APPENDIX C
STAGE 1 ICE ANALYSES

APPENDIX C – STAGE 1 ICE ANALYSIS

CHULUOTA ROAD & LAKE PICKETT ROAD

CAP-X WORKSHEETS

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	51	44	135	3.48%	0.00%
Westbound	0	85	108	7	3.48%	0.00%
Southbound	0	3	296	182	3.48%	0.00%
Northbound	0	177	361	66	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	53	46	140
Westbound	0	88	112	7
Southbound	0	3	306	188
Northbound	0	183	374	68

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.57	Pedestrian Accommodation Score	4.80	Bicycle Accommodation Score	4.37

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		183	374	68		3	494	0		53	186	0		88	119	0
Two-Way Stop Control	N-S		183	374	68		3	494	0		53	186	0		88	119	0
All-Way Stop Control	FULL		183	374	68		3	494	0		53	186	0		88	119	0
Partial Displaced Left Turn	N-S		183	374	68		3	306	188		53	186	0		88	119	0
Displaced Left Turn	FULL		183	374	68		3	306	188		53	46	140		88	112	7
Signalized Restricted Crossing U-Turn	N-S	0	183	374	68	0	3	306	188				140				7
Unsignalized Restricted Crossing U-Turn	N-S	0	183	374	68	0	3	306	188				140				7
Median U-Turn	N-S	0		374	68	0		306	188			46	140			112	7
Partial Median U-Turn	N-S	0		374	68	0		306	188		53	186	0		88	119	0
Signalized ThruCut	N-S		183	374	68		3	306	188		76		163		144		63
Unsignalized ThruCut	N-S		183	374	68		3	306	188		76		163		144		63
Bowtie	N-S		183	374	68		3	306	188			102	228			383	60

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Lake Pickett Road	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**11**	**2**	**0**	**2**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									975	0.57	0.57	4.80	4.37
Two-Way Stop Control	N-S									--	>10	>10	2.68	3.62
All-Way Stop Control	FULL									1568	0.87	0.87	3.69	4.37
Partial Displaced Left Turn	N-S	437	*0.24*	727	*0.40*					653	0.37	0.40	2.86	3.04
Displaced Left Turn	FULL	430	*0.24*	587	*0.33*	142	*0.08*	351	*0.19*	486	0.27	0.33	2.97	3.04
Signalized Restricted Crossing U-Turn	N-S	747	*0.42*	749	*0.42*	671	*0.37*	675	*0.38*			0.42	2.97	4.04
Unsignalized Restricted Crossing U-Turn	N-S	497	*0.23*	625	*0.13*	427	*0.33*	394	*0.37*			0.37	2.67	2.96
Median U-Turn	N-S	836	*0.46*	695	*0.39*					784	0.44	0.46	3.01	4.37
Partial Median U-Turn	N-S	726	*0.40*	629	*0.35*					836	0.48	0.48	2.91	4.37
Bowtie	N-S	353	0.26	574	0.42	207	0.19	239	0.19	757	0.42	0.42	4.80	4.33
Signalized ThruCut	N-S									651	0.37	0.37	4.87	4.42
Unsignalized ThruCut	N-S									--	1.62	1.62	4.17	4.08

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.78			0.39			0.66			0.51			0.78	5.32	4.54
75 ICD	0.74			0.38			0.65			0.44			0.74	5.32	4.54
1 X 1	0.54			0.26			0.51			0.28			0.54	5.32	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.33	1	2.97	3.04
Unsignalized Restricted Crossing U-Turn N-S	0.37	2	2.67	2.96
Signalized ThruCut N-S	0.37	3	4.87	4.42
Partial Displaced Left Turn N-S	0.40	4	2.86	3.04
Signalized Restricted Crossing U-Turn N-S	0.42	5	2.97	4.04
Bowtie N-S	0.42	5	4.80	4.33
Median U-Turn N-S	0.46	7	3.01	4.37
Partial Median U-Turn N-S	0.48	8	2.91	4.37
1 X 1	0.54	9	5.32	4.54
Traffic Signal	0.57	10	4.80	4.37

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	60	52	159	3.48%	0.00%
Westbound	0	100	127	8	3.48%	0.00%
Southbound	0	4	378	213	3.48%	0.00%
Northbound	0	208	427	77	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	62	54	165
Westbound	0	103	131	8
Southbound	0	4	391	220
Northbound	0	215	442	80

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.69	Pedestrian Accommodation Score	4.80	Bicycle Accommodation Score	4.37

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		215	442	80		4	611	0		62	219	0		103	139	0
Two-Way Stop Control	N-S		215	442	80		4	611	0		62	219	0		103	139	0
All-Way Stop Control	FULL		215	442	80		4	611	0		62	219	0		103	139	0
Partial Displaced Left Turn	N-S		215	442	80		4	391	220		62	219	0		103	139	0
Displaced Left Turn	FULL		215	442	80		4	391	220		62	54	165		103	131	8
Signalized Restricted Crossing U-Turn	N-S	0	215	442	80	0	4	391	220				165				8
Unsignalized Restricted Crossing U-Turn	N-S	0	215	442	80	0	4	391	220				165				8
Median U-Turn	N-S	0		442	80	0		391	220			54	165			131	8
Partial Median U-Turn	N-S	0		442	80	0		391	220		62	219	0		103	139	0
Signalized ThruCut	N-S		215	442	80		4	391	220		89		192		169		74
Unsignalized ThruCut	N-S		215	442	80		4	391	220		89		192		169		74
Bowtie	N-S		215	442	80		4	391	220			120	268			449	70

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name	Chuloata Road (CR 419) ICE Evaluation	**Number of Configurations**			
Project Number	No-build (2-lane) AM Interim Year (2038)	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Location	Chuluota Road (CR 419) at Lake Pickett Road	**10**	**0**	**0**	**5**
Date	March 14, 2024				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1177	0.69	0.69	4.80	4.37
Two-Way Stop Control	N-S									--	>10	>10	2.68	3.62
All-Way Stop Control	FULL									1875	1.04	1.04	3.69	4.37
Partial Displaced Left Turn	N-S	516	*0.29*	885	*0.49*					769	0.44	0.49	2.86	3.04
Displaced Left Turn	FULL	508	*0.28*	720	*0.40*	166	*0.09*	411	*0.23*	573	0.32	0.40	2.97	3.04
Signalized Restricted Crossing U-Turn	N-S	908	*0.50*	882	*0.49*	789	*0.44*	825	*0.46*			0.50	2.97	4.04
Unsignalized Restricted Crossing U-Turn	N-S	615	*0.29*	737	*0.16*	504	*0.43*	494	*0.49*			0.49	2.59	2.96
Median U-Turn	N-S	1013	*0.56*	820	*0.46*					924	0.51	0.56	2.99	4.37
Partial Median U-Turn	N-S	884	*0.49*	742	*0.41*					984	0.56	0.56	2.90	4.37
Bowtie	N-S	415	0.30	673	0.49	242	0.23	281	0.23	891	0.50	0.50	4.80	4.33
Signalized ThruCut	N-S									794	0.45	0.45	4.87	4.37
Unsignalized ThruCut	N-S									--	3.45	3.45	4.14	4.04

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.08			0.54			0.80			0.83			1.08	5.24	4.54
75 ICD	1.00			0.52			0.79			0.67			1.00	5.24	4.54
1 X 1	0.71			0.34			0.61			0.37			0.71	5.24	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.40	1	2.97	3.04
Signalized ThruCut N-S	0.45	2	4.87	4.37
Partial Displaced Left Turn N-S	0.49	3	2.86	3.04
Unsignalized Restricted Crossing U-Turn N-S	0.49	4	2.59	2.96
Signalized Restricted Crossing U-Turn N-S	0.50	5	2.97	4.04
Bowtie N-S	0.50	5	4.80	4.33
Median U-Turn N-S	0.56	7	2.99	4.37
Partial Median U-Turn N-S	0.56	7	2.90	4.37
Traffic Signal	0.69	9	4.80	4.37
1 X 1	0.71	10	5.24	4.54

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	69	60	182	3.48%	0.00%
Westbound	0	115	146	9	3.48%	0.00%
Southbound	0	4	460	245	3.48%	0.00%
Northbound	0	238	494	89	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	71	62	188
Westbound	0	119	151	9
Southbound	0	4	476	254
Northbound	0	246	511	92

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.81	Pedestrian Accommodation Score	4.80	Bicycle Accommodation Score	4.37

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1		1	1				1	1			1	1
Partial Median U-Turn	N-S	1		1	1		1	1			1	1	0		1	1	0
Signalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		246	511	92		4	730	0		71	250	0		119	160	0
Two-Way Stop Control	N-S		246	511	92		4	730	0		71	250	0		119	160	0
All-Way Stop Control	FULL		246	511	92		4	730	0		71	250	0		119	160	0
Partial Displaced Left Turn	N-S		246	511	92		4	476	254		71	250	0		119	160	0
Displaced Left Turn	FULL		246	511	92		4	476	254		71	62	188		119	151	9
Signalized Restricted Crossing U-Turn	N-S	0	246	511	92	0	4	476	254				188				9
Unsignalized Restricted Crossing U-Turn	N-S	0	246	511	92	0	4	476	254				188				9
Median U-Turn	N-S	0		511	92	0		476	254			62	188			151	9
Partial Median U-Turn	N-S	0		511	92	0		476	254		71	250	0		119	160	0
Signalized ThruCut	N-S		246	511	92		4	476	254		102		219		195		85
Unsignalized ThruCut	N-S		246	511	92		4	476	254		102		219		195		85
Bowtie	N-S		246	511	92		4	476	254			137	307			516	80

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name	Chuloata Road (CR 419) ICE Evaluation	**Number of Configurations**			
Project Number	No-build (2-lane) AM Design Year (2048)	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Location	Chuluota Road (CR 419) at Lake Pickett Road	**8**	**1**	**1**	**5**
Date	March 14, 2024				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1378	0.81	0.81	4.80	4.37
Two-Way Stop Control	N-S									--	>10	>10	2.68	3.62
All-Way Stop Control	FULL									2183	1.21	1.21	3.69	4.37
Partial Displaced Left Turn	N-S	595	*0.33*	1042	*0.58*					886	0.51	0.58	2.85	3.04
Displaced Left Turn	FULL	586	*0.33*	854	*0.47*	191	*0.11*	472	*0.26*	662	0.37	0.47	2.96	3.04
Signalized Restricted Crossing U-Turn	N-S	1072	*0.60*	1015	*0.56*	910	*0.51*	973	*0.54*			0.60	2.97	4.04
Unsignalized Restricted Crossing U-Turn	N-S	734	*0.38*	849	*0.21*	582	*0.55*	595	*0.64*			0.64	2.57	2.96
Median U-Turn	N-S	1190	*0.66*	943	*0.52*					1062	0.59	0.66	2.97	4.37
Partial Median U-Turn	N-S	1042	*0.58*	854	*0.47*					1132	0.65	0.65	2.88	4.37
Bowtie	N-S	475	0.34	774	0.56	279	0.28	321	0.26	1027	0.57	0.57	4.80	4.33
Signalized ThruCut	N-S									940	0.54	0.54	4.87	4.37
Unsignalized ThruCut	N-S									--	7.72	7.72	4.10	4.04

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.45			0.77			0.94			1.55			1.55	5.24	4.54
75 ICD	1.33			*0.71*			0.92			1.07			1.33	5.24	4.54
1 X 1	0.91			*0.43*			*0.71*			*0.48*			0.91	5.24	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.47	1	2.96	3.04
Signalized ThruCut N-S	0.54	2	4.87	4.37
Bowtie N-S	0.57	3	4.80	4.33
Partial Displaced Left Turn N-S	0.58	4	2.85	3.04
Signalized Restricted Crossing U-Turn N-S	0.60	5	2.97	4.04
Unsignalized Restricted Crossing U-Turn N-S	0.64	6	2.57	2.96
Partial Median U-Turn N-S	0.65	7	2.88	4.37
Median U-Turn N-S	0.66	8	2.97	4.37
Traffic Signal	0.81	9	4.80	4.37
1 X 1	0.91	10	5.24	4.54

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	154	121	229	3.48%	0.00%
Westbound	0	51	53	5	3.48%	0.00%
Southbound	0	15	387	106	3.48%	0.00%
Northbound	0	102	354	97	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	159	125	237
Westbound	0	53	55	5
Southbound	0	16	400	110
Northbound	0	106	366	100

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.61	Pedestrian Accommodation Score	4.80	Bicycle Accommodation Score	4.37

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1		1	1				1	1			1	1
Partial Median U-Turn	N-S	1		1	1		1	1			1	1	0		1	1	0
Signalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		106	366	100		16	510	0		159	362	0		53	60	0
Two-Way Stop Control	N-S		106	366	100		16	510	0		159	362	0		53	60	0
All-Way Stop Control	FULL		106	366	100		16	510	0		159	362	0		53	60	0
Partial Displaced Left Turn	N-S		106	366	100		16	400	110		159	362	0		53	60	0
Displaced Left Turn	FULL		106	366	100		16	400	110		159	125	237		53	55	5
Signalized Restricted Crossing U-Turn	N-S	0	106	366	100	0	16	400	110				237				5
Unsignalized Restricted Crossing U-Turn	N-S	0	106	366	100	0	16	400	110				237				5
Median U-Turn	N-S	0		366	100	0		400	110			125	237			55	5
Partial Median U-Turn	N-S	0		366	100	0		400	110		159	362	0		53	60	0
Signalized ThruCut	N-S		106	366	100		16	400	110		222		300		81		33
Unsignalized ThruCut	N-S		106	366	100		16	400	110		222		300		81		33
Bowtie	N-S		106	366	100		16	400	110			300	290			214	164

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Lake Pickett Road	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**9**	**1**	**3**	**2**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1045	0.61	0.61	4.80	4.37
Two-Way Stop Control	N-S									--	7.08	7.08	2.68	3.62
All-Way Stop Control	FULL									1732	0.96	0.96	3.69	4.37
Partial Displaced Left Turn	N-S	547	*0.30*	802	*0.45*					818	0.47	0.47	2.85	3.04
Displaced Left Turn	FULL	542	*0.30*	565	*0.31*	197	*0.11*	328	*0.18*	567	0.32	0.32	2.96	3.04
Signalized Restricted Crossing U-Turn	N-S	661	*0.37*	927	*0.52*	658	*0.37*	1066	*0.59*			0.59	3.00	4.04
Unsignalized Restricted Crossing U-Turn	N-S	526	*0.13*	572	*0.34*	525	*0.21*	453	0.86			0.86	2.61	2.96
Median U-Turn	N-S	725	*0.40*	791	*0.44*					938	0.52	0.52	3.01	4.37
Partial Median U-Turn	N-S	659	*0.37*	592	*0.33*					890	0.51	0.51	2.90	4.37
Bowtie	N-S	506	0.37	340	0.25	113	0.11	521	0.41	741	0.41	0.41	4.80	4.33
Signalized ThruCut	N-S									838	0.48	0.48	4.87	4.42
Unsignalized ThruCut	N-S									--	1.48	1.48	4.14	4.08

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.65*			0.94			0.77			*0.30*			0.94	5.24	4.54
75 ICD	*0.63*			0.90			*0.74*			*0.25*			0.90	5.24	4.54
1 X 1	*0.48*			*0.62*			*0.57*			*0.16*			0.62	5.24	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.32	1	2.96	3.04
Bowtie N-S	0.41	2	4.80	4.33
Partial Displaced Left Turn N-S	0.47	3	2.85	3.04
Signalized ThruCut N-S	0.48	4	4.87	4.42
Partial Median U-Turn N-S	0.51	5	2.90	4.37
Median U-Turn N-S	0.52	6	3.01	4.37
Signalized Restricted Crossing U-Turn N-S	0.59	7	3.00	4.04
Traffic Signal	0.61	8	4.80	4.37
1 X 1	0.62	9	5.24	4.54
Unsignalized Restricted Crossing U-Turn N-S	0.86	10	2.61	2.96

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	180	141	268	3.48%	0.00%
Westbound	0	60	63	6	3.48%	0.00%
Southbound	0	17	481	124	3.48%	0.00%
Northbound	0	120	433	113	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	186	146	277
Westbound	0	62	65	6
Southbound	0	18	498	128
Northbound	0	124	448	117

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.74	Pedestrian Accommodation Score	4.80	Bicycle Accommodation Score	4.37

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		124	448	117		18	626	0		186	423	0		62	71	0
Two-Way Stop Control	N-S		124	448	117		18	626	0		186	423	0		62	71	0
All-Way Stop Control	FULL		124	448	117		18	626	0		186	423	0		62	71	0
Partial Displaced Left Turn	N-S		124	448	117		18	498	128		186	423	0		62	71	0
Displaced Left Turn	FULL		124	448	117		18	498	128		186	146	277		62	65	6
Signalized Restricted Crossing U-Turn	N-S	0	124	448	117	0	18	498	128				277				6
Unsignalized Restricted Crossing U-Turn	N-S	0	124	448	117	0	18	498	128				277				6
Median U-Turn	N-S	0		448	117	0		498	128			146	277			65	6
Partial Median U-Turn	N-S	0		448	117	0		498	128		186	423	0		62	71	0
Signalized ThruCut	N-S		124	448	117		18	498	128		259		350		95		39
Unsignalized ThruCut	N-S		124	448	117		18	498	128		259		350		95		39
Bowtie	N-S		124	448	117		18	498	128			350	339			251	192

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Lake Pickett Road	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**8**	**1**	**0**	**6**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1252	0.74	0.74	4.80	4.37
Two-Way Stop Control	N-S									--	>10	>10	2.68	3.62
All-Way Stop Control	FULL									2075	1.15	1.15	3.69	4.37
Partial Displaced Left Turn	N-S	659	*0.37*	968	*0.54*					986	0.56	0.56	2.85	3.04
Displaced Left Turn	FULL	653	*0.36*	691	*0.38*	229	*0.13*	385	*0.21*	694	0.39	0.39	2.96	3.04
Signalized Restricted Crossing U-Turn	N-S	803	*0.45*	1104	*0.61*	790	*0.44*	1276	*0.71*			0.71	2.97	4.04
Unsignalized Restricted Crossing U-Turn	N-S	644	*0.16*	689	*0.45*	634	*0.28*	560	1.16			1.16	2.59	2.96
Median U-Turn	N-S	877	*0.49*	944	*0.52*					1117	0.62	0.62	2.97	4.37
Partial Median U-Turn	N-S	799	*0.44*	712	*0.40*					1060	0.61	0.61	2.88	4.37
Bowtie	N-S	591	0.43	397	0.29	133	0.13	609	0.48	897	0.50	0.50	4.80	4.33
Signalized ThruCut	N-S									1010	0.58	0.58	4.87	4.37
Unsignalized ThruCut	N-S									--	3.54	3.54	4.10	4.04

