENDIX A – CIP FIGURES







APPENDIX B – CIP COSTS



R1 S 5th St & Johnson Ave*						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Equipment Mobilization & Demobilization	1	EA.	\$ 75,000.00	\$ 75,000.00	Cost from the City of Driggs	
Erosion & Sediment Control	1	L.S.	\$ 15,000.00	\$ 15,000.00		
Traffic Control	1	L.S.	\$ 25,000.00	\$ 25,000.00		
Construction Staking Survey	1	L.S.	\$ 25,000.00	\$ 25,000.00		
Reset property corners	15	EA.	\$ 2,000.00	\$ 30,000.00		
Materials Testing / QC	1	L.S.	\$ 30,000.00	\$ 30,000.00		
Asphalt Sawcut	420	L.F.	\$ 8.00	\$ 3,360.00		
Asphalt pavement removal	180	S.Y.	\$ 20.00	\$ 3,600.00		
Excavation	3249.5	C.Y.	\$ 35.00	\$ 113,732.50		
Pit-Run, Uncrushed Aggregate Sub Base (includes area below curb)	5745	C.Y.	\$ 75.00	\$ 430,875.00		
3/4" minus Crushed Aggregate Base (under asphalt only)	2761	C.Y.	\$ 75.00	\$ 207,075.00		
Plant Mix Asphalt Pavement (4")	16100	S.Y.	\$ 35.00	\$ 563,500.00		
Concrete Ribbon Curb	10210	L.F.	\$ 40.00	\$ 408,400.00		
3/4" minus Crushed Aggregate Base (under asphalt Pathway only)	754	C.Y.	\$ 75.00	\$ 56,550.00		
Plant Mix Asphalt Pavement Pathway (3")	5715	S.Y.	\$ 35.00	\$ 200,025.00		
Concrete ADA Ramp and truncated detectable warning bar	14	EA.	\$ 2,000.00	\$ 28,000.00		
Signs	18	EA.	\$ 1,000.00	\$ 18,000.00		
Pavement Paint striping	6900	S.F.	\$ 2.50	\$ 17,250.00		
Painted White Crosswalk & stop bar	7	EA.	\$ 850.00	\$ 5,950.00		
Relocate Fire Hydrant	3	EA.	\$ 5,000.00	\$ 15,000.00		
Adjust Water Valve	18	EA.	\$ 1,000.00	\$ 18,000.00		
Adjust Sewer MH	8	EA	\$ 2,000.00	\$ 16,000.00		
Light Posts w/ receptacles, fixtures, electrical connections	8	EA.	\$ 18,000.00	\$ 144,000.00		
Relocate Canal/Drainage	500	L.F.	\$ 25.00	\$ 12,500.00		
36" CCP Culvert	160	L.F.	\$ 180.00	\$ 28,800.00		
24" CCP Culvert	140	L.F.	\$ 160.00	\$ 22,400.00		
Seed Mix (at recommended rate)	51000	S.F.	\$ 0.40	\$ 20,400.00		
R&R Fence	2100	L.F.	\$ 25.00	\$ 52,500.00		
Design & CE&I			10%	\$ 259,000.00		
Construction Admin Fee			3%	\$ 78,000.00		
Concept Contingency			15%	\$ 439,000.00		
Total:				\$ 3,362,000		

R2 E Little Ave & SH-33 Intersection						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Pavement Paint Striping	4800	SF	\$ 3.00	\$ 14,400	Assumed 100 LF for all four legs; 6" stripe width and 6 stripes	
Traffic Study	1	LS	\$ 15,000.00	\$ 15,000	to improve signal timing	
Traffic Control	1	LS	\$ 10,000.00	\$ 10,000	I'm using 10k for lower traffic volume roads and 20k for busier areas	
Signs	12	EA	\$ 1,000	\$ 12,000	Turning lane signage and/or no parking signage	
Sign Removal	12	EA	\$ 300.00	\$ 3,600	Removal of parking signs	
Mobilization			10%	\$ 5,500.00		
Design & CE&I			30%	\$ 19,000.00		
Contingency			30%	\$ 24,000.00		
Total:				\$ 104,000		

R3 N 5th St & E Ross Ave						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Remove Speed Dips	8	EA	\$ 1,000.00	\$ 8,000	Per each, 8 total	
Install New Speed Dips	8	EA	\$ 1,500.00	\$ 12,000	\$150/SY, 10SY per EA	
Rectangular Rapid Flashing Beacon (RRFB)	1	EA	\$ 25,000.00	\$ 25,000	Price from ITD Ref spreadsheet.	
Sign Removal	2	EA	\$ 300.00	\$ 600	Price from ITD Ref spreadsheet.	
Pavement Paint Striping	3200	LF	\$ 3.00	\$ 9,600	School zone striping and walkways	
Traffic Control	1	LS	\$ 10,000.00	\$ 10,000		
Mobilization			10%	\$ 6,600.00		
Design & CE&I			30%	\$ 22,000.00		
Contingency			30%	\$ 29,000.00		
Total:				\$ 123,000		

R4 Short St. & S. 1st St.						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	2000	CY	\$ 25.00	\$ 50,000	18" depth, 1200' long, 30' wide (incl sidewalk)	
Asphalt Pavement Removal	2400	SY	\$ 15.00	\$ 36,000	18ft wide and 1200' long	
Granular Pit-Run Subbase	1156	CY	\$ 45.00	\$ 52,000	1 ft subbase depth, 1200' long, 26' wide	
3/4 Aggregate for Base	578	CY	\$ 55.00	\$ 31,778	.5' depth, 26' wide, 1200' long. Price from City cost estimate	
Plant Mix Pavement (4" thick mat)	3470	SY	\$ 30.00	\$ 104,100	4" thick pavement, 1200' long, 26' wde	
Concrete Sidewalk (One Side, Includes Base Course)	800	SY	\$ 110.00	\$ 88,000	6' wide sidewalk, 1200' long; one side only, extg. bike path preserved	
Concrete Ribbon Curb	2400	LF	\$ 40.00	\$ 96,000	1200' on both sides	
Pavement Paint Striping	2400	SF	\$ 3.00	\$ 7,200	1200 LF, 4 stripes, 0.5 ft wide	
Traffic Control	1	LS	\$ 10,000.00	\$ 10,000		
Mobilization			10%	\$ 47,600.00		
Design & CE&I			30%	\$ 157,000.00		
Contingency			30%	\$ 204,000.00		
Total:				\$ 884,000		

R5	SH-33 (Main St)						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Pavement Paint Striping	26400	SF	\$ 3.00	\$ 79,200	3300', 8 lines, 0.5' wide, 2 coats	
	Traffic Control	1	LS	\$ 20,000.00	\$ 20,000		
	Fog Seal	2475	GAL	\$ 8.00	\$ 19,800	assumed .15 gal/SY, 45' wide road	
	Signs	16	EA	\$ 1,000.00	\$ 16,000		
	Mobilization			10%	\$ 13,500.00		
	Design & CE&I			30%	\$ 45,000.00		
	Contingency			30%	\$ 59,000.00		
			Total:	\$	253,000		
R6	E Little Ave & 5th St Intersection						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Install New Roundabout	1	LS	\$ 1,000,000.00	\$ 1,000,000	Planning level cost	
	Right-of-Way Acquisition	1	LS	\$ 50,000.00	\$ 50,000	Guess	
	Mobilization			10%	\$ 105,000.00		
	Design & CE&I			30%	\$ 347,000.00		
	Contingency			30%	\$ 451,000.00		
			Total:	\$	1,953,000		
R7	LeGrand Pierre Ave						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Excavation	10990	CY	\$ 25.00	\$ 274,750	4300' stretch, 46' Wide not including bike path, 1.5' depth	
	Granular Pit-Run Subbase	4150	CY	\$ 45.00	\$ 186,750	1' depth, 26' wide, 4300' long	
	3/4 Aggregate for Base	2080	CY	\$ 55.00	\$ 114,400	.5' depth, 26' wide, 4300'	
	Plant Mix Pavement (4" thick mat)	12430	SY	\$ 30.00	\$ 372,900	4" thick, 26' wide, 4300'	
	Concrete Sidewalk (Both sides, includes base course)	5740	SY	\$ 110.00	\$ 631,400	4300 long, 6' sidewalks both sides	
	Concrete Ribbon Curb	8600	LF	\$ 40.00	\$ 344,000	4300' long both sides of road	
	Pavement Paint Striping	8600	SF	\$ 3.00	\$ 25,800	striping for roadway, 4 lines, 6" wide	
	Signs	10	EA	\$ 1,000	\$ 10,000		
	Traffic Control	1	LS	\$ 10,000	\$ 10,000		
	Mobilization			10%	\$ 196,000.00		
	Design & CE&I			30%	\$ 650,000.00		
	Contingency			30%	\$ 845,000.00		
			Total:	\$	3,661,000		
R8	Main St. (SH-33) Widening, Broulims to Johnson Ave						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Excavation	2370	CY	\$ 25.00	\$ 59,250	1700' S to Johnson; 25ft additional width	
	Granular Pit-Run Subbase	1580	CY	\$ 45.00	\$ 71,100	25ft additional width	
	3/4 Aggregate for Base	790	CY	\$ 55.00	\$ 43,450	25ft additional width	
	Plant Mix Pavement	4720	SY	\$ 30.00	\$ 141,600	25ft additional width	
	Pavement Paint Striping	6800	SF	\$ 3.00	\$ 20,400	8 lines @ 6" wide each, includes striping for roadway and bike lanes	
	Traffic Control	1	LS	\$ 20,000.00	\$ 20,000		
	Mobilization			10%	\$ 33,600.00		
	Design & CE&I			30%	\$ 117,000.00		
	Contingency			30%	\$ 152,000.00		
			Total:	\$	659,000		
R8	E Johnson Ave & SH-33 Intersection						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Traffic Signal Installation	1	LS	\$ 400,000.00	\$ 400,000	Price from ITD Ref.	
	Traffic Study	1	LS	\$ 15,000.00	\$ 15,000		
	Traffic Control	1	LS	\$ 20,000.00	\$ 20,000		
	Signs	4	EA	\$ 1,000	\$ 4,000		
	Sign Removal	2	EA	\$ 300.00	\$ 600	Removal of stop signs	
	Pavement Paint Striping	4800	SF	\$ 3.00	\$ 14,400	Assumed 100 LF for all four legs; 6" stripe width and 6 stripes	
	Mobilization			10%	\$ 45,400.00		
	Design & CE&I			30%	\$ 150,000.00		
	Contingency			30%	\$ 195,000.00		
			Total:	\$	845,000		
R9	LeGrand Pierre & SH-33 Intersection						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Traffic Signal Installation	1	LS	\$ 400,000.00	\$ 400,000	Price from ITD Ref.	
	Traffic Study	1	LS	\$ 15,000.00	\$ 15,000		
	Traffic Control	1	LS	\$ 20,000.00	\$ 20,000		
	Signs	4	EA	\$ 1,000	\$ 4,000		
	Sign Removal	2	EA	\$ 300.00	\$ 600	Removal of stop signs	
	Pavement Paint Striping	4800	SF	\$ 3.00	\$ 14,400	Assumed 100 LF for all four legs; 6" stripe width and 6 stripes	
	Mobilization			10%	\$ 45,400.00		
	Design & CE&I			30%	\$ 150,000.00		
	Contingency			30%	\$ 195,000.00		
			Total:	\$	845,000		
R10	E Wallace Ave						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Excavation	1760	CY	\$ 25.00	\$ 44,000	18" depth, 510' long, 62' wide (incl sidewalks)	
	Asphalt Pavement Removal	1140	SY	\$ 15.00	\$ 17,100	20' wide and 510' long	
	Granular Pit-Run Subbase	950	CY	\$ 45.00	\$ 42,750	1 ft subbase depth, 510' long, 50' wide	
	3/4 Aggregate for Base	480	CY	\$ 55.00	\$ 26,400	.5' depth, 50' wide, 510' long. Price from City cost estimate	

Plant Mix Pavement (4" thick mat)	2840	SY	\$	30.00	\$	85,200	4" thick pavement, 510' long, 50' wide
Concrete Sidewalk (Both Sides, Includes Base Course)	680	SY	\$	110.00	\$	74,800	6' wide sidewalk, 510' long, both sides
Concrete Ribbon Curb	1020	LF	\$	40.00	\$	40,800	510' on both sides
Pavement Paint Striping	1530	SF	\$	3.00	\$	4,590	510 LF, 6 stripes, 0.5' wide
Traffic Control	1	LS	\$	10,000.00	\$	10,000	
Mobilization				10%	\$	34,600.00	
Design & CE&I				30%	\$	115,000.00	
Contingency				30%	\$	149,000.00	
			Total:		\$	645,000	

R11 N 5th St & E Ross Ave						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	1970	CY	\$ 25.00	\$ 49,250	5300' long, 10' wide, 1' depth	
Granular Pit-Run Subbase	500	CY	\$ 45.00	\$ 22,500	3" depth, 10' wide, 5300' long	
3/4 Aggregate for Base	660	CY	\$ 55.00	\$ 36,300	4" depth, 10' wide, 5300' long	
Plant Mix Pavement (bike path, 3" thick)	5890	SY	\$ 20.00	\$ 117,800	3" thick, 10' wide, 5300'	
Signs	4	EA	\$ 1,000	\$ 4,000	Assume signage for stop signs and school zone	
Traffic Control	1	LS	\$ 1,000	\$ 1,000		
Mobilization			10%	\$ 23,000.00		
Design & CE&I			30%	\$ 77,000.00		
Contingency			30%	\$ 100,000.00		
Total:				\$ 431,000		

R12 N 5th St & E Ross Ave Intersection						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Install New Roundabout	1	LS	\$ 1,000,000.00	\$ 1,000,000	Planning level cost	
Right-of-Way Acquisition	1	LS	\$ 50,000.00	\$ 50,000	Guess	
Mobilization			10%	\$ 105,000.00		
Design & CE&I			30%	\$ 347,000.00		
Contingency			30%	\$ 451,000.00		
Total:				\$ 1,953,000		

R13 N Front St & W Harper Ave						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	7540	CY	\$ 25.00	\$ 188,500	1500ft total length Front St.; 600ft Harper, 1.5ft depth; 76ft width	
Granular Pit-Run Subbase	3650	CY	\$ 45.00	\$ 164,250	52ft wide road, 1ft thick	
3/4 Aggregate for Base	1830	CY	\$ 55.00	\$ 100,650	52ft wide road, 0.5ft thick	
Plant Mix Pavement (4" thick mat w/ bike lanes)	10940	SY	\$ 30.00	\$ 328,200	52ft wide road	
Concrete Sidewalk (Both sides, to include base course)	2800	SY	\$ 110.00	\$ 308,000	8ft wide, both sides	
Conc Curb & Gutter (rolled) (incl. base course)	3000	LF	\$ 50.00	\$ 150,000	1500ft both sides	
Concrete Ribbon Curb	1200	LF	\$ 40.00	\$ 48,000	600ft both sides	
Pavement Paint Striping	6300	SF	\$ 3.00	\$ 18,900	6 lines @ 6" wide each, includes striping for roadway and bike lanes	
Signs	6	EA	\$ 1,000	\$ 6,000	Assume signage for stop signs and parking	
Traffic Control	1	LS	\$ 10,000	\$ 10,000		
Right-of-Way Acquisition	1	LS	\$ 100,000	\$ 100,000	Guess	
Mobilization			10%	\$ 131,300.00		
Design & CE&I			30%	\$ 467,000.00		
Contingency			30%	\$ 607,000.00		
Total:				\$ 2,628,000		

R14 N 1st St.						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	10387	CY	\$ 25.00	\$ 259,667	2050ft total length; 1.5ft depth; 76ft width	
Asphalt Pavement Removal	5020	SY	\$ 15.00	\$ 75,300	2050' length, 22' wide	
Granular Pit-Run Subbase	3950	CY	\$ 45.00	\$ 177,750	52ft wide road, 1ft thick	
3/4 Aggregate for Base	1980	CY	\$ 55.00	\$ 108,900	52ft wide road, 0.5ft thick	
Plant Mix Pavement (4" thick mat w/ bike lanes)	11850	SY	\$ 30.00	\$ 355,500	52ft wide road	
Concrete Sidewalk (Both sides, 8ft, to include base course)	3650	SY	\$ 110.00	\$ 401,500	2050' length, 8ft sidewalks, both sides	
Conc Curb & Gutter (rolled) (incl. base course)	4100	LF	\$ 50.00	\$ 205,000	Both sides	
Pavement Paint Striping	6150	SF	\$ 3.00	\$ 18,450	6 lines @ 6" wide each, includes striping for roadway and bike lanes	
Signs	10	EA	\$ 1,000	\$ 10,000	Assume signage for stop signs and parking	
Traffic Control	1	LS	\$ 20,000	\$ 20,000		
Mobilization			10%	\$ 161,300.00		
Design & CE&I			30%	\$ 539,000.00		
Contingency			30%	\$ 700,000.00		
Total:				\$ 3,033,000		

R15 E Ashley Ave						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	2560	CY	\$ 25.00	\$ 64,000	1000' length, 1.5ft depth, 46' wide exc.	
Asphalt Pavement Removal	2890	SY	\$ 15.00	\$ 43,350	1000' length in roadway, existing pavement 26' wide	
Granular Pit-Run Subbase	1260	CY	\$ 45.00	\$ 56,700	1ft deep and 34ft wide	
3/4 Aggregate for Base	630	CY	\$ 55.00	\$ 34,650	0.5ft deep and 34ft wide	
Plant Mix Pavement (4" thick mat)	3780	SY	\$ 30.00	\$ 113,400	34ft wide	
Concrete Ribbon Curb	2000	LF	\$ 40.00	\$ 80,000	Both sides	
Pavement Paint Striping	3000	SF	\$ 3.00	\$ 9,000	6 lines @ 6" wide each, includes striping for roadway and bike lanes	
Traffic Control	1	LS	\$ 10,000.00	\$ 10,000		
Mobilization			10%	\$ 40,200.00		
Design & CE&I			30%	\$ 136,000.00		
Contingency			30%	\$ 177,000.00		
Total:				\$ 765,000	Sidewalks included in ped projects	

R16 Fremont Ave						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	5120	CY	\$ 25.00	\$ 128,000	2000' length, 1.5ft depth, 46' wide exc.	
Asphalt Pavement Removal	2450	SY	\$ 15.00	\$ 36,750	1000' length paved roadway, existing pavement 22' wide	
Concrete Sidewalk (Both sides, to include base course)	2670	SY	\$ 110.00	\$ 293,700	6ft wide, both sides	
Granular Pit-Run Subbase	2520	CY	\$ 45.00	\$ 113,400	1ft deep and 34ft wide	
3/4 Aggregate for Base	1260	CY	\$ 55.00	\$ 69,300	0.5ft deep and 34ft wide	
Plant Mix Pavement	7560	SY	\$ 30.00	\$ 226,800	1000' new pavement, 1000' existing pavement	
Concrete Ribbon Curb	4000	LF	\$ 40.00	\$ 160,000	Both sides	
Pavement Paint Striping	6000	SF	\$ 3.00	\$ 18,000	6 lines @ 6" wide each, includes striping for roadway and bike lanes	
Mobilization			10%	\$ 104,600.00		
Design & CE&I			30%	\$ 346,000.00		
Contingency			30%	\$ 449,000.00		
Total:				\$ 1,946,000		

