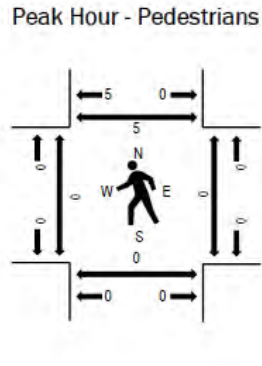
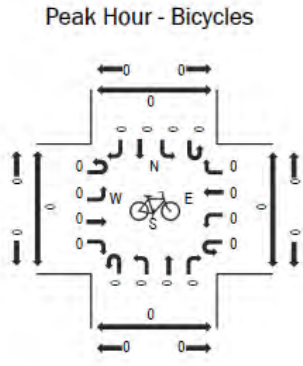
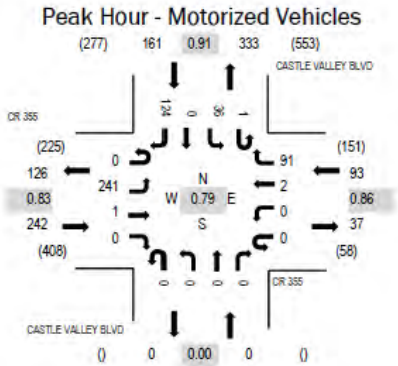


APPENDICES:

Appendix A: Traffic Counts



Location: 1 CASTLE VALLEY BLVD & CR 355 AM
 Date: Thursday, March 21, 2024
 Peak Hour: 07:15 AM - 08:15 AM
 Peak 15-Minutes: 07:45 AM - 08:00 AM



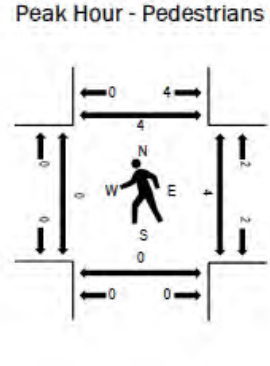
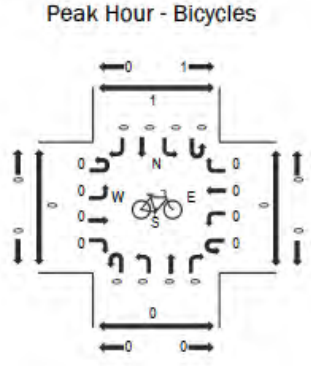
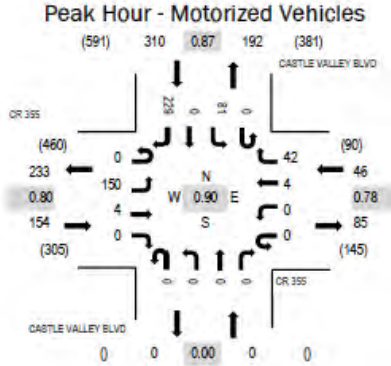
Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CR 355 Eastbound				CR 355 Westbound				CASTLE VALLEY BLVD Northbound				CASTLE VALLEY BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	52	1	0	0	0	0	9	0	0	0	0	0	3	0	15	80	481	0	0	0	0
7:15 AM	0	57	1	0	0	0	0	21	0	0	0	0	1	7	0	21	108	496	0	0	0	0
7:30 AM	0	77	0	0	0	0	0	22	0	0	0	0	0	11	0	27	137	492	0	0	0	2
7:45 AM	0	81	0	0	0	0	0	27	0	0	0	0	0	7	0	41	156	447	0	0	0	1
8:00 AM	0	26	0	0	0	0	2	21	0	0	0	0	0	11	0	35	95	355	0	0	0	2
8:15 AM	0	43	0	0	0	0	1	18	0	0	0	0	0	4	0	38	104		0	0	0	0
8:30 AM	0	35	3	0	0	0	0	18	0	0	0	0	2	6	0	28	92		0	0	0	0
8:45 AM	0	32	0	0	0	0	1	11	0	0	0	0	0	4	0	16	64		0	0	0	2
Count Total	0	403	5	0	0	0	4	147	0	0	0	0	3	53	0	221	836		0	0	0	7
Peak Hour	0	241	1	0	0	0	2	91	0	0	0	0	1	36	0	124	496		0	0	0	5



Location: 1 CASTLE VALLEY BLVD & CR 355 PM
 Date: Thursday, March 21, 2024
 Peak Hour: 05:00 PM - 06:00 PM
 Peak 15-Minutes: 05:30 PM - 05:45 PM