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.83			1.37			1.00			*0.53*			1.37	5.24	4.54
75 ICD	0.81			1.26			0.95			*0.41*			1.26	5.24	4.54
1 X 1	*0.61*			0.80			*0.72*			*0.21*			0.80	5.24	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.39	1	2.96	3.04
Bowtie N-S	0.50	2	4.80	4.33
Partial Displaced Left Turn N-S	0.56	3	2.85	3.04
Signalized ThruCut N-S	0.58	4	4.87	4.37
Partial Median U-Turn N-S	0.61	5	2.88	4.37
Median U-Turn N-S	0.62	6	2.97	4.37
Signalized Restricted Crossing U-Turn N-S	0.71	7	2.97	4.04
Traffic Signal	0.74	8	4.80	4.37
1 X 1	0.80	9	5.24	4.54
All-Way Stop Control	1.15	10	3.69	4.37

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	207	162	308	3.48%	0.00%
Westbound	0	69	72	6	3.48%	0.00%
Southbound	0	20	574	142	3.48%	0.00%
Northbound	0	138	513	130	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	214	168	319
Westbound	0	71	75	6
Southbound	0	21	594	147
Northbound	0	143	531	135

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.86	Pedestrian Accommodation Score	4.80	Bicycle Accommodation Score	4.37

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	1		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		143	531	135		21	741	0		214	487	0		71	81	0
Two-Way Stop Control	N-S		143	531	135		21	741	0		214	487	0		71	81	0
All-Way Stop Control	FULL		143	531	135		21	741	0		214	487	0		71	81	0
Partial Displaced Left Turn	N-S		143	531	135		21	594	147		214	487	0		71	81	0
Displaced Left Turn	FULL		143	531	135		21	594	147		214	168	319		71	75	6
Signalized Restricted Crossing U-Turn	N-S	0	143	531	135	0	21	594	147				319				6
Unsignalized Restricted Crossing U-Turn	N-S	0	143	531	135	0	21	594	147				319				6
Median U-Turn	N-S	0		531	135	0		594	147			168	319			75	6
Partial Median U-Turn	N-S	0		531	135	0		594	147		214	487	0		71	81	0
Signalized ThruCut	N-S		143	531	135		21	594	147		298		403		109		44
Unsignalized ThruCut	N-S		143	531	135		21	594	147		298		403		109		44
Bowtie	N-S		143	531	135		21	594	147			403	390			289	220

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name	Chuloata Road (CR 419) ICE Evaluation	**Number of Configurations**			
Project Number	No-build (2-lane) PM Design Year (2048)	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Location	Chuluota Road (CR 419) at Lake Pickett Road	6	2	0	7
Date	March 14, 2024				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1461	0.86	0.86	4.80	4.37
Two-Way Stop Control	N-S									--	>10	>10	2.62	3.62
All-Way Stop Control	FULL									2424	1.35	1.35	3.69	4.37
Partial Displaced Left Turn	N-S	773	*0.43*	1135	*0.63*					1156	0.66	0.66	2.85	3.04
Displaced Left Turn	FULL	767	*0.43*	816	*0.45*	264	*0.15*	443	*0.25*	819	0.46	0.46	2.96	3.04
Signalized Restricted Crossing U-Turn	N-S	945	*0.52*	1287	*0.71*	924	*0.51*	1490	0.83			0.83	2.97	4.04
Unsignalized Restricted Crossing U-Turn	N-S	762	*0.21*	809	*0.57*	745	*0.37*	665	1.53			1.53	2.59	2.96
Median U-Turn	N-S	1030	*0.57*	1103	*0.61*					1301	0.72	0.72	2.97	4.37
Partial Median U-Turn	N-S	941	*0.52*	835	*0.46*					1236	0.71	0.71	2.88	4.37
Bowtie	N-S	681	0.49	457	0.33	152	0.16	701	0.56	1053	0.59	0.59	4.80	4.33
Signalized ThruCut	N-S									1183	0.68	0.68	4.87	4.37
Unsignalized ThruCut	N-S									--	18.82	18.82	4.07	4.04

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.04			2.08			1.27			1.26			2.08	5.24	4.54
75 ICD	1.00			1.82			1.20			*0.74*			1.82	5.24	4.54
1 X 1	*0.75*			1.03			0.89			*0.28*			1.03	5.24	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.46	1	2.96	3.04
Bowtie N-S	0.59	2	4.80	4.33
Partial Displaced Left Turn N-S	0.66	3	2.85	3.04
Signalized ThruCut N-S	0.68	4	4.87	4.37
Partial Median U-Turn N-S	0.71	5	2.88	4.37
Median U-Turn N-S	0.72	6	2.97	4.37
Signalized Restricted Crossing U-Turn N-S	0.83	7	2.97	4.04
Traffic Signal	0.86	8	4.80	4.37
1 X 1	1.03	9	5.24	4.54
All-Way Stop Control	1.35	10	3.69	4.37

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	58	50	152	3.48%	0.00%
Westbound	0	96	122	8	3.48%	0.00%
Southbound	0	4	356	205	3.48%	0.00%
Northbound	0	200	409	74	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	60	52	157
Westbound	0	99	126	8
Southbound	0	4	368	212
Northbound	0	207	423	77

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.49	Pedestrian Accommodation Score		4.64	Bicycle Accommodation Score			4.29

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 → Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		207	423	77		4	580	0		60	209	0		99	134	0
Two-Way Stop Control	N-S		207	423	77		4	580	0		60	209	0		99	134	0
All-Way Stop Control	FULL		207	423	77		4	580	0		60	209	0		99	134	0
Partial Displaced Left Turn	N-S		207	423	77		4	368	212		60	209	0		99	134	0
Displaced Left Turn	FULL		207	423	77		4	368	212		60	52	157		99	126	8
Signalized Restricted Crossing U-Turn	N-S	0	207	423	77	0	4	368	212				157				8
Unsignalized Restricted Crossing U-Turn	N-S	0	207	423	77	0	4	368	212				157				8
Median U-Turn	N-S	0		423	77	0		368	212			52	157			126	8
Partial Median U-Turn	N-S	0		423	77	0		368	212		60	209	0		99	134	0
Signalized ThruCut	N-S		207	423	77		4	368	212		86		183		162		71
Unsignalized ThruCut	N-S		207	423	77		4	368	212		86		183		162		71
Bowtie	N-S		207	423	77		4	368	212			116	256			432	68

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Lake Pickett Road	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**10**	**0**	**2**	**3**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									833	0.49	0.49	4.64	4.29
Two-Way Stop Control	N-S									--	>10	>10	2.52	3.54
All-Way Stop Control	FULL									1793	1.00	1.00	3.50	4.29
Partial Displaced Left Turn	N-S	250	*0.14*	530	*0.29*					531	0.30	0.30	2.80	2.96
Displaced Left Turn	FULL	246	*0.14*	451	*0.25*	160	*0.09*	396	*0.22*	344	0.19	0.25	2.92	2.96
Signalized Restricted Crossing U-Turn	N-S	573	*0.32*	494	*0.27*	379	*0.21*	616	*0.34*			0.34	2.85	3.87
Unsignalized Restricted Crossing U-Turn	N-S	584	*0.28*	707	*0.15*	483	*0.44*	467	*0.50*			0.50	2.49	2.79
Median U-Turn	N-S	675	*0.37*	434	*0.24*					748	0.42	0.42	2.93	4.29
Partial Median U-Turn	N-S	551	*0.31*	359	*0.20*					743	0.42	0.42	2.82	4.29
Bowtie	N-S	235	0.17	478	0.34	162	0.15	183	0.14	766	0.43	0.43	4.60	4.25
Signalized ThruCut	N-S									573	0.33	0.33	4.72	4.29
Unsignalized ThruCut	N-S									--	2.60	2.60	3.97	3.96

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.99			*0.50*			0.76			*0.73*			0.99	5.24	4.54
75 ICD	0.93			*0.47*			0.75			*0.60*			0.93	5.24	4.54
2NS X 1EW	*0.32*	*0.33*		*0.30*			*0.29*	0.31		*0.31*			0.33	4.86	4.46

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.25	1	2.92	2.96
Partial Displaced Left Turn N-S	0.30	2	2.80	2.96
Signalized ThruCut N-S	0.33	3	4.72	4.29
2NS X 1EW	0.33	4	4.86	4.46
Signalized Restricted Crossing U-Turn N-S	0.34	5	2.85	3.87
Median U-Turn N-S	0.42	6	2.93	4.29
Partial Median U-Turn N-S	0.42	6	2.82	4.29
Bowtie N-S	0.43	8	4.60	4.25
Traffic Signal	0.49	9	4.64	4.29
Unsignalized Restricted Crossing U-Turn N-S	0.50	10	2.49	2.79

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	76	65	200	3.48%	0.00%
Westbound	0	126	160	10	3.48%	0.00%
Southbound	0	5	522	269	3.48%	0.00%
Northbound	0	262	544	98	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	79	67	207
Westbound	0	130	166	10
Southbound	0	5	540	278
Northbound	0	271	563	101

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.66	Pedestrian Accommodation Score	4.64	Bicycle Accommodation Score	4.29

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 → Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		271	563	101		5	818	0		79	274	0		130	176	0
Two-Way Stop Control	N-S		271	563	101		5	818	0		79	274	0		130	176	0
All-Way Stop Control	FULL		271	563	101		5	818	0		79	274	0		130	176	0
Partial Displaced Left Turn	N-S		271	563	101		5	540	278		79	274	0		130	176	0
Displaced Left Turn	FULL		271	563	101		5	540	278		79	67	207		130	166	10
Signalized Restricted Crossing U-Turn	N-S	0	271	563	101	0	5	540	278				207				10
Unsignalized Restricted Crossing U-Turn	N-S	0	271	563	101	0	5	540	278				207				10
Median U-Turn	N-S	0		563	101	0		540	278			67	207			166	10
Partial Median U-Turn	N-S	0		563	101	0		540	278		79	274	0		130	176	0
Signalized ThruCut	N-S		271	563	101		5	540	278		113		241		213		93
Unsignalized ThruCut	N-S		271	563	101		5	540	278		113		241		213		93
Bowtie	N-S		271	563	101		5	540	278			151	337			567	89

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Lake Pickett Road	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**9**	**0**	**1**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1120	0.66	0.66	4.64	4.29
Two-Way Stop Control	N-S									--	>10	>10	2.47	3.54
All-Way Stop Control	FULL									2417	1.34	1.34	3.50	4.29
Partial Displaced Left Turn	N-S	331	*0.18*	724	*0.40*					696	0.40	0.40	2.79	2.96
Displaced Left Turn	FULL	326	*0.18*	620	*0.34*	209	*0.12*	520	*0.29*	451	0.25	0.34	2.91	2.96
Signalized Restricted Crossing U-Turn	N-S	782	*0.43*	650	*0.36*	501	*0.28*	808	*0.45*			0.45	2.85	3.87
Unsignalized Restricted Crossing U-Turn	N-S	823	*0.45*	935	*0.25*	642	*0.74*	670	0.89			0.89	2.47	2.79
Median U-Turn	N-S	913	*0.51*	573	*0.32*					982	0.55	0.55	2.90	4.29
Partial Median U-Turn	N-S	750	*0.42*	474	*0.26*					974	0.56	0.56	2.80	4.29
Bowtie	N-S	307	0.23	627	0.44	213	0.22	241	0.19	1005	0.56	0.56	4.60	4.25
Signalized ThruCut	N-S									779	0.45	0.45	4.72	4.29
Unsignalized ThruCut	N-S									--	11.94	11.94	3.94	3.96

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.82			1.03			1.05			3.22			3.22	5.24	4.54
75 ICD	1.63			0.91			1.03			1.67			1.67	5.24	4.54
2NS X 1EW	*0.51*	*0.52*		*0.46*			*0.39*	0.42		*0.49*			0.52	4.86	4.46

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.34	1	2.91	2.96
Partial Displaced Left Turn N-S	0.40	2	2.79	2.96
Signalized Restricted Crossing U-Turn N-S	0.45	3	2.85	3.87
Signalized ThruCut N-S	0.45	3	4.72	4.29
2NS X 1EW	0.52	5	4.86	4.46
Median U-Turn N-S	0.55	6	2.90	4.29
Partial Median U-Turn N-S	0.56	7	2.80	4.29
Bowtie N-S	0.56	7	4.60	4.25
Traffic Signal	0.66	9	4.64	4.29
Unsignalized Restricted Crossing U-Turn N-S	0.89	10	2.47	2.79

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	94	81	248	3.48%	0.00%
Westbound	0	156	198	12	3.48%	0.00%
Southbound	0	6	689	333	3.48%	0.00%
Northbound	0	324	680	121	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	97	84	257
Westbound	0	161	205	12
Southbound	0	6	713	345
Northbound	0	335	704	125

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.83	Pedestrian Accommodation Score		4.64	Bicycle Accommodation Score			4.29

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		335	704	125		6	1058	0		97	341	0		161	217	0
Two-Way Stop Control	N-S		335	704	125		6	1058	0		97	341	0		161	217	0
All-Way Stop Control	FULL		335	704	125		6	1058	0		97	341	0		161	217	0
Partial Displaced Left Turn	N-S		335	704	125		6	713	345		97	341	0		161	217	0
Displaced Left Turn	FULL		335	704	125		6	713	345		97	84	257		161	205	12
Signalized Restricted Crossing U-Turn	N-S	0	335	704	125	0	6	713	345				257				12
Unsignalized Restricted Crossing U-Turn	N-S	0	335	704	125	0	6	713	345				257				12
Median U-Turn	N-S	0		704	125	0		713	345			84	257			205	12
Partial Median U-Turn	N-S	0		704	125	0		713	345		97	341	0		161	217	0
Signalized ThruCut	N-S		335	704	125		6	713	345		139		299		264		115
Unsignalized ThruCut	N-S		335	704	125		6	713	345		139		299		264		115
Bowtie	N-S		335	704	125		6	713	345			187	418			701	109

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Lake Pickett Road	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**7**	**2**	**0**	**6**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1411	0.83	0.83	4.64	4.29
Two-Way Stop Control	N-S									--	>10	>10	2.47	3.54
All-Way Stop Control	FULL									3044	1.69	1.69	3.50	4.29
Partial Displaced Left Turn	N-S	413	*0.23*	918	*0.51*					867	0.50	0.51	2.77	2.96
Displaced Left Turn	FULL	407	*0.23*	790	*0.44*	259	*0.14*	642	*0.36*	562	0.31	0.44	2.90	2.96
Signalized Restricted Crossing U-Turn	N-S	990	*0.55*	808	*0.45*	623	*0.35*	1000	*0.56*			0.56	2.82	3.87
Unsignalized Restricted Crossing U-Turn	N-S	1064	*0.70*	1164	*0.38*	801	1.17	874	1.51			1.51	2.45	2.79
Median U-Turn	N-S	1152	*0.64*	711	*0.39*					1216	0.68	0.68	2.90	4.29
Partial Median U-Turn	N-S	951	*0.53*	590	*0.33*					1208	0.69	0.69	2.79	4.29
Bowtie	N-S	380	0.28	776	0.55	264	0.29	299	0.24	1242	0.69	0.69	4.60	4.25
Signalized ThruCut	N-S									986	0.56	0.56	4.72	4.29
Unsignalized ThruCut	N-S									--	73.55	73.55	3.94	3.96

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	3.36			3.09			1.36			*-2.88*			3.36	5.24	4.54
75 ICD	2.81			2.16			1.33			*-14.90*			2.81	5.24	4.54
2NS X 1EW	*0.74*	0.76		*0.69*			*0.51*	0.54		*0.74*			0.76	4.86	4.46

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.44	1	2.90	2.96
Partial Displaced Left Turn N-S	0.51	2	2.77	2.96
Signalized Restricted Crossing U-Turn N-S	0.56	3	2.82	3.87
Signalized ThruCut N-S	0.56	3	4.72	4.29
Median U-Turn N-S	0.68	5	2.90	4.29
Partial Median U-Turn N-S	0.69	6	2.79	4.29
Bowtie N-S	0.69	6	4.60	4.25
2NS X 1EW	0.76	8	4.86	4.46
Traffic Signal	0.83	9	4.64	4.29
Unsignalized Restricted Crossing U-Turn N-S	1.51	10	2.45	2.79

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	173	136	257	3.48%	0.00%
Westbound	0	58	60	5	3.48%	0.00%
Southbound	0	17	455	119	3.48%	0.00%
Northbound	0	115	412	109	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	179	141	266
Westbound	0	60	62	5
Southbound	0	18	471	123
Northbound	0	119	426	113

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.53	Pedestrian Accommodation Score		4.64	Bicycle Accommodation Score			4.29

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		119	426	113		18	594	0		179	407	0		60	67	0
Two-Way Stop Control	N-S		119	426	113		18	594	0		179	407	0		60	67	0
All-Way Stop Control	FULL		119	426	113		18	594	0		179	407	0		60	67	0
Partial Displaced Left Turn	N-S		119	426	113		18	471	123		179	407	0		60	67	0
Displaced Left Turn	FULL		119	426	113		18	471	123		179	141	266		60	62	5
Signalized Restricted Crossing U-Turn	N-S	0	119	426	113	0	18	471	123				266				5
Unsignalized Restricted Crossing U-Turn	N-S	0	119	426	113	0	18	471	123				266				5
Median U-Turn	N-S	0		426	113	0		471	123			141	266			62	5
Partial Median U-Turn	N-S	0		426	113	0		471	123		179	407	0		60	67	0
Signalized ThruCut	N-S		119	426	113		18	471	123		250		337		91		36
Unsignalized ThruCut	N-S		119	426	113		18	471	123		250		337		91		36
Bowtie	N-S		119	426	113		18	471	123			338	326			241	184

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Lake Pickett Road	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**9**	**0**	**0**	**6**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									899	0.53	0.53	4.64	4.29
Two-Way Stop Control	N-S									--	8.14	8.14	2.52	3.54
All-Way Stop Control	FULL									1983	1.10	1.10	3.50	4.29
Partial Displaced Left Turn	N-S	324	0.18	524	0.29					706	0.40	0.40	2.79	2.96
Displaced Left Turn	FULL	321	0.18	391	0.22	222	0.12	369	0.21	424	0.24	0.24	2.91	2.96
Signalized Restricted Crossing U-Turn	N-S	459	0.25	729	0.41	377	0.21	610	0.34			0.41	2.85	3.87
Unsignalized Restricted Crossing U-Turn	N-S	612	0.15	658	0.42	605	0.29	531	1.20			1.20	2.49	2.79
Median U-Turn	N-S	530	0.29	575	0.32					808	0.45	0.45	2.92	4.29
Partial Median U-Turn	N-S	455	0.25	352	0.20					743	0.42	0.42	2.80	4.29
Bowtie	N-S	372	0.26	274	0.19	91	0.09	337	0.25	657	0.37	0.37	4.60	4.25
Signalized ThruCut	N-S									727	0.42	0.42	4.72	4.29
Unsignalized ThruCut	N-S									--	2.41	2.41	3.94	3.96

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.78			1.23			0.94			*0.44*			1.23	5.24	4.54
75 ICD	0.76			1.15			0.90			*0.35*			1.15	5.24	4.54
2NS X 1EW	*0.28*	*0.30*		*0.69*			*0.33*	0.34		*0.17*			0.69	4.86	4.46