R17 E Ross Ave & SH-33 Intersection						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	90	CY	\$ 25.00	\$ 2,250	100' right turn lane; 11ft wide	
Granular Pit-Run Subbase	50	CY	\$ 45.00	\$ 2,250		
3/4 Aggregate for Base	30	CY	\$ 55.00	\$ 1,650		
Plant Mix Pavement	130	SY	\$ 30.00	\$ 3,900		
Conc Curb & Gutter (rolled) (incl. base course)	100	LF	\$ 50.00	\$ 5,000		
Pavement Paint Striping	300	SF	\$ 3.00	\$ 900		
Traffic Control	1	LS	\$ 5,000.00	\$ 5,000		
Mobilization			10%	\$ 1,600.00		
Design & CE&I			30%	\$ 7,000.00		
Contingency			30%	\$ 9,000.00		
Total:				\$ 39,000		

R18 SH-33						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	4870	CY	\$ 25.00	\$ 121,750	2300' S to Creekside, 1200' N to LeGrand; 25ft additional width	
Granular Pit-Run Subbase	3250	CY	\$ 45.00	\$ 146,250	25ft additional width	
3/4 Aggregate for Base	1630	CY	\$ 55.00	\$ 89,650	25ft additional width	
Plant Mix Pavement	9720	SY	\$ 30.00	\$ 291,600	25ft additional width	
Pavement Paint Striping	14000	SF	\$ 3.00	\$ 42,000	8 lines @ 6" wide each, includes striping for roadway and bike lanes	
Traffic Control	1	LS	\$ 20,000.00	\$ 20,000		
Mobilization			10%	\$ 69,200.00		
Design & CE&I			30%	\$ 235,000.00		
Contingency			30%	\$ 305,000.00		
Total:				\$ 1,321,000		

R19 N 5th St & LeGrand Pierre Ave Intersection						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Install New Roundabout	1	LS	\$ 1,000,000.00	\$ 1,000,000		
Right-of-Way Acquisition	1	LS	\$ 50,000.00	\$ 50,000		
Mobilization			10%	\$ 105,000.00		
Design & CE&I			30%	\$ 347,000.00		
Contingency			30%	\$ 451,000.00		
Total:				\$ 1,953,000		

R20 1st St.						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	16470	CY	\$ 25.00	\$ 411,750	3900' total of new roadway; 76' excavation width	
Asphalt Pavement Removal	2450	SY	\$ 15.00	\$ 36,750	1000' of removal, 22' wide	
Granular Pit-Run Subbase	7800	CY	\$ 45.00	\$ 351,000	54' width of roadway improvements	
3/4 Aggregate for Base	3900	CY	\$ 55.00	\$ 214,500	32' width increase in existing pavement	
Plant Mix Pavement	23400	SY	\$ 30.00	\$ 702,000	assumed new pavement would be installed over existing	
Conc Curb & Gutter (rolled) (incl. base course)	7800	LF	\$ 50.00	\$ 390,000	3900ft both sides	
Concrete Sidewalk (Both sides, 6ft, to include base course)	2600	SY	\$ 110.00	\$ 286,000	8ft both sides	
Signs	10	EA	\$ 1,000.00	\$ 10,000		
Pavement Paint Striping	19200	SF	\$ 3.00	\$ 57,600	6 lines @ 6" wide each, includes striping for roadway and bike lanes	
Traffic Control	1	LS	\$ 20,000.00	\$ 20,000		
Right-of-Way Acquisition	1	LS	\$ 300,000.00	\$ 300,000	Guess	
Mobilization			10%	\$ 248,000.00		
Design & CE&I			30%	\$ 909,000.00		
Contingency			30%	\$ 1,181,000.00		

Total: \$ 5,118,000

R21 Front St.						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	18580	CY	\$ 25.00	\$ 464,500	4400' total of new roadway; 76' excavation width	
Granular Pit-Run Subbase	8800	CY	\$ 45.00	\$ 396,000	54' width of roadway improvements	
3/4 Aggregate for Base	4400	CY	\$ 55.00	\$ 242,000	54' width of roadway improvements	
Plant Mix Pavement	26400	SY	\$ 30.00	\$ 792,000	54' width of roadway improvements	
Conc Curb & Gutter (rolled) (incl. base course)	8800	LF	\$ 50.00	\$ 440,000	4400' both sides	
Concrete Sidewalk (Both sides, 6ft, to include base course)	5870	SY	\$ 110.00	\$ 645,700	8ft both sides	
Signs	10	EA	\$ 1,000.00	\$ 10,000		
Pavement Paint Striping	13200	SF	\$ 3.00	\$ 39,600	6 lines @ 6" wide each, includes striping for roadway and bike lanes	
Traffic Control	1	LS	\$ 20,000.00	\$ 20,000		
Right-of-Way Acquisition	1	LS	\$ 400,000.00	\$ 400,000	Guess	
Mobilization			10%	\$ 305,000.00		
Design & CE&I			30%	\$ 1,127,000.00		
Contingency			30%	\$ 1,465,000.00		
Total:			\$	6,347,000		

The opinions of most probable costs herein are based on our perception of current conditions at the project locations. These estimates reflect our opinion of probable costs at this time and are subject to change as the project designs mature. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices, or bidding strategies. Keller Associates cannot and does not warrant or guarantee that designs, plans, studies, proposals, bids, or actual construction costs will not vary from the costs presented herein.

P2	S 5th St & E Johnson Ave							
	Item Description	Quantity	Unit	Unit Price	Cost	Note		
	*Cost included in traffic project							
P3	E Little Ave and Valley Centre							
	Item Description	Quantity	Unit	Unit Price	Cost	Note		
	Rectangular Rapid Flashing Beacon (RRFB)	3	EA	\$ 25,000.00	\$ 75,000	RRFBs		
	Crosswalk Striping	600	SF	\$ 10.00	\$ 6,000			
	Traffic Control	1	LS	\$ 10,000.00	\$ 10,000			
	Signs	6	EA	\$ 1,000.00	\$ 6,000			
	Mobilization			10%	\$ 9,100.00			
	Design & CE&I			30%	\$ 32,000.00			
	Contingency			30%	\$ 42,000.00			
	Total:			\$	181,000			
	P4	N 3rd St, N 4th St, E Harper Ave, and E Howard Ave						
		Item Description	Quantity	Unit	Unit Price	Cost	Note	
		Excavation	1550	CY	\$ 25.00	\$ 38,750	4th st - Fremont to Ross: 3050'	
		Concrete Sidewalk (6ft wide, to include base course)	6940	SY	\$ 110.00	\$ 763,400	3rd St - Fremont to Ross: 3050'	
		Mobilization			10%	\$ 80,300.00	E Howard Ave: 1700'	
Design & CE&I				30%	\$ 265,000.00			
Contingency				30%	\$ 345,000.00			
Total:				\$	1,493,000			
P5		SH-33						
		Item Description	Quantity	Unit	Unit Price	Cost	Note	
		*Cost included in traffic project						
P6		SH-33 & Creekside Meadows Ave Intersection						
		Item Description	Quantity	Unit	Unit Price	Cost	Note	
		Feasibility Study for Pedestrian Underpass/Overpass				\$ 50,000		
				Total:	\$	50,000		
P7	LeGrand Pierre Ave							
	Item Description	Quantity	Unit	Unit Price	Cost	Note		
	Excavation	1600	CY	\$ 25.00	\$ 40,000	4300' length		
	Granular Pit-Run Subbase	800	CY	\$ 45.00	\$ 36,000	3" depth		
	3/4 Aggregate for Base	530	CY	\$ 55.00	\$ 29,150	4" depth		
	Plant Mix Pavement, Bike Path	4780	SY	\$ 20.00	\$ 95,600	3" thick		
	Mobilization			10%	\$ 20,100.00			
	Design & CE&I			30%	\$ 67,000.00			
	Contingency			30%	\$ 87,000.00			
	Total:			\$	375,000			
	P8	E Ashley Ave and E Wallace Ave						
		Item Description	Quantity	Unit	Unit Price	Cost	Note	
		Excavation	920	CY	\$ 25.00	\$ 23,000	Ashley Ave: 2600'	
		Concrete Sidewalk 4" (to include base course)	2740	SY	\$ 110.00	\$ 301,400	Wallace: 1500' (600ft in other project)	
		Mobilization			10%	\$ 32,500.00		
Design & CE&I				30%	\$ 108,000.00			
Contingency				30%	\$ 140,000.00			
Total:				\$	605,000			

P9	Rodeo Drive						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Excavation	1860	CY	\$ 25.00	\$ 46,500	5000' stretch	
	Granular Pit-Run Subbase	930	CY	\$ 45.00	\$ 41,850	3" depth	
	3/4 Aggregate for Base	620	CY	\$ 55.00	\$ 34,100	4" depth	
	Plant Mix Pavement, Bike Path	5560	SY	\$ 20.00	\$ 111,200	3" thick	
	Mobilization			10%	\$ 23,400.00		
	Design & CE&I			30%	\$ 78,000.00		
	Contingency			30%	\$ 101,000.00		
			Total:	\$	437,000		
P10	Creekside Meadows Ave						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Excavation	890	CY	\$ 25.00	\$ 22,250	2400' segment	
	Granular Pit-Run Subbase	450	CY	\$ 45.00	\$ 20,250	3" depth	
	3/4 Aggregate for Base	300	CY	\$ 55.00	\$ 16,500	4" depth	
	Plant Mix Pavement, Bike Path	2670	SY	\$ 20.00	\$ 53,400	3" thick	
	Mobilization			10%	\$ 11,300.00		
	Design & CE&I			30%	\$ 38,000.00		
	Contingency			30%	\$ 49,000.00		
			Total:	\$	211,000		
P11	SH-33						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Crosswalk Paint Striping	1000	SF	\$ 10.00	\$ 10,000	Crosswalks at Johnson and LeGrand	
	Crosswalk Flags	9	EA	\$ 500.00	\$ 4,500		
	Traffic Control	1	LS	\$ 5,000.00	\$ 5,000		
	Mobilization			10%	\$ 2,000.00		
	Design & CE&I			30%	\$ 7,000.00		
	Contingency			30%	\$ 9,000.00		
			Total:	\$	38,000		
P12	W 500 S to S Front St.						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Excavation	230	CY	\$ 25.00	\$ 5,750	600' pathway	
	Granular Pit-Run Subbase	120	CY	\$ 45.00	\$ 5,400	3" depth	
	3/4 Aggregate for Base	80	CY	\$ 55.00	\$ 4,400	4" depth	
	Plant Mix Pavement, Bike Path	670	SY	\$ 20.00	\$ 13,400	3" thick	
	Mobilization			10%	\$ 2,900.00		
	Design & CE&I			30%	\$ 10,000.00		
	Contingency			30%	\$ 13,000.00		
			Total:	\$	55,000		
P13	Bates Rd.						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	Excavation	300	CY	\$ 25.00	\$ 7,500	Approx 800ft pathway	
	Granular Pit-Run Subbase	150	CY	\$ 45.00	\$ 6,750	6" depth	
	3/4 Aggregate for Base	100	CY	\$ 55.00	\$ 5,500	4" depth	
	Plant Mix Pavement, Bike Path	890	SY	\$ 20.00	\$ 17,800	3" thick	
	Mobilization			10%	\$ 3,800.00		
	Design & CE&I			30%	\$ 13,000.00		
	Contingency			30%	\$ 17,000.00		
			Total:	\$	72,000		
P14	1st St.						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	*Cost included in traffic project						
P15	Front St.						
	Item Description	Quantity	Unit	Unit Price	Cost	Note	
	*Cost included in traffic project						

P16 Front St. & Bates Rd.						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Rectangular Rapid Flashing Beacon (RRFB)	1	EA	\$ 25,000.00	\$ 25,000		
Crosswalk Paint Striping	600	SF	\$ 10.00	\$ 6,000		
Traffic Control	1	LS	\$ 5,000.00	\$ 5,000		
Mobilization			10%	\$ 3,600.00		
Design & CE&I			30%	\$ 12,000.00		
Contingency			30%	\$ 16,000.00		
		Total:		\$ 68,000		

P17 Gemstone Ave & SH-33						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Rectangular Rapid Flashing Beacon (RRFB)	1	EA	\$ 25,000.00	\$ 25,000		
Crosswalk Paint Striping	600	SF	\$ 10.00	\$ 6,000		
Traffic Control	1	LS	\$ 5,000.00	\$ 5,000		
Mobilization			10%	\$ 3,600.00		
Design & CE&I			30%	\$ 12,000.00		
Contingency			30%	\$ 16,000.00		
		Total:		\$ 68,000		

R18 Booshway St						
Item Description	Quantity	Unit	Unit Price	Cost	Note	
Excavation	230	CY	\$ 25.00	\$ 5,750	1600' bike path	
Granular Pit-Run Subbase	300	CY	\$ 45.00	\$ 13,500	6" depth	
3/4 Aggregate for Base	200	CY	\$ 55.00	\$ 11,000	4" depth	
Plant Mix Pavement, Bike Path	1780	SY	\$ 20.00	\$ 35,600	3" thick	
Mobilization			10%	\$ 6,600.00		
Design & CE&I			30%	\$ 22,000.00		
Contingency			30%	\$ 29,000.00		
		Total:		\$ 124,000		



APPENDIX C – TRAVEL DEMAND MEMO





DRAFT TRAVEL DEMAND MODEL MEMORANDUM

DATE: May 16, 2025

TO: Aaron Berger, PE | DKS Associates

FROM: Ben Davis, PE | Keller Associates

SUBJECT: City of Driggs Transportation Master Plan

Project #24878-000

INTRODUCTION

This memorandum summarizes the travel demand modeling methodology, assumptions, and calibration for the City of Driggs Transportation Master Plan, along with the detailed intersection analysis informed by the travel demand modeling. This report includes the following sections:

- Data Compilation
- Model Development
- Model Calibration
- Future Year
- Models
- Traffic Operations Analysis

DATA COMPILATION

The travel demand model was created from the following elements:

- Roadway Network
- Land Use
- Traffic Volumes

ROADWAY NETWORK

The roadway network was generated from Open Street data using the PTV Visum software. This network data included all roadways within the City of Driggs and surrounding Teton County Area, including local streets and alleys. Figure 1 shows a sample of the roadway network compiled from Open Street data.



FIGURE 1: OPEN STREET ROADWAY NETWORK

LAND USE

The existing land use data for the travel demand model was compiled from the following data sources:

- Census Data (American Community Survey 2023 household data)
- Rooftop counts
- Development Applications (for housing constructed 2023-2024)
- School enrollment from Driggs school websites
- Employment square footage data from Replica

Replica is a comprehensive dataset that captures the movement patterns of people between specific geographic zones over a defined period. It is derived primarily from anonymized mobile device location data, which is then processed to infer trip origins, destinations, travel modes, and purposes. This data also incorporates land use, demographics, and transportation networks to provide contextually accurate travel behavior insights.

This land use data was disaggregated into the Traffic Analysis Zone (TAZ) structure shown in Figure 2.

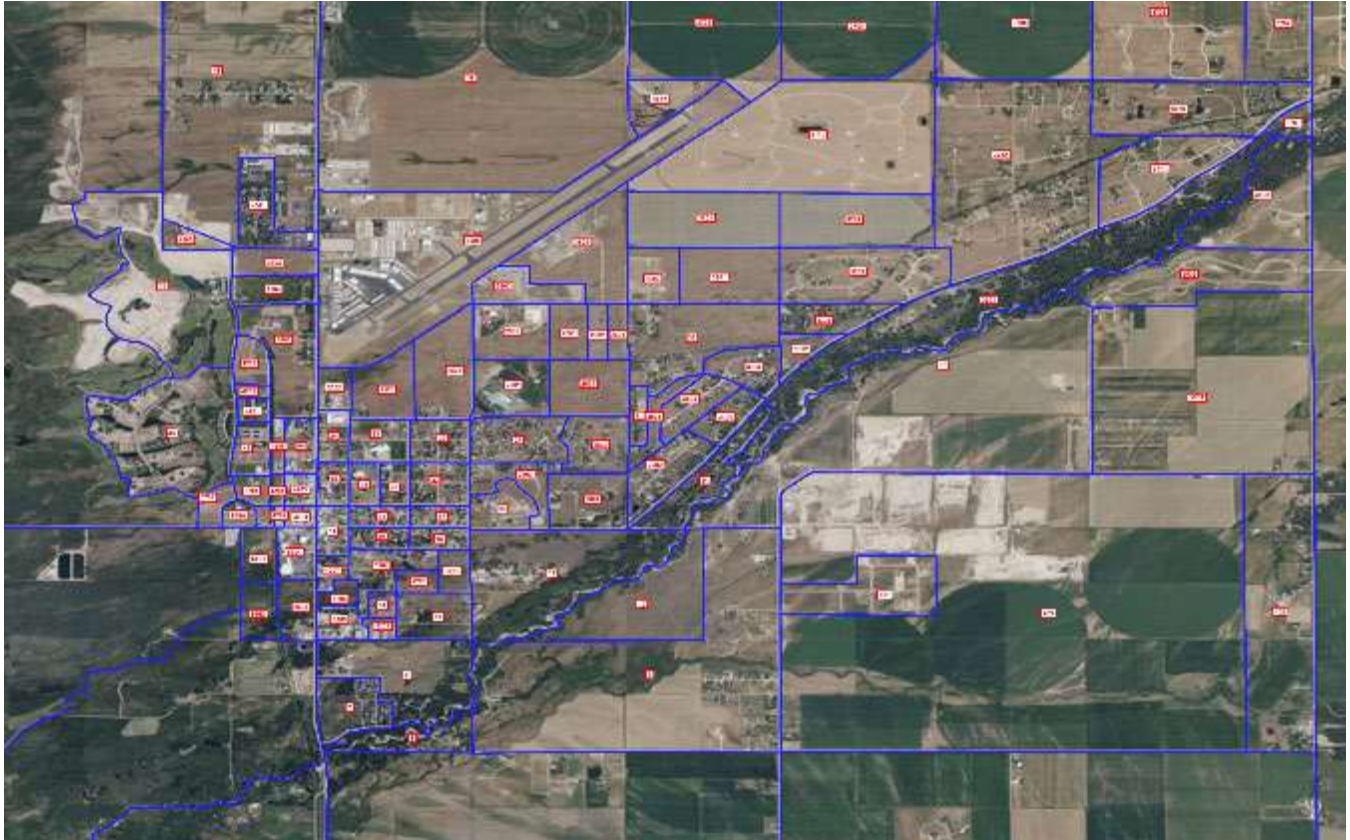


FIGURE 2: TRAFFIC ANALYSIS ZONES (TAZ)

The existing conditions land use data was compiled for year 2024 into the following categories by TAZ:

- Single-Family Dwelling Units
- Multi-Family Dwelling Units
- School Enrollment (separated into elementary, middle, and high school)
- Square feet of retail space
- Square feet of non-retail space

TRAFFIC VOLUMES

The primary traffic data sources for the City of Driggs Travel Demand Model are listed as follows:

- Intersection counts from the Traffic Impact Study Multi-Development, completed in 2022 with the following intersections counts:
 - Main and LeGrande – PM peak hour count collected on 3/2/2022
 - Main & Ross – PM peak hour count collected on 3/2/2022
 - Main & Harper – PM peak hour count collected on 3/2/2022
 - Main & Howard – PM peak hour count collected on 3/2/2022
 - 1st & Ross – PM peak hour count collected on 3/1/2022

- 1st & Harper – PM peak hour count collected on 3/1/2022
- 1st & Howard – PM peak hour count collected on 3/2/2022
- 1st & Ashely– PM peak hour count collected on 3/1/2022
- 1st & Wallace – PM peak hour count collected on 3/1/2022
- 1st & Little – PM peak hour count collected on 3/3/2022
- Main & Little – PM peak hour count collected on 3/3/2022
- 3rd & Ross – PM peak hour count collected on 3/1/2022
- 4th & Ross – PM peak hour count collected on 3/1/2022
- 5th & Ross – PM peak hour count collected on 12/15/2021
- 5th & Howard – PM peak hour count collected on 12/15/2021
- 5th & Legrande – PM peak hour count collected on 12/15/2021
- Booshway & Legrande – PM peak hour count collected on 12/15/2021
- Cowboy Trail & Ross – PM peak hour count collected on 12/15/2021
- Booshway & Comanche Wy – PM peak hour count collected on 12/15/2021
- Ski Hill & Powder Valley – PM peak hour count collected on 3/3/2022
- Cowboy Trail & Easy – PM peak hour count collected on 12/16/2021
- Cowboy Trail & Howard – PM peak hour count collected on 12/16/2021
- 5th & Little – PM peak hour count collected on 3/1/2022
- Booshway & Ross – PM peak hour count collected on 12/15/2021
- Palisade Trail & Wind River Trail – PM peak hour count collected on 12/16/2021
- AM and PM traffic counts collected at:
 - Main & Little – PM peak hour count collected on 8/13/24 and 9/10/24
 - 5th & Ross – PM peak hour count collected on 9/11/24

Additional data was compiled from the following ITD Automatic Traffic Recorders (ATR):

- #239 on SH 33, 0.4 miles south of Darby Rd
- #63 on Ski Hill Rd, 0.6 miles east of SH-33

Counts were also collected using the City of Driggs speed camera units on Ski Hill Road.