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CR 355 Eastbound				CR 355 Westbound				CASTLE VALLEY BLVD Northbound				CASTLE VALLEY BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	51	2	0	0	0	1	6	0	0	0	0	0	0	14	0	52	126	476	0	0	0	0
4:15 PM	0	36	0	0	0	0	2	8	0	0	0	0	0	0	12	0	63	121	479	0	0	0	1
4:30 PM	0	41	1	0	0	0	0	16	0	0	0	0	0	0	14	0	56	128	484	0	0	0	0
4:45 PM	0	20	0	0	0	0	0	11	0	0	0	0	0	0	17	0	53	101	497	0	0	0	2
5:00 PM	0	27	0	0	0	0	1	10	0	0	0	0	0	0	25	0	66	129	510	0	0	0	0
5:15 PM	0	35	3	0	0	0	1	11	0	0	0	0	0	0	15	0	61	126		0	4	0	1
5:30 PM	0	48	0	0	0	0	0	13	0	0	0	0	0	0	25	0	55	141		0	0	0	1
5:45 PM	0	40	1	0	0	0	2	8	0	0	0	0	0	0	16	0	47	114		0	0	0	2
Count Total	0	298	7	0	0	0	7	83	0	0	0	0	0	138	0	453	986			0	4	0	7
Peak Hour	0	150	4	0	0	0	4	42	0	0	0	0	0	81	0	229	510			0	4	0	4

Appendix B: Level of Service (LOS) Table

Level of Service Definitions

Level of Service (LOS)	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Appendix C: Aerial Image



Appendix D: Table 7-107: Roadway Standards

Table 7-107: Roadway Standards							
Design Standards	Major Collector	Minor Collector	Secondary Access	Rural Access	Semi Primitive	Primitive/ Driveway	Public Land Access
Design Capacity (ADT)	2501+	401 - 2500	201 – 400	101-200	21 – 100	0 – 20	No Access to DU
Minimum ROW Width (Feet)	80	60	50	50	40	15 to 30 ²	30
Lane Width (Feet)	12	12	11	11	8	Single Lane 12	Single Lane 12
Shoulder Width (Feet)	8 6 Min. Paved	6 4 Min. Paved	6 4 Min. Paved	4 2 Min. Paved	2	0	0
Ditch Width (Feet)	10	10	6	6	4	3 ²	0
Cross Slope	2%	2%	2%	2% Chip/Seal 3% Gravel	2% Chip/Seal 3% Gravel	2%	n/a
Shoulder Slope	3%	3%	5%	5%	5%	n/a	n/a
Design Speed	35 mph	35 mph	n/a	n/a	n/a	n/a	n/a
Minimum Radius (Feet)	425	185	80	80	50	40	n/a
Maximum % Grade	8%	8%	10%	12%	12%	12%	12%
Surface	Asphalt or Chip/Seal	Chip/Seal	Chip/Seal or Gravel	Gravel	Gravel	Native Material	n/a
¹ As determined adequate in an engineering review. Primitive road shall be dedicated ROW, driveway can be dedicated as either an easement or ROW. ² If determined necessary for adequate drainage. ³ Accessory Dwelling Units and Building Permits for Single Family Homes shall be exempt from these standards unless associated with a new subdivision application.							

Appendix E: HCM Calculations (Synchro)

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	251	1	2	129	81	129
Future Vol, veh/h	251	1	2	129	81	129
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	273	1	2	140	88	140
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	10.7	8.1	9.5
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	39%
Vol Thru, %	0%	2%	0%
Vol Right, %	0%	98%	61%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	252	131	210
LT Vol	251	0	81
Through Vol	1	2	0
RT Vol	0	129	129
Lane Flow Rate	274	142	228
Geometry Grp	1	1	1
Degree of Util (X)	0.367	0.167	0.292
Departure Headway (Hd)	4.826	4.217	4.601
Convergence, Y/N	Yes	Yes	Yes
Cap	742	846	778
Service Time	2.871	2.265	2.641
HCM Lane V/C Ratio	0.369	0.168	0.293
HCM Control Delay	10.7	8.1	9.5
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.7	0.6	1.2

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	22	60	114	1	1	17
Future Vol, veh/h	22	60	114	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	65	124	1	1	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	125	0	-	0	238
Stage 1	-	-	-	-	125
Stage 2	-	-	-	-	113
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	1462	-	-	-	750
Stage 1	-	-	-	-	901
Stage 2	-	-	-	-	912
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1462	-	-	-	737
Mov Cap-2 Maneuver	-	-	-	-	737
Stage 1	-	-	-	-	886
Stage 2	-	-	-	-	912

Approach	EB	WB	SB
HCM Control Delay, s	2	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1462	-	-	-	913
HCM Lane V/C Ratio	0.016	-	-	-	0.021
HCM Control Delay (s)	7.5	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	21	39	97	1	1	17
Future Vol, veh/h	21	39	97	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	42	105	1	1	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	106	0	-	0	194
Stage 1	-	-	-	-	106
Stage 2	-	-	-	-	88
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	1485	-	-	-	795
Stage 1	-	-	-	-	918
Stage 2	-	-	-	-	935
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1485	-	-	-	782
Mov Cap-2 Maneuver	-	-	-	-	782
Stage 1	-	-	-	-	903
Stage 2	-	-	-	-	935

Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1485	-	-	-	937
HCM Lane V/C Ratio	0.015	-	-	-	0.021
HCM Control Delay (s)	7.5	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1