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.24	1	2.91	2.96
Bowtie N-S	0.37	2	4.60	4.25
Partial Displaced Left Turn N-S	0.40	3	2.79	2.96
Signalized Restricted Crossing U-Turn N-S	0.41	4	2.85	3.87
Partial Median U-Turn N-S	0.42	5	2.80	4.29
Signalized ThruCut N-S	0.42	5	4.72	4.29
Median U-Turn N-S	0.45	7	2.92	4.29
Traffic Signal	0.53	8	4.64	4.29
2NS X 1EW	0.69	9	4.86	4.46
All-Way Stop Control	1.10	10	3.50	4.29

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	227	178	338	3.48%	0.00%
Westbound	0	76	79	7	3.48%	0.00%
Southbound	0	22	646	156	3.48%	0.00%
Northbound	0	151	573	143	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	235	184	350
Westbound	0	79	82	7
Southbound	0	23	668	161
Northbound	0	156	593	148

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.71	Pedestrian Accommodation Score	4.64	Bicycle Accommodation Score	4.29

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		156	593	148		23	829	0		235	534	0		79	89	0
Two-Way Stop Control	N-S		156	593	148		23	829	0		235	534	0		79	89	0
All-Way Stop Control	FULL		156	593	148		23	829	0		235	534	0		79	89	0
Partial Displaced Left Turn	N-S		156	593	148		23	668	161		235	534	0		79	89	0
Displaced Left Turn	FULL		156	593	148		23	668	161		235	184	350		79	82	7
Signalized Restricted Crossing U-Turn	N-S	0	156	593	148	0	23	668	161				350				7
Unsignalized Restricted Crossing U-Turn	N-S	0	156	593	148	0	23	668	161				350				7
Median U-Turn	N-S	0		593	148	0		668	161			184	350			82	7
Partial Median U-Turn	N-S	0		593	148	0		668	161		235	534	0		79	89	0
Signalized ThruCut	N-S		156	593	148		23	668	161		327		442		120		48
Unsignalized ThruCut	N-S		156	593	148		23	668	161		327		442		120		48
Bowtie	N-S		156	593	148		23	668	161			442	429			317	242

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Lake Pickett Road	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**8**	**0**	**0**	**7**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1205	0.71	0.71	4.64	4.29
Two-Way Stop Control	N-S									--	>10	>10	2.47	3.54
All-Way Stop Control	FULL									2686	1.49	1.49	3.50	4.29
Partial Displaced Left Turn	N-S	442	*0.25*	713	*0.40*					951	0.54	0.54	2.79	2.96
Displaced Left Turn	FULL	438	*0.24*	538	*0.30*	290	*0.16*	485	*0.27*	582	0.32	0.32	2.91	2.96
Signalized Restricted Crossing U-Turn	N-S	627	*0.35*	972	*0.54*	513	*0.28*	826	*0.46*			0.54	2.82	3.87
Unsignalized Restricted Crossing U-Turn	N-S	852	*0.25*	897	*0.68*	828	*0.54*	747	2.18			2.18	2.47	2.79
Median U-Turn	N-S	720	*0.40*	771	*0.43*					1063	0.59	0.59	2.90	4.29
Partial Median U-Turn	N-S	621	*0.35*	477	*0.27*					992	0.57	0.57	2.80	4.29
Bowtie	N-S	487	0.34	359	0.25	120	0.13	442	0.34	863	0.48	0.48	4.60	4.25
Signalized ThruCut	N-S									980	0.56	0.56	4.72	4.29
Unsignalized ThruCut	N-S									--	16.00	16.00	3.91	3.96

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.21			3.03			1.51			7.36			7.36	5.24	4.54
75 ICD	1.16			2.50			1.41			1.44			2.50	5.24	4.54
2NS X 1EW	*0.42*	*0.44*		1.10			*0.49*	0.51		*0.29*			1.10	4.86	4.46

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.32	1	2.91	2.96
Bowtie N-S	0.48	2	4.60	4.25
Partial Displaced Left Turn N-S	0.54	3	2.79	2.96
Signalized Restricted Crossing U-Turn N-S	0.54	3	2.82	3.87
Signalized ThruCut N-S	0.56	5	4.72	4.29
Partial Median U-Turn N-S	0.57	6	2.80	4.29
Median U-Turn N-S	0.59	7	2.90	4.29
Traffic Signal	0.71	8	4.64	4.29
2NS X 1EW	1.10	9	4.86	4.46
All-Way Stop Control	1.49	10	3.50	4.29

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	281	220	418	3.48%	0.00%
Westbound	0	94	98	9	3.48%	0.00%
Southbound	0	27	836	193	3.48%	0.00%
Northbound	0	187	734	177	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	291	228	433
Westbound	0	97	101	9
Southbound	0	28	865	200
Northbound	0	194	760	183

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.89	Pedestrian Accommodation Score	4.64	Bicycle Accommodation Score	4.25

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Lake Pickett Road
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		194	760	183		28	1065	0		291	661	0		97	110	0
Two-Way Stop Control	N-S		194	760	183		28	1065	0		291	661	0		97	110	0
All-Way Stop Control	FULL		194	760	183		28	1065	0		291	661	0		97	110	0
Partial Displaced Left Turn	N-S		194	760	183		28	865	200		291	661	0		97	110	0
Displaced Left Turn	FULL		194	760	183		28	865	200		291	228	433		97	101	9
Signalized Restricted Crossing U-Turn	N-S	0	194	760	183	0	28	865	200				433				9
Unsignalized Restricted Crossing U-Turn	N-S	0	194	760	183	0	28	865	200				433				9
Median U-Turn	N-S	0		760	183	0		865	200			228	433			101	9
Partial Median U-Turn	N-S	0		760	183	0		865	200		291	661	0		97	110	0
Signalized ThruCut	N-S		194	760	183		28	865	200		405		547		148		60
Unsignalized ThruCut	N-S		194	760	183		28	865	200		405		547		148		60
Bowtie	N-S		194	760	183		28	865	200			547	530			392	300

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Lake Pickett Road	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**7**	**0**	**1**	**7**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1511	0.89	0.89	4.64	4.25
Two-Way Stop Control	N-S									--	>10	>10	2.42	3.50
All-Way Stop Control	FULL									3389	1.88	1.88	3.50	4.25
Partial Displaced Left Turn	N-S	559	*0.31*	902	*0.50*					1196	0.68	0.68	2.79	2.92
Displaced Left Turn	FULL	555	*0.31*	685	*0.38*	358	*0.20*	601	*0.33*	739	0.41	0.41	2.91	2.92
Signalized Restricted Crossing U-Turn	N-S	794	*0.44*	1217	*0.68*	647	*0.36*	1041	*0.58*			0.68	2.82	3.83
Unsignalized Restricted Crossing U-Turn	N-S	1093	*0.39*	1137	1.06	1051	0.94	962	3.76			3.76	2.47	2.75
Median U-Turn	N-S	910	*0.51*	967	*0.54*					1329	0.74	0.74	2.90	4.25
Partial Median U-Turn	N-S	789	*0.44*	604	*0.34*					1240	0.71	0.71	2.80	4.25
Bowtie	N-S	602	0.42	445	0.31	148	0.17	547	0.43	1068	0.59	0.59	4.60	4.25
Signalized ThruCut	N-S									1232	0.70	0.70	4.72	4.29
Unsignalized ThruCut	N-S									--	28.50	28.50	3.87	3.96

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.73			29.11			2.32			*-0.86*			29.11	5.21	4.50
75 ICD	1.64			9.11			2.11			*-1.65*			9.11	5.21	4.50
2NS X 1EW	*0.57*	*0.60*		1.64			*0.69*	0.71		*0.44*			1.64	4.82	4.42

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.41	1	2.91	2.92
Bowtie N-S	0.59	2	4.60	4.25
Partial Displaced Left Turn N-S	0.68	3	2.79	2.92
Signalized Restricted Crossing U-Turn N-S	0.68	3	2.82	3.83
Signalized ThruCut N-S	0.70	5	4.72	4.29
Partial Median U-Turn N-S	0.71	6	2.80	4.25
Median U-Turn N-S	0.74	7	2.90	4.25
Traffic Signal	0.89	8	4.64	4.25
2NS X 1EW	1.64	9	4.82	4.42
All-Way Stop Control	1.88	10	3.50	4.25

Table 1, Lake Pickett Road Cap-x Results

Build Type	Year	Peak Hour	Intersection Control Rank 1 (V/C Ratio)	Intersection Control Rank 2 (V/C Ratio)	Intersection Control Rank 3 (V/C Ratio)	Intersection Control Rank 4 (V/C Ratio)	Intersection Control Rank 5 (V/C Ratio)	Intersection Control Rank 6 (V/C Ratio)	Intersection Control Rank 7 (V/C Ratio)	Intersection Control Rank 8 (V/C Ratio)	Intersection Control Rank 9 (V/C Ratio)	Intersection Control Rank 10 (V/C Ratio)
No-Build (2-lane)	2028	AM	DLT (0.33)	Unsignalized RCUT N-S (0.37)	Signalized ThruCut N-S (0.37)	Partial DLT N-S (0.40)	Signalized RCUT N-S (0.42)	Bowtie N-S (0.42)	MUT N-S (0.46)	Partial MUT N-S (0.48)	1 X 1 Roundabout (0.54)	Traffic Signal (0.57)
	2038		DLT (0.40)	Signalized ThruCut N-S (0.45)	Partial DLT N-S (0.49)	Unsignalized RCUT N-S (0.49)	Signalized RCUT N-S (0.50)	Bowtie N-S (0.50)	MUT N-S (0.56)	Partial MUT N-S (0.56)	Traffic Signal (0.69)	1 X 1 Roundabout (0.71)
	2048		DLT (0.47)	Signalized ThruCut N-S (0.54)	Bowtie N-S (0.57)	Partial DLT N-S (0.58)	Signalized RCUT N-S (0.60)	Unsignalized RCUT N-S (0.64)	Partial MUT N-S (0.65)	MUT N-S (0.66)	Traffic Signal (0.81)	1 X 1 Roundabout (0.91)
	2028	PM	DLT (0.32)	Bowtie N-S (0.41)	Partial DLT N-S (0.47)	Signalized ThruCut N-S (0.48)	Partial MUT N-S (0.51)	MUT N-S (0.52)	Signalized RCUT N-S (0.59)	Traffic Signal (0.61)	1 X 1 Roundabout (0.62)	Unsignalized RCUT N-S (0.86)
	2038		DLT (0.39)	Bowtie N-S (0.50)	Partial DLT N-S (0.56)	Signalized ThruCut N-S (0.58)	Partial MUT N-S (0.61)	MUT N-S (0.62)	Signalized RCUT N-S (0.71)	Traffic Signal (0.74)	1 X 1 Roundabout (0.80)	AWSC (1.15)
	2048		DLT (0.46)	Bowtie N-S (0.59)	Partial DLT N-S (0.66)	Signalized ThruCut N-S (0.68)	Partial MUT N-S (0.71)	MUT N-S (0.72)	Signalized RCUT N-S (0.83)	Traffic Signal (0.86)	1 X 1 Roundabout (1.03)	AWSC (1.35)
Build (4-lane)	2028	AM	DLT (0.25)	Partial DLT N-S (0.30)	Signalized ThruCut N-S (0.33)	2NS X 1EW Roundabout (0.33)	Signalized RCUT N-S (0.34)	MUT N-S (0.42)	Partial MUT N-S (0.42)	Bowtie N-S (0.43)	Traffic Signal (0.49)	Unsignalized RCUT N-S (0.50)
	2038		DLT (0.34)	Partial DLT N-S (0.40)	Signalized RCUT N-S (0.45)	Signalized ThruCut N-S (0.45)	2NS X 1EW Roundabout (0.52)	MUT N-S (0.55)	Partial MUT N-S (0.56)	Bowtie N-S (0.56)	Traffic Signal (0.66)	Unsignalized RCUT N-S (0.89)
	2048		DLT (0.44)	Partial DLT N-S (0.51)	Signalized RCUT N-S (0.56)	Signalized ThruCut N-S (0.56)	MUT N-S (0.68)	Partial MUT N-S (0.69)	Bowtie N-S (0.69)	2NS X 1EW Roundabout (0.76)	Traffic Signal (0.83)	Unsignalized RCUT N-S (1.51)
	2028	PM	DLT (0.24)	Bowtie N-S (0.37)	Partial DLT N-S (0.40)	Signalized RCUT N-S (0.41)	Partial MUT N-S (0.42)	Signalized ThruCut N-S (0.42)	MUT N-S (0.45)	Traffic Signal (0.53)	2NS X 1EW Roundabout (0.69)	AWSC (1.10)
	2038		DLT (0.32)	Bowtie N-S (0.48)	Partial DLT N-S (0.54)	Signalized RCUT N-S (0.54)	Signalized ThruCut N-S (0.56)	Partial MUT N-S (0.57)	MUT N-S (0.59)	Traffic Signal (0.71)	2NS X 1EW Roundabout (1.10)	AWSC (1.49)
	2048		DLT (0.41)	Bowtie N-S (0.59)	Partial DLT N-S (0.68)	Signalized RCUT N-S (0.68)	Signalized ThruCut N-S (0.70)	Partial MUT N-S (0.71)	MUT N-S (0.74)	Traffic Signal (0.89)	2NS X 1EW Roundabout (1.64)	AWSC (1.88)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

V/C Ratio Legend	
	< 0.750
	0.750 - 0.875
	0.875 - 1.00
	≥ 1.00

SPICE WORKSHEETS

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Lake Pickett Road	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	3.16	--	--	8	Yes	Yes	Calibrated SPF w/ EB	94		9
	Fatal & Injury	1.07	--	--							
Minor Road Stop	Total	3.22	--	--	9	No	Yes	Calibrated SPF	93		12
	Fatal & Injury	1.39	--	--							
All Way Stop	Total	3.30	--	--	6	Yes	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	0.91	--	--							
1-lane Roundabout	Total	1.82	--	--	1	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.35	--	--							
Displaced Left Turn (DLT)	Total	2.78	--	--	7	N/A	N/A	CMF	94		10
	Fatal & Injury	0.94	--	--							
Median U-Turn (MUT)	Total	1.99	--	--	5	N/A	N/A	CMF	98		3
	Fatal & Injury	0.82	--	--							
Signalized RCUT	Total	2.98	--	--	2	Yes	Yes	Uncalibrated SPF	97		4
	Fatal & Injury	0.66	--	--							
Unsignalized RCUT	Total	3.57	--	--	3	Yes	Yes	Uncalibrated SPF	96		6
	Fatal & Injury	0.71	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	97		5
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	95		7
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	95	####	8
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	2.34	--	--	4	N/A	N/A	CMF	94		11
	Fatal & Injury	0.79	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	12,250	
Opening Year - Minor Road AADT	5,800	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	
1-Lane Roundabout	Yes	--	
2-Lane Roundabout	No	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Unsignalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Bowtie*	Yes	--	**SSI Only, No Crash Prediction Available*
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	**Please Select*
Other 2*		Minor Road Stop	**Please Select*

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	No

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	12,250	
Minor	5,800	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available?	No
Are peak hour turning movement counts available?	Yes

If "Yes", input values in **Table 2-A**
If "Yes", input values in **Table 2-B**

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	3790.845	
Major Left Turn 1	1462.328	
Major Right Turn 1	871.8276	
Major Thru 2	4737.42	
Major Left Turn 2	109.529	
Major Right Turn 2	1278.051	
Minor Thru 1	817.764	
Minor Left Turn 1	764.5773	
Minor Right Turn 1	1317.659	
Minor Thru 2	310.6193	
Minor Left Turn 2	1294.69	
Minor Right Turn 2	1294.69	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	361	0.597682119	354	0.640145	0.618913
Major Left Turn 1	NBL	177	0.293046358	102	0.184448	0.238747
Major Right Turn 1	NBR	66	0.109271523	97	0.175407	0.142339
Major Thru 2	SBT	296	0.615384615	387	0.761811	0.688598
Major Left Turn 2	SBL	3	0.006237006	15	0.029528	0.017882
Major Right Turn 2	SBR	182	0.378378378	106	0.208661	0.29352
Minor Thru 1	EBT	44	0.191304348	121	0.240079	0.215692
Minor Left Turn 1	EBL	51	0.22173913	154	0.305556	0.263647
Minor Right Turn 1	EBR	135	0.586956522	229	0.454365	0.520661
Minor Thru 2	WBT	108	0.54	53	0.486239	0.513119
Minor Left Turn 2	WBL	85	0.425	51	0.46789	0.446445
Minor Right Turn 2	WBR	7	0.035	5	0.045872	0.040436

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.618913392
Major Left Turn 1	0.23874741
Major Right Turn 1	0.142339197
Major Thru 2	0.7734563
Major Left Turn 2	0.017882283
Major Right Turn 2	0.208661417
Minor Thru 1	0.281987578
Minor Left Turn 1	0.263647343
Minor Right Turn 1	0.454365079
Minor Thru 2	0.107110092
Minor Left Turn 2	0.446444954
Minor Right Turn 2	0.446444954

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	45
Major thru	50
Major left	20
Major right	15
Minor thru	38.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	5	5	0	2	1	--	--	--	--	--	13
	Fatal/Injury	1	2	0	1	1						5
	PDO	4	3	0	1	0						8
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	5	5	0	2	1	--	--	--	--	--	13

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Lake Pickett Road	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	3.46	--	--	8	Yes	Yes	Calibrated SPF w/ EB	92		9
	Fatal & Injury	1.18	--	--							
Minor Road Stop	Total	3.92	--	--	9	No	Yes	Calibrated SPF	90		12
	Fatal & Injury	1.69	--	--							
All Way Stop	Total	3.95	--	--	7	No	Yes	Uncalibrated SPF w/ EB	98		2
	Fatal & Injury	1.09	--	--							
1-lane Roundabout	Total	2.05	--	--	1	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.40	--	--							
Displaced Left Turn (DLT)	Total	3.05	--	--	6	N/A	N/A	CMF	92		10
	Fatal & Injury	1.04	--	--							
Median U-Turn (MUT)	Total	2.18	--	--	5	N/A	N/A	CMF	97		3
	Fatal & Injury	0.89	--	--							
Signalized RCUT	Total	3.81	--	--	3	Yes	Yes	Uncalibrated SPF	96		4
	Fatal & Injury	0.86	--	--							
Unsignalized RCUT	Total	3.96	--	--	2	Yes	Yes	Uncalibrated SPF	95		6
	Fatal & Injury	0.80	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	95		5
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	94		7
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	93	####	8
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	2.56	--	--	4	N/A	N/A	CMF	92		11
	Fatal & Injury	0.87	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	14,350	
Opening Year - Minor Road AADT	6,850	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	Yes	--	
2-Lane Roundabout	No	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	*Please Select
Other 2*		Minor Road Stop	*Please Select