After reviewing all the traffic data, the peak condition selected to best represent the traffic conditions for the City of Driggs was 4:45-5:45 PM on a weekday in early September. This condition represented near the highest traffic volume on SH 33, and the highest volumes on the local street as both recreational and school traffic occur during this period. The turn movement counts were scaled from 2021 and 2022 to September 2024 conditions using growth and seasonal adjustment factors calculated from the 2024 and 2022 counts at Main & Little, and 5th and Ross.

MODEL DEVELOPMENT

The travel demand model was developed using the data sources described in the prior section and the PTV Visum Version 2025 software. The model was built for the PM peak hour, peak seasonal

condition year 2024 condition, which from the traffic counts was determined to be early September. The model development included the following steps:

- Trip Generation
- Trip Distribution
- Traffic Assignment

TRIP GENERATION

The trip generation was conducted using initially using ITE 11th Edition Trip Generation rates for the PM peak period, including the ITE direction splits. This list of land use types and corresponding ITE Trip Generation codes are listed in Table 1.

TABLE 1: CITY OF DRIGGS TRAVEL DEMAND MODEL LAND USE INPUTS

DESCRIPTION	MEASURE	ITE LAND USE TYPE	ITE LAND USE CODE
SINGLE FAMILY HOUSING UNIT	unit	Single Family Housing	210
MULTI FAMILY/ATTACHED HOUSING UNIT	unit	Multi-Family Housing	215
VACATION RENTAL	unit	Timeshare	265
RETAIL	1k GLA	Shopping plaza (40-150k)	821
NON-RETAIL	1k GLA	Small Office Building	712
ELEMENTARY SCHOOL	Student	Elementary School	520
MIDDLE SCHOOL	Student	Middle School	522
HIGH SCHOOL	Student	High School	525

The City of Driggs has a considerable number (approximately 30%) of rental/vacation homes and condominiums. The number of vacation homes was estimated from the existing land use as the difference between the census households and the total housing units in each TAZ. The trip generation rate for vacation/rental homes was used to estimate trips for the housing unit.

The model included the following external stations:

- Bates Rd – West of Driggs
- SH 33 – South of Driggs
- S 1000 E – South of Driggs
- Stateline Rd – South of Driggs
- Ski Hill Rd – East of Driggs
- Stateline Rd – North of Driggs
- SH 33 – North of Driggs

- W 2500 N – West of Driggs

The traffic count data from ITD ATR #239 was used to estimate the inbound and outbound traffic volume at the SH 33 south external station. Replica PM peak hour traffic volume estimates from this location were then scaled to the other external station locations, calculating the inbound and outbound trips. The combined external station and TAZ inbound and outbound PM peak hour trips were then balanced across the model. The ITE trip generation rates were scaled iteratively through the model calibration process. The result of this step was a list of inbound and outbound PM peak hour trips for each TAZ and external, that total up to a balanced (Inbound = Outbound) total.

TRIP DISTRIBUTION

The balanced PM peak hour trips were distributed across the model using a singly constrained methodology, which allocated each TAZ's outbound trips proportionally based on the number of inbound trips at every other TAZ and external station. The school trips were subtracted from the non-school trips and were distributed proportional to the housing units throughout the model. School trips were also allocated to the external stations reflecting the portion of each school district not captured within the model. The trip distribution step included iterations to balance the distributed inbound and outbound trips while simultaneously maintaining integrity to the total inbound and outbound trips for each TAZ. The result of this step was an Origin-Destination matrix for the travel demand model, capturing the PM peak hour travel between model TAZs and external stations throughout the City of Driggs.

TRAFFIC ASSIGNMENT

To perform the traffic assignment, the Open Street network in Visum was edited and refined to reflect the level of detail needed to perform an ICA (Iterative Capacity Restraint Assignment). The Visum ICA assignment method is a user equilibrium approach to model traffic flow where no traveler can reduce their travel time by changing routes. It iteratively adjusts link travel times based on congestion effects using capacity restraint functions, recalculating flows until the model meets the specific convergence criteria. This method balances network efficiency and realism, representing how drivers redistribute themselves in response to delays. The method applied specifically for this model used intersection delay, opposed to link delay. Simplified Highway Capacity Manual (HCM) intersection delay calculations estimate delays based on conflicting volumes at each model intersection.

To perform this type of assignment, intersection lane configuration and control details were coded into the Visum network. This detail included turn bays and traffic signal timings. The model network speeds were reviewed and updated to reflect the local roadway conditions. The TAZs were connected to roadway network with "centroid connectors," abstracted conduits for assigning TAZ trips to the roadway network. The centroid connector usage was controlled through weighting factors, which reflected the expected trip distribution across driveways and access points within each TAZ.

The PM peak hour OD matrix generated in the Trip Distribution step was then assigned to the roadway network using the ICA methodology with intersection delays. The result of this step was an assigned 2024 PM peak hour model.

MODEL CALIBRATION

Once the initial traffic assignment was completed, the resulting modeled turn movements were compared against the counted and estimated 2024 September PM Peak Hour counts. Iterative adjustments were made to both the trip generation rates and the centroid connector loading allocations to better align the assigned trips with counted trips. Further adjustments were made to reflect the low-speed conditions due to parking movements and limited space on the local streets, particularly on 1st Avenue N. The final model calibration statistics are summarized in the following two statistics:

- The **R-squared (R^2)** statistic measures the proportion of variance in observed data explained by a travel demand model's prediction, indicating how well the model fits actual travel patterns. In model calibration, a higher R^2 value (closer to 1) suggests the model accurately replicates observed trip volumes or flows, while a low value indicates poor predictive performance. When compared against the 2024 counts and estimates, the **model R^2 was 0.97**, indicating a close fit.
- **Root Mean Square Error (RMSE)** is a measure of the average magnitude of errors between observed and modeled values in travel demand model calibration. It quantifies how far the model's predictions deviate from actual data, with lower RMSE values indicating better model accuracy. RMSE is especially useful because it penalizes larger errors more heavily, helping identify significant discrepancies in trip volumes or traffic counts. While this measure is typically used for link volumes, this model was calibrated to turn movements (higher level of detail). The **RMSE 42%**, which is a strong fit for travel demand model turn volumes.

These measures indicate that the 2024 PM peak hour model is calibrated to the local traffic conditions. Figure 3 shows the calibrated model intersection Level of Service (LOS) and PM peak hour traffic volume information.

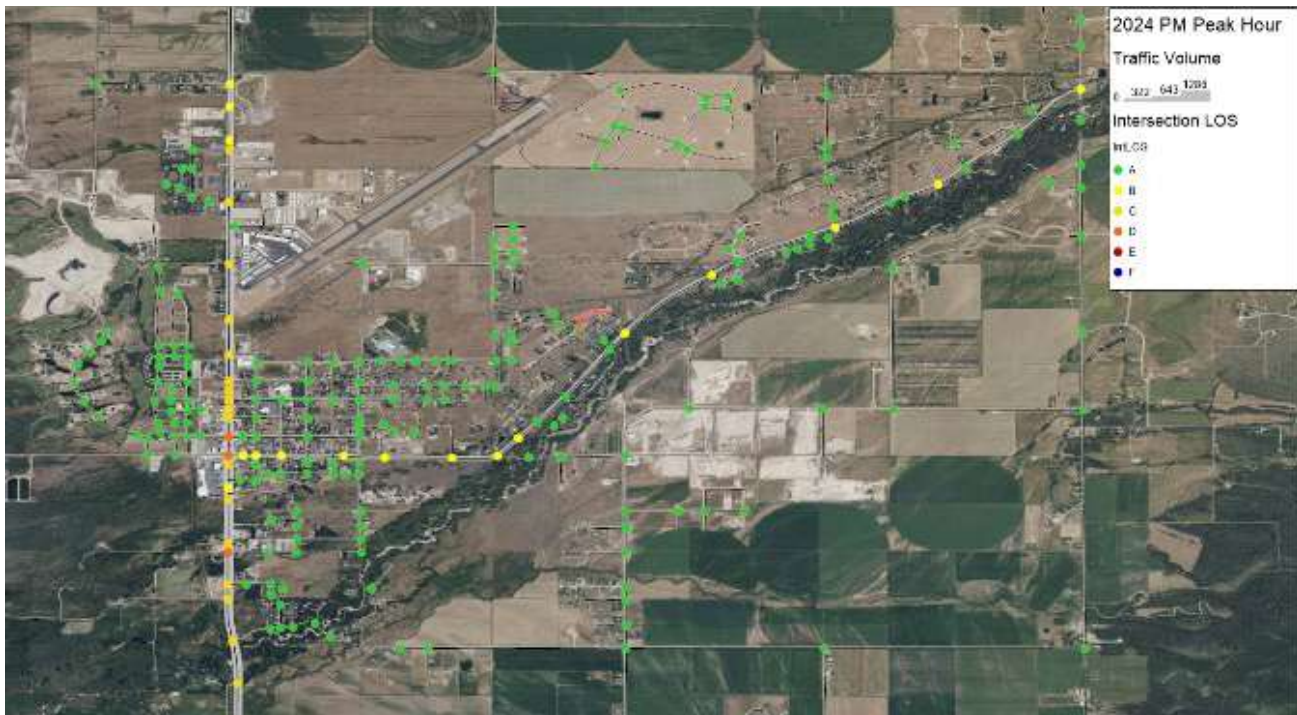


FIGURE 3: 2024 EXISTING CONDITIONS TRAVEL DEMAND MODEL RESULTS

FUTURE YEAR MODELS

The future year model scenarios were built off the existing conditions model, following a similar procedure but without further calibration. The future housing and employment square footage allocations were developed initially based on the projected 20-year population/housing growth for the City (over 5,000 residents by 2045) and planned/platted developments throughout the City and in unincorporated Teton County areas anticipated to enter the City in the next 20 years. The housing allocations are shown in Figure 4, and the employment square footage allocations are shown in Figure 5.

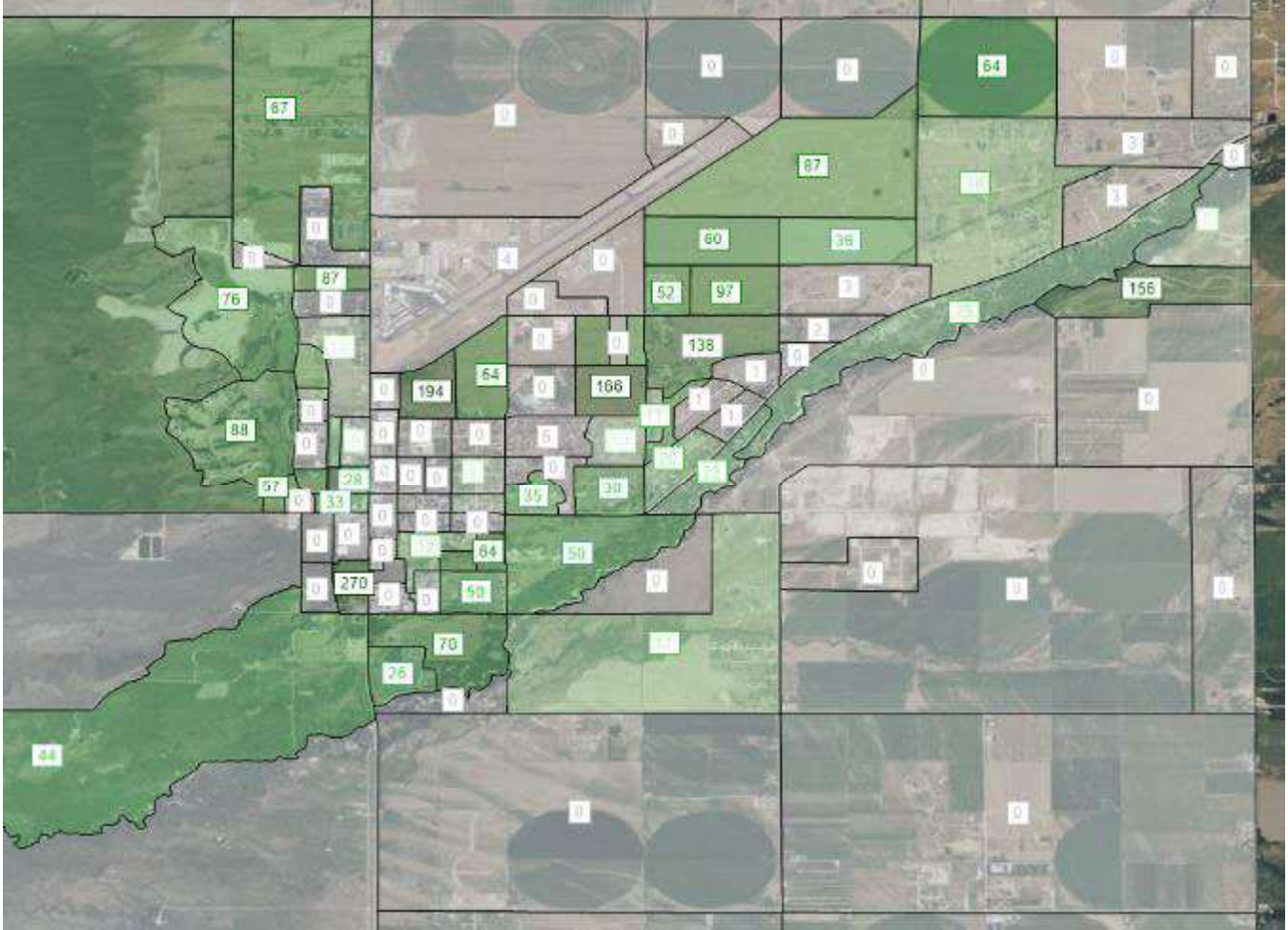


FIGURE 4: 2024 TO 2045 HOUSING UNIT GROWTH BY TAZ

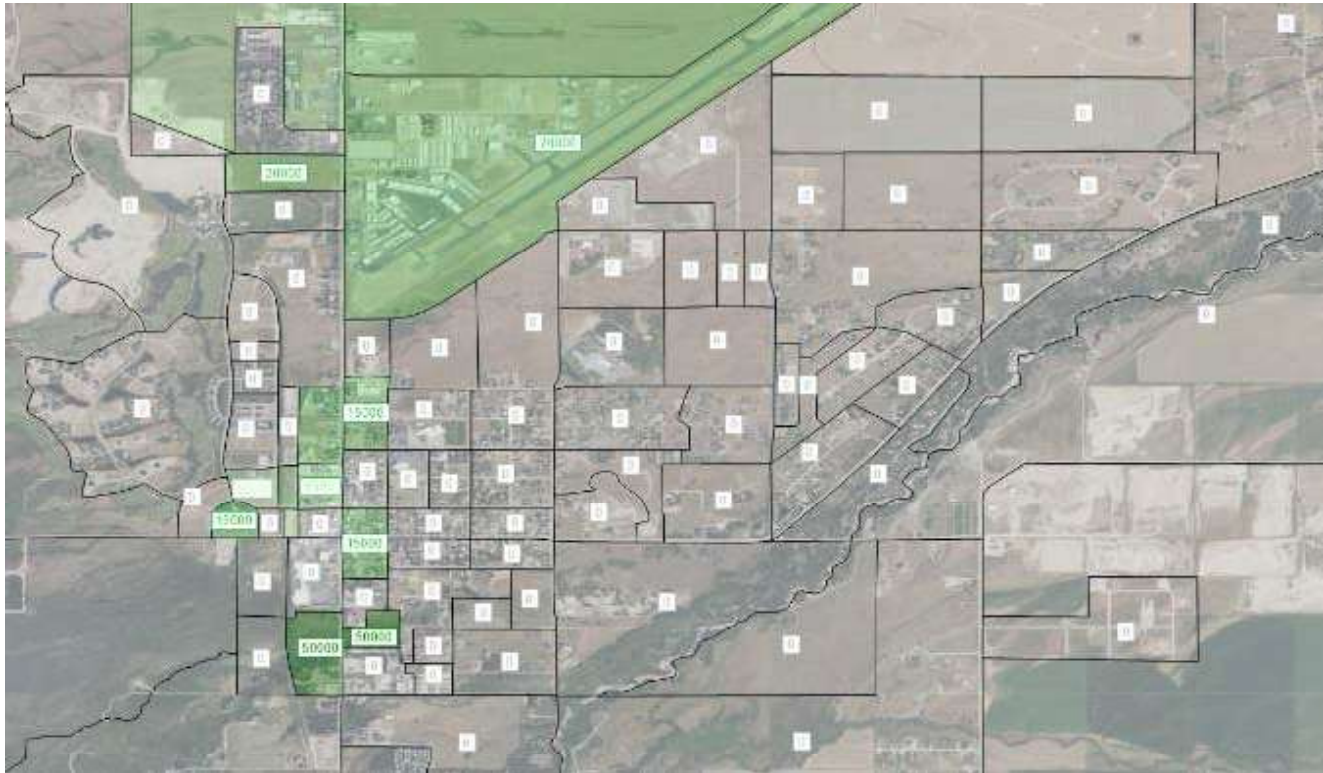


FIGURE 5: 2024 TO 2045 RETAIL+NON-RETAIL SQUARE FOOTAGE GROWTH BY TAZ

The school enrollment was assumed to grow at the same rate as the population of the City. The same percentage of total housing units (34%) as present day were assumed to be vacation/short-term rentals. The external station traffic volumes were increased based on historical facility growth trends, resulting in the annual growth rates summarized in Table 2.

