

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	156	4	4	83	129	238
Future Vol, veh/h	156	4	4	83	129	238
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	4	4	90	140	259
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9.9	8.2	11.1
HCM LOS	A	A	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	97%	0%	35%
Vol Thru, %	3%	5%	0%
Vol Right, %	0%	95%	65%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	160	87	367
LT Vol	156	0	129
Through Vol	4	4	0
RT Vol	0	83	238
Lane Flow Rate	174	95	399
Geometry Grp	1	1	1
Degree of Util (X)	0.248	0.118	0.474
Departure Headway (Hd)	5.135	4.488	4.275
Convergence, Y/N	Yes	Yes	Yes
Cap	696	793	842
Service Time	3.188	2.547	2.308
HCM Lane V/C Ratio	0.25	0.12	0.474
HCM Control Delay	9.9	8.2	11.1
HCM Lane LOS	A	A	B
HCM 95th-tile Q	1	0.4	2.6

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	23	110	67	1	1	20
Future Vol, veh/h	23	110	67	1	1	20
Conflicting Peds, #/hr	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	120	73	1	1	22

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	74	0	-	0	244 74
Stage 1	-	-	-	-	74 -
Stage 2	-	-	-	-	170 -
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	1526	-	-	-	744 988
Stage 1	-	-	-	-	949 -
Stage 2	-	-	-	-	860 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1526	-	-	-	731 988
Mov Cap-2 Maneuver	-	-	-	-	731 -
Stage 1	-	-	-	-	932 -
Stage 2	-	-	-	-	860 -

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1526	-	-	-	972
HCM Lane V/C Ratio	0.016	-	-	-	0.023
HCM Control Delay (s)	7.4	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	22	88	48	1	1	19
Future Vol, veh/h	22	88	48	1	1	19
Conflicting Peds, #/hr	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	96	52	1	1	21

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	53	0	-	0	197 53
Stage 1	-	-	-	-	53 -
Stage 2	-	-	-	-	144 -
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	1553	-	-	-	792 1014
Stage 1	-	-	-	-	970 -
Stage 2	-	-	-	-	883 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1553	-	-	-	779 1014
Mov Cap-2 Maneuver	-	-	-	-	779 -
Stage 1	-	-	-	-	954 -
Stage 2	-	-	-	-	883 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1553	-	-	-	999
HCM Lane V/C Ratio	0.015	-	-	-	0.022
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	373	2	3	175	100	192
Future Vol, veh/h	373	2	3	175	100	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	405	2	3	190	109	209
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	15.8	9.5	12.4
HCM LOS	C	A	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	99%	0%	34%
Vol Thru, %	1%	2%	0%
Vol Right, %	0%	98%	66%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	375	178	292
LT Vol	373	0	100
Through Vol	2	3	0
RT Vol	0	175	192
Lane Flow Rate	408	193	317
Geometry Grp	1	1	1
Degree of Util (X)	0.597	0.258	0.456
Departure Headway (Hd)	5.269	4.809	5.169
Convergence, Y/N	Yes	Yes	Yes
Cap	685	745	701
Service Time	3.3	2.848	3.169
HCM Lane V/C Ratio	0.596	0.259	0.452
HCM Control Delay	15.8	9.5	12.4
HCM Lane LOS	C	A	B
HCM 95th-tile Q	4	1	2.4

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	22	80	161	1	1	17
Future Vol, veh/h	22	80	161	1	1	17
Conflicting Peds, #/hr	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	87	175	1	1	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	176	0	-	0	311 176
Stage 1	-	-	-	-	176 -
Stage 2	-	-	-	-	135 -
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	1400	-	-	-	681 867
Stage 1	-	-	-	-	855 -
Stage 2	-	-	-	-	891 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1400	-	-	-	669 867
Mov Cap-2 Maneuver	-	-	-	-	669 -
Stage 1	-	-	-	-	840 -
Stage 2	-	-	-	-	891 -

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1400	-	-	-	853
HCM Lane V/C Ratio	0.017	-	-	-	0.023
HCM Control Delay (s)	7.6	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	21	59	144	1	1	17
Future Vol, veh/h	21	59	144	1	1	17
Conflicting Peds, #/hr	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	64	157	1	1	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	158	0	-	0	268
Stage 1	-	-	-	-	158
Stage 2	-	-	-	-	110
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1422	-	-	-	721
Stage 1	-	-	-	-	871
Stage 2	-	-	-	-	915
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1422	-	-	-	709
Mov Cap-2 Maneuver	-	-	-	-	709
Stage 1	-	-	-	-	856
Stage 2	-	-	-	-	915