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	No

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	14,350	
Minor	6,850	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available? **No** If "Yes", input values in **Table 2-A**
Are peak hour turning movement counts available? **Yes** If "Yes", input values in **Table 2-B**
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	4483.906	
Major Left Turn 1	1694.43	
Major Right Turn 1	996.664	
Major Thru 2	5622.446	
Major Left Turn 2	122.1683	
Major Right Turn 2	1430.386	
Minor Thru 1	964.1	
Minor Left Turn 1	902.4959	
Minor Right Turn 1	1558.404	
Minor Thru 2	374.5299	
Minor Left Turn 2	1525.235	
Minor Right Turn 2	1525.235	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	427	0.599719101	433	0.65015	0.624935
Major Left Turn 1	NBL	208	0.292134831	120	0.18018	0.236158
Major Right Turn 1	NBR	77	0.108146067	113	0.16967	0.138908
Major Thru 2	SBT	378	0.635294118	481	0.773312	0.704303
Major Left Turn 2	SBL	4	0.006722689	17	0.027331	0.017027
Major Right Turn 2	SBR	213	0.357983193	124	0.199357	0.27867
Minor Thru 1	EBT	52	0.191881919	141	0.239389	0.215635
Minor Left Turn 1	EBL	60	0.221402214	180	0.305603	0.263502
Minor Right Turn 1	EBR	159	0.586715867	268	0.455008	0.520862
Minor Thru 2	WBT	127	0.540425532	63	0.488372	0.514399
Minor Left Turn 2	WBL	100	0.425531915	60	0.465116	0.445324
Minor Right Turn 2	WBR	8	0.034042553	6	0.046512	0.040277

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.624934626
Major Left Turn 1	0.236157506
Major Right Turn 1	0.138907869
Major Thru 2	0.783616147
Major Left Turn 2	0.017026939
Major Right Turn 2	0.199356913
Minor Thru 1	0.281489046
Minor Left Turn 1	0.263502465
Minor Right Turn 1	0.455008489
Minor Thru 2	0.109351806
Minor Left Turn 2	0.445324097
Minor Right Turn 2	0.445324097

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	45
Major thru	50
Major left	20
Major right	15
Minor thru	38.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	5	5	0	2	1	--	--	--	--	--	13
	Fatal/Injury	1	2	0	1	1						5
	PDO	4	3	0	1	0						8
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	5	5	0	2	1	--	--	--	--	--	13

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Lake Pickett Road	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	3.73	--	--	8	Yes	Yes	Calibrated SPF w/ EB	90		9
	Fatal & Injury	1.27	--	--							
Minor Road Stop	Total	4.63	--	--	9	No	Yes	Calibrated SPF	87		12
	Fatal & Injury	2.00	--	--							
All Way Stop	Total	4.60	--	--	7	No	Yes	Uncalibrated SPF w/ EB	98		2
	Fatal & Injury	1.26	--	--							
1-lane Roundabout	Total	2.27	--	--	1	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	0.45	--	--							
Displaced Left Turn (DLT)	Total	3.29	--	--	6	N/A	N/A	CMF	90		10
	Fatal & Injury	1.12	--	--							
Median U-Turn (MUT)	Total	2.35	--	--	4	N/A	N/A	CMF	96		3
	Fatal & Injury	0.96	--	--							
Signalized RCUT	Total	4.71	--	--	5	Yes	Yes	Uncalibrated SPF	95		4
	Fatal & Injury	1.08	--	--							
Unsignalized RCUT	Total	4.34	--	--	2	Yes	Yes	Uncalibrated SPF	94		6
	Fatal & Injury	0.89	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	94		5
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	92		7
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	91	####	8
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	2.76	--	--	3	N/A	N/A	CMF	90		11
	Fatal & Injury	0.94	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	16,450	
Opening Year - Minor Road AADT	7,850	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	Yes	--	
2-Lane Roundabout	No	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	*Please Select
Other 2*		Minor Road Stop	*Please Select

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	No

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	16,450	
Minor	7,850	

ADT Directional Split	
Major	0.50
Minor	0.50

Are turning movement ADT values are available? **No** If "Yes", input values in **Table 2-A**
Are peak hour turning movement counts available? **Yes** If "Yes", input values in **Table 2-B**
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	5175.809	
Major Left Turn 1	1918.839	
Major Right Turn 1	1130.352	
Major Thru 2	6503.157	
Major Left Turn 2	134.9544	
Major Right Turn 2	1586.889	
Minor Thru 1	1103.863	
Minor Left Turn 1	1035.465	
Minor Right Turn 1	1785.672	
Minor Thru 2	410.8938	
Minor Left Turn 2	1757.053	
Minor Right Turn 2	1757.053	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	494	0.601705238	513	0.65685	0.629278
Major Left Turn 1	NBL	238	0.289890378	138	0.176697	0.233293
Major Right Turn 1	NBR	89	0.108404385	130	0.166453	0.137429
Major Thru 2	SBT	460	0.648801128	574	0.779891	0.714346
Major Left Turn 2	SBL	4	0.005641749	20	0.027174	0.016408
Major Right Turn 2	SBR	245	0.345557123	142	0.192935	0.269246
Minor Thru 1	EBT	60	0.192926045	162	0.239291	0.216109
Minor Left Turn 1	EBL	69	0.221864952	207	0.305761	0.263813
Minor Right Turn 1	EBR	182	0.585209003	308	0.454948	0.520079
Minor Thru 2	WBT	146	0.540740741	72	0.489796	0.515268
Minor Left Turn 2	WBL	115	0.425925926	69	0.469388	0.447657
Minor Right Turn 2	WBR	9	0.033333333	6	0.040816	0.037075

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.629277715
Major Left Turn 1	0.23329346
Major Right Turn 1	0.137428825
Major Thru 2	0.790657386
Major Left Turn 2	0.016407831
Major Right Turn 2	0.192934783
Minor Thru 1	0.281238868
Minor Left Turn 1	0.26381283
Minor Right Turn 1	0.454948301
Minor Thru 2	0.104686319
Minor Left Turn 2	0.447656841
Minor Right Turn 2	0.447656841

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	45
Major thru	50
Major left	20
Major right	15
Minor thru	38.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	5	5	0	2	1	--	--	--	--	--	13
	Fatal/Injury	1	2	0	1	1						5
	PDO	4	3	0	1	0						8
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	5	5	0	2	1	--	--	--	--	--	13

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Lake Pickett Road	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	3.45	--	--	8	Yes	Yes	Calibrated SPF w/ EB	87		10
	Fatal & Injury	1.17	--	--							
Minor Road Stop	Total	3.83	--	--	9	No	Yes	Calibrated SPF	84		12
	Fatal & Injury	1.65	--	--							
All Way Stop	Total	3.91	--	--	6	No	Yes	Uncalibrated SPF w/ EB	98		2
	Fatal & Injury	1.07	--	--							
2-lane Roundabout	Total	5.21	--	--	7	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.10	--	--							
Displaced Left Turn (DLT)	Total	3.04	--	--	5	N/A	N/A	CMF	88		9
	Fatal & Injury	1.03	--	--							
Median U-Turn (MUT)	Total	2.17	--	--	4	N/A	N/A	CMF	95		3
	Fatal & Injury	0.89	--	--							
Signalized RCUT	Total	3.77	--	--	2	Yes	Yes	Uncalibrated SPF	94		4
	Fatal & Injury	0.84	--	--							
Unsignalized RCUT	Total	3.90	--	--	1	Yes	Yes	Uncalibrated SPF	92		5
	Fatal & Injury	0.80	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	92		6
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	89		7
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	88	####	8
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	2.55	--	--	3	N/A	N/A	CMF	87		11
	Fatal & Injury	0.87	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	14,450	
Opening Year - Minor Road AADT	6,550	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
1-Lane Roundabout	No	--		
2-Lane Roundabout	Yes	--		
Displaced Left Turn (DLT)	Yes	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	No	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	No

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	14,450	
Minor	6,550	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available? No If "Yes", input values in Table 2-A
Are peak hour turning movement counts available? Yes If "Yes", input values in Table 2-B
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	4503.442	
Major Left Turn 1	1711.037	
Major Right Turn 1	1010.522	
Major Thru 2	5640.732	
Major Left Turn 2	129.4881	
Major Right Turn 2	1454.78	
Minor Thru 1	922.1453	
Minor Left Turn 1	865.7964	
Minor Right Turn 1	1487.058	
Minor Thru 2	339.5406	
Minor Left Turn 2	1467.73	
Minor Right Turn 2	1467.73	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	409	0.598828697	412	0.647799	0.623314
Major Left Turn 1	NBL	200	0.292825769	115	0.180818	0.236822
Major Right Turn 1	NBR	74	0.108345534	109	0.171384	0.139865
Major Thru 2	SBT	356	0.630088496	455	0.769882	0.699985
Major Left Turn 2	SBL	4	0.007079646	17	0.028765	0.017922
Major Right Turn 2	SBR	205	0.362831858	119	0.201354	0.282093
Minor Thru 1	EBT	50	0.192307692	136	0.240283	0.216295
Minor Left Turn 1	EBL	58	0.223076923	173	0.305654	0.264365
Minor Right Turn 1	EBR	152	0.584615385	257	0.454064	0.519339
Minor Thru 2	WBT	122	0.539823009	60	0.487805	0.513814
Minor Left Turn 2	WBL	96	0.424778761	58	0.471545	0.448162
Minor Right Turn 2	WBR	8	0.03539823	5	0.04065	0.038024

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.62331372
Major Left Turn 1	0.236821689
Major Right Turn 1	0.139864591
Major Thru 2	0.780724136
Major Left Turn 2	0.017922226
Major Right Turn 2	0.201353638
Minor Thru 1	0.281571079
Minor Left Turn 1	0.264365317
Minor Right Turn 1	0.454063604
Minor Thru 2	0.103676523
Minor Left Turn 2	0.448161738
Minor Right Turn 2	0.448161738

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	45
Major thru	50
Major left	20
Major right	15
Minor thru	38.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	5	5	0	2	1	--	--	--	--	--	13
	Fatal/Injury	1	2	0	1	1						5
	PDO	4	3	0	1	0						8
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	5	5	0	2	1	--	--	--	--	--	13

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Lake Pickett Road	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.00	--	--	6	Yes	Yes	Calibrated SPF w/ EB	80		10
	Fatal & Injury	1.36	--	--							
Minor Road Stop	Total	5.33	--	--	9	No	Yes	Calibrated SPF	74		12
	Fatal & Injury	2.30	--	--							
All Way Stop	Total	5.29	--	--	7	No	Yes	Uncalibrated SPF w/ EB	96		2
	Fatal & Injury	1.46	--	--							
2-lane Roundabout	Total	7.14	--	--	8	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.56	--	--							
Displaced Left Turn (DLT)	Total	3.52	--	--	4	N/A	N/A	CMF	80		9
	Fatal & Injury	1.20	--	--							
Median U-Turn (MUT)	Total	2.52	--	--	3	N/A	N/A	CMF	91		3
	Fatal & Injury	1.03	--	--							
Signalized RCUT	Total	5.72	--	--	5	Yes	Yes	Uncalibrated SPF	91		4
	Fatal & Injury	1.32	--	--							
Unsignalized RCUT	Total	4.72	--	--	1	Yes	Yes	Uncalibrated SPF	87		5
	Fatal & Injury	0.98	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	87		6
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	82		7
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	80	####	8
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	2.96	--	--	2	N/A	N/A	CMF	78		11
	Fatal & Injury	1.01	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	18,950	
Opening Year - Minor Road AADT	8,600	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	No	--	
2-Lane Roundabout	Yes	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Unsignalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Bowtie*	Yes	--	**SSI Only, No Crash Prediction Available*
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	**Please Select*
Other 2*		Minor Road Stop	**Please Select*

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	No

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	18,950	
Minor	8,600	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available?	No
Are peak hour turning movement counts available?	Yes

If "Yes", input values in Table 2-A
If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	5981.897	
Major Left Turn 1	2198.137	
Major Right Turn 1	1294.966	
Major Thru 2	7524.945	
Major Left Turn 2	156.2448	
Major Right Turn 2	1793.811	
Minor Thru 1	1207.833	
Minor Left Turn 1	1136.043	
Minor Right Turn 1	1956.124	
Minor Thru 2	452.3106	
Minor Left Turn 2	1923.845	
Minor Right Turn 2	1923.845	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	544	0.601769912	573	0.6609	0.631335
Major Left Turn 1	NBL	262	0.289823009	151	0.174164	0.231993
Major Right Turn 1	NBR	98	0.10840708	143	0.164937	0.136672
Major Thru 2	SBT	522	0.655778894	646	0.783981	0.71988
Major Left Turn 2	SBL	5	0.006281407	22	0.026699	0.01649
Major Right Turn 2	SBR	269	0.337939698	156	0.18932	0.26363
Minor Thru 1	EBT	65	0.190615836	178	0.239569	0.215093
Minor Left Turn 1	EBL	76	0.2228739	227	0.305518	0.264196
Minor Right Turn 1	EBR	200	0.586510264	338	0.454913	0.520711
Minor Thru 2	WBT	160	0.540540541	79	0.487654	0.514097
Minor Left Turn 2	WBL	126	0.425675676	76	0.469136	0.447406
Minor Right Turn 2	WBR	10	0.033783784	7	0.04321	0.038497

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.631334783
Major Left Turn 1	0.231993396
Major Right Turn 1	0.136671821
Major Thru 2	0.794189394
Major Left Turn 2	0.016490218
Major Right Turn 2	0.189320388
Minor Thru 1	0.280891448
Minor Left Turn 1	0.264196035
Minor Right Turn 1	0.454912517
Minor Thru 2	0.105188522
Minor Left Turn 2	0.447405739
Minor Right Turn 2	0.447405739

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	45
Major thru	50
Major left	20
Major right	15
Minor thru	38.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	5	5	0	2	1	--	--	--	--	--	13
	Fatal/Injury	1	2	0	1	1						5
	PDO	4	3	0	1	0						8
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	5	5	0	2	1	--	--	--	--	--	13

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Lake Pickett Road	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.46	--	--	5	Yes	Yes	Calibrated SPF w/ EB	70		10
	Fatal & Injury	1.52	--	--							
Minor Road Stop	Total	6.90	--	--	9	No	Yes	Calibrated SPF	63		12
	Fatal & Injury	2.97	--	--							
All Way Stop	Total	6.72	--	--	6	No	Yes	Uncalibrated SPF w/ EB	94		2
	Fatal & Injury	1.85	--	--							
2-lane Roundabout	Total	9.15	--	--	8	Yes	Yes	Uncalibrated SPF	98		1
	Fatal & Injury	2.05	--	--							
Displaced Left Turn (DLT)	Total	3.93	--	--	4	N/A	N/A	CMF	71		8
	Fatal & Injury	1.33	--	--							
Median U-Turn (MUT)	Total	2.81	--	--	3	N/A	N/A	CMF	87		3
	Fatal & Injury	1.15	--	--							
Signalized RCUT	Total	7.94	--	--	7	Yes	Yes	Uncalibrated SPF	86		4
	Fatal & Injury	1.88	--	--							
Unsignalized RCUT	Total	5.58	--	--	2	Yes	Yes	Uncalibrated SPF	81		5
	Fatal & Injury	1.15	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	81		6
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	74		7
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	71	####	9
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.30	--	--	1	N/A	N/A	CMF	69		11
	Fatal & Injury	1.12	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	23,450	
Opening Year - Minor Road AADT	10,650	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range
2-Lane Roundabout	Yes	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Unsignalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Bowtie*	Yes	--	**SSI Only, No Crash Prediction Available*
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	**Please Select*
Other 2*		Minor Road Stop	**Please Select*

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	No

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	23,450	
Minor	10,650	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available? No If "Yes", input values in Table 2-A
Are peak hour turning movement counts available? Yes If "Yes", input values in Table 2-B
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	7462.567	
Major Left Turn 1	2686.84	
Major Right Turn 1	1575.592	
Major Thru 2	9397.968	
Major Left Turn 2	184.1104	
Major Right Turn 2	2142.921	
Minor Thru 1	1497.194	
Minor Left Turn 1	1405.772	
Minor Right Turn 1	2422.035	
Minor Thru 2	565.0294	
Minor Left Turn 2	2379.985	
Minor Right Turn 2	2379.985	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	680	0.604444444	734	0.668488	0.636466
Major Left Turn 1	NBL	324	0.288	187	0.17031	0.229155
Major Right Turn 1	NBR	121	0.107555556	177	0.161202	0.134379
Major Thru 2	SBT	689	0.670233463	836	0.791667	0.73095
Major Left Turn 2	SBL	6	0.005836576	27	0.025568	0.015702
Major Right Turn 2	SBR	333	0.323929961	193	0.182765	0.253348
Minor Thru 1	EBT	81	0.191489362	220	0.239391	0.21544
Minor Left Turn 1	EBL	94	0.222222222	281	0.305767	0.263995
Minor Right Turn 1	EBR	248	0.586288416	418	0.454842	0.520565
Minor Thru 2	WBT	198	0.540983607	98	0.487562	0.514273
Minor Left Turn 2	WBL	156	0.426229508	94	0.467662	0.446946
Minor Right Turn 2	WBR	12	0.032786885	9	0.044776	0.038782

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.636466302
Major Left Turn 1	0.229154827
Major Right Turn 1	0.134378871
Major Thru 2	0.80153247
Major Left Turn 2	0.015702379
Major Right Turn 2	0.182765152
Minor Thru 1	0.2811631
Minor Left Turn 1	0.26399468
Minor Right Turn 1	0.45484222
Minor Thru 2	0.1061088
Minor Left Turn 2	0.4469456
Minor Right Turn 2	0.4469456

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	45
Major thru	50
Major left	20
Major right	15
Minor thru	38.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	5	5	0	2	1	--	--	--	--	--	13
	Fatal/Injury	1	2	0	1	1						5
	PDO	4	3	0	1	0						8
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	5	5	0	2	1	--	--	--	--	--	13