TABLE 2: EXTERNAL STATION GROWTH

EXTERNAL STATION	ASSUMED ANNUAL GROWTH RATE (COMPOUND) FROM 2024-2045
BATES RD – WEST OF DRIGGS	2.0%
SH 33 – SOUTH OF DRIGGS	4.0%
S 1000 E – SOUTH OF DRIGGS	2.0%
STATELINE RD – SOUTH OF DRIGGS	2.0%
SKI HILL RD – EAST OF DRIGGS	2.3%
STATELINE RD – NORTH OF DRIGGS	2.0%
SH 33 – NORTH OF DRIGGS	4.0%
W 2500 N – WEST OF DRIGGS	2.0%

FUTURE NO-BUILD

The roadway network was updated to include the local street infrastructure included in plats of areas assumed to be fully built out, as these areas could not be fully developed without local street infrastructure. Centroid connectors were added and adjusted to reflect the new neighborhoods and primary access points added with the anticipated growth. The updated 2045 model trips were then generated, distributed, and assigned to the network, and validated to verify that the trip distribution patterns remained reasonable. This resulted in the 2045 No-Build model. The 2045 No-Build model intersection LOS and PM peak hour volumes are shown in Figure 6.

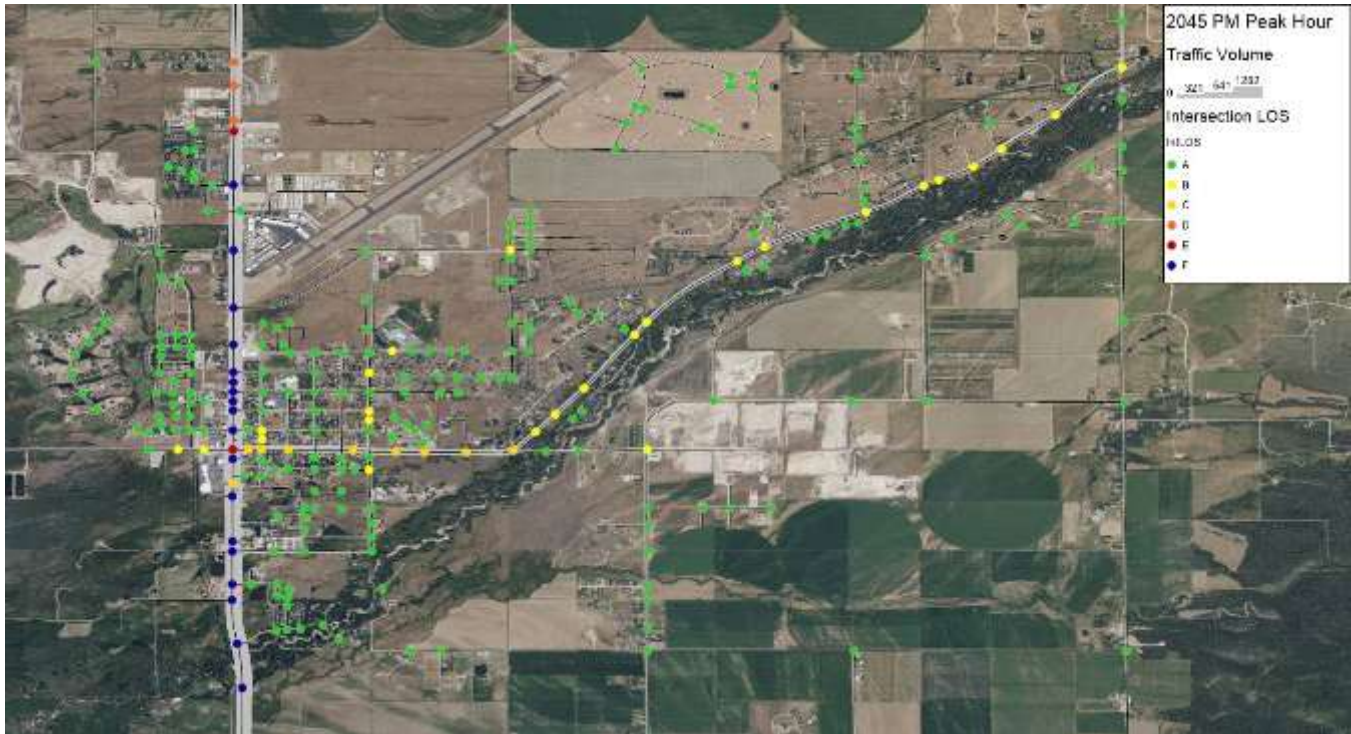


FIGURE 6: 2045 NO-BUILD INTERSECTION LOS AND PM PEAK HOUR VOLUMES

Evaluation of planned projects was conducted by adding to and/or modifying the roadway network, and res-assigning the model to assess the changes in traffic volumes and intersection operations.

FUTURE BUILD SCENARIO

The following projects were included in the CIP Build scenario and are mapped in Figure 7:

- Main/Little Intersection Improvements
 - Signal timing
 - Right Turn Lanes
- SH-33 (Main St.) Improvements
 - Extend the 3-lane cross-section from LeGrand Pierre to S. Bates Rd.
- SH-33 Intersection Improvements
 - LeGrand Pierre (Analyze a Signal vs. a Roundabout)

- Johnson Ave. (Analyze a Signal vs. a Roundabout)
- Collector Streets, add LT lanes
 - > Harper, Ross, etc.
- SH-33 (Main St.) Bypass Routes
 - Front St Bypass
 - First St Bypass
- Arterial Route Improvements
 - 5th and Ross – Paving, widening, and remove stop signs
 - 5th and Johnson – Paving, widening, and remove stop signs
- LeGrand Pierre Extension to Ski Hill Rd.
 - Include intersection improvements where extension meets Ski Hill Rd.
- Ski Hill Rd. (Little Ave.) Intersection Improvements
 - Roundabout at 5th and Little
- Harper to Front Extension

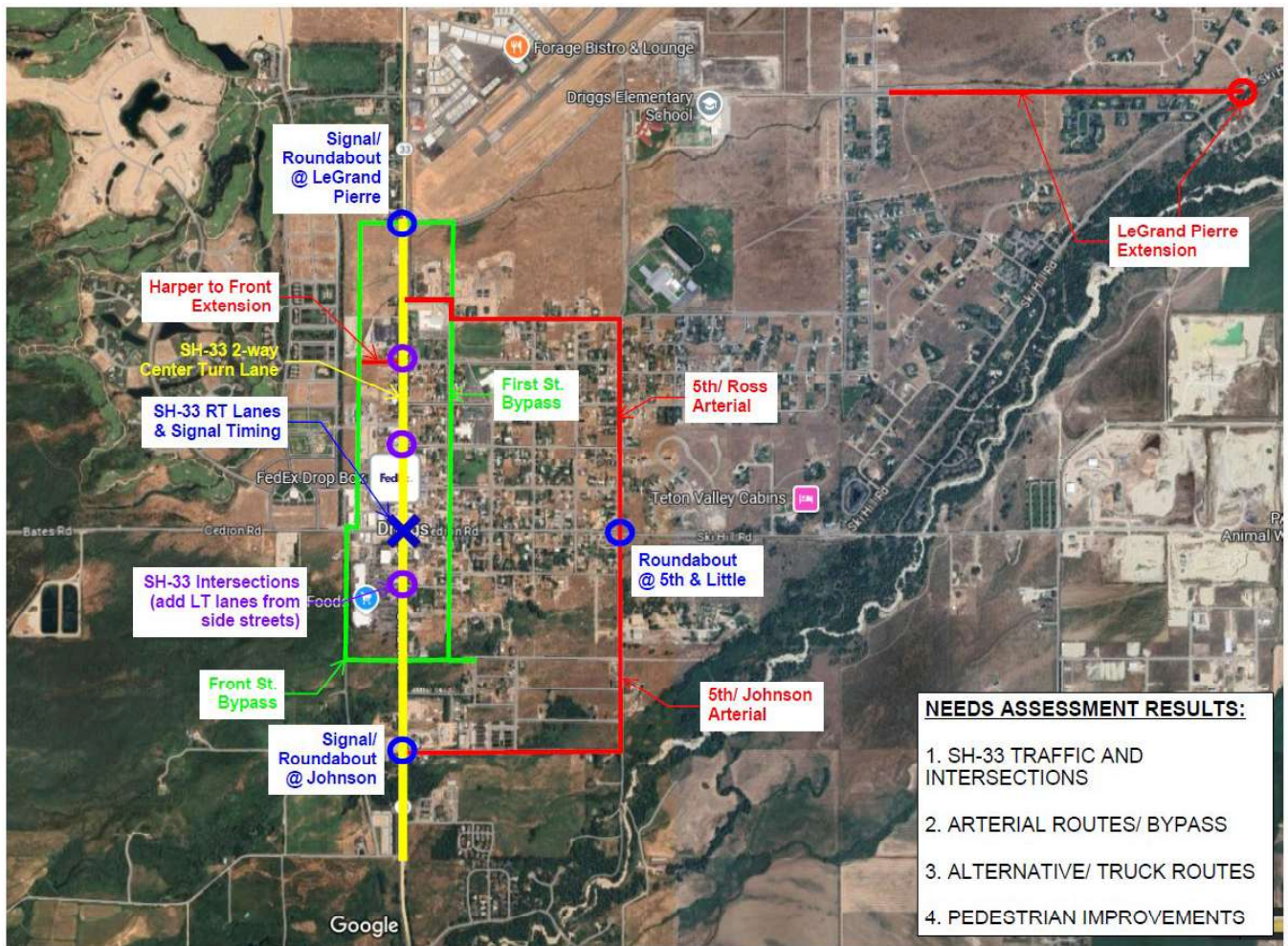


FIGURE 7: PROPOSED CIP PROJECTS

The proposed projects were added to the 2045 model, and the model was re-assigned to determine how traffic volumes shifted and intersection operations improved. Figure 7 shows the travel demand model intersection LOS and PM peak hour volumes for the 2045 PM peak hour CIP scenario.

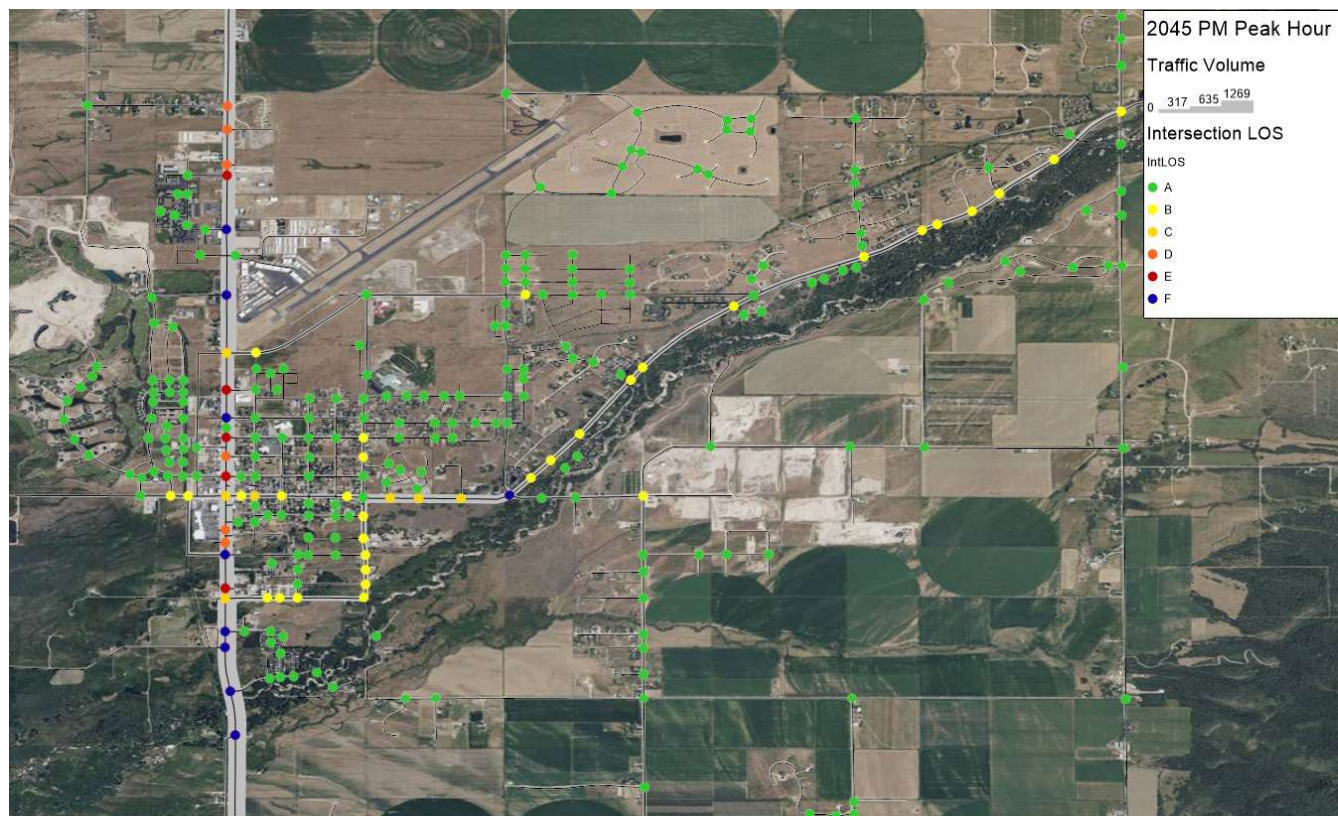


FIGURE 8: 2045 CIP PROJECTS INTERSECTION LOS AND PM PEAK HOUR VOLUMES

As shown in Figure 7, the modeled projects significantly improve operations along SH 33, particularly for Main/Little and the two-way stop controlled (TWSC) intersections downtown. The 5th/Johnson arterial route draws significant traffic away from the congested Main/Little intersection, while both 1st Street bypass routes draw side street traffic to signalized access point on SH 33, improving traffic volumes in the downtown area. More detailed discussion of the traffic operations benefits of the modeled projects is included in the subsequent section.

TRAFFIC OPERATIONS ANALYSIS

Synchro Version 12 (by Cubic) was used to evaluate detailed intersection operations at key locations using the Highway Capacity Manual methodologies. The Synchro model was first coded for 2024 PM Summer Existing Conditions, using the same traffic volume information used to calibrate the travel demand model. The travel demand model 2045 No-Build and Build PM peak hour volumes were then input into the Synchro model to evaluate the proposed projects' effectiveness. Table 3 summarizes these results.

TABLE 3: INTERSECTION HCM OPERATIONS

INTERSECTION	INTERSECTION CONTROL		LEVEL OF SERVICE (LOS)			DELAY (SEC/VEH) *		
	Existing	Future Build Condition	2024	2045		2024	2045	
			Existing	No-Build	Build	Existing	No-Build	Build
MAIN & LITTLE	Signal	Signalized	C	F	C	30	170	30
1ST ST & ROSS AVE	AWSC	TWSC	A	A	A	8	8	9
5TH ST & ROSS AVE	AWSC	Roundabout	B	B	A	12	12	4
5TH ST & HOWARD AVE	AWSC	TWSC	B	B	C	14	13	16
5TH ST & LEGRANDE AVE	AWSC	Roundabout	B	A	A	11	10	5
MAIN ST & LEGRANDE AVE	TWSC	Signalized	C	F	C	20	57	24
MAIN ST & ROSS AVE	TWSC	TWSC	C	F	E	17	81	37
MAIN ST & HARPER AVE	TWSC	TWSC	C	F	E	18	86	41
MAIN ST & HOWARD AVE	TWSC	TWSC	C	F	D	20	58	30
1ST ST & HARPER AVE	TWSC	TWSC	B	B	B	10	11	12
1ST ST & HOWARD AVE	TWSC	TWSC	B	B	B	10	11	11
1ST ST & ASHLEY AVE	TWSC	TWSC	B	B	A	10	11	10
1ST ST & WALLACE AVE	TWSC	TWSC	B	B	A	10	11	10
1ST ST & LITTLE AVE	TWSC	TWSC	C	C	C	15	20	16
SKI HILL RD & ASPEN MEADOWS LN	TWSC	TWSC	B	B	B	10	13	11
5TH ST & LITTLE AVE	TWSC	Roundabout	C	D	A	15	31	7

* Total Intersection Delay for AWSC & Signals, Worst Case Movement Delay for TWSC

EXISTING OPERATIONAL NEEDS

While none of the City intersections currently fall below the standard LOS C threshold, these results do indicate growing traffic congestion trends throughout the City. The busiest intersection, Main St & Little, operates at LOS C, with multiple approaches (eastbound and westbound) operating at LOS D. Volumes at this intersection have grown even over the last two years, and are expected to continue to grow as further development and continued non-local through traffic continue to grow. As shown in Table 3, this intersection is expected to reach LOS F or worse under the 20-year projected growth conditions. If the pace of growth remains consistent, the intersection will reach LOS D by 2028.

All the stop-controlled approaches to intersections along Main Street (SH 33) reported in this analysis operate at LOS C conditions, indicating both existing delay, and risk of traffic cutting through the Driggs neighborhood grid to avoid congestion at Main Street & Little. This issue is expected to compound under future conditions, even independent of local growth due to ever increasing recreational/regional travel along SH 33.

At a smaller scale, exiting traffic on Little Road also creates congestion side street travel either trying to cross or enter the roadway, with both 1st Street and 5th Street experiencing LOS C conditions at Little.

Current operations at the All-Way-Stop Control intersections near the schools do not indicate elevated levels of congestion. However, this specific intersection type has limited capacity, and the amount of residential growth is likely to happen in north/east Driggs could potentially push these intersections to the LOS D threshold. Note that the peak period traffic behavior drives the traffic operations performance of these intersections, with most traffic occurring in a 15–30-minute period due to school pick-up travel patterns.

From a system perspective, the primary existing traffic operations concerns are:

- Congestion at Main Street/Little Road and intersection avoidance trip diversion
- Access to/across SH 33
- Access to/across Little Road"

FUTURE OPERATIONAL NEEDS

As shown in Table 3, the Main & Little intersection is expected to reach LOS F or worse under the 20-year projected growth conditions. If the pace of growth remains consistent, the intersection will reach LOS D by 2028. This will cause widespread cut-through traffic issues, which are captured in the 2045 No-Build travel demand model, as drivers use local streets in attempts to bypass congestion. In addition, the operations of the stop-controlled approaches along SH 33 further degrade, increasing the risk of aggressive driving maneuvers as frustrated drivers attempt to enter or cross the highway. At least one side street approach to SH 33 on all the evaluated intersections from Legrande to Little operate at LOS F.

BUILD CONDITIONS

With the planned projects in place, operations improve significantly along SH 33. Main & Little maintains LOS C, partially due to the intersection improvements, and due to the 5th/Johnson Bypass, which draws traffic away from this intersection. As mentioned in the travel demand modeling results section, the 1st Avenue bypasses re-distribute local traffic to new Johnson/SH 33 and Legrande/Main signals, providing safe crossing and access onto SH 33 and improving the LOS for the unsignalized intersections along SH 33.