Approach	EB	WB	SB
HCM Control Delay, s	2	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1422	-	-	-	875
HCM Lane V/C Ratio	0.016	-	-	-	0.022
HCM Control Delay (s)	7.6	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	16.6
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	232	6	6	104	170	354
Future Vol, veh/h	232	6	6	104	170	354
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	252	7	7	113	185	385
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	12.8	9.4	19.9
HCM LOS	B	A	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	97%	0%	32%
Vol Thru, %	3%	5%	0%
Vol Right, %	0%	95%	68%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	238	110	524
LT Vol	232	0	170
Through Vol	6	6	0
RT Vol	0	104	354
Lane Flow Rate	259	120	570
Geometry Grp	1	1	1
Degree of Util (X)	0.414	0.174	0.742
Departure Headway (Hd)	5.758	5.25	4.69
Convergence, Y/N	Yes	Yes	Yes
Cap	626	682	775
Service Time	3.796	3.296	2.69
HCM Lane V/C Ratio	0.414	0.176	0.735
HCM Control Delay	12.8	9.4	19.9
HCM Lane LOS	B	A	C
HCM 95th-tile Q	2	0.6	6.8

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	23	153	90	1	1	20
Future Vol, veh/h	23	153	90	1	1	20
Conflicting Peds, #/hr	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	166	98	1	1	22

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	99	0	-	0	315 99
Stage 1	-	-	-	-	99 -
Stage 2	-	-	-	-	216 -
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	1494	-	-	-	678 957
Stage 1	-	-	-	-	925 -
Stage 2	-	-	-	-	820 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1494	-	-	-	666 957
Mov Cap-2 Maneuver	-	-	-	-	666 -
Stage 1	-	-	-	-	908 -
Stage 2	-	-	-	-	820 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1494	-	-	-	937
HCM Lane V/C Ratio	0.017	-	-	-	0.024
HCM Control Delay (s)	7.5	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	22	131	71	1	1	19
Future Vol, veh/h	22	131	71	1	1	19
Conflicting Peds, #/hr	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	142	77	1	1	21

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	78	0	-	0	268 78
Stage 1	-	-	-	-	78 -
Stage 2	-	-	-	-	190 -
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	1520	-	-	-	721 983
Stage 1	-	-	-	-	945 -
Stage 2	-	-	-	-	842 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1520	-	-	-	709 983
Mov Cap-2 Maneuver	-	-	-	-	709 -
Stage 1	-	-	-	-	929 -
Stage 2	-	-	-	-	842 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1520	-	-	-	964
HCM Lane V/C Ratio	0.016	-	-	-	0.023
HCM Control Delay (s)	7.4	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Sean Kellar, PE, PTOE

Principal Engineer

Education

B.S., Civil Engineering, Arizona State University – Tempe, AZ

Registration

Colorado, Professional Engineer (PE)
Wyoming, Professional Engineer (PE)
Idaho, Professional Engineer (PE)
Arizona, Professional Engineer (PE)
Kansas, Professional Engineer (PE)
Missouri, Professional Engineer (PE)
Professional Traffic Operations Engineer (PTOE)

Professional Memberships

Institute of Transportation Engineers (ITE)

Industry Tenure

Over 25 Years



Sean's wide range of expertise includes: transportation planning, traffic modeling roadway design, bike and pedestrian facilities, traffic impact studies, traffic signal warrant analysis, parking studies, corridor planning and access management. Sean's experience in both the private and public sectors; passion for safety and excellence; and strong communication and collaboration skills can bring great value to any project. Prior to starting Kellar Engineering, Sean was employed at the Missouri Department of Transportation (MoDOT) as the District Traffic Engineer for the Kansas City District. Sean also worked for the City of Loveland, CO for over 10 years as a Senior Civil Engineer supervising a division of transportation/traffic engineers. While at the City of Loveland, Sean managed several capital improvement projects, presented several projects to the City Council and Planning Commission in public hearings, and managed the revisions to the City's Street Standards. Sean is also proficient in Highway Capacity Software, Synchro, PT Vissim, Rodel, GIS, and AutoCAD.

WORK EXPERIENCE:

Kellar Engineering, Principal Engineer/President – January 2016 – Present

Missouri Department of Transportation, District Traffic Engineer, Kansas City District – June 2015 – January 2016

City of Loveland, Colorado, Senior Civil Engineer, Public Works Department – February 2005 – June 2015

Kirkham Michael Consulting Engineers, Project Manager - February 2004 – February 2005

Dibble and Associates Consulting Engineers, Project Engineer – August 1999 – February 2004