Table 2, Lake Pickett Road SPICE Results - Crash Prediction

Build Type	Year	Intersection Control Rank 1 (Fatal & Injury Crashes)	Intersection Control Rank 2 (Fatal & Injury Crashes)	Intersection Control Rank 3 (Fatal & Injury Crashes)	Intersection Control Rank 4 (Fatal & Injury Crashes)	Intersection Control Rank 5 (Fatal & Injury Crashes)	Intersection Control Rank 6 (Fatal & Injury Crashes)	Intersection Control Rank 7 (Fatal & Injury Crashes)	Intersection Control Rank 8 (Fatal & Injury Crashes)	Intersection Control Rank 9 (Fatal & Injury Crashes)	Intersection Control Rank 10 (Fatal & Injury Crashes)
No-Build (2-lane)	2028	1 Lane Roundabout (0.35)	Signalized RCUT N-S (0.66)	Unsignalized RCUT N-S (0.71)	Jughandle (0.79)	MUT N-S (0.82)	AWSC (0.91)	DLT (0.94)	Traffic Signal (1.07)	TWSC (1.39)	Bowtie N-S (No SPF)
	2038	1 Lane Roundabout (0.40)	Unsignalized RCUT N-S (0.80)	Signalized RCUT N-S (0.86)	Jughandle (0.87)	MUT N-S (0.89)	DLT (1.04)	AWSC (1.09)	Traffic Signal (1.18)	TWSC (1.69)	Bowtie N-S (No SPF)
	2048	1 Lane Roundabout (0.45)	Unsignalized RCUT N-S (0.89)	Jughandle (0.94)	MUT N-S (0.96)	Signalized RCUT N-S (1.08)	DLT (1.12)	AWSC (1.26)	Traffic Signal (1.27)	TWSC (2.00)	Bowtie N-S (No SPF)
Build (4-lane)	2028	Unsignalized RCUT N-S (0.80)	Signalized RCUT N-S (0.84)	Jughandle (0.87)	MUT N-S (0.89)	DLT (1.03)	AWSC (1.07)	2 Lane Roundabout (1.10)	Traffic Signal (1.17)	TWSC (1.65)	Bowtie N-S (No SPF)
	2038	Unsignalized RCUT N-S (0.98)	Jughandle (1.01)	MUT N-S (1.03)	DLT (1.20)	Signalized RCUT N-S (1.32)	Traffic Signal (1.36)	AWSC (1.46)	2 Lane Roundabout (1.56)	TWSC (2.30)	Bowtie N-S (No SPF)
	2048	Jughandle (1.12)	Unsignalized RCUT N-S (1.15)	MUT N-S (1.15)	DLT (1.33)	Traffic Signal (1.52)	AWSC (1.85)	Signalized RCUT N-S (1.88)	2 Lane Roundabout (2.05)	TWSC (2.97)	Bowtie N-S (No SPF)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

Table 3, Lake Pickett Road SPICE Results - SSI Score

Build Type	Year	Intersection Control Rank 1 (SSI Score)	Intersection Control Rank 2 (SSI Score)	Intersection Control Rank 3 (SSI Score)	Intersection Control Rank 4 (SSI Score)	Intersection Control Rank 5 (SSI Score)	Intersection Control Rank 6 (SSI Score)	Intersection Control Rank 7 (SSI Score)	Intersection Control Rank 8 (SSI Score)	Intersection Control Rank 9 (SSI Score)	Intersection Control Rank 10 (SSI Score)
No-Build	2028	1 Lane Roundabout (100)	AWSC (99)	MUT N-S (98)	Signalized RCUT N-S (97)	Signalized ThruCut N-S (97)	Unsignalized RCUT N-S (96)	Unsignalized ThruCut N-S (95)	Bowtie N-S (95)	Traffic Signal (94)	DLT (94)
	2038	1 Lane Roundabout (100)	AWSC (98)	MUT N-S (97)	Signalized RCUT N-S (96)	Signalized ThruCut N-S (95)	Unsignalized RCUT N-S (95)	Unsignalized ThruCut N-S (94)	Bowtie N-S (93)	Traffic Signal (92)	DLT (92)
	2048	1 Lane Roundabout (99)	AWSC (98)	MUT N-S (96)	Signalized RCUT N-S (95)	Signalized ThruCut N-S (94)	Unsignalized RCUT N-S (94)	Unsignalized ThruCut N-S (92)	Bowtie N-S (91)	Traffic Signal (90)	DLT (90)
Build	2028	2 Lane Roundabout (99)	AWSC (98)	MUT N-S (95)	Signalized RCUT N-S (94)	Unsignalized RCUT N-S (92)	Signalized ThruCut N-S (92)	Unsignalized ThruCut N-S (89)	Bowtie N-S (88)	DLT (88)	Traffic Signal (87)
	2038	2 Lane Roundabout (99)	AWSC (96)	MUT N-S (91)	Signalized RCUT N-S (91)	Unsignalized RCUT N-S (87)	Signalized ThruCut N-S (87)	Unsignalized ThruCut N-S (82)	Bowtie N-S (80)	DLT (80)	Traffic Signal (80)
	2048	2 Lane Roundabout (98)	AWSC (94)	MUT N-S (87)	Signalized RCUT N-S (86)	Unsignalized RCUT N-S (81)	Signalized ThruCut N-S (81)	Unsignalized ThruCut N-S (74)	DLT (71)	Bowtie N-S (71)	Traffic Signal (70)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

SSI Legend	
	90-100
	80-89
	70-79
	< 70

CHULUOTA ROAD & CYPRESS LAKE GLEN BOULEVARD S/LONG BOAT LANE

CAP-X WORKSHEETS

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	5	1	8	3.48%	0.00%
Westbound	0	98	2	128	3.48%	0.00%
Southbound	0	65	424	3	3.48%	0.00%
Northbound	0	3	465	89	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C3R-Suburban Residential**	
Critical Lane Volume Threshold — 2-phase signal	**Suggested = 1800**	**1800**
Critical Lane Volume Threshold — 3-phase signal	**Suggested = 1750**	**1750**
Critical Lane Volume Threshold — 4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	5	1	8
Westbound	0	101	2	132
Southbound	0	67	439	3
Northbound	0	3	481	92

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.50	Pedestrian Accommodation Score	2.89	Bicycle Accommodation Score	3.83

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		3	481	92		67	442	0		5	9	0		0	103	132
Two-Way Stop Control	N-S		3	481	92		67	442	0		5	9	0		0	103	132
All-Way Stop Control	FULL		3	481	92		67	442	0		5	9	0		0	103	132
Partial Displaced Left Turn	N-S		3	481	92		67	439	3		5	9	0		0	103	132
Displaced Left Turn	FULL		3	481	92		67	439	3		5	1	8		101	2	132
Signalized Restricted Crossing U-Turn	N-S	0	3	481	92	0	67	439	3				8				132
Unsignalized Restricted Crossing U-Turn	N-S	0	3	481	92	0	67	439	3				8				132
Median U-Turn	N-S	0		481	92	0		439	3			1	8			2	132
Partial Median U-Turn	N-S	0		481	92	0		439	3		5	9	0		0	103	132
Signalized ThruCut	N-S		3	481	92		67	443	0		6		9		102		133
Unsignalized ThruCut	N-S		3	481	92		67	442	0		6		9		102		133
Bowtie	N-S		3	481	92		67	442	3			73	109			106	137

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**15**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									664	0.39	0.39	4.94	4.58
Two-Way Stop Control	N-S									--	0.50	0.50	2.89	3.83
All-Way Stop Control	FULL									1334	0.74	0.74	3.81	4.58
Partial Displaced Left Turn	N-S	557	*0.31*	551	*0.31*					589	0.34	0.34	2.92	3.25
Displaced Left Turn	FULL	557	*0.31*	543	*0.30*	174	*0.10*	10	*0.01*	587	0.33	0.33	3.06	3.25
Signalized Restricted Crossing U-Turn	N-S	638	*0.35*	584	*0.32*	762	*0.42*	556	*0.31*			0.42	3.06	4.25
Unsignalized Restricted Crossing U-Turn	N-S	509	*0.12*	576	*0.01*	486	*0.41*	540	*0.03*			0.41	2.72	3.16
Median U-Turn	N-S	639	*0.36*	666	*0.37*					780	0.43	0.43	3.08	4.58
Partial Median U-Turn	N-S	513	*0.28*	660	*0.37*					667	0.38	0.38	2.99	4.58
Bowtie	N-S	168	0.12	176	0.13	235	0.17	14	0.01	642	0.36	0.36	4.90	4.58
Signalized ThruCut	N-S									666	0.38	0.38	5.06	4.58
Unsignalized ThruCut	N-S									--	0.61	0.61	4.39	4.25

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.55*			*0.05*			*0.59*			*0.45*			0.59	5.36	4.62
75 ICD	*0.54*			*0.05*			*0.59*			*0.41*			0.59	5.36	4.62
1 X 1	*0.42*			*0.02*			*0.45*			*0.28*			0.45	5.36	4.62

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.33	1	3.06	3.25
Partial Displaced Left Turn N-S	0.34	2	2.92	3.25
Bowtie N-S	0.36	3	4.90	4.58
Partial Median U-Turn N-S	0.38	4	2.99	4.58
Signalized ThruCut N-S	0.38	4	5.06	4.58
Traffic Signal	0.39	6	4.94	4.58
Unsignalized Restricted Crossing U-Turn N-S	0.41	7	2.72	3.16
Signalized Restricted Crossing U-Turn N-S	0.42	8	3.06	4.25
Median U-Turn N-S	0.43	9	3.08	4.58
1 X 1	0.45	10	5.36	4.62

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	5	1	9	3.48%	0.00%
Westbound	0	102	2	134	3.48%	0.00%
Southbound	0	68	530	3	3.48%	0.00%
Northbound	0	3	549	93	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	5	1	9
Westbound	0	106	2	139
Southbound	0	70	548	3
Northbound	0	3	568	96

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.70	Pedestrian Accommodation Score	2.89	Bicycle Accommodation Score	3.83

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		3	568	96		70	551	0		5	10	0		0	108	139
Two-Way Stop Control	N-S		3	568	96		70	551	0		5	10	0		0	108	139
All-Way Stop Control	FULL		3	568	96		70	551	0		5	10	0		0	108	139
Partial Displaced Left Turn	N-S		3	568	96		70	548	3		5	10	0		0	108	139
Displaced Left Turn	FULL		3	568	96		70	548	3		5	1	9		106	2	139
Signalized Restricted Crossing U-Turn	N-S	0	3	568	96	0	70	548	3				9				139
Unsignalized Restricted Crossing U-Turn	N-S	0	3	568	96	0	70	548	3				9				139
Median U-Turn	N-S	0		568	96	0		548	3			1	9			2	139
Partial Median U-Turn	N-S	0		568	96	0		548	3		5	10	0		0	108	139
Signalized ThruCut	N-S		3	568	96		70	552	0		6		10		107		140
Unsignalized ThruCut	N-S		3	568	96		70	551	0		6		10		107		140
Bowtie	N-S		3	568	96		70	551	3			76	115			111	144

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**13**	**1**	**1**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									759	0.45	0.45	4.94	4.58
Two-Way Stop Control	N-S									--	0.70	0.70	2.89	3.83
All-Way Stop Control	FULL									1550	0.86	0.86	3.81	4.58
Partial Displaced Left Turn	N-S	647	*0.36*	666	*0.37*					681	0.39	0.39	2.92	3.25
Displaced Left Turn	FULL	647	*0.36*	657	*0.37*	183	*0.10*	10	*0.01*	680	0.38	0.38	3.06	3.25
Signalized Restricted Crossing U-Turn	N-S	756	*0.42*	675	*0.37*	864	*0.48*	672	*0.37*			0.48	3.06	4.25
Unsignalized Restricted Crossing U-Turn	N-S	621	*0.14*	667	*0.01*	573	*0.48*	654	*0.03*			0.48	2.72	3.16
Median U-Turn	N-S	757	*0.42*	761	*0.42*					906	0.50	0.50	3.08	4.58
Partial Median U-Turn	N-S	625	*0.35*	755	*0.42*					787	0.45	0.45	2.99	4.58
Bowtie	N-S	175	0.13	184	0.13	247	0.18	15	0.01	737	0.41	0.41	4.90	4.58
Signalized ThruCut	N-S									763	0.44	0.44	5.06	4.58
Unsignalized ThruCut	N-S									--	0.89	0.89	4.39	4.25

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.68*			*0.08*			*0.69*			*0.56*			0.69	5.36	4.62
75 ICD	*0.67*			*0.07*			*0.68*			*0.49*			0.68	5.36	4.62
1 X 1	*0.51*			*0.02*			*0.53*			*0.33*			0.53	5.36	4.62

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.38	1	3.06	3.25
Partial Displaced Left Turn N-S	0.39	2	2.92	3.25
Bowtie N-S	0.41	3	4.90	4.58
Signalized ThruCut N-S	0.44	4	5.06	4.58
Traffic Signal	0.45	5	4.94	4.58
Partial Median U-Turn N-S	0.45	5	2.99	4.58
Unsignalized Restricted Crossing U-Turn N-S	0.48	7	2.72	3.16
Signalized Restricted Crossing U-Turn N-S	0.48	8	3.06	4.25
Median U-Turn N-S	0.50	9	3.08	4.58
1 X 1	0.53	10	5.36	4.62

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	5	1	9	3.48%	0.00%
Westbound	0	107	2	139	3.48%	0.00%
Southbound	0	71	637	3	3.48%	0.00%
Northbound	0	3	632	97	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	5	1	9
Westbound	0	111	2	144
Southbound	0	73	659	3
Northbound	0	3	654	100

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**1.11**	**Pedestrian Accommodation Score**		**2.89**	**Bicycle Accommodation Score**		**3.83**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		3	654	100		73	662	0		5	10	0		0	113	144
Two-Way Stop Control	N-S		3	654	100		73	662	0		5	10	0		0	113	144
All-Way Stop Control	FULL		3	654	100		73	662	0		5	10	0		0	113	144
Partial Displaced Left Turn	N-S		3	654	100		73	659	3		5	10	0		0	113	144
Displaced Left Turn	FULL		3	654	100		73	659	3		5	1	9		111	2	144
Signalized Restricted Crossing U-Turn	N-S	0	3	654	100	0	73	659	3				9				144
Unsignalized Restricted Crossing U-Turn	N-S	0	3	654	100	0	73	659	3				9				144
Median U-Turn	N-S	0		654	100	0		659	3			1	9			2	144
Partial Median U-Turn	N-S	0		654	100	0		659	3		5	10	0		0	113	144
Signalized ThruCut	N-S		3	654	100		73	663	0		6		10		112		145
Unsignalized ThruCut	N-S		3	654	100		73	662	0		6		10		112		145
Bowtie	N-S		3	654	100		73	662	3			79	120			116	149

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**10**	**2**	**1**	**2**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									853	0.50	0.50	4.94	4.58
Two-Way Stop Control	N-S									--	1.11	1.11	2.89	3.83
All-Way Stop Control	FULL									1764	0.98	0.98	3.81	4.58
Partial Displaced Left Turn	N-S	736	*0.41*	782	*0.43*					777	0.44	0.44	2.92	3.25
Displaced Left Turn	FULL	736	*0.41*	773	*0.43*	191	*0.11*	10	*0.01*	776	0.43	0.43	3.06	3.25
Signalized Restricted Crossing U-Turn	N-S	876	*0.49*	765	*0.42*	961	*0.53*	788	*0.44*			0.53	3.06	4.25
Unsignalized Restricted Crossing U-Turn	N-S	735	*0.16*	757	*0.01*	659	*0.56*	770	*0.04*			0.56	2.72	3.16
Median U-Turn	N-S	878	*0.49*	855	*0.47*					1032	0.57	0.57	3.08	4.58
Partial Median U-Turn	N-S	739	*0.41*	848	*0.47*					907	0.52	0.52	2.99	4.58
Bowtie	N-S	182	0.13	192	0.14	257	0.19	15	0.01	837	0.47	0.47	4.90	4.58
Signalized ThruCut	N-S									857	0.49	0.49	5.06	4.58
Unsignalized ThruCut	N-S									--	1.32	1.32	4.39	4.25

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.81			0.13			0.79			0.73			0.81	5.36	4.62
75 ICD	0.79			0.11			0.78			0.61			0.79	5.36	4.62
1 X 1	0.61			0.03			0.60			0.37			0.61	5.36	4.62

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.43	1	3.06	3.25
Partial Displaced Left Turn N-S	0.44	2	2.92	3.25
Bowtie N-S	0.47	3	4.90	4.58
Signalized ThruCut N-S	0.49	4	5.06	4.58
Traffic Signal	0.50	5	4.94	4.58
Partial Median U-Turn N-S	0.52	6	2.99	4.58
Signalized Restricted Crossing U-Turn N-S	0.53	7	3.06	4.25
Unsignalized Restricted Crossing U-Turn N-S	0.56	8	2.72	3.16
Median U-Turn N-S	0.57	9	3.08	4.58
1 X 1	0.61	10	5.36	4.62

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	4	0	2	3.48%	0.00%
Westbound	0	68	0	63	3.48%	0.00%
Southbound	0	71	578	4	3.48%	0.00%
Northbound	0	5	472	78	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	Left	Thru	Right
Eastbound	0	4	0	2
Westbound	0	70	0	65
Southbound	0	73	598	4
Northbound	0	5	488	81

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**0.44**	**Pedestrian Accommodation Score**		**2.89**	**Bicycle Accommodation Score**		**3.83**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		5	488	81		73	602	0		4	2	0		0	70	65
Two-Way Stop Control	N-S		5	488	81		73	602	0		4	2	0		0	70	65
All-Way Stop Control	FULL		5	488	81		73	602	0		4	2	0		0	70	65
Partial Displaced Left Turn	N-S		5	488	81		73	598	4		4	2	0		0	70	65
Displaced Left Turn	FULL		5	488	81		73	598	4		4	0	2		70	0	65
Signalized Restricted Crossing U-Turn	N-S	0	5	488	81	0	73	598	4				2				65
Unsignalized Restricted Crossing U-Turn	N-S	0	5	488	81	0	73	598	4				2				65
Median U-Turn	N-S	0		488	81	0		598	4			0	2			0	65
Partial Median U-Turn	N-S	0		488	81	0		598	4		4	2	0		0	70	65
Signalized ThruCut	N-S		5	488	81		73	603	0		4		2		70		65
Unsignalized ThruCut	N-S		5	488	81		73	602	0		4		2		70		65
Bowtie	N-S		5	488	81		73	602	4			77	72			75	69

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**14**	**1**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									682	0.40	0.40	4.94	4.58
Two-Way Stop Control	N-S									--	0.44	0.44	2.89	3.83
All-Way Stop Control	FULL									1390	0.77	0.77	3.81	4.58
Partial Displaced Left Turn	N-S	569	*0.32*	675	*0.38*					672	0.38	0.38	2.92	3.25
Displaced Left Turn	FULL	569	*0.32*	673	*0.37*	147	*0.08*	9	*0.01*	672	0.37	0.37	3.06	3.25
Signalized Restricted Crossing U-Turn	N-S	763	*0.42*	579	*0.32*	651	*0.36*	675	*0.38*			0.42	3.06	4.25
Unsignalized Restricted Crossing U-Turn	N-S	675	*0.09*	574	*0.00*	492	*0.24*	668	*0.01*			0.24	2.74	3.16
Median U-Turn	N-S	769	*0.43*	670	*0.37*					830	0.46	0.46	3.10	4.58
Partial Median U-Turn	N-S	681	*0.38*	665	*0.37*					752	0.43	0.43	2.99	4.58
Bowtie	N-S	163	0.12	152	0.11	135	0.10	6	0.01	687	0.38	0.38	4.90	4.58
Signalized ThruCut	N-S									682	0.39	0.39	5.06	4.58
Unsignalized ThruCut	N-S									--	0.55	0.55	4.42	4.25

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.71*			*0.05*			*0.60*			*0.26*			0.71	5.39	4.62
75 ICD	*0.70*			*0.05*			*0.59*			*0.24*			0.70	5.39	4.62
1 X 1	*0.53*			*0.01*			*0.45*			*0.16*			0.53	5.39	4.62