APPENDIX

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APPENDIX A. EXISTING CONDITIONS HCM RESULTS

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APPENDIX A. EXISTING CONDITIONS HCM RESULTS

2024 PM PEAK HOUR SYNCHRO OUTPUTS

HCM 7th Signalized Intersection Summary

14: Main St & Little Ave

05/16/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	97	64	207	74	72	45	410	70	63	361	54
Future Volume (veh/h)	194	97	64	207	74	72	45	410	70	63	361	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, 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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1462	1462	1462	1462	1462	1462	1462	1462	1462	1462	1462	1462
Adj Flow Rate, veh/h	209	104	69	223	80	77	48	441	75	68	388	58
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	130	86	280	114	109	327	543	92	268	564	84
Arrive On Green	0.10	0.16	0.16	0.10	0.17	0.17	0.04	0.45	0.45	0.05	0.45	0.45
Sat Flow, veh/h	1392	820	544	1392	684	659	1392	1218	207	1392	1243	186
Grp Volume(v), veh/h	209	0	173	223	0	157	48	0	516	68	0	446
Grp Sat Flow(s),veh/h/ln	1392	0	1364	1392	0	1343	1392	0	1425	1392	0	1428
Q Serve(g_s), s	7.4	0.0	9.3	8.0	0.0	8.4	1.4	0.0	24.0	2.0	0.0	18.9
Cycle Q Clear(g_c), s	7.4	0.0	9.3	8.0	0.0	8.4	1.4	0.0	24.0	2.0	0.0	18.9
Prop In Lane	1.00		0.40	1.00		0.49	1.00		0.15	1.00		0.13
Lane Grp Cap(c), veh/h	291	0	216	280	0	223	327	0	635	268	0	648
V/C Ratio(X)	0.72	0.00	0.80	0.80	0.00	0.70	0.15	0.00	0.81	0.25	0.00	0.69
Avail Cap(c_a), veh/h	291	0	429	280	0	433	371	0	635	301	0	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.3	0.0	31.0	27.4	0.0	30.0	12.7	0.0	18.4	14.3	0.0	16.5
Incr Delay (d2), s/veh	8.2	0.0	6.7	14.9	0.0	4.0	0.2	0.0	10.9	0.5	0.0	5.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	3.4	2.2	0.0	2.9	0.4	0.0	9.3	0.6	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.6	0.0	37.7	42.2	0.0	34.0	12.9	0.0	29.3	14.8	0.0	22.4
LnGrp LOS	D		D	D		C	B		C	B		C
Approach Vol, veh/h	382				380				564			
Approach Delay, s/veh	36.5				38.8				27.9			
Approach LOS	D				D				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	40.0	11.4	17.7	7.8	39.4	12.0	17.1				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.0	4.0	5.4	4.0	5.0				
Max Green Setting (Gmax), s	5.6	34.0	7.4	24.6	5.6	34.0	8.0	24.0				
Max Q Clear Time (g_c+I1), s	3.4	20.9	9.4	10.4	4.0	26.0	10.0	11.3				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.7	0.0	2.2	0.0	0.8				
Intersection Summary												
HCM 7th Control Delay, s/veh			30.1									
HCM 7th LOS			C									

HCM 7th TWSC
1: Main St & Legrande Ave

11/22/2024

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	26	556	37	24	377
Future Vol, veh/h	17	26	556	37	24	377
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	175	-	300	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	27	585	39	25	397
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1033	585	0	0	624	0
Stage 1	585	-	-	-	-	-
Stage 2	447	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	258	511	-	-	957	-
Stage 1	557	-	-	-	-	-
Stage 2	644	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	251	511	-	-	957	-
Mov Cap-2 Maneuver	251	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v15.61		0	0.53			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 251 511	957	-		
HCM Lane V/C Ratio	-	- 0.071 0.054	0.026	-		
HCM Control Delay (s/veh)	-	- 20.4 12.4	8.9	-		
HCM Lane LOS	-	- C B	A	-		
HCM 95th %tile Q(veh)	-	- 0.2 0.2	0.1	-		

HCM 7th TWSC
2: Main St & Ross Ave

11/22/2024

Intersection

Int Delay, s/veh 1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	33	559	22	36	346
Future Vol, veh/h	20	33	559	22	36	346
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	35	595	23	38	368

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1051	606	0
Stage 1	606	-	-
Stage 2	445	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	251	497	-
Stage 1	544	-	-
Stage 2	646	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	239	497	-
Mov Cap-2 Maneuver	239	-	-
Stage 1	544	-	-
Stage 2	614	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	17.14	0	0.84
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	353	170
HCM Lane V/C Ratio	-	-	0.16	0.04
HCM Control Delay (s/veh)	-	-	17.1	8.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1

HCM 7th TWSC
3: Main St & Harper Ave

11/22/2024

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	16	577	56	9	357
Future Vol, veh/h	26	16	577	56	9	357
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	17	601	58	9	372

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1021	630	0
Stage 1	630	-	-
Stage 2	391	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	262	481	-
Stage 1	531	-	-
Stage 2	684	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	259	481	-
Mov Cap-2 Maneuver	259	-	-
Stage 1	531	-	-
Stage 2	675	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	18.32	0	0.22
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	314	44
HCM Lane V/C Ratio	-	-	0.139	0.01
HCM Control Delay (s/veh)	-	-	18.3	8.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.5	0

HCM 7th TWSC
4: Main St & Howard Ave

11/22/2024

Intersection

Int Delay, s/veh 1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	35	628	41	18	380
Future Vol, veh/h	35	35	628	41	18	380
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	35	634	41	18	384

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1075	655	0
Stage 1	655	-	-
Stage 2	420	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	243	466	-
Stage 1	517	-	-
Stage 2	663	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	237	466	-
Mov Cap-2 Maneuver	237	-	-
Stage 1	517	-	-
Stage 2	646	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	19.76	0	0.41
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	314	81
HCM Lane V/C Ratio	-	-	0.225	0.02
HCM Control Delay (s/veh)	-	-	19.8	9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.8	0.1

HCM 7th TWSC
9: 1st St & Harper Ave

11/22/2024

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	23	30	2	15	5	16	15	2	5	67	10
Future Vol, veh/h	10	23	30	2	15	5	16	15	2	5	67	10
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	35	46	3	23	8	25	23	3	8	103	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	210	204	112	213	210	27	118	0	0	28	0	0
Stage 1	126	126	-	76	76	-	-	-	-	-	-	-
Stage 2	84	77	-	137	134	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	747	693	941	744	687	1049	1470	-	-	1585	-	-
Stage 1	878	792	-	933	832	-	-	-	-	-	-	-
Stage 2	924	831	-	866	786	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	701	676	940	654	671	1047	1470	-	-	1582	-	-
Mov Cap-2 Maneuver	701	676	-	654	671	-	-	-	-	-	-	-
Stage 1	873	787	-	916	816	-	-	-	-	-	-	-
Stage 2	876	815	-	782	781	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v10.23		10.18	3.63	0.44
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	853	-	-	786	729	107	-
HCM Lane V/C Ratio	0.017	-	-	0.123	0.046	0.005	-
HCM Control Delay (s/veh)	7.5	0	-	10.2	10.2	7.3	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.1	0	-

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	11	11	8	19	2	6	20	1	1	68	3
Future Vol, veh/h	7	11	11	8	19	2	6	20	1	1	68	3
Conflicting Peds, #/hr	0	0	4	4	0	0	0	0	11	11	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	17	17	12	29	3	9	30	2	2	103	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	37	0	0	155	106	40	119	113	30
Stage 1	-	-	-	-	-	-	50	50	-	55	55	-
Stage 2	-	-	-	-	-	-	105	56	-	64	59	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1580	-	-	1573	-	-	812	784	1031	857	777	1044
Stage 1	-	-	-	-	-	-	963	853	-	958	849	-
Stage 2	-	-	-	-	-	-	901	848	-	947	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1567	-	-	688	769	1017	802	763	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	688	769	-	802	763	-
Stage 1	-	-	-	-	-	-	953	844	-	950	843	-
Stage 2	-	-	-	-	-	-	781	841	-	896	837	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.76			2.02			10.03			10.43		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	756	395	-	-	487	-	-	772				
HCM Lane V/C Ratio	0.054	0.007	-	-	0.008	-	-	0.141				
HCM Control Delay (s/veh)	10	7.3	0	-	7.3	0	-	10.4				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.5				

HCM 7th TWSC
11: 1st St & Ashley Ave

11/22/2024

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	66	10	5	28	1	16	11	10	10	37	5
Future Vol, veh/h	5	66	10	5	28	1	16	11	10	10	37	5
Conflicting Peds, #/hr	0	0	11	11	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	81	12	6	35	1	20	14	12	12	46	6
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	144	140	60	182	137	21	52	0	0	27	0	0
Stage 1	73	73	-	60	60	-	-	-	-	-	-	-
Stage 2	70	66	-	122	77	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	825	751	1006	779	754	1057	1554	-	-	1587	-	-
Stage 1	936	834	-	951	845	-	-	-	-	-	-	-
Stage 2	940	840	-	882	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	770	735	995	664	738	1056	1554	-	-	1585	-	-
Mov Cap-2 Maneuver	770	735	-	664	738	-	-	-	-	-	-	-
Stage 1	928	827	-	938	833	-	-	-	-	-	-	-
Stage 2	888	828	-	771	825	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v10.44			10.22		3.18		1.4					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	711	-	-	762	732	338	-	-				
HCM Lane V/C Ratio	0.013	-	-	0.131	0.057	0.008	-	-				
HCM Control Delay (s/veh)	7.3	0	-	10.4	10.2	7.3	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0	-	-				

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	24	14	30	47	7	8	11	2	2	39	34
Future Vol, veh/h	9	24	14	30	47	7	8	11	2	2	39	34
Conflicting Peds, #/hr	4	0	2	2	0	4	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	28	16	35	55	8	9	13	2	2	46	40
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	136	109	70	102	128	20	88	0	0	17	0	0
Stage 1	73	73	-	35	35	-	-	-	-	-	-	-
Stage 2	63	36	-	67	93	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	835	781	993	879	763	1058	1508	-	-	1600	-	-
Stage 1	937	835	-	981	866	-	-	-	-	-	-	-
Stage 2	947	865	-	944	818	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	758	772	989	824	754	1052	1505	-	-	1597	-	-
Mov Cap-2 Maneuver	758	772	-	824	754	-	-	-	-	-	-	-
Stage 1	934	832	-	973	859	-	-	-	-	-	-	-
Stage 2	871	858	-	893	815	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	9.69		10.16		2.82		0.19					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	665	-	-	823	797	44	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.067	0.124	0.001	-	-				
HCM Control Delay (s/veh)	7.4	0	-	9.7	10.2	7.3	0	-				
HCM Lane LOS	A	A	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0	-	-				

HCM 7th TWSC
13: 1st St & Little Ave

11/22/2024

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	204	16	12	353	9	14	8	10	10	16	61
Future Vol, veh/h	11	204	16	12	353	9	14	8	10	10	16	61
Conflicting Peds, #/hr	8	0	6	6	0	8	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	227	18	13	392	10	16	9	11	11	18	68
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	410	0	0	250	0	0	696	703	242	687	707	407
Stage 1	-	-	-	-	-	-	266	266	-	432	432	-
Stage 2	-	-	-	-	-	-	430	437	-	256	275	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1149	-	-	1315	-	-	356	362	797	361	360	644
Stage 1	-	-	-	-	-	-	739	689	-	602	582	-
Stage 2	-	-	-	-	-	-	604	579	-	749	683	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1140	-	-	1308	-	-	292	348	793	335	346	638
Mov Cap-2 Maneuver	-	-	-	-	-	-	292	348	-	335	346	-
Stage 1	-	-	-	-	-	-	726	676	-	590	570	-
Stage 2	-	-	-	-	-	-	515	567	-	720	670	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.39			0.25			15.35			13.77		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	383	84	-	-	57	-	-	507				
HCM Lane V/C Ratio	0.093	0.011	-	-	0.01	-	-	0.191				
HCM Control Delay (s/veh)	15.3	8.2	0	-	7.8	0	-	13.8				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.7				

Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	41	0	6	123	0	7
Future Vol, veh/h	41	0	6	123	0	7
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	0	11	220	0	13

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	75
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1524
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1521
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.34	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	984	-	-	84	-
HCM Lane V/C Ratio	0.013	-	-	0.007	-
HCM Control Delay (s/veh)	8.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	45	2	5	126	1	2
Future Vol, veh/h	45	2	5	126	1	2
Conflicting Peds, #/hr	0	4	4	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	57	57	57	57	57	57
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	4	9	221	2	4

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	86	0	323	85
Stage 1	-	-	-	-	85	-
Stage 2	-	-	-	-	239	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1510	-	671	974
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1504	-	664	971
Mov Cap-2 Maneuver	-	-	-	-	664	-
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	796	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.28	9.31
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	841	-	-	69	-
HCM Lane V/C Ratio	0.006	-	-	0.006	-
HCM Control Delay (s/veh)	9.3	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 7th TWSC
22: Booshway St & Legrande Ave

11/22/2024

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	7	56	1	3	0	14	1	1	0	1	0
Future Vol, veh/h	0	7	56	1	3	0	14	1	1	0	1	0
Conflicting Peds, #/hr	0	0	4	4	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	112	2	6	0	28	2	2	0	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	6	0	0	130	0	0	85	84	74	25	140	6
Stage 1	-	-	-	-	-	-	74	74	-	10	10	-
Stage 2	-	-	-	-	-	-	11	10	-	15	130	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1615	-	-	1455	-	-	901	806	988	986	751	1077
Stage 1	-	-	-	-	-	-	935	833	-	1011	887	-
Stage 2	-	-	-	-	-	-	1010	887	-	1005	789	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1615	-	-	1450	-	-	894	802	984	980	747	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	894	802	-	980	747	-
Stage 1	-	-	-	-	-	-	932	830	-	1010	886	-
Stage 2	-	-	-	-	-	-	1006	886	-	1000	786	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	1.87	9.18	9.83
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	893	1615	-	-	450	-	-	747
HCM Lane V/C Ratio	0.036	-	-	-	0.001	-	-	0.003
HCM Control Delay (s/veh)	9.2	0	-	-	7.5	0	-	9.8
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

HCM 7th TWSC
24: Cowboy Trail & Ross Ave

11/22/2024

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	52	10	14	44	6	7
Future Vol, veh/h	52	10	14	44	6	7
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	15	22	68	9	11

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	97
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1496
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1493
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.8	9.25
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	867	-	-	434	-
HCM Lane V/C Ratio	0.023	-	-	0.014	-
HCM Control Delay (s/veh)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 7th TWSC
25: Booshway St & Comanche Wy

11/22/2024

Intersection

Int Delay, s/veh 1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	3	17	1	11	49
Future Vol, veh/h	2	3	17	1	11	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	5	31	2	20	89

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	161	32	0
Stage 1	32	-	-
Stage 2	129	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	830	1042	-
Stage 1	991	-	-
Stage 2	897	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	819	1042	-
Mov Cap-2 Maneuver	819	-	-
Stage 1	991	-	-
Stage 2	885	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.87	0	1.34
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	940	330
HCM Lane V/C Ratio	-	-	0.01	0.013
HCM Control Delay (s/veh)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 7th TWSC
29: Ski Hill Rd & Aspen Meadows Ln

11/22/2024

Intersection

Int Delay, s/veh 1.3

Movement SEL SER NEL NET SWT SWR

Lane Configurations 

Traffic Vol, veh/h 24 14 8 110 183 17

Future Vol, veh/h 24 14 8 110 183 17

Conflicting Peds, #/hr 0 1 1 0 0 1

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - 170 - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 26 15 9 120 199 18

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 346 210 218 0 - 0

Stage 1 209 - - - - -

Stage 2 137 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 651 830 1351 - - -

Stage 1 826 - - - - -

Stage 2 890 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 645 828 1350 - - -

Mov Cap-2 Maneuver 645 - - - - -

Stage 1 820 - - - - -

Stage 2 889 - - - - -

Approach SE NE SW

HCM Control Delay, s/v10.44 0.52 0

HCM LOS B

Minor Lane/Major Mvmt NEL NET SELn1 SWT SWR

Capacity (veh/h) 1350 - 702 - -

HCM Lane V/C Ratio 0.006 - 0.059 - -

HCM Control Delay (s/veh) 7.7 - 10.4 - -

HCM Lane LOS A - B - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

HCM 7th TWSC
30: Cowboy Trail & Easy St

11/22/2024

Intersection												
Int Delay, s/veh	7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	2	0	1	3	1	0	6	2	1	5	6
Future Vol, veh/h	5	2	0	1	3	1	0	6	2	1	5	6
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	4	0	2	6	2	0	12	4	2	10	12
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	8	0	0	5	0	0	40	37	6	42	36	7
Stage 1	-	-	-	-	-	-	25	25	-	11	11	-
Stage 2	-	-	-	-	-	-	15	12	-	31	25	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1612	-	-	1616	-	-	964	855	1077	961	856	1075
Stage 1	-	-	-	-	-	-	993	874	-	1010	886	-
Stage 2	-	-	-	-	-	-	1005	886	-	986	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1612	-	-	1615	-	-	934	848	1075	936	849	1075
Mov Cap-2 Maneuver	-	-	-	-	-	-	934	848	-	936	849	-
Stage 1	-	-	-	-	-	-	986	868	-	1009	885	-
Stage 2	-	-	-	-	-	-	981	884	-	961	868	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	5.18			1.45			9.09			8.86		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	895	1286	-	-	343	-	-	957				
HCM Lane V/C Ratio	0.018	0.006	-	-	0.001	-	-	0.025				
HCM Control Delay (s/veh)	9.1	7.2	0	-	7.2	0	-	8.9				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

HCM 7th TWSC
31: Cowboy Trail & Howard Ave

11/22/2024

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	5	5	0	0	6
Future Vol, veh/h	8	5	5	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	10	10	0	0	12

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	26	6	12
Stage 1	6	-	-
Stage 2	20	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	989	1077	1607
Stage 1	1017	-	-
Stage 2	1003	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	983	1077	1607
Mov Cap-2 Maneuver	983	-	-
Stage 1	1011	-	-
Stage 2	1003	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.63	7.25	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1607	-	1017	-	-
HCM Lane V/C Ratio	0.006	-	0.026	-	-
HCM Control Delay (s/veh)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 7th TWSC
32: 5th St & Little Ave

11/22/2024

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	154	6	14	224	17	8	7	1	24	14	123
Future Vol, veh/h	42	154	6	14	224	17	8	7	1	24	14	123
Conflicting Peds, #/hr	7	0	0	0	0	7	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	177	7	16	257	20	9	8	1	28	16	141

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	284	0	0	184	0	0	576	593	180	584	587	275
Stage 1	-	-	-	-	-	-	277	277	-	306	306	-
Stage 2	-	-	-	-	-	-	299	316	-	278	280	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1278	-	-	1391	-	-	429	418	862	423	422	764
Stage 1	-	-	-	-	-	-	729	681	-	703	661	-
Stage 2	-	-	-	-	-	-	710	655	-	729	679	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1270	-	-	1391	-	-	318	395	862	391	398	758
Mov Cap-2 Maneuver	-	-	-	-	-	-	318	395	-	391	398	-
Stage 1	-	-	-	-	-	-	702	655	-	691	649	-
Stage 2	-	-	-	-	-	-	556	643	-	692	653	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.65	0.42	15.43	13.22
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	364	1270	-	-	1391	-	-	622
HCM Lane V/C Ratio	0.051	0.038	-	-	0.012	-	-	0.297
HCM Control Delay (s/veh)	15.4	7.9	-	-	7.6	-	-	13.2
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1.2

Intersection

Int Delay, s/veh 5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	32	2	1	17	0	3	0	1	3	5	45
Future Vol, veh/h	19	32	2	1	17	0	3	0	1	3	5	45
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	100	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	40	2	1	21	0	4	0	1	4	6	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	61	50	35	42	77	3	62	0	0	1	0	0
Stage 1	41	41	-	8	8	-	-	-	-	-	-	-
Stage 2	20	9	-	34	69	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	934	841	1038	961	813	1081	1541	-	-	1621	-	-
Stage 1	973	860	-	1013	889	-	-	-	-	-	-	-
Stage 2	999	888	-	982	837	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	904	837	1037	908	809	1079	1541	-	-	1621	-	-
Mov Cap-2 Maneuver	904	837	-	908	809	-	-	-	-	-	-	-
Stage 1	971	858	-	1011	887	-	-	-	-	-	-	-
Stage 2	971	886	-	931	835	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.49	9.55	5.51	0.41
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1125	-	-	867 814	86	-	-
HCM Lane V/C Ratio	0.002	-	-	0.076 0.027	0.002	-	-
HCM Control Delay (s/veh)	7.3	0	-	9.5 9.5	7.2	0	-
HCM Lane LOS	A	A	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2 0.1	0	-	-