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.24	1	2.74	3.16
Displaced Left Turn	0.37	2	3.06	3.25
Partial Displaced Left Turn N-S	0.38	3	2.92	3.25
Bowtie N-S	0.38	3	4.90	4.58
Signalized ThruCut N-S	0.39	5	5.06	4.58
Traffic Signal	0.40	6	4.94	4.58
Signalized Restricted Crossing U-Turn N-S	0.42	7	3.06	4.25
Partial Median U-Turn N-S	0.43	8	2.99	4.58
Two-Way Stop Control N-S	0.44	9	2.89	3.83
Median U-Turn N-S	0.46	10	3.10	4.58

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	4	0	2	3.48%	0.00%
Westbound	0	71	0	66	3.48%	0.00%
Southbound	0	74	699	4	3.48%	0.00%
Northbound	0	5	566	82	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	Left	Thru	Right
Eastbound	0	4	0	2
Westbound	0	73	0	68
Southbound	0	77	723	4
Northbound	0	5	586	85

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.64	Pedestrian Accommodation Score	2.89	Bicycle Accommodation Score	3.83

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		5	586	85		77	727	0		4	2	0		0	73	68
Two-Way Stop Control	N-S		5	586	85		77	727	0		4	2	0		0	73	68
All-Way Stop Control	FULL		5	586	85		77	727	0		4	2	0		0	73	68
Partial Displaced Left Turn	N-S		5	586	85		77	723	4		4	2	0		0	73	68
Displaced Left Turn	FULL		5	586	85		77	723	4		4	0	2		73	0	68
Signalized Restricted Crossing U-Turn	N-S	0	5	586	85	0	77	723	4				2				68
Unsignalized Restricted Crossing U-Turn	N-S	0	5	586	85	0	77	723	4				2				68
Median U-Turn	N-S	0		586	85	0		723	4			0	2			0	68
Partial Median U-Turn	N-S	0		586	85	0		723	4		4	2	0		0	73	68
Signalized ThruCut	N-S		5	586	85		77	728	0		4		2		73		68
Unsignalized ThruCut	N-S		5	586	85		77	727	0		4		2		73		68
Bowtie	N-S		5	586	85		77	727	4			81	75			78	72

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**11**	**3**	**1**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									810	0.48	0.48	4.94	4.58
Two-Way Stop Control	N-S									--	0.64	0.64	2.89	3.83
All-Way Stop Control	FULL									1627	0.90	0.90	3.81	4.58
Partial Displaced Left Turn	N-S	671	0.37	803	0.45					800	0.46	0.46	2.92	3.25
Displaced Left Turn	FULL	671	0.37	801	0.45	154	0.09	9	0.01	800	0.44	0.45	3.06	3.25
Signalized Restricted Crossing U-Turn	N-S	895	0.50	681	0.38	756	0.42	803	0.45			0.50	3.06	4.25
Unsignalized Restricted Crossing U-Turn	N-S	804	0.11	676	0.01	590	0.28	796	0.02			0.28	2.74	3.16
Median U-Turn	N-S	902	0.50	777	0.43					966	0.54	0.54	3.10	4.58
Partial Median U-Turn	N-S	810	0.45	772	0.43					884	0.51	0.51	2.99	4.58
Bowtie	N-S	171	0.12	159	0.12	141	0.10	6	0.01	815	0.45	0.45	4.90	4.58
Signalized ThruCut	N-S									810	0.46	0.46	5.06	4.58
Unsignalized ThruCut	N-S									--	0.84	0.84	4.39	4.25

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.85			0.10			0.70			0.34			0.85	5.39	4.62
75 ICD	0.84			0.08			0.69			0.30			0.84	5.39	4.62
1 X 1	0.64			0.01			0.54			0.19			0.64	5.39	4.62

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.28	1	2.74	3.16
Displaced Left Turn	0.45	2	3.06	3.25
Bowtie N-S	0.45	2	4.90	4.58
Partial Displaced Left Turn N-S	0.46	4	2.92	3.25
Signalized ThruCut N-S	0.46	4	5.06	4.58
Traffic Signal	0.48	6	4.94	4.58
Signalized Restricted Crossing U-Turn N-S	0.50	7	3.06	4.25
Partial Median U-Turn N-S	0.51	8	2.99	4.58
Median U-Turn N-S	0.54	9	3.10	4.58
1 X 1	0.64	10	5.39	4.62

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	4	0	2	3.48%	0.00%
Westbound	0	74	0	68	3.48%	0.00%
Southbound	0	77	819	4	3.48%	0.00%
Northbound	0	5	660	85	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	Left	Thru	Right
Eastbound	0	4	0	2
Westbound	0	77	0	70
Southbound	0	80	848	4
Northbound	0	5	683	88

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.95	Pedestrian Accommodation Score	2.89	Bicycle Accommodation Score	3.83

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	1	1		1	1	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	1	1		1	1	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	1	1		1	1	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	1	1		1	1	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	1	1	1	1	1				1				1
Median U-Turn	N-S	1		1	1	1		1	1			1	1			1	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Unsignalized ThruCut	N-S		1	1	1		1	1	0		1		1		1		1
Bowtie	N-S			1	1			1	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		5	683	88		80	852	0		4	2	0		0	77	70
Two-Way Stop Control	N-S		5	683	88		80	852	0		4	2	0		0	77	70
All-Way Stop Control	FULL		5	683	88		80	852	0		4	2	0		0	77	70
Partial Displaced Left Turn	N-S		5	683	88		80	848	4		4	2	0		0	77	70
Displaced Left Turn	FULL		5	683	88		80	848	4		4	0	2		77	0	70
Signalized Restricted Crossing U-Turn	N-S	0	5	683	88	0	80	848	4				2				70
Unsignalized Restricted Crossing U-Turn	N-S	0	5	683	88	0	80	848	4				2				70
Median U-Turn	N-S	0		683	88	0		848	4			0	2			0	70
Partial Median U-Turn	N-S	0		683	88	0		848	4		4	2	0		0	77	70
Signalized ThruCut	N-S		5	683	88		80	853	0		4		2		77		70
Unsignalized ThruCut	N-S		5	683	88		80	852	0		4		2		77		70
Bowtie	N-S		5	683	88		80	852	4			84	79			82	74

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**10**	**0**	**3**	**2**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									939	0.55	0.55	4.94	4.58
Two-Way Stop Control	N-S									--	0.95	0.95	2.89	3.83
All-Way Stop Control	FULL									1861	1.03	1.03	3.81	4.58
Partial Displaced Left Turn	N-S	771	*0.43*	932	*0.52*					929	0.53	0.53	2.92	3.25
Displaced Left Turn	FULL	771	*0.43*	930	*0.52*	161	*0.09*	9	*0.01*	929	0.52	0.52	3.06	3.25
Signalized Restricted Crossing U-Turn	N-S	1028	*0.57*	781	*0.43*	860	*0.48*	932	*0.52*			0.57	3.06	4.25
Unsignalized Restricted Crossing U-Turn	N-S	932	*0.13*	776	*0.01*	687	*0.33*	925	*0.02*			0.33	2.74	3.16
Median U-Turn	N-S	1035	*0.57*	881	*0.49*					1101	0.61	0.61	3.10	4.58
Partial Median U-Turn	N-S	938	*0.52*	876	*0.49*					1015	0.58	0.58	2.99	4.58
Bowtie	N-S	177	0.13	166	0.12	147	0.11	6	0.01	945	0.53	0.53	4.90	4.58
Signalized ThruCut	N-S									939	0.54	0.54	5.06	4.58
Unsignalized ThruCut	N-S									--	1.31	1.31	4.39	4.25

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.98			0.77			0.81			*0.46*			0.98	5.39	4.62
75 ICD	0.97			*0.18*			0.80			*0.38*			0.97	5.39	4.62
1 X 1	*0.74*			*0.01*			*0.62*			*0.22*			0.74	5.39	4.62

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.33	1	2.74	3.16
Displaced Left Turn	0.52	2	3.06	3.25
Partial Displaced Left Turn N-S	0.53	3	2.92	3.25
Bowtie N-S	0.53	3	4.90	4.58
Signalized ThruCut N-S	0.54	5	5.06	4.58
Traffic Signal	0.55	6	4.94	4.58
Signalized Restricted Crossing U-Turn N-S	0.57	7	3.06	4.25
Partial Median U-Turn N-S	0.58	8	2.99	4.58
Median U-Turn N-S	0.61	9	3.10	4.58
1 X 1	0.74	10	5.39	4.62

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	5	1	9	3.48%	0.00%
Westbound	0	101	2	132	3.48%	0.00%
Southbound	0	67	501	3	3.48%	0.00%
Northbound	0	3	526	92	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C3R-Suburban Residential**	
Critical Lane Volume Threshold — 2-phase signal	**Suggested = 1800**	**1800**
Critical Lane Volume Threshold — 3-phase signal	**Suggested = 1750**	**1750**
Critical Lane Volume Threshold — 4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	Left	Thru	Right
Eastbound	0	5	1	9
Westbound	0	105	2	137
Southbound	0	69	518	3
Northbound	0	3	544	95

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.65	Pedestrian Accommodation Score	2.73	Bicycle Accommodation Score	3.75

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2NS X 1EW Roundabout Only
1NS x 2EW		No	2NS X 1EW Roundabout Only
2NS x 1EW		Yes	
2x2		No	2NS X 1EW Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		3	544	95		69	521	0		5	10	0		0	107	137
Two-Way Stop Control	N-S		3	544	95		69	521	0		5	10	0		0	107	137
All-Way Stop Control	FULL		3	544	95		69	521	0		5	10	0		0	107	137
Partial Displaced Left Turn	N-S		3	544	95		69	518	3		5	10	0		0	107	137
Displaced Left Turn	FULL		3	544	95		69	518	3		5	1	9		105	2	137
Signalized Restricted Crossing U-Turn	N-S	0	3	544	95	0	69	518	3				9				137
Unsignalized Restricted Crossing U-Turn	N-S	0	3	544	95	0	69	518	3				9				137
Median U-Turn	N-S	0		544	95	0		518	3			1	9			2	137
Partial Median U-Turn	N-S	0		544	95	0		518	3		5	10	0		0	107	137
Signalized ThruCut	N-S		3	544	95		69	522	0		6		10		106		138
Unsignalized ThruCut	N-S		3	544	95		69	521	0		6		10		106		138
Bowtie	N-S		3	544	95		69	521	3			75	114			110	142

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**13**	**1**	**1**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									461	0.27	0.27	4.79	4.49
Two-Way Stop Control	N-S									--	0.65	0.65	2.73	3.75
All-Way Stop Control	FULL									1491	0.83	0.83	3.62	4.49
Partial Displaced Left Turn	N-S	347	*0.19*	319	*0.18*					384	0.22	0.22	2.86	3.16
Displaced Left Turn	FULL	347	*0.19*	315	*0.17*	181	*0.10*	10	*0.01*	383	0.21	0.21	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	429	*0.24*	329	*0.18*	418	*0.23*	320	*0.18*			0.24	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	590	*0.13*	642	*0.01*	549	*0.51*	623	*0.04*			0.51	2.62	3.00
Median U-Turn	N-S	430	*0.24*	414	*0.23*					578	0.32	0.32	3.00	4.49
Partial Median U-Turn	N-S	299	*0.17*	407	*0.23*					460	0.26	0.26	2.91	4.49
Bowtie	N-S	135	0.10	111	0.08	138	0.10	10	0.01	439	0.24	0.24	4.70	4.49
Signalized ThruCut	N-S									465	0.27	0.27	4.90	4.49
Unsignalized ThruCut	N-S									--	0.93	0.93	4.22	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.64*			*0.07*			*0.66*			*0.53*			0.66	5.36	4.62
75 ICD	*0.63*			*0.07*			*0.66*			*0.47*			0.66	5.36	4.62
2NS X 1EW	*0.24*	*0.25*		*0.02*			*0.25*	0.27		*0.29*			0.29	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.21	1	3.01	3.16
Partial Displaced Left Turn N-S	0.22	2	2.86	3.16
Signalized Restricted Crossing U-Turn N-S	0.24	3	2.94	4.08
Bowtie N-S	0.24	3	4.70	4.49
Partial Median U-Turn N-S	0.26	5	2.91	4.49
Traffic Signal	0.27	6	4.79	4.49
Signalized ThruCut N-S	0.27	6	4.90	4.49
2NS X 1EW	0.29	8	4.97	4.54
Median U-Turn N-S	0.32	9	3.00	4.49
Unsignalized Restricted Crossing U-Turn N-S	0.51	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	6	1	9	3.48%	0.00%
Westbound	0	110	3	144	3.48%	0.00%
Southbound	0	73	718	4	3.48%	0.00%
Northbound	0	4	696	100	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	Left	Thru	Right
Eastbound	0	6	1	9
Westbound	0	114	3	149
Southbound	0	76	743	4
Northbound	0	4	720	103

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**1.31**	**Pedestrian Accommodation Score**		**2.73**	**Bicycle Accommodation Score**		**3.75**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2NS X 1EW Roundabout Only
1NS x 2EW		No	2NS X 1EW Roundabout Only
2NS x 1EW		Yes	
2x2		No	2NS X 1EW Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		4	720	103		76	747	0		6	10	0		0	117	149
Two-Way Stop Control	N-S		4	720	103		76	747	0		6	10	0		0	117	149
All-Way Stop Control	FULL		4	720	103		76	747	0		6	10	0		0	117	149
Partial Displaced Left Turn	N-S		4	720	103		76	743	4		6	10	0		0	117	149
Displaced Left Turn	FULL		4	720	103		76	743	4		6	1	9		114	3	149
Signalized Restricted Crossing U-Turn	N-S	0	4	720	103	0	76	743	4				9				149
Unsignalized Restricted Crossing U-Turn	N-S	0	4	720	103	0	76	743	4				9				149
Median U-Turn	N-S	0		720	103	0		743	4			1	9			3	149
Partial Median U-Turn	N-S	0		720	103	0		743	4		6	10	0		0	117	149
Signalized ThruCut	N-S		4	720	103		76	748	0		7		10		116		151
Unsignalized ThruCut	N-S		4	720	103		76	747	0		7		10		116		151
Bowtie	N-S		4	720	103		76	747	4			83	123			121	155

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**10**	**0**	**2**	**3**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									568	0.33	0.33	4.79	4.49
Two-Way Stop Control	N-S									--	1.31	1.31	2.73	3.75
All-Way Stop Control	FULL									1932	1.07	1.07	3.62	4.49
Partial Displaced Left Turn	N-S	443	*0.25*	437	*0.24*					495	0.28	0.28	2.86	3.16
Displaced Left Turn	FULL	443	*0.25*	433	*0.24*	197	*0.11*	13	*0.01*	492	0.27	0.27	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	558	*0.31*	422	*0.23*	519	*0.29*	438	*0.24*			0.31	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	823	*0.18*	827	*0.01*	726	*0.73*	857	*0.05*			0.73	2.62	3.00
Median U-Turn	N-S	559	*0.31*	516	*0.29*					719	0.40	0.40	3.00	4.49
Partial Median U-Turn	N-S	417	*0.23*	509	*0.28*					591	0.34	0.34	2.91	4.49
Bowtie	N-S	148	0.10	122	0.09	151	0.11	10	0.01	556	0.31	0.31	4.70	4.49
Signalized ThruCut	N-S									569	0.33	0.33	4.90	4.49
Unsignalized ThruCut	N-S									--	2.17	2.17	4.22	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.91			*0.28*			0.86			0.95			0.95	5.36	4.62
75 ICD	0.89			*0.17*			0.85			0.75			0.89	5.36	4.62
2NS X 1EW	*0.34*	*0.36*		*0.03*			*0.33*	0.35		*0.37*			0.37	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.27	1	3.01	3.16
Partial Displaced Left Turn N-S	0.28	2	2.86	3.16
Signalized Restricted Crossing U-Turn N-S	0.31	3	2.94	4.08
Bowtie N-S	0.31	3	4.70	4.49
Traffic Signal	0.33	5	4.79	4.49
Signalized ThruCut N-S	0.33	5	4.90	4.49
Partial Median U-Turn N-S	0.34	7	2.91	4.49
2NS X 1EW	0.37	8	4.97	4.54
Median U-Turn N-S	0.40	9	3.00	4.49
Unsignalized Restricted Crossing U-Turn N-S	0.73	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	6	1	10	3.48%	0.00%
Westbound	0	119	3	155	3.48%	0.00%
Southbound	0	79	935	4	3.48%	0.00%
Northbound	0	4	866	108	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	Left	Thru	Right
Eastbound	0	6	1	10
Westbound	0	123	3	160
Southbound	0	82	968	4
Northbound	0	4	896	112

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**2.63**	**Pedestrian Accommodation Score**		**2.68**	**Bicycle Accommodation Score**		**3.75**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2NS X 1EW Roundabout Only
1NS x 2EW		No	2NS X 1EW Roundabout Only
2NS x 1EW		Yes	
2x2		No	2NS X 1EW Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		4	896	112		82	972	0		6	11	0		0	126	160
Two-Way Stop Control	N-S		4	896	112		82	972	0		6	11	0		0	126	160
All-Way Stop Control	FULL		4	896	112		82	972	0		6	11	0		0	126	160
Partial Displaced Left Turn	N-S		4	896	112		82	968	4		6	11	0		0	126	160
Displaced Left Turn	FULL		4	896	112		82	968	4		6	1	10		123	3	160
Signalized Restricted Crossing U-Turn	N-S	0	4	896	112	0	82	968	4				10				160
Unsignalized Restricted Crossing U-Turn	N-S	0	4	896	112	0	82	968	4				10				160
Median U-Turn	N-S	0		896	112	0		968	4			1	10			3	160
Partial Median U-Turn	N-S	0		896	112	0		968	4		6	11	0		0	126	160
Signalized ThruCut	N-S		4	896	112		82	973	0		7		11		125		162
Unsignalized ThruCut	N-S		4	896	112		82	972	0		7		11		125		162
Bowtie	N-S		4	896	112		82	972	4			89	133			130	166