Intersection

Int Delay, s/veh 4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	7	5	25	17	3
Future Vol, veh/h	12	7	5	25	17	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	10	7	36	24	4

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	78	25	0
Stage 1	25	-	-
Stage 2	53	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	925	1051	-
Stage 1	998	-	-
Stage 2	970	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	911	1051	-
Mov Cap-2 Maneuver	911	-	-
Stage 1	998	-	-
Stage 2	955	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.87	0	6.23
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	958	1530
HCM Lane V/C Ratio	-	-	0.028	0.016
HCM Control Delay (s/veh)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection

Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	72	7	17	23	22
Future Vol, veh/h	52	72	7	17	23	22
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	90	9	21	29	28
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	7.6	7	7.7
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	42%	51%
Vol Thru, %	29%	0%	49%
Vol Right, %	71%	58%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	24	124	45
LT Vol	0	52	23
Through Vol	7	0	22
RT Vol	17	72	0
Lane Flow Rate	30	155	56
Geometry Grp	1	1	1
Degree of Util (X)	0.032	0.164	0.068
Departure Headway (Hd)	3.825	3.819	4.333
Convergence, Y/N	Yes	Yes	Yes
Cap	925	935	821
Service Time	1.892	1.863	2.389
HCM Lane V/C Ratio	0.032	0.166	0.068
HCM Control Delay, s/veh	7	7.6	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.6	0.2

Intersection

Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	27	1	69	59	10	3	52	67	27	136	43
Future Vol, veh/h	25	27	1	69	59	10	3	52	67	27	136	43
Peak Hour Factor	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	48	2	123	105	18	5	93	120	48	243	77
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.2	12.4	10.6	13.9
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	47%	50%	13%
Vol Thru, %	43%	51%	43%	66%
Vol Right, %	55%	2%	7%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	53	138	206
LT Vol	3	25	69	27
Through Vol	52	27	59	136
RT Vol	67	1	10	43
Lane Flow Rate	218	95	246	368
Geometry Grp	1	1	1	1
Degree of Util (X)	0.314	0.158	0.39	0.529
Departure Headway (Hd)	5.186	6.028	5.698	5.179
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	691	592	631	695
Service Time	3.235	4.087	3.744	3.221
HCM Lane V/C Ratio	0.315	0.16	0.39	0.529
HCM Control Delay, s/veh	10.6	10.2	12.4	13.9
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.3	0.6	1.8	3.1

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	28	10	1	15	14	0	1	61	12	2	162	36
Future Vol, veh/h	28	10	1	15	14	0	1	61	12	2	162	36
Peak Hour Factor	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	26	3	39	37	0	3	161	32	5	426	95
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.2	9.9	10	16.6
HCM LOS	B	A	A	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	72%	52%	1%
Vol Thru, %	82%	26%	48%	81%
Vol Right, %	16%	3%	0%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	39	29	200
LT Vol	1	28	15	2
Through Vol	61	10	14	162
RT Vol	12	1	0	36
Lane Flow Rate	195	103	76	526
Geometry Grp	1	1	1	1
Degree of Util (X)	0.274	0.17	0.127	0.669
Departure Headway (Hd)	5.063	5.953	5.987	4.573
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	715	604	601	779
Service Time	3.063	3.967	4.003	2.664
HCM Lane V/C Ratio	0.273	0.171	0.126	0.675
HCM Control Delay, s/veh	10	10.2	9.9	16.6
HCM Lane LOS	A	B	A	C
HCM 95th-tile Q	1.1	0.6	0.4	5.2

Intersection

Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	35	42	86	134	67	25
Future Vol, veh/h	35	42	86	134	67	25
Peak Hour Factor	0.55	0.55	0.55	0.55	0.55	0.55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	76	156	244	122	45
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	8.5	12.4	9.8
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	73%	0%	39%
Vol Thru, %	0%	45%	61%
Vol Right, %	27%	55%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	92	77	220
LT Vol	67	0	86
Through Vol	0	35	134
RT Vol	25	42	0
Lane Flow Rate	167	140	400
Geometry Grp	1	1	1
Degree of Util (X)	0.239	0.175	0.512
Departure Headway (Hd)	5.141	4.501	4.607
Convergence, Y/N	Yes	Yes	Yes
Cap	696	792	780
Service Time	3.197	2.554	2.648
HCM Lane V/C Ratio	0.24	0.177	0.513
HCM Control Delay, s/veh	9.8	8.5	12.4
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.9	0.6	3

APPENDIX B. FUTURE NO-BUILD HCM RESULTS

2045 PM PEAK HOUR NO-BUILD SYNCHRO OUTPUTS

HCM 7th Signalized Intersection Summary

14: Main St & Little Ave

05/16/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	81	131	389	98	85	147	827	16	94	610	51
Future Volume (veh/h)	286	81	131	389	98	85	147	827	16	94	610	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, 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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1462	1462	1462	1462	1462	1462	1462	1462	1462	1462	1462	1462
Adj Flow Rate, veh/h	308	87	141	418	105	91	158	889	17	101	656	55
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	275	101	164	241	149	129	180	619	12	168	565	47
Arrive On Green	0.08	0.20	0.20	0.08	0.21	0.21	0.07	0.43	0.43	0.06	0.42	0.42
Sat Flow, veh/h	1392	502	813	1392	723	626	1392	1430	27	1392	1330	112
Grp Volume(v), veh/h	308	0	228	418	0	196	158	0	906	101	0	711
Grp Sat Flow(s),veh/h/ln	1392	0	1315	1392	0	1349	1392	0	1457	1392	0	1442
Q Serve(g_s), s	6.6	0.0	13.8	7.0	0.0	11.2	5.4	0.0	35.8	3.3	0.0	35.1
Cycle Q Clear(g_c), s	6.6	0.0	13.8	7.0	0.0	11.2	5.4	0.0	35.8	3.3	0.0	35.1
Prop In Lane	1.00		0.62	1.00		0.46	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	275	0	265	241	0	279	180	0	631	168	0	612
V/C Ratio(X)	1.12	0.00	0.86	1.74	0.00	0.70	0.88	0.00	1.44	0.60	0.00	1.16
Avail Cap(c_a), veh/h	275	0	382	241	0	398	180	0	631	180	0	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	31.9	31.2	0.0	30.5	19.5	0.0	23.4	19.4	0.0	23.8
Incr Delay (d2), s/veh	90.9	0.0	12.7	348.8	0.0	3.2	35.7	0.0	205.6	4.9	0.0	89.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	5.3	25.5	0.0	3.8	3.4	0.0	47.5	1.2	0.0	26.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	123.3	0.0	44.6	380.1	0.0	33.7	55.2	0.0	229.0	24.3	0.0	113.6
LnGrp LOS	F		D	F		C	E		F	C		F
Approach Vol, veh/h	536			614			1064			812		
Approach Delay, s/veh	89.8			269.5			203.2			102.5		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	40.5	10.6	22.1	8.8	41.2	11.0	21.7				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.0	4.0	5.4	4.0	5.0				
Max Green Setting (Gmax), s	5.5	35.1	6.6	24.4	5.5	35.1	7.0	24.0				
Max Q Clear Time (g_c+I1), s	7.4	37.1	8.6	13.2	5.3	37.8	9.0	15.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.8				
Intersection Summary												
HCM 7th Control Delay, s/veh	169.5											
HCM 7th LOS	F											

HCM 7th TWSC
1: Main St & Legrande Ave

05/16/2025

Intersection

Int Delay, s/veh 3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	66	1116	106	70	705
Future Vol, veh/h	26	66	1116	106	70	705
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	175	-	300	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	69	1175	112	74	742

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2064	1175	0
Stage 1	1175	-	-
Stage 2	889	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	60	233	-
Stage 1	293	-	-
Stage 2	401	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	52	233	-
Mov Cap-2 Maneuver	52	-	-
Stage 1	293	-	-
Stage 2	347	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v57.44		0	1.15
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 52 233	539	-
HCM Lane V/C Ratio	-	- 0.528 0.298	0.137	-
HCM Control Delay (s/veh)	-	- 135.1 26.8	12.7	-
HCM Lane LOS	-	- F D	B	-
HCM 95th %tile Q(veh)	-	- 2 1.2	0.5	-

HCM 7th TWSC
2: Main St & Ross Ave

05/16/2025

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	66	1155	29	69	662
Future Vol, veh/h	15	66	1155	29	69	662
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	70	1229	31	73	704
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2095	1244	0	0	1260	0
Stage 1	1244	-	-	-	-	-
Stage 2	851	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	57	212	-	-	552	-
Stage 1	272	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	45	212	-	-	552	-
Mov Cap-2 Maneuver	45	-	-	-	-	-
Stage 1	272	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	80.76	0		1.18		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	126	170	-	-
HCM Lane V/C Ratio	-	-	0.686	0.133	-	-
HCM Control Delay (s/veh)	-	-	80.8	12.5	0	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	3.7	0.5	-	-

HCM 7th TWSC
3: Main St & Harper Ave

05/16/2025

Intersection						
Int Delay, s/veh	2.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	30	1165	62	41	648
Future Vol, veh/h	24	30	1165	62	41	648
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	31	1214	65	43	675

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2006	1246	0
Stage 1	1246	-	-
Stage 2	760	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	65	212	-
Stage 1	271	-	-
Stage 2	462	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	57	212	-
Mov Cap-2 Maneuver	57	-	-
Stage 1	271	-	-
Stage 2	403	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v85.57		0	0.73
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	96	107
HCM Lane V/C Ratio	-	-	0.586	0.079
HCM Control Delay (s/veh)	-	-	85.6	12.2
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	2.7	0.3

HCM 7th TWSC
4: Main St & Howard Ave

05/16/2025

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	28	1201	55	18	684
Future Vol, veh/h	18	28	1201	55	18	684
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	28	1213	56	18	691
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1968	1241	0	0	1269	0
Stage 1	1241	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	69	213	-	-	548	-
Stage 1	273	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	65	213	-	-	548	-
Mov Cap-2 Maneuver	65	-	-	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	453	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	57.53	0		0.3		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	113	46	-	
HCM Lane V/C Ratio	-	-	0.411	0.033	-	
HCM Control Delay (s/veh)	-	-	57.5	11.8	0	
HCM Lane LOS	-	-	F	B	A	
HCM 95th %tile Q(veh)	-	-	1.7	0.1	-	

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	41	16	1	12	1	17	26	12	2	17	18
Future Vol, veh/h	38	41	16	1	12	1	17	26	12	2	17	18
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	63	25	2	18	2	26	40	18	3	26	28
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	148	159	41	168	164	51	54	0	0	60	0	0
Stage 1	46	46	-	104	104	-	-	-	-	-	-	-
Stage 2	102	113	-	65	60	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	821	733	1030	795	729	1017	1552	-	-	1543	-	-
Stage 1	968	856	-	902	809	-	-	-	-	-	-	-
Stage 2	905	802	-	946	845	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	783	718	1029	694	713	1015	1552	-	-	1540	-	-
Mov Cap-2 Maneuver	783	718	-	694	713	-	-	-	-	-	-	-
Stage 1	966	855	-	885	794	-	-	-	-	-	-	-
Stage 2	867	787	-	853	843	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v10.64			10.1		2.27		0.4					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	523	-	-	784	727	88	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.186	0.03	0.002	-	-				
HCM Control Delay (s/veh)	7.4	0	-	10.6	10.1	7.3	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.1	0	-	-				

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	24	4	2	26	18	4	15	1	3	32	6
Future Vol, veh/h	33	24	4	2	26	18	4	15	1	3	32	6
Conflicting Peds, #/hr	0	0	4	4	0	0	0	0	11	11	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	36	6	3	39	27	6	23	2	5	48	9
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	67	0	0	46	0	0	213	216	54	218	206	53
Stage 1	-	-	-	-	-	-	143	143	-	59	59	-
Stage 2	-	-	-	-	-	-	70	73	-	159	146	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1535	-	-	1561	-	-	744	682	1013	738	691	1014
Stage 1	-	-	-	-	-	-	859	778	-	952	846	-
Stage 2	-	-	-	-	-	-	940	834	-	843	776	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1535	-	-	1555	-	-	658	655	998	680	664	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	658	655	-	680	664	-
Stage 1	-	-	-	-	-	-	828	749	-	951	844	-
Stage 2	-	-	-	-	-	-	877	833	-	781	747	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	4.02			0.32			10.65			10.64		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	667	947	-	-	72	-	-	701				
HCM Lane V/C Ratio	0.045	0.033	-	-	0.002	-	-	0.089				
HCM Control Delay (s/veh)	10.7	7.4	0	-	7.3	0	-	10.6				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3				

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	15	14	2	36	1	48	15	1	1	29	11
Future Vol, veh/h	7	15	14	2	36	1	48	15	1	1	29	11
Conflicting Peds, #/hr	0	0	11	11	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	19	17	2	44	1	59	19	1	1	36	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	204	184	54	197	191	20	49	0	0	21	0	0
Stage 1	45	45	-	139	139	-	-	-	-	-	-	-
Stage 2	159	139	-	59	52	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	754	710	1014	762	704	1058	1557	-	-	1595	-	-
Stage 1	969	857	-	864	782	-	-	-	-	-	-	-
Stage 2	843	781	-	953	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	677	681	1003	692	676	1057	1557	-	-	1594	-	-
Mov Cap-2 Maneuver	677	681	-	692	676	-	-	-	-	-	-	-
Stage 1	968	857	-	830	751	-	-	-	-	-	-	-
Stage 2	762	751	-	906	851	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.91	10.67	5.55	0.18
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1333	-	-	777 683	42	-	-
HCM Lane V/C Ratio	0.038	-	-	0.057 0.07	0.001	-	-
HCM Control Delay (s/veh)	7.4	0	-	9.9 10.7	7.3	0	-
HCM Lane LOS	A	A	-	A B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2 0.2	0	-	-

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	12	12	1	4	1	91	66	10	1	48	1
Future Vol, veh/h	1	12	12	1	4	1	91	66	10	1	48	1
Conflicting Peds, #/hr	4	0	2	2	0	4	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	14	14	1	5	1	107	78	12	1	56	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	360	367	61	368	362	90	60	0	0	91	0	0
Stage 1	61	61	-	300	300	-	-	-	-	-	-	-
Stage 2	298	306	-	68	62	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	596	562	1004	589	566	968	1544	-	-	1503	-	-
Stage 1	950	844	-	709	666	-	-	-	-	-	-	-
Stage 2	711	662	-	942	843	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	544	518	1000	522	522	963	1541	-	-	1501	-	-
Mov Cap-2 Maneuver	544	518	-	522	522	-	-	-	-	-	-	-
Stage 1	947	841	-	656	616	-	-	-	-	-	-	-
Stage 2	650	612	-	911	841	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v10.57			11.45		4.09		0.15					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	956	-	-	676	565	36	-	-				
HCM Lane V/C Ratio	0.069	-	-	0.044	0.012	0.001	-	-				
HCM Control Delay (s/veh)	7.5	0	-	10.6	11.5	7.4	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0	0	-	-				

HCM 7th TWSC
13: 1st St & Little Ave

05/16/2025

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	175	6	8	491	106	7	39	6	17	2	65
Future Vol, veh/h	3	175	6	8	491	106	7	39	6	17	2	65
Conflicting Peds, #/hr	8	0	6	6	0	8	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	194	7	9	546	118	8	43	7	19	2	72
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	671	0	0	207	0	0	777	900	204	853	844	614
Stage 1	-	-	-	-	-	-	210	210	-	630	630	-
Stage 2	-	-	-	-	-	-	566	689	-	223	214	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	919	-	-	1364	-	-	314	278	837	279	300	492
Stage 1	-	-	-	-	-	-	792	728	-	469	475	-
Stage 2	-	-	-	-	-	-	509	446	-	780	726	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	912	-	-	1356	-	-	260	271	832	228	292	487
Mov Cap-2 Maneuver	-	-	-	-	-	-	260	271	-	228	292	-
Stage 1	-	-	-	-	-	-	784	721	-	461	466	-
Stage 2	-	-	-	-	-	-	426	438	-	724	719	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.15			0.1			20.36			17.08		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	292	29	-	-	23	-	-	391				
HCM Lane V/C Ratio	0.198	0.004	-	-	0.007	-	-	0.239				
HCM Control Delay (s/veh)	20.4	9	0	-	7.7	0	-	17.1				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	0.9				

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	119	2	2	81	2	2
Future Vol, veh/h	119	2	2	81	2	2
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	213	4	4	145	4	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	218
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1351
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1349
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.18	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	713	-	-	43	-
HCM Lane V/C Ratio	0.01	-	-	0.003	-
HCM Control Delay (s/veh)	10.1	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	3	1	82	1	1
Future Vol, veh/h	116	3	1	82	1	1
Conflicting Peds, #/hr	0	4	4	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	57	57	57	57	57	57
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	204	5	2	144	2	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	213
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1358
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1352
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.09	10.03
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	719	-	-	22	-
HCM Lane V/C Ratio	0.005	-	-	0.001	-
HCM Control Delay (s/veh)	10	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 7th TWSC
22: Booshway St & Legrande Ave

05/16/2025

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	103	37	13	67	1	19	3	1	1	3	12
Future Vol, veh/h	18	103	37	13	67	1	19	3	1	1	3	12
Conflicting Peds, #/hr	0	0	4	4	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	206	74	26	134	2	38	6	2	2	6	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	284	0	0	508	507	247	468	543	135
Stage 1	-	-	-	-	-	-	319	319	-	187	187	-
Stage 2	-	-	-	-	-	-	189	188	-	281	356	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1448	-	-	1278	-	-	475	468	792	505	447	914
Stage 1	-	-	-	-	-	-	693	653	-	815	745	-
Stage 2	-	-	-	-	-	-	813	745	-	726	629	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1448	-	-	1273	-	-	432	443	789	472	422	914
Mov Cap-2 Maneuver	-	-	-	-	-	-	432	443	-	472	422	-
Stage 1	-	-	-	-	-	-	669	631	-	797	729	-
Stage 2	-	-	-	-	-	-	768	728	-	696	608	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.86			1.27			14.09			10.26		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	442	195	-	-	288	-	-	716				
HCM Lane V/C Ratio	0.104	0.025	-	-	0.02	-	-	0.045				
HCM Control Delay (s/veh)	14.1	7.5	0	-	7.9	0	-	10.3				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	0.1				

HCM 7th TWSC
24: Cowboy Trail & Ross Ave

05/16/2025

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	90	2	3	76	2	2	1	2	3	1	18
Future Vol, veh/h	23	90	2	3	76	2	2	1	2	3	1	18
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	138	3	5	117	3	3	2	3	5	2	28
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	120	0	0	144	0	0	340	342	142	338	342	118
Stage 1	-	-	-	-	-	-	213	213	-	128	128	-
Stage 2	-	-	-	-	-	-	127	129	-	210	214	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1468	-	-	1439	-	-	614	580	906	616	580	933
Stage 1	-	-	-	-	-	-	789	726	-	876	790	-
Stage 2	-	-	-	-	-	-	877	789	-	792	725	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1436	-	-	576	562	904	594	562	933
Mov Cap-2 Maneuver	-	-	-	-	-	-	576	562	-	594	562	-
Stage 1	-	-	-	-	-	-	767	706	-	873	788	-
Stage 2	-	-	-	-	-	-	846	786	-	767	705	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.5			0.28			10.44			9.45		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	670	358	-	-	66	-	-	842				
HCM Lane V/C Ratio	0.011	0.024	-	-	0.003	-	-	0.04				
HCM Control Delay (s/veh)	10.4	7.5	0	-	7.5	0	-	9.5				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1				