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**9**	**0**	**0**	**6**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									671	0.39	0.39	4.79	4.49
Two-Way Stop Control	N-S									--	2.63	2.63	2.68	3.75
All-Way Stop Control	FULL									2369	1.32	1.32	3.62	4.49
Partial Displaced Left Turn	N-S	537	*0.30*	555	*0.31*					616	0.35	0.35	2.86	3.16
Displaced Left Turn	FULL	537	*0.30*	550	*0.31*	212	*0.12*	13	*0.01*	613	0.34	0.34	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	685	*0.38*	515	*0.29*	619	*0.34*	556	*0.31*			0.38	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	1054	*0.24*	1012	*0.01*	902	1.03	1091	*0.08*			1.03	2.62	3.00
Median U-Turn	N-S	686	*0.38*	616	*0.34*					858	0.48	0.48	3.00	4.49
Partial Median U-Turn	N-S	532	*0.30*	609	*0.34*					720	0.41	0.41	2.91	4.49
Bowtie	N-S	160	0.11	131	0.09	162	0.11	11	0.01	681	0.38	0.38	4.70	4.49
Signalized ThruCut	N-S									673	0.38	0.38	4.90	4.49
Unsignalized ThruCut	N-S									--	5.05	5.05	4.22	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.18			-0.17			1.06			2.82			2.82	5.36	4.62
75 ICD	1.16			-0.44			1.05			1.51			1.51	5.36	4.62
2NS X 1EW	0.44	0.46		0.03			0.40	0.43		0.46			0.46	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.34	1	3.01	3.16
Partial Displaced Left Turn N-S	0.35	2	2.86	3.16
Signalized Restricted Crossing U-Turn N-S	0.38	3	2.94	4.08
Signalized ThruCut N-S	0.38	3	4.90	4.49
Bowtie N-S	0.38	3	4.70	4.49
Traffic Signal	0.39	6	4.79	4.49
Partial Median U-Turn N-S	0.41	7	2.91	4.49
2NS X 1EW	0.46	8	4.97	4.54
Median U-Turn N-S	0.48	9	3.00	4.49
Unsignalized Restricted Crossing U-Turn N-S	1.03	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	4	0	2	3.48%	0.00%
Westbound	0	70	0	65	3.48%	0.00%
Southbound	0	73	666	4	3.48%	0.00%
Northbound	0	5	540	81	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	4	0	2
Westbound	0	72	0	67
Southbound	0	76	689	4
Northbound	0	5	559	84

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.59	Pedestrian Accommodation Score	2.73	Bicycle Accommodation Score	3.75

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2NS X 1EW Roundabout Only
1NS x 2EW		No	2NS X 1EW Roundabout Only
2NS x 1EW		Yes	
2x2		No	2NS X 1EW Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		5	559	84		76	693	0		4	2	0		0	72	67
Two-Way Stop Control	N-S		5	559	84		76	693	0		4	2	0		0	72	67
All-Way Stop Control	FULL		5	559	84		76	693	0		4	2	0		0	72	67
Partial Displaced Left Turn	N-S		5	559	84		76	689	4		4	2	0		0	72	67
Displaced Left Turn	FULL		5	559	84		76	689	4		4	0	2		72	0	67
Signalized Restricted Crossing U-Turn	N-S	0	5	559	84	0	76	689	4				2				67
Unsignalized Restricted Crossing U-Turn	N-S	0	5	559	84	0	76	689	4				2				67
Median U-Turn	N-S	0		559	84	0		689	4			0	2			0	67
Partial Median U-Turn	N-S	0		559	84	0		689	4		4	2	0		0	72	67
Signalized ThruCut	N-S		5	559	84		76	694	0		4		2		72		67
Unsignalized ThruCut	N-S		5	559	84		76	693	0		4		2		72		67
Bowtie	N-S		5	559	84		76	693	4			80	74			77	71

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**11**	**3**	**1**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									440	0.26	0.26	4.79	4.49
Two-Way Stop Control	N-S									--	0.59	0.59	2.73	3.75
All-Way Stop Control	FULL									1562	0.87	0.87	3.62	4.49
Partial Displaced Left Turn	N-S	362	*0.20*	387	*0.21*					421	0.24	0.24	2.86	3.16
Displaced Left Turn	FULL	362	*0.20*	386	*0.21*	152	*0.08*	9	*0.01*	420	0.23	0.23	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	475	*0.26*	329	*0.18*	363	*0.20*	386	*0.21*			0.26	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	769	*0.10*	648	*0.01*	563	*0.30*	761	*0.02*			0.30	2.64	3.00
Median U-Turn	N-S	481	*0.27*	424	*0.24*					546	0.30	0.30	3.02	4.49
Partial Median U-Turn	N-S	391	*0.22*	419	*0.23*					466	0.27	0.27	2.91	4.49
Bowtie	N-S	126	0.09	79	0.06	72	0.05	2	0.00	434	0.24	0.24	4.70	4.49
Signalized ThruCut	N-S									436	0.25	0.25	4.90	4.49
Unsignalized ThruCut	N-S									--	0.89	0.89	4.22	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.81			*0.08*			*0.67*			*0.31*			0.81	5.39	4.62
75 ICD	0.80			*0.07*			*0.66*			*0.28*			0.80	5.39	4.62
2NS X 1EW	*0.30*	*0.32*		*0.01*			*0.26*	0.27		*0.17*			0.32	5.00	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.23	1	3.01	3.16
Partial Displaced Left Turn N-S	0.24	2	2.86	3.16
Bowtie N-S	0.24	2	4.70	4.49
Signalized ThruCut N-S	0.25	4	4.90	4.49
Traffic Signal	0.26	5	4.79	4.49
Signalized Restricted Crossing U-Turn N-S	0.26	5	2.94	4.08
Partial Median U-Turn N-S	0.27	7	2.91	4.49
Unsignalized Restricted Crossing U-Turn N-S	0.30	8	2.64	3.00
Median U-Turn N-S	0.30	9	3.02	4.49
2NS X 1EW	0.32	10	5.00	4.54

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	5	0	3	3.48%	0.00%
Westbound	0	77	0	70	3.48%	0.00%
Southbound	0	80	911	5	3.48%	0.00%
Northbound	0	6	732	88	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	Left	Thru	Right
Eastbound	0	5	0	3
Westbound	0	80	0	72
Southbound	0	83	943	5
Northbound	0	6	757	91

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	1.31	Pedestrian Accommodation Score	2.73	Bicycle Accommodation Score	3.75

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2NS X 1EW Roundabout Only
1NS x 2EW		No	2NS X 1EW Roundabout Only
2NS x 1EW		Yes	
2x2		No	2NS X 1EW Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		6	757	91		83	948	0		5	3	0		0	80	72
Two-Way Stop Control	N-S		6	757	91		83	948	0		5	3	0		0	80	72
All-Way Stop Control	FULL		6	757	91		83	948	0		5	3	0		0	80	72
Partial Displaced Left Turn	N-S		6	757	91		83	943	5		5	3	0		0	80	72
Displaced Left Turn	FULL		6	757	91		83	943	5		5	0	3		80	0	72
Signalized Restricted Crossing U-Turn	N-S	0	6	757	91	0	83	943	5				3				72
Unsignalized Restricted Crossing U-Turn	N-S	0	6	757	91	0	83	943	5				3				72
Median U-Turn	N-S	0		757	91	0		943	5			0	3			0	72
Partial Median U-Turn	N-S	0		757	91	0		943	5		5	3	0		0	80	72
Signalized ThruCut	N-S		6	757	91		83	949	0		5		3		80		72
Unsignalized ThruCut	N-S		6	757	91		83	948	0		5		3		80		72
Bowtie	N-S		6	757	91		83	948	5			88	83			86	77

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 14, 2024	**10**	**0**	**0**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									566	0.33	0.33	4.79	4.49
Two-Way Stop Control	N-S									--	1.31	1.31	2.73	3.75
All-Way Stop Control	FULL									2045	1.14	1.14	3.62	4.49
Partial Displaced Left Turn	N-S	468	0.26	519	0.29					557	0.32	0.32	2.86	3.16
Displaced Left Turn	FULL	468	0.26	518	0.29	167	0.09	11	0.01	556	0.31	0.31	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	616	0.34	433	0.24	470	0.26	518	0.29			0.34	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	1031	0.15	854	0.01	762	0.44	1023	0.03			0.44	2.64	3.00
Median U-Turn	N-S	623	0.35	537	0.30					692	0.38	0.38	3.02	4.49
Partial Median U-Turn	N-S	523	0.29	531	0.29					603	0.34	0.34	2.91	4.49
Bowtie	N-S	138	0.10	88	0.06	80	0.06	3	0.00	572	0.32	0.32	4.70	4.49
Signalized ThruCut	N-S									565	0.32	0.32	4.90	4.49
Unsignalized ThruCut	N-S									--	2.33	2.33	4.22	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.09			-0.20			0.90			0.63			1.09	5.39	4.62
75 ICD	1.08			-11.05			0.88			0.48			1.08	5.39	4.62
2NS X 1EW	0.41	0.44		0.02			0.34	0.36		0.22			0.44	5.00	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.31	1	3.01	3.16
Partial Displaced Left Turn N-S	0.32	2	2.86	3.16
Signalized ThruCut N-S	0.32	2	4.90	4.49
Bowtie N-S	0.32	2	4.70	4.49
Traffic Signal	0.33	5	4.79	4.49
Signalized Restricted Crossing U-Turn N-S	0.34	6	2.94	4.08
Partial Median U-Turn N-S	0.34	6	2.91	4.49
Median U-Turn N-S	0.38	8	3.02	4.49
2NS X 1EW	0.44	9	5.00	4.54
Unsignalized Restricted Crossing U-Turn N-S	0.44	10	2.64	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	5	0	3	3.48%	0.00%
Westbound	0	83	0	76	3.48%	0.00%
Southbound	0	86	1156	5	3.48%	0.00%
Northbound	0	6	924	95	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C3R-Suburban Residential**		
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	Left	Thru	Right
Eastbound	0	5	0	3
Westbound	0	86	0	79
Southbound	0	89	1196	5
Northbound	0	6	956	98

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	2.89	Pedestrian Accommodation Score	2.73	Bicycle Accommodation Score	3.75

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2NS X 1EW Roundabout Only
1NS x 2EW		No	2NS X 1EW Roundabout Only
2NS x 1EW		Yes	
2x2		No	2NS X 1EW Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Two-Way Stop Control	N-S		1	2	1		1	2	0		1	1	0		0	1	1
All-Way Stop Control	FULL		1	2	1		1	2	0		1	1	0		0	1	1
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		0	1	1
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	1	1	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		0	1	1
Signalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	0		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane
Date	March 14, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		6	956	98		89	1201	0		5	3	0		0	86	79
Two-Way Stop Control	N-S		6	956	98		89	1201	0		5	3	0		0	86	79
All-Way Stop Control	FULL		6	956	98		89	1201	0		5	3	0		0	86	79
Partial Displaced Left Turn	N-S		6	956	98		89	1196	5		5	3	0		0	86	79
Displaced Left Turn	FULL		6	956	98		89	1196	5		5	0	3		86	0	79
Signalized Restricted Crossing U-Turn	N-S	0	6	956	98	0	89	1196	5				3				79
Unsignalized Restricted Crossing U-Turn	N-S	0	6	956	98	0	89	1196	5				3				79
Median U-Turn	N-S	0		956	98	0		1196	5			0	3			0	79
Partial Median U-Turn	N-S	0		956	98	0		1196	5		5	3	0		0	86	79
Signalized ThruCut	N-S		6	956	98		89	1202	0		5		3		86		79
Unsignalized ThruCut	N-S		6	956	98		89	1201	0		5		3		86		79
Bowtie	N-S		6	956	98		89	1201	5			94	89			92	84

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name	Chuluota Road (CR 419) ICE Evaluation	**Number of Configurations**			
Project Number	Build (4-lane) PM Design Year (2048)	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard/Long Boat Lane	**10**	**0**	**0**	**5**
Date	March 14, 2024				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									698	0.41	0.41	4.79	4.49
Two-Way Stop Control	N-S									--	2.89	2.89	2.73	3.75
All-Way Stop Control	FULL									2523	1.40	1.40	3.62	4.49
Partial Displaced Left Turn	N-S	574	*0.32*	649	*0.36*					689	0.39	0.39	2.86	3.16
Displaced Left Turn	FULL	574	*0.32*	647	*0.36*	180	*0.10*	11	*0.01*	689	0.38	0.38	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	753	*0.42*	536	*0.30*	578	*0.32*	647	*0.36*			0.42	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	1290	*0.20*	1060	*0.01*	961	*0.65*	1282	*0.05*			0.65	2.64	3.00
Median U-Turn	N-S	760	*0.42*	648	*0.36*					837	0.46	0.46	3.02	4.49
Partial Median U-Turn	N-S	653	*0.36*	641	*0.36*					741	0.42	0.42	2.89	4.49
Bowtie	N-S	148	0.10	94	0.07	86	0.06	3	0.00	706	0.39	0.39	4.70	4.49
Signalized ThruCut	N-S									698	0.40	0.40	4.90	4.49
Unsignalized ThruCut	N-S									--	5.98	5.98	4.22	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.38			-0.05			1.12			4.16			4.16	5.39	4.62
75 ICD	1.36			-0.08			1.10			1.24			1.36	5.39	4.62
2NS X 1EW	0.51	0.55		0.02			0.42	0.45		0.28			0.55	5.00	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Displaced Left Turn	0.38	1	3.01	3.16
Partial Displaced Left Turn N-S	0.39	2	2.86	3.16
Bowtie N-S	0.39	2	4.70	4.49
Signalized ThruCut N-S	0.40	4	4.90	4.49
Traffic Signal	0.41	5	4.79	4.49
Signalized Restricted Crossing U-Turn N-S	0.42	6	2.94	4.08
Partial Median U-Turn N-S	0.42	6	2.89	4.49
Median U-Turn N-S	0.46	8	3.02	4.49
2NS X 1EW	0.55	9	5.00	4.54
Unsignalized Restricted Crossing U-Turn N-S	0.65	10	2.64	3.00

Table 1, Cypress Lake Glen Boulevard N/Long Boat Lane Cap-x Results

Build Type	Year	Peak Hour	Intersection Control Rank 1 (V/C Ratio)	Intersection Control Rank 2 (V/C Ratio)	Intersection Control Rank 3 (V/C Ratio)	Intersection Control Rank 4 (V/C Ratio)	Intersection Control Rank 5 (V/C Ratio)	Intersection Control Rank 6 (V/C Ratio)	Intersection Control Rank 7 (V/C Ratio)	Intersection Control Rank 8 (V/C Ratio)	Intersection Control Rank 9 (V/C Ratio)	Intersection Control Rank 10 (V/C Ratio)
No-Build (2-lane)	2028	AM	DLT (0.33)	Partial DLT N-S (0.34)	Bowtie N-S (0.36)	Partial MUT N-S (0.38)	Signalized ThruCut N-S (0.38)	Traffic Signal (0.39)	Unsignalized RCUT N-S (0.41)	Signalized RCUT N-S (0.42)	MUT N-S (0.43)	1 X 1 Roundabout (0.45)
	2038		DLT (0.38)	Partial DLT N-S (0.39)	Bowtie N-S (0.41)	Signalized ThruCut N-S (0.44)	Traffic Signal (0.45)	Partial MUT N-S (0.45)	Unsignalized RCUT N-S (0.48)	Signalized RCUT N-S (0.48)	MUT N-S (0.50)	1 X 1 Roundabout (0.53)
	2048		DLT (0.43)	Partial DLT N-S (0.44)	Bowtie N-S (0.47)	Signalized ThruCut N-S (0.49)	Traffic Signal (0.50)	Partial MUT N-S (0.52)	Signalized RCUT N-S (0.53)	Unsignalized RCUT N-S (0.56)	MUT N-S (0.57)	1 X 1 Roundabout (0.61)
	2028	PM	Unsignalized RCUT N-S (0.24)	DLT (0.37)	Partial DLT N-S (0.38)	Bowtie N-S (0.38)	Signalized ThruCut N-S (0.39)	Traffic Signal (0.40)	Signalized RCUT N-S (0.42)	Partial MUT N-S (0.43)	TWSC (0.44)	MUT N-S (0.46)
	2038		Unsignalized RCUT N-S (0.28)	DLT (0.45)	Bowtie N-S (0.45)	Partial DLT N-S (0.46)	Signalized ThruCut N-S (0.46)	Traffic Signal (0.48)	Signalized RCUT N-S (0.50)	Partial MUT N-S (0.51)	MUT N-S (0.54)	1 X 1 Roundabout (0.64)
	2048		Unsignalized RCUT N-S (0.33)	DLT (0.52)	Partial DLT N-S (0.53)	Bowtie N-S (0.53)	Signalized ThruCut N-S (0.54)	Traffic Signal (0.55)	Signalized RCUT N-S (0.57)	Partial MUT N-S (0.58)	MUT N-S (0.61)	1 X 1 Roundabout (0.74)
Build (4-lane)	2028	AM	DLT (0.21)	Partial DLT N-S (0.22)	Signalized RCUT N-S (0.24)	Bowtie N-S (0.24)	Partial MUT N-S (0.26)	Traffic Signal (0.27)	Signalized ThruCut N-S (0.27)	2NS X 1EW Roundabout (0.29)	MUT N-S (0.32)	Unsignalized RCUT N-S (0.51)
	2038		DLT (0.27)	Partial DLT N-S (0.28)	Signalized RCUT N-S (0.31)	Bowtie N-S (0.31)	Traffic Signal (0.33)	Signalized ThruCut N-S (0.33)	Partial MUT N-S (0.34)	2NS X 1EW Roundabout (0.37)	MUT N-S (0.40)	Unsignalized RCUT N-S (0.73)
	2048		DLT (0.34)	Partial DLT N-S (0.35)	Signalized RCUT N-S (0.38)	Signalized ThruCut N-S (0.38)	Bowtie N-S (0.38)	Traffic Signal (0.39)	Partial MUT N-S (0.41)	2NS X 1EW Roundabout (0.46)	MUT N-S (0.48)	Unsignalized RCUT N-S (1.03)
	2028	PM	DLT (0.23)	Partial DLT N-S (0.24)	Bowtie N-S (0.24)	Signalized ThruCut N-S (0.25)	Traffic Signal (0.26)	Signalized RCUT N-S (0.26)	Partial MUT N-S (0.27)	Unsignalized RCUT N-S (0.30)	MUT N-S (0.30)	2NS X 1EW Roundabout (0.32)
	2038		DLT (0.31)	Partial DLT N-S (0.32)	Signalized ThruCut N-S (0.32)	Bowtie N-S (0.32)	Traffic Signal (0.33)	Signalized RCUT N-S (0.34)	Partial MUT N-S (0.34)	MUT N-S (0.38)	2NS X 1EW Roundabout (0.44)	Unsignalized RCUT N-S (0.44)
	2048		DLT (0.38)	Partial DLT N-S (0.39)	Bowtie N-S (0.39)	Signalized ThruCut N-S (0.40)	Traffic Signal (0.41)	Signalized RCUT N-S (0.42)	Partial MUT N-S (0.42)	MUT N-S (0.46)	2NS X 1EW Roundabout (0.55)	Unsignalized RCUT N-S (0.65)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