HCM 7th TWSC
25: Booshway St & Comanche Wy

05/16/2025

Intersection

Int Delay, s/veh 4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	32	28	3	35	28
Future Vol, veh/h	3	32	28	3	35	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	58	51	5	64	51

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	232	54	0
Stage 1	54	-	-
Stage 2	178	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	756	1014	-
Stage 1	969	-	-
Stage 2	853	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	724	1014	-
Mov Cap-2 Maneuver	724	-	-
Stage 1	969	-	-
Stage 2	817	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.93	0	4.12
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	980	1000
HCM Lane V/C Ratio	-	-	0.065	0.041
HCM Control Delay (s/veh)	-	-	8.9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

HCM 7th TWSC
29: Ski Hill Rd & Aspen Meadows Ln

05/16/2025

Intersection

Int Delay, s/veh 2.2

Movement SEL SER NEL NET SWT SWR

Lane Configurations 

Traffic Vol, veh/h 54 27 32 202 243 52

Future Vol, veh/h 54 27 32 202 243 52

Conflicting Peds, #/hr 0 1 1 0 0 1

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - 170 - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 59 29 35 220 264 57

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 583 294 322 0 - 0

Stage 1 293 - - - - -

Stage 2 289 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 475 745 1238 - - -

Stage 1 757 - - - - -

Stage 2 760 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 461 744 1237 - - -

Mov Cap-2 Maneuver 461 - - - - -

Stage 1 735 - - - - -

Stage 2 759 - - - - -

Approach SE NE SW

HCM Control Delay, s/v13.19 1.09 0

HCM LOS B

Minor Lane/Major Mvmt NEL NET SELn1 SWT SWR

Capacity (veh/h) 1237 - 528 - -

HCM Lane V/C Ratio 0.028 - 0.167 - -

HCM Control Delay (s/veh) 8 - 13.2 - -

HCM Lane LOS A - B - -

HCM 95th %tile Q(veh) 0.1 - 0.6 - -

HCM 7th TWSC
30: Cowboy Trail & Easy St

05/16/2025

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	7	2	2	2	1	1	1	1	1	4	1
Future Vol, veh/h	5	7	2	2	2	1	1	1	1	1	4	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	14	4	4	4	2	2	2	2	2	8	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	6	0	0	19	0	0	53	51	18	49	52	5
Stage 1	-	-	-	-	-	-	37	37	-	13	13	-
Stage 2	-	-	-	-	-	-	16	14	-	36	39	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1615	-	-	1597	-	-	946	840	1061	951	839	1078
Stage 1	-	-	-	-	-	-	978	864	-	1007	885	-
Stage 2	-	-	-	-	-	-	1004	884	-	980	862	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1615	-	-	1596	-	-	926	832	1058	938	831	1078
Mov Cap-2 Maneuver	-	-	-	-	-	-	926	832	-	938	831	-
Stage 1	-	-	-	-	-	-	971	858	-	1005	882	-
Stage 2	-	-	-	-	-	-	990	882	-	968	856	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.59			2.9			8.9			9.14		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	930	616	-	-	675	-	-	882				
HCM Lane V/C Ratio	0.006	0.006	-	-	0.003	-	-	0.014				
HCM Control Delay (s/veh)	8.9	7.2	0	-	7.3	0	-	9.1				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

HCM 7th TWSC
31: Cowboy Trail & Howard Ave

05/16/2025

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	5	4	1	3	5
Future Vol, veh/h	1	5	4	1	3	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	10	8	2	6	10

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	29	11	16	0	-	0
Stage 1	11	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	986	1070	1602	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	981	1070	1602	-	-	-
Mov Cap-2 Maneuver	981	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.45	5.81	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1440	-	1054	-	-
HCM Lane V/C Ratio	0.005	-	0.011	-	-
HCM Control Delay (s/veh)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection												
Int Delay, s/veh	10.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	225	35	21	436	43	1	101	135	20	21	108
Future Vol, veh/h	25	225	35	21	436	43	1	101	135	20	21	108
Conflicting Peds, #/hr	7	0	0	0	0	7	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	259	40	24	501	49	1	116	155	23	24	124

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	558	0	0	299	0	0	899	942	279	955	937	534
Stage 1	-	-	-	-	-	-	336	336	-	581	581	-
Stage 2	-	-	-	-	-	-	562	606	-	374	356	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1013	-	-	1262	-	-	260	263	760	238	265	546
Stage 1	-	-	-	-	-	-	678	642	-	499	500	-
Stage 2	-	-	-	-	-	-	511	487	-	647	629	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1006	-	-	1262	-	-	173	249	760	98	250	542
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	249	-	98	250	-
Stage 1	-	-	-	-	-	-	659	623	-	487	487	-
Stage 2	-	-	-	-	-	-	367	474	-	407	611	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.76	0.33	30.79	30.82
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	402	1006	-	-	1262	-	-	306
HCM Lane V/C Ratio	0.677	0.029	-	-	0.019	-	-	0.561
HCM Control Delay (s/veh)	30.8	8.7	-	-	7.9	-	-	30.8
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	4.8	0.1	-	-	0.1	-	-	3.2

Intersection

Int Delay, s/veh 7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	59	3	1	47	1	2	1	1	1	1	33
Future Vol, veh/h	33	59	3	1	47	1	2	1	1	1	1	33
Conflicting Peds, #/hr	3	0	1	1	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	100	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	73	4	1	58	1	2	1	1	1	1	41

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	62	31	23	48	51	5	42	0
Stage 1	24	24	-	7	7	-	-	-
Stage 2	38	7	-	41	44	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-
Pot Cap-1 Maneuver	933	861	1054	953	840	1078	1567	-
Stage 1	994	875	-	1015	890	-	-	-
Stage 2	977	890	-	974	858	-	-	-
Platoon blocked, %								-
Mov Cap-1 Maneuver	863	859	1053	866	838	1075	1567	-
Mov Cap-2 Maneuver	863	859	-	866	838	-	-	-
Stage 1	993	874	-	1013	889	-	-	-
Stage 2	908	888	-	888	857	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.81	9.61	3.65	0.21
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	818	-	-	866	842	43	-
HCM Lane V/C Ratio	0.002	-	-	0.136	0.072	0.001	-
HCM Control Delay (s/veh)	7.3	0	-	9.8	9.6	7.2	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0	-

Intersection

Int Delay, s/veh 5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	38	1	1	43	31	1
Future Vol, veh/h	38	1	1	43	31	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	1	1	61	44	1

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	122	32	0
Stage 1	32	-	-
Stage 2	90	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	873	1042	-
Stage 1	990	-	-
Stage 2	934	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	848	1042	-
Mov Cap-2 Maneuver	848	-	-
Stage 1	990	-	-
Stage 2	907	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.52	0	7.18
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	852	1539
HCM Lane V/C Ratio	-	-	0.065	0.029
HCM Control Delay (s/veh)	-	-	9.5	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Intersection

Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	56	5	58	62	12
Future Vol, veh/h	25	56	5	58	62	12
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	70	6	73	78	15
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	7.4	7	7.9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	31%	84%
Vol Thru, %	8%	0%	16%
Vol Right, %	92%	69%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	63	81	74
LT Vol	0	25	62
Through Vol	5	0	12
RT Vol	58	56	0
Lane Flow Rate	79	101	93
Geometry Grp	1	1	1
Degree of Util (X)	0.079	0.109	0.112
Departure Headway (Hd)	3.629	3.873	4.341
Convergence, Y/N	Yes	Yes	Yes
Cap	976	913	822
Service Time	1.693	1.947	2.387
HCM Lane V/C Ratio	0.081	0.111	0.113
HCM Control Delay, s/veh	7	7.4	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.4	0.4

Intersection

Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	26	84	4	53	41	17	10	62	72	32	118	14
Future Vol, veh/h	26	84	4	53	41	17	10	62	72	32	118	14
Peak Hour Factor	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	150	7	95	73	30	18	111	129	57	211	25
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	11.8	11.7	11.7	13.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	23%	48%	20%
Vol Thru, %	43%	74%	37%	72%
Vol Right, %	50%	4%	15%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	114	111	164
LT Vol	10	26	53	32
Through Vol	62	84	41	118
RT Vol	72	4	17	14
Lane Flow Rate	257	204	198	293
Geometry Grp	1	1	1	1
Degree of Util (X)	0.381	0.33	0.321	0.45
Departure Headway (Hd)	5.331	5.837	5.828	5.529
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	671	613	612	647
Service Time	3.395	3.906	3.897	3.589
HCM Lane V/C Ratio	0.383	0.333	0.324	0.453
HCM Control Delay, s/veh	11.7	11.8	11.7	13.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.8	1.4	1.4	2.3

Intersection

Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	2	1	10	1	4	2	158	10	3	157	1
Future Vol, veh/h	3	2	1	10	1	4	2	158	10	3	157	1
Peak Hour Factor	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	5	3	26	3	11	5	416	26	8	413	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.1	9.3	13.2	12.8
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	50%	67%	2%
Vol Thru, %	93%	33%	7%	98%
Vol Right, %	6%	17%	27%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	6	15	161
LT Vol	2	3	10	3
Through Vol	158	2	1	157
RT Vol	10	1	4	1
Lane Flow Rate	447	16	39	424
Geometry Grp	1	1	1	1
Degree of Util (X)	0.56	0.026	0.064	0.537
Departure Headway (Hd)	4.51	5.896	5.814	4.563
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	801	602	611	788
Service Time	2.545	3.98	3.892	2.599
HCM Lane V/C Ratio	0.558	0.027	0.064	0.538
HCM Control Delay, s/veh	13.2	9.1	9.3	12.8
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	3.5	0.1	0.2	3.2

Intersection

Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	144	32	59	69	23	52
Future Vol, veh/h	144	32	59	69	23	52
Peak Hour Factor	0.55	0.55	0.55	0.55	0.55	0.55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	262	58	107	125	42	95
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	10.3	9.8	8.9
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	31%	0%	46%
Vol Thru, %	0%	82%	54%
Vol Right, %	69%	18%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	75	176	128
LT Vol	23	0	59
Through Vol	0	144	69
RT Vol	52	32	0
Lane Flow Rate	136	320	233
Geometry Grp	1	1	1
Degree of Util (X)	0.182	0.393	0.304
Departure Headway (Hd)	4.807	4.424	4.703
Convergence, Y/N	Yes	Yes	Yes
Cap	743	813	763
Service Time	2.855	2.46	2.744
HCM Lane V/C Ratio	0.183	0.394	0.305
HCM Control Delay, s/veh	8.9	10.3	9.8
HCM Lane LOS	A	B	A
HCM 95th-tile Q	0.7	1.9	1.3

APPENDIX C. FUTURE BUILD HCM RESULTS

2045 PM PEAK HOUR BUILD SYNCHRO OUTPUTS

HCM 7th Signalized Intersection Summary

1: Main St & Legrande Ave

05/16/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	46	1	48	3	156	1	851	21	70	554	50
Future Volume (veh/h)	81	46	1	48	3	156	1	851	21	70	554	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, 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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1624	1624	1624	1624	1624	1624	1624	1624	1624	1624	1624	1624
Adj Flow Rate, veh/h	88	50	1	51	3	164	1	896	22	74	583	54
Peak Hour Factor	0.92	0.92	0.92	0.95	0.92	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	324	6	327	5	277	427	952	807	208	1029	872
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.59	0.59	0.05	0.63	0.63
Sat Flow, veh/h	1218	1587	32	1354	25	1355	1547	1624	1376	1547	1624	1376
Grp Volume(v), veh/h	88	0	51	51	0	167	1	896	22	74	583	54
Grp Sat Flow(s),veh/h/ln	1218	0	1619	1354	0	1380	1547	1624	1376	1547	1624	1376
Q Serve(g_s), s	5.9	0.0	2.2	2.7	0.0	9.2	0.0	42.8	0.6	1.5	17.2	1.3
Cycle Q Clear(g_c), s	15.1	0.0	2.2	4.9	0.0	9.2	0.0	42.8	0.6	1.5	17.2	1.3
Prop In Lane	1.00		0.02	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	0	331	327	0	282	427	952	807	208	1029	872
V/C Ratio(X)	0.44	0.00	0.15	0.16	0.00	0.59	0.00	0.94	0.03	0.36	0.57	0.06
Avail Cap(c_a), veh/h	213	0	347	341	0	296	517	1034	876	225	1034	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	27.5	29.5	0.0	30.3	8.2	16.0	7.3	18.6	8.8	5.9
Incr Delay (d2), s/veh	1.5	0.0	0.2	0.2	0.0	2.9	0.0	15.2	0.0	1.0	0.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.8	0.9	0.0	3.2	0.0	18.0	0.2	0.8	5.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.6	0.0	27.7	29.7	0.0	33.2	8.2	31.2	7.3	19.6	9.5	5.9
LnGrp LOS	D		C	C		C	A	C	A	B	A	A
Approach Vol, veh/h	139			218			919			711		
Approach Delay, s/veh	34.6			32.4			30.6			10.3		
Approach LOS	C			C			C			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	53.8		21.7	4.6	57.8		21.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	53.5		18.0	5.0	53.5		18.0				
Max Q Clear Time (g_c+l1), s	3.5	44.8		17.1	2.0	19.2		11.2				
Green Ext Time (p_c), s	0.0	4.5		0.0	0.0	4.4		0.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	23.8											
HCM 7th LOS	C											

HCM 7th Signalized Intersection Summary

14: Main St & Little Ave

05/16/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	140	107	140	98	129	49	643	83	33	474	68
Future Volume (veh/h)	194	140	107	140	98	129	49	643	83	33	474	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, 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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1462	1462	1462	1462	1462	1462	1462	1462	1462	1462	1462	1462
Adj Flow Rate, veh/h	209	151	115	151	105	139	53	691	89	35	510	73
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	280	210	234	245	209	220	321	731	711	177	716	700
Arrive On Green	0.08	0.14	0.14	0.07	0.14	0.14	0.04	0.50	0.50	0.03	0.49	0.49
Sat Flow, veh/h	1392	1462	1239	1392	1462	1239	1392	1462	1239	1392	1462	1239
Grp Volume(v), veh/h	209	151	115	151	105	139	53	691	89	35	510	73
Grp Sat Flow(s),veh/h/ln	1392	1462	1239	1392	1462	1239	1392	1462	1239	1392	1462	1239
Q Serve(g_s), s	5.6	7.3	6.2	5.5	4.9	7.7	1.4	33.3	2.5	0.9	20.3	2.0
Cycle Q Clear(g_c), s	5.6	7.3	6.2	5.5	4.9	7.7	1.4	33.3	2.5	0.9	20.3	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	280	210	234	245	209	220	321	731	711	177	716	700
V/C Ratio(X)	0.75	0.72	0.49	0.62	0.50	0.63	0.17	0.95	0.13	0.20	0.71	0.10
Avail Cap(c_a), veh/h	280	474	457	245	472	443	364	731	711	232	716	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	30.4	27.0	27.5	29.4	28.3	11.4	17.6	7.3	16.2	14.9	7.5
Incr Delay (d2), s/veh	10.5	4.5	1.6	4.5	1.9	3.0	0.2	22.4	0.4	0.5	6.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.8	1.9	0.8	1.8	2.4	0.4	14.6	0.7	0.3	7.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.9	34.9	28.6	32.1	31.3	31.3	11.6	40.0	7.6	16.7	20.8	7.8
LnGrp LOS	D	C	C	C	C	C	B	D	A	B	C	A
Approach Vol, veh/h	475			395			833			618		
Approach Delay, s/veh	35.6			31.6			34.7			19.0		
Approach LOS	D			C			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	41.8	9.6	15.6	6.6	42.6	9.5	15.7				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.0	4.0	5.4	4.0	5.0				
Max Green Setting (Gmax), s	5.6	36.4	5.6	24.0	5.5	36.5	5.5	24.1				
Max Q Clear Time (g_c+I1), s	3.4	22.3	7.6	9.7	2.9	35.3	7.5	9.3				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.9	0.0	0.6	0.0	1.1				
Intersection Summary												
HCM 7th Control Delay, s/veh	30.2											
HCM 7th LOS	C											

HCM 7th Roundabout
19: 5th St & Ross Ave

02/23/2025

Intersection				
Intersection Delay, s/veh	4.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	156	139	194	175
Demand Flow Rate, veh/h	159	141	197	178
Vehicles Circulating, veh/h	215	166	156	146
Vehicles Exiting, veh/h	109	187	218	161
Ped Vol Crossing Leg, #/h	0	13	4	0
Ped Cap Adj	1.000	0.998	0.999	1.000
Approach Delay, s/veh	4.6	4.2	4.6	4.4
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	159	141	197	178
Cap Entry Lane, veh/h	1108	1165	1177	1189
Entry HV Adj Factor	0.981	0.984	0.984	0.985
Flow Entry, veh/h	156	139	194	175
Cap Entry, veh/h	1087	1144	1157	1171
V/C Ratio	0.143	0.121	0.167	0.150
Control Delay, s/veh	4.6	4.2	4.6	4.4
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	1

Intersection			
Intersection Delay, s/veh	5.0		
Intersection LOS	A		
Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	303	299	175
Demand Flow Rate, veh/h	309	305	179
Vehicles Circulating, veh/h	65	76	261
Vehicles Exiting, veh/h	317	363	113
Ped Vol Crossing Leg, #/h	0	0	35
Ped Cap Adj	1.000	1.000	0.995
Approach Delay, s/veh	4.9	5.0	5.1
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	309	305	179
Cap Entry Lane, veh/h	1291	1277	1057
Entry HV Adj Factor	0.980	0.981	0.978
Flow Entry, veh/h	303	299	175
Cap Entry, veh/h	1266	1253	1029
V/C Ratio	0.239	0.239	0.170
Control Delay, s/veh	4.9	5.0	5.1
LOS	A	A	A
95th %tile Queue, veh	1	1	1

HCM 7th Roundabout
32: 5th St & Little Ave

02/23/2025

Intersection						
Intersection Delay, s/veh	6.7					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	1		1		1	1
Adj Approach Flow, veh/h	215		564		434	214
Demand Flow Rate, veh/h	219		576		442	218
Vehicles Circulating, veh/h	444		154		315	565
Vehicles Exiting, veh/h	339		603		348	165
Ped Vol Crossing Leg, #/h	1		0		0	7
Ped Cap Adj	0.999		1.000		1.000	0.999
Approach Delay, s/veh	5.7		5.1		8.7	8.0
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	L	TR	L	TR	LTR	LTR
Assumed Moves	L	TR	L	TR	LTR	LTR
RT Channelized						
Lane Util	0.096	0.904	0.431	0.569	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.609	2.609
Critical Headway, s	4.544	4.544	4.544	4.544	4.976	4.976
A (Intercept)	1420	1420	1420	1420	1380	1380
B (Slope)	9.101e-4	9.101e-4	9.101e-4	9.101e-4	1.02e-3	1.02e-3
Entry Flow, veh/h	21	198	248	328	442	218
Cap Entry Lane, veh/h	948	948	1234	1234	1001	775
Entry HV Adj Factor	1.000	0.981	0.980	0.979	0.982	0.983
Flow Entry, veh/h	21	194	243	321	434	214
Cap Entry, veh/h	947	930	1210	1209	982	761
V/C Ratio	0.022	0.209	0.201	0.266	0.442	0.281
Control Delay, s/veh	4.0	5.9	4.7	5.4	8.7	8.0
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	1	1	1	2	1

HCM 7th TWSC
2: Main St & Ross Ave

02/23/2025

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	8	864	7	8	595
Future Vol, veh/h	25	8	864	7	8	595
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	9	919	7	9	633

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1573	923	0	0	927	0
Stage 1	923	-	-	-	-	-
Stage 2	650	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	121	327	-	-	738	-
Stage 1	387	-	-	-	-	-
Stage 2	520	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	120	327	-	-	738	-
Mov Cap-2 Maneuver	120	-	-	-	-	-
Stage 1	387	-	-	-	-	-
Stage 2	514	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v36.84		0	0.13
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	120 327	738	-
HCM Lane V/C Ratio	-	-	0.222 0.026	0.012	-
HCM Control Delay (s/veh)	-	-	43.4 16.3	9.9	-
HCM Lane LOS	-	-	E C	A	-
HCM 95th %tile Q(veh)	-	-	0.8 0.1	0	-

HCM 7th TWSC
3: Main St & Harper Ave

02/23/2025

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	2	18	8	13	27	18	852	70	75	535	22
Future Vol, veh/h	1	2	18	8	13	27	18	852	70	75	535	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	96	92	96	92	96	96	96	96	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	20	8	14	28	20	888	73	78	557	24

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1659	1725	569	1678	1701	924	581	0	0	960	0	0
Stage 1	725	725	-	963	963	-	-	-	-	-	-	-
Stage 2	934	1000	-	715	737	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	78	89	521	75	92	327	993	-	-	716	-	-
Stage 1	416	430	-	307	334	-	-	-	-	-	-	-
Stage 2	319	321	-	422	424	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	52	78	521	62	80	327	993	-	-	716	-	-
Mov Cap-2 Maneuver	52	78	-	62	80	-	-	-	-	-	-	-
Stage 1	371	383	-	301	327	-	-	-	-	-	-	-
Stage 2	273	315	-	360	378	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v19.41		41.18	0.17	1.26
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	993	-	-	52	332	62	161	716	-	-
HCM Lane V/C Ratio	0.02	-	-	0.021	0.066	0.135	0.262	0.109	-	-
HCM Control Delay (s/veh)	8.7	-	-	75.3	16.6	72.1	35.1	10.6	-	-
HCM Lane LOS	A	-	-	F	C	F	E	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.2	0.4	1	0.4	-	-

HCM 7th TWSC
4: Main St & Howard Ave

02/23/2025

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	32	912	53	15	555
Future Vol, veh/h	29	32	912	53	15	555
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	32	921	54	15	561
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1539	948	0	0	975	0
Stage 1	948	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	127	316	-	-	708	-
Stage 1	377	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	124	316	-	-	708	-
Mov Cap-2 Maneuver	124	-	-	-	-	-
Stage 1	377	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	29.52	0	0.27			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	124	316	708	-
HCM Lane V/C Ratio	-	-	0.235	0.102	0.021	-
HCM Control Delay (s/veh)	-	-	42.6	17.7	10.2	-
HCM Lane LOS	-	-	E	C	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.3	0.1	-

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	34	54	41	44	16
Future Vol, veh/h	14	34	54	41	44	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	43	68	51	55	20

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	223	93	0
Stage 1	93	-	-
Stage 2	130	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	765	964	-
Stage 1	931	-	-
Stage 2	896	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	736	964	-
Mov Cap-2 Maneuver	736	-	-
Stage 1	931	-	-
Stage 2	862	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.37	0	5.53
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	884	1320
HCM Lane V/C Ratio	-	-	0.068	0.037
HCM Control Delay (s/veh)	-	-	9.4	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

HCM 7th TWSC
9: 1st St & Harper Ave

02/23/2025

Intersection												
Int Delay, s/veh	7.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	57	70	13	2	19	1	11	38	13	1	21	9
Future Vol, veh/h	57	70	13	2	19	1	11	38	13	1	21	9
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	108	20	3	29	2	17	58	20	2	32	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	149	157	40	195	154	70	46	0	0	80	0	0
Stage 1	42	42	-	104	104	-	-	-	-	-	-	-
Stage 2	107	114	-	90	49	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	819	735	1031	765	738	992	1562	-	-	1517	-	-
Stage 1	972	860	-	901	809	-	-	-	-	-	-	-
Stage 2	899	801	-	917	854	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	775	725	1030	630	728	990	1562	-	-	1514	-	-
Mov Cap-2 Maneuver	775	725	-	630	728	-	-	-	-	-	-	-
Stage 1	971	859	-	890	798	-	-	-	-	-	-	-
Stage 2	855	790	-	785	853	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v11.53		10.2	1.3	0.24
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	304	-	-	766	726	55	-
HCM Lane V/C Ratio	0.011	-	-	0.281	0.047	0.001	-
HCM Control Delay (s/veh)	7.3	0	-	11.5	10.2	7.4	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	1.2	0.1	0	-

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	22	5	1	33	19	4	16	1	5	31	13
Future Vol, veh/h	31	22	5	1	33	19	4	16	1	5	31	13
Conflicting Peds, #/hr	0	0	4	4	0	0	0	0	11	11	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	33	8	2	50	29	6	24	2	8	47	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	79	0	0	45	0	0	212	217	52	218	206	64
Stage 1	-	-	-	-	-	-	135	135	-	67	67	-
Stage 2	-	-	-	-	-	-	77	82	-	150	139	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1519	-	-	1563	-	-	745	681	1016	738	690	1000
Stage 1	-	-	-	-	-	-	868	785	-	943	839	-
Stage 2	-	-	-	-	-	-	933	827	-	852	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1519	-	-	1557	-	-	656	656	1001	681	665	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	656	656	-	681	665	-
Stage 1	-	-	-	-	-	-	838	757	-	942	838	-
Stage 2	-	-	-	-	-	-	862	826	-	789	754	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	3.98			0.14			10.67			10.47		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	667	928	-	-	32	-	-	732				
HCM Lane V/C Ratio	0.048	0.031	-	-	0.001	-	-	0.101				
HCM Control Delay (s/veh)	10.7	7.4	0	-	7.3	0	-	10.5				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3				

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	14	11	1	6	1	27	21	1	1	35	2
Future Vol, veh/h	1	14	11	1	6	1	27	21	1	1	35	2
Conflicting Peds, #/hr	0	0	11	11	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	17	14	1	7	1	33	26	1	1	43	2
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	143	142	55	160	142	28	46	0	0	28	0	0
Stage 1	47	47	-	94	94	-	-	-	-	-	-	-
Stage 2	96	95	-	65	48	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	826	749	1011	806	749	1048	1562	-	-	1585	-	-
Stage 1	967	856	-	913	817	-	-	-	-	-	-	-
Stage 2	910	816	-	945	855	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	799	732	1001	751	731	1047	1562	-	-	1584	-	-
Mov Cap-2 Maneuver	799	732	-	751	731	-	-	-	-	-	-	-
Stage 1	966	855	-	892	798	-	-	-	-	-	-	-
Stage 2	881	798	-	903	854	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v	9.52		9.78			4.05			0.19			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	983	-	-	829	762	47	-	-				
HCM Lane V/C Ratio	0.021	-	-	0.039	0.013	0.001	-	-				
HCM Control Delay (s/veh)	7.4	0	-	9.5	9.8	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-				

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	4	2	1	1	1	3	52	15	1	52	1
Future Vol, veh/h	1	4	2	1	1	1	3	52	15	1	52	1
Conflicting Peds, #/hr	4	0	2	2	0	4	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	5	2	1	1	1	4	61	18	1	61	1
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	139	154	66	147	146	76	64	0	0	81	0	0
Stage 1	66	66	-	79	79	-	-	-	-	-	-	-
Stage 2	73	88	-	68	67	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	831	738	998	821	746	985	1538	-	-	1517	-	-
Stage 1	944	840	-	930	829	-	-	-	-	-	-	-
Stage 2	937	822	-	942	839	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	822	733	994	809	740	980	1535	-	-	1514	-	-
Mov Cap-2 Maneuver	822	733	-	809	740	-	-	-	-	-	-	-
Stage 1	942	838	-	926	826	-	-	-	-	-	-	-
Stage 2	928	819	-	932	837	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v	9.51		9.35			0.32			0.14			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	74	-	-	806	831	33	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.01	0.004	0.001	-	-				
HCM Control Delay (s/veh)	7.4	0	-	9.5	9.3	7.4	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	200	10	5	284	12	15	8	3	13	12	61
Future Vol, veh/h	39	200	10	5	284	12	15	8	3	13	12	61
Conflicting Peds, #/hr	8	0	6	6	0	8	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	222	11	6	316	13	17	9	3	14	13	68
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	337	0	0	239	0	0	656	668	234	655	667	332
Stage 1	-	-	-	-	-	-	320	320	-	341	341	-
Stage 2	-	-	-	-	-	-	335	348	-	313	326	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1222	-	-	1327	-	-	379	379	805	380	379	709
Stage 1	-	-	-	-	-	-	691	652	-	674	638	-
Stage 2	-	-	-	-	-	-	679	634	-	697	648	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1213	-	-	1320	-	-	315	359	801	352	360	703
Mov Cap-2 Maneuver	-	-	-	-	-	-	315	359	-	352	360	-
Stage 1	-	-	-	-	-	-	663	625	-	666	631	-
Stage 2	-	-	-	-	-	-	597	627	-	660	622	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.27			0.13			15.68			12.42		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	315	423	1213	-	-	1320	-	-	352	607		
HCM Lane V/C Ratio	0.053	0.029	0.036	-	-	0.004	-	-	0.041	0.134		
HCM Control Delay (s/veh)	17.1	13.8	8.1	-	-	7.7	-	-	15.7	11.8		
HCM Lane LOS	C	B	A	-	-	A	-	-	C	B		
HCM 95th %tile Q(veh)	0.2	0.1	0.1	-	-	0	-	-	0.1	0.5		

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	86	3	1	57	2	3
Future Vol, veh/h	86	3	1	57	2	3
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	154	5	2	102	4	5

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	161
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1418
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1415
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.13	9.48
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	812	-	-	31	-
HCM Lane V/C Ratio	0.011	-	-	0.001	-
HCM Control Delay (s/veh)	9.5	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	88	1	1	60	1	1
Future Vol, veh/h	88	1	1	60	1	1
Conflicting Peds, #/hr	0	4	4	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	57	57	57	57	57	57
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	154	2	2	105	2	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	160
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1419
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1414
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.12	9.57
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	791	-	-	30	-
HCM Lane V/C Ratio	0.004	-	-	0.001	-
HCM Control Delay (s/veh)	9.6	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	6	1	4	2	128	11	3	176	2
Future Vol, veh/h	1	1	1	6	1	4	2	128	11	3	176	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	38	38	38	38	38	38	38	38	38	38	38
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	3	3	16	3	11	5	337	29	8	463	5
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	830	858	466	842	846	351	468	0	0	366	0	0
Stage 1	482	482	-	362	362	-	-	-	-	-	-	-
Stage 2	349	376	-	480	484	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	289	294	597	284	299	692	1093	-	-	1193	-	-
Stage 1	566	553	-	657	625	-	-	-	-	-	-	-
Stage 2	668	616	-	567	552	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	278	290	597	276	295	692	1093	-	-	1193	-	-
Mov Cap-2 Maneuver	278	290	-	276	295	-	-	-	-	-	-	-
Stage 1	561	549	-	653	622	-	-	-	-	-	-	-
Stage 2	651	612	-	556	547	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v15.71			16.01			0.12			0.13			
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	25	-	-	344	356	30	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.023	0.081	0.007	-	-				
HCM Control Delay (s/veh)	8.3	0	-	15.7	16	8	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-				

HCM 7th TWSC
22: Boosway St & Legrande Ave

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Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	101	19	11	102	7	15	47	1	4	35	25
Future Vol, veh/h	46	101	19	11	102	7	15	47	1	4	35	25
Conflicting Peds, #/hr	0	0	4	4	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	92	202	38	22	204	14	30	94	2	8	70	50
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	218	0	0	244	0	0	692	671	225	688	683	211
Stage 1	-	-	-	-	-	-	409	409	-	255	255	-
Stage 2	-	-	-	-	-	-	283	262	-	433	428	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1352	-	-	1322	-	-	358	378	814	360	372	829
Stage 1	-	-	-	-	-	-	619	596	-	749	696	-
Stage 2	-	-	-	-	-	-	724	691	-	601	585	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1352	-	-	1317	-	-	245	340	811	242	335	829
Mov Cap-2 Maneuver	-	-	-	-	-	-	245	340	-	242	335	-
Stage 1	-	-	-	-	-	-	568	547	-	735	683	-
Stage 2	-	-	-	-	-	-	599	678	-	457	536	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.18			0.71			23.97			17.17		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	314	483	-	-	163	-	-	423				
HCM Lane V/C Ratio	0.402	0.068	-	-	0.017	-	-	0.303				
HCM Control Delay (s/veh)	24	7.9	0	-	7.8	0	-	17.2				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	1.9	0.2	-	-	0.1	-	-	1.3				

HCM 7th TWSC
24: Cowboy Trail & Ross Ave

02/23/2025

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	33	3	5	54	4	2	1	3	4	1	18
Future Vol, veh/h	22	33	3	5	54	4	2	1	3	4	1	18
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	51	5	8	83	6	3	2	5	6	2	28
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	89	0	0	57	0	0	222	227	55	221	227	86
Stage 1	-	-	-	-	-	-	123	123	-	102	102	-
Stage 2	-	-	-	-	-	-	99	105	-	119	125	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1506	-	-	1547	-	-	734	672	1012	735	673	973
Stage 1	-	-	-	-	-	-	881	794	-	905	811	-
Stage 2	-	-	-	-	-	-	907	809	-	885	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1506	-	-	1544	-	-	690	652	1010	709	652	973
Mov Cap-2 Maneuver	-	-	-	-	-	-	690	652	-	709	652	-
Stage 1	-	-	-	-	-	-	859	774	-	900	807	-
Stage 2	-	-	-	-	-	-	875	804	-	859	773	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.82			0.58			9.49			9.18		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	810	672	-	-	141	-	-	896				
HCM Lane V/C Ratio	0.011	0.022	-	-	0.005	-	-	0.04				
HCM Control Delay (s/veh)	9.5	7.4	0	-	7.3	0	-	9.2				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1				

HCM 7th TWSC
25: Booshway St & Comanche Wy

02/23/2025

Intersection

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	3	109	4	3	70
Future Vol, veh/h	3	3	109	4	3	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	198	7	5	127

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	340	202	0
Stage 1	202	-	-
Stage 2	138	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	656	839	-
Stage 1	832	-	-
Stage 2	888	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	653	839	-
Mov Cap-2 Maneuver	653	-	-
Stage 1	832	-	-
Stage 2	885	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.98	0	0.31
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	734	74
HCM Lane V/C Ratio	-	-	0.015	0.004
HCM Control Delay (s/veh)	-	-	10	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 7th TWSC
29: Ski Hill Rd & Aspen Meadows Ln

02/23/2025

Intersection						
Int Delay, s/veh	0.6					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	9	9	14	242	223	22
Future Vol, veh/h	9	9	14	242	223	22
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	170	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	10	15	263	242	24

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	549	256	267	0	-	0
Stage 1	255	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	497	782	1296	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	490	781	1295	-	-	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	756	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s/v11.18		0.43	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET SELn1	SWT	SWR
Capacity (veh/h)	1295	- 602	-	-
HCM Lane V/C Ratio	0.012	- 0.032	-	-
HCM Control Delay (s/veh)	7.8	- 11.2	-	-
HCM Lane LOS	A	- B	-	-
HCM 95th %tile Q(veh)	0	- 0.1	-	-

HCM 7th TWSC
30: Cowboy Trail & Easy St

02/23/2025

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	7	2	1	4	1	1	1	1	1	2	3
Future Vol, veh/h	5	7	2	1	4	1	1	1	1	1	2	3
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	14	4	2	8	2	2	2	2	2	4	6
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	19	0	0	51	51	18	49	52	9
Stage 1	-	-	-	-	-	-	37	37	-	13	13	-
Stage 2	-	-	-	-	-	-	14	14	-	36	39	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1610	-	-	1597	-	-	948	840	1061	951	839	1073
Stage 1	-	-	-	-	-	-	978	864	-	1007	885	-
Stage 2	-	-	-	-	-	-	1006	884	-	980	862	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1610	-	-	1596	-	-	931	833	1058	939	832	1073
Mov Cap-2 Maneuver	-	-	-	-	-	-	931	833	-	939	832	-
Stage 1	-	-	-	-	-	-	971	858	-	1006	884	-
Stage 2	-	-	-	-	-	-	995	883	-	968	856	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.59			1.21			8.89			8.81		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	932	616	-	-	288	-	-	958				
HCM Lane V/C Ratio	0.006	0.006	-	-	0.001	-	-	0.013				
HCM Control Delay (s/veh)	8.9	7.3	0	-	7.3	0	-	8.8				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

HCM 7th TWSC
31: Cowboy Trail & Howard Ave

02/23/2025

Intersection

Int Delay, s/veh 4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	4	4	1	4	1
Future Vol, veh/h	1	4	4	1	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	8	8	2	8	2

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	27	9	10
Stage 1	9	-	-
Stage 2	18	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	988	1073	1610
Stage 1	1014	-	-
Stage 2	1005	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	983	1073	1610
Mov Cap-2 Maneuver	983	-	-
Stage 1	1009	-	-
Stage 2	1005	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.45	5.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1440	-	1054	-	-
HCM Lane V/C Ratio	0.005	-	0.009	-	-
HCM Control Delay (s/veh)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	21	4	1	31	1	10	100	2	1	54	21
Future Vol, veh/h	15	21	4	1	31	1	10	100	2	1	54	21
Conflicting Peds, #/hr	3	0	1	1	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	100	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	26	5	1	38	1	12	123	2	1	67	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	252	233	81	232	244	128	93	0	0	126	0	0
Stage 1	82	82	-	149	149	-	-	-	-	-	-	-
Stage 2	170	151	-	83	95	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	701	667	979	722	658	922	1502	-	-	1460	-	-
Stage 1	926	827	-	853	774	-	-	-	-	-	-	-
Stage 2	832	773	-	925	816	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	651	661	978	683	651	920	1502	-	-	1460	-	-
Mov Cap-2 Maneuver	651	661	-	683	651	-	-	-	-	-	-	-
Stage 1	925	826	-	846	767	-	-	-	-	-	-	-
Stage 2	780	766	-	890	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v10.72		10.84	0.66	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	160	-	-	679 657	22	-	-
HCM Lane V/C Ratio	0.008	-	-	0.073 0.062	0.001	-	-
HCM Control Delay (s/veh)	7.4	0	-	10.7 10.8	7.5	0	-
HCM Lane LOS	A	A	-	B B	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2 0.2	0	-	-

Intersection

Int Delay, s/veh 4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	1	7	13	1	4
Future Vol, veh/h	26	1	7	13	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	1	10	19	1	6

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	28	19	0
Stage 1	19	-	-
Stage 2	9	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	987	1059	-
Stage 1	1003	-	-
Stage 2	1014	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	986	1059	-
Mov Cap-2 Maneuver	986	-	-
Stage 1	1003	-	-
Stage 2	1014	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.79	0	1.45
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	989	360
HCM Lane V/C Ratio	-	-	0.039	0.001
HCM Control Delay (s/veh)	-	-	8.8	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0