V/C Ratio Legend	
	< 0.750
	0.750 - 0.875
	0.875 - 1.00
	≥ 1.00

SPICE WORKSHEETS

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Blvd/Long Boat Ln	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	No-build (2-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.09	--	--	9	Yes	Yes	Calibrated SPF	96		6
	Fatal & Injury	1.39	--	--							
Minor Road Stop	Total	2.00	--	--	4	No	Yes	Calibrated SPF w/ EB	95		9
	Fatal & Injury	0.86	--	--							
All Way Stop	Total	3.44	--	--	5	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	0.95	--	--							
1-lane Roundabout	Total	1.87	--	--	1	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.36	--	--							
Displaced Left Turn (DLT)	Total	3.60	--	--	8	N/A	N/A	CMF	93		12
	Fatal & Injury	1.22	--	--							
Median U-Turn (MUT)	Total	2.58	--	--	7	N/A	N/A	CMF	98		3
	Fatal & Injury	1.06	--	--							
Signalized RCUT	Total	3.18	--	--	2	Yes	Yes	Uncalibrated SPF	98		4
	Fatal & Injury	0.69	--	--							
Unsignalized RCUT	Total	3.56	--	--	3	Yes	Yes	Uncalibrated SPF	97		5
	Fatal & Injury	0.74	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	96		8
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	94		11
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	94	####	10
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.03	--	--	6	N/A	N/A	CMF	96		7
	Fatal & Injury	1.03	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	13,350	
Opening Year - Minor Road AADT	5,400	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	Yes	--	
2-Lane Roundabout	No	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Unsignalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Bowtie*	Yes	--	**SSI Only, No Crash Prediction Available*
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	**Please Select*
Other 2*		Minor Road Stop	**Please Select*

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	13,350	
Minor	5,400	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available? **No** If "Yes", input values in **Table 2-A**
Are peak hour turning movement counts available? **Yes** If "Yes", input values in **Table 2-B**
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	5624.622	
Major Left Turn 1	48.04333	
Major Right Turn 1	1002.335	
Major Thru 2	5830.299	
Major Left Turn 2	803.8127	
Major Right Turn 2	40.88821	
Minor Thru 1	417.8571	
Minor Left Turn 1	1382.143	
Minor Right Turn 1	900	
Minor Thru 2	137.947	
Minor Left Turn 2	1281.027	
Minor Right Turn 2	1281.027	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	465	0.834829443	472	0.85045	0.84264
Major Left Turn 1	NBL	3	0.005385996	5	0.009009	0.007198
Major Right Turn 1	NBR	89	0.15978456	78	0.140541	0.150163
Major Thru 2	SBT	424	0.861788618	578	0.885145	0.873467
Major Left Turn 2	SBL	65	0.132113821	71	0.108729	0.120421
Major Right Turn 2	SBR	3	0.006097561	4	0.006126	0.006112
Minor Thru 1	EBT	1	0.071428571	0	0	0.035714
Minor Left Turn 1	EBL	5	0.357142857	4	0.666667	0.511905
Minor Right Turn 1	EBR	8	0.571428571	2	0.333333	0.452381
Minor Thru 2	WBT	2	0.00877193	0	0	0.004386
Minor Left Turn 2	WBL	98	0.429824561	68	0.519084	0.474454
Minor Right Turn 2	WBR	128	0.561403509	63	0.480916	0.52116

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.842639947
Major Left Turn 1	0.007197503
Major Right Turn 1	0.15016255
Major Thru 2	0.873453043
Major Left Turn 2	0.120421382
Major Right Turn 2	0.006125574
Minor Thru 1	0.154761905
Minor Left Turn 1	0.511904762
Minor Right Turn 1	0.333333333
Minor Thru 2	0.051091469
Minor Left Turn 2	0.474454265
Minor Right Turn 2	0.474454265

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	1	1	0	0	--	--	--	--	--	2
	Fatal/Injury	0	0	0	0	0						0
	PDO	0	1	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	1	1	0	0	--	--	--	--	--	2

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Blvd/Long Boat Ln	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	No-build (2-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.59	--	--	9	Yes	Yes	Calibrated SPF	95		6
	Fatal & Injury	1.56	--	--							
Minor Road Stop	Total	2.17	--	--	4	No	Yes	Calibrated SPF w/ EB	93		9
	Fatal & Injury	0.94	--	--							
All Way Stop	Total	4.03	--	--	5	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	1.11	--	--							
1-lane Roundabout	Total	2.08	--	--	1	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.41	--	--							
Displaced Left Turn (DLT)	Total	4.04	--	--	8	N/A	N/A	CMF	91		12
	Fatal & Injury	1.37	--	--							
Median U-Turn (MUT)	Total	2.89	--	--	7	N/A	N/A	CMF	97		3
	Fatal & Injury	1.19	--	--							
Signalized RCUT	Total	3.95	--	--	3	Yes	Yes	Uncalibrated SPF	97		4
	Fatal & Injury	0.87	--	--							
Unsignalized RCUT	Total	3.86	--	--	2	Yes	Yes	Uncalibrated SPF	96		5
	Fatal & Injury	0.83	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	95		8
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	93		11
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	93	####	10
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.40	--	--	6	N/A	N/A	CMF	95		7
	Fatal & Injury	1.15	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	15,700	
Opening Year - Minor Road AADT	5,900	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	Yes	--	
2-Lane Roundabout	No	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Unsignalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Bowtie*	Yes	--	**SSI Only, No Crash Prediction Available*
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	**Please Select*
Other 2*		Minor Road Stop	**Please Select*

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	15,700	
Minor	5,900	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available?	No
Are peak hour turning movement counts available?	Yes

If "Yes", input values in Table 2-A
If "Yes", input values in Table 2-B
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	6742.881	
Major Left Turn 1	48.30941	
Major Right Turn 1	1058.809	
Major Thru 2	6991.685	
Major Left Turn 2	817.9027	
Major Right Turn 2	40.41184	
Minor Thru 1	491.6667	
Minor Left Turn 1	1475	
Minor Right Turn 1	983.3333	
Minor Thru 2	156.8822	
Minor Left Turn 2	1396.559	
Minor Right Turn 2	1396.559	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	549	0.851162791	566	0.866769	0.858966
Major Left Turn 1	NBL	3	0.004651163	5	0.007657	0.006154
Major Right Turn 1	NBR	93	0.144186047	82	0.125574	0.13488
Major Thru 2	SBT	530	0.881863561	699	0.899614	0.890739
Major Left Turn 2	SBL	68	0.113144759	74	0.095238	0.104191
Major Right Turn 2	SBR	3	0.004991681	4	0.005148	0.00507
Minor Thru 1	EBT	1	0.066666667	0	0	0.033333
Minor Left Turn 1	EBL	5	0.333333333	4	0.666667	0.5
Minor Right Turn 1	EBR	9	0.6	2	0.333333	0.466667
Minor Thru 2	WBT	2	0.008403361	0	0	0.004202
Minor Left Turn 2	WBL	102	0.428571429	71	0.518248	0.47341
Minor Right Turn 2	WBR	134	0.56302521	66	0.481752	0.522389

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.858965775
Major Left Turn 1	0.006154065
Major Right Turn 1	0.13488016
Major Thru 2	0.890660568
Major Left Turn 2	0.104191427
Major Right Turn 2	0.005148005
Minor Thru 1	0.166666667
Minor Left Turn 1	0.5
Minor Right Turn 1	0.333333333
Minor Thru 2	0.053180396
Minor Left Turn 2	0.473409802
Minor Right Turn 2	0.473409802

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	1	1	0	0	--	--	--	--	--	2
	Fatal/Injury	0	0	0	0	0						0
	PDO	0	1	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	1	1	0	0	--	--	--	--	--	2

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Blvd/Long Boat Ln	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	No-build (2-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	5.04	--	--	9	Yes	Yes	Calibrated SPF	94		6
	Fatal & Injury	1.71	--	--							
Minor Road Stop	Total	2.31	--	--	3	No	Yes	Calibrated SPF w/ EB	92		9
	Fatal & Injury	1.00	--	--							
All Way Stop	Total	4.59	--	--	5	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	1.26	--	--							
1-lane Roundabout	Total	2.27	--	--	1	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.45	--	--							
Displaced Left Turn (DLT)	Total	4.43	--	--	8	N/A	N/A	CMF	89		12
	Fatal & Injury	1.51	--	--							
Median U-Turn (MUT)	Total	3.17	--	--	7	N/A	N/A	CMF	97		3
	Fatal & Injury	1.30	--	--							
Signalized RCUT	Total	4.71	--	--	4	Yes	Yes	Uncalibrated SPF	96		4
	Fatal & Injury	1.04	--	--							
Unsignalized RCUT	Total	4.14	--	--	2	Yes	Yes	Uncalibrated SPF	95		5
	Fatal & Injury	0.90	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	94		8
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	91		11
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	91	####	10
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.73	--	--	6	N/A	N/A	CMF	94		7
	Fatal & Injury	1.27	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	17,950	
Opening Year - Minor Road AADT	6,300	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	Yes	--	
2-Lane Roundabout	No	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	*Please Select
Other 2*		Minor Road Stop	*Please Select

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	17,950	
Minor	6,300	

ADT Directional Split	
Major	0.50
Minor	0.50

Are turning movement ADT values are available? **No** If "Yes", input values in **Table 2-A**
Are peak hour turning movement counts available? **Yes** If "Yes", input values in **Table 2-B**
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	7823.454	
Major Left Turn 1	48.30806	
Major Right Turn 1	1103.238	
Major Thru 2	8103.062	
Major Left Turn 2	832.0494	
Major Right Turn 2	39.88889	
Minor Thru 1	525	
Minor Left Turn 1	1575	
Minor Right Turn 1	1050	
Minor Thru 2	149.3781	
Minor Left Turn 2	1500.311	
Minor Right Turn 2	1500.311	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	632	0.863387978	660	0.88	0.871694
Major Left Turn 1	NBL	3	0.004098361	5	0.006667	0.005383
Major Right Turn 1	NBR	97	0.132513661	85	0.113333	0.122923
Major Thru 2	SBT	637	0.895921238	819	0.91	0.902961
Major Left Turn 2	SBL	71	0.099859353	77	0.085556	0.092707
Major Right Turn 2	SBR	3	0.004219409	4	0.004444	0.004332
Minor Thru 1	EBT	1	0.066666667	0	0	0.033333
Minor Left Turn 1	EBL	5	0.333333333	4	0.666667	0.5
Minor Right Turn 1	EBR	9	0.6	2	0.333333	0.466667
Minor Thru 2	WBT	2	0.008064516	0	0	0.004032
Minor Left Turn 2	WBL	107	0.431451613	74	0.521127	0.476289
Minor Right Turn 2	WBR	139	0.560483871	68	0.478873	0.519679

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.871693989
Major Left Turn 1	0.005382514
Major Right Turn 1	0.122923497
Major Thru 2	0.902848101
Major Left Turn 2	0.092707454
Major Right Turn 2	0.004444444
Minor Thru 1	0.166666667
Minor Left Turn 1	0.5
Minor Right Turn 1	0.333333333
Minor Thru 2	0.047421627
Minor Left Turn 2	0.476289187
Minor Right Turn 2	0.476289187

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	1	1	0	0	--	--	--	--	--	2
	Fatal/Injury	0	0	0	0	0						0
	PDO	0	1	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	1	1	0	0	--	--	--	--	--	2

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Blvd/Long Boat Ln	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.51	--	--	9	Yes	Yes	Calibrated SPF	92		6
	Fatal & Injury	1.53	--	--							
Minor Road Stop	Total	2.11	--	--	3	No	Yes	Calibrated SPF w/ EB	89		9
	Fatal & Injury	0.91	--	--							
All Way Stop	Total	3.93	--	--	4	No	Yes	Uncalibrated SPF w/ EB	98		2
	Fatal & Injury	1.08	--	--							
2-lane Roundabout	Total	5.24	--	--	5	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.11	--	--							
Displaced Left Turn (DLT)	Total	3.97	--	--	8	N/A	N/A	CMF	87		12
	Fatal & Injury	1.35	--	--							
Median U-Turn (MUT)	Total	2.84	--	--	7	N/A	N/A	CMF	96		3
	Fatal & Injury	1.17	--	--							
Signalized RCUT	Total	3.80	--	--	2	Yes	Yes	Uncalibrated SPF	95		4
	Fatal & Injury	0.82	--	--							
Unsignalized RCUT	Total	3.74	--	--	1	Yes	Yes	Uncalibrated SPF	93		5
	Fatal & Injury	0.81	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	92		7
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	88		10
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	87	####	11
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.34	--	--	6	N/A	N/A	CMF	91		8
	Fatal & Injury	1.13	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	15,700	
Opening Year - Minor Road AADT	5,400	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	No	--	
2-Lane Roundabout	Yes	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Unsignalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Bowtie*	Yes	--	**SSI Only, No Crash Prediction Available*
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	**Please Select*
Other 2*		Minor Road Stop	**Please Select*

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	15,700	
Minor	5,400	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available?	No
Are peak hour turning movement counts available?	Yes

If "Yes", input values in Table 2-A
If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	6710.34	
Major Left Turn 1	50.31119	
Major Right Turn 1	1089.349	
Major Thru 2	6961.555	
Major Left Turn 2	846.1842	
Major Right Turn 2	42.2611	
Minor Thru 1	450	
Minor Left Turn 1	1350	
Minor Right Turn 1	900	
Minor Thru 2	139.5745	
Minor Left Turn 2	1280.213	
Minor Right Turn 2	1280.213	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	526	0.847020934	540	0.86262	0.85482
Major Left Turn 1	NBL	3	0.004830918	5	0.007987	0.006409
Major Right Turn 1	NBR	92	0.148148148	81	0.129393	0.138771
Major Thru 2	SBT	501	0.877408056	666	0.896366	0.886887
Major Left Turn 2	SBL	67	0.117338004	73	0.09825	0.107794
Major Right Turn 2	SBR	3	0.00525394	4	0.005384	0.005319
Minor Thru 1	EBT	1	0.066666667	0	0	0.033333
Minor Left Turn 1	EBL	5	0.333333333	4	0.666667	0.5
Minor Right Turn 1	EBR	9	0.6	2	0.333333	0.466667
Minor Thru 2	WBT	2	0.008510638	0	0	0.004255
Minor Left Turn 2	WBL	101	0.429787234	70	0.518519	0.474153
Minor Right Turn 2	WBR	132	0.561702128	65	0.481481	0.521592

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.854820371
Major Left Turn 1	0.006409069
Major Right Turn 1	0.13877056
Major Thru 2	0.88682225
Major Left Turn 2	0.10779417
Major Right Turn 2	0.00538358
Minor Thru 1	0.166666667
Minor Left Turn 1	0.5
Minor Right Turn 1	0.333333333
Minor Thru 2	0.051694247
Minor Left Turn 2	0.474152876
Minor Right Turn 2	0.474152876

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	1	1	0	0	--	--	--	--	--	2
	Fatal/Injury	0	0	0	0	0						0
	PDO	0	1	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	1	1	0	0	--	--	--	--	--	2

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Blvd/Long Boat Ln	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	5.40	--	--	9	Yes	Yes	Calibrated SPF	89		6
	Fatal & Injury	1.84	--	--							
Minor Road Stop	Total	2.36	--	--	2	No	Yes	Calibrated SPF w/ EB	85		9
	Fatal & Injury	1.02	--	--							
All Way Stop	Total	5.07	--	--	5	No	Yes	Uncalibrated SPF w/ EB	98		2
	Fatal & Injury	1.39	--	--							
2-lane Roundabout	Total	6.82	--	--	7	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.49	--	--							
Displaced Left Turn (DLT)	Total	4.75	--	--	8	N/A	N/A	CMF	82		12
	Fatal & Injury	1.62	--	--							
Median U-Turn (MUT)	Total	3.40	--	--	6	N/A	N/A	CMF	94		3
	Fatal & Injury	1.40	--	--							
Signalized RCUT	Total	5.33	--	--	3	Yes	Yes	Uncalibrated SPF	94		4
	Fatal & Injury	1.16	--	--							
Unsignalized RCUT	Total	4.28	--	--	1	Yes	Yes	Uncalibrated SPF	91		5
	Fatal & Injury	0.97	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	88		8
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	83		10
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	83	####	11
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	4.00	--	--	4	N/A	N/A	CMF	88		7
	Fatal & Injury	1.36	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	20,600	
Opening Year - Minor Road AADT	5,900	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range
2-Lane Roundabout	Yes	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	*Please Select
Other 2*		Minor Road Stop	*Please Select

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	20,600	
Minor	5,900	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	9044.423	
Major Left Turn 1	63.1592	
Major Right Turn 1	1192.418	
Major Thru 2	9361.745	
Major Left Turn 2	886.5477	
Major Right Turn 2	51.70683	
Minor Thru 1	368.75	
Minor Left Turn 1	1475	
Minor Right Turn 1	1106.25	
Minor Thru 2	142.116	
Minor Left Turn 2	1403.942	
Minor Right Turn 2	1403.942	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	696	0.87	732	0.886199	0.878099
Major Left Turn 1	NBL	4	0.005	6	0.007264	0.006132
Major Right Turn 1	NBR	100	0.125	88	0.106538	0.115769
Major Thru 2	SBT	718	0.903144654	911	0.914659	0.908902
Major Left Turn 2	SBL	73	0.091823899	80	0.080321	0.086073
Major Right Turn 2	SBR	4	0.005031447	5	0.00502	0.005026
Minor Thru 1	EBT	1	0.0625	0	0	0.03125
Minor Left Turn 1	EBL	6	0.375	5	0.625	0.5
Minor Right Turn 1	EBR	9	0.5625	3	0.375	0.46875
Minor Thru 2	WBT	3	0.011673152	0	0	0.005837
Minor Left Turn 2	WBL	110	0.428015564	77	0.52381	0.475913
Minor Right Turn 2	WBR	144	0.560311284	70	0.47619	0.518251

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.878099274
Major Left Turn 1	0.006131961
Major Right Turn 1	0.115768765
Major Thru 2	0.908907327
Major Left Turn 2	0.086072592
Major Right Turn 2	0.00502008
Minor Thru 1	0.125
Minor Left Turn 1	0.5
Minor Right Turn 1	0.375
Minor Thru 2	0.048174912
Minor Left Turn 2	0.475912544
Minor Right Turn 2	0.475912544

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	1	1	0	0	--	--	--	--	--	2
	Fatal/Injury	0	0	0	0	0						0
	PDO	0	1	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	1	1	0	0	--	--	--	--	--	2

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Blvd/Long Boat Ln	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	6.23	--	--	9	No	Yes	Calibrated SPF	85		6
	Fatal & Injury	2.12	--	--							
Minor Road Stop	Total	2.55	--	--	1	No	Yes	Calibrated SPF w/ EB	80		9
	Fatal & Injury	1.10	--	--							
All Way Stop	Total	6.23	--	--	6	No	Yes	Uncalibrated SPF w/ EB	97		2
	Fatal & Injury	1.71	--	--							
2-lane Roundabout	Total	8.45	--	--	8	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.88	--	--							
Displaced Left Turn (DLT)	Total	5.48	--	--	7	N/A	N/A	CMF	76		12
	Fatal & Injury	1.86	--	--							
Median U-Turn (MUT)	Total	3.92	--	--	5	N/A	N/A	CMF	93		3
	Fatal & Injury	1.61	--	--							
Signalized RCUT	Total	6.96	--	--	3	Yes	Yes	Uncalibrated SPF	92		4
	Fatal & Injury	1.51	--	--							
Unsignalized RCUT	Total	4.85	--	--	2	Yes	Yes	Uncalibrated SPF	88		5
	Fatal & Injury	1.12	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	84		8
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	78		10
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	78	####	11
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	4.61	--	--	4	N/A	N/A	CMF	84		7
	Fatal & Injury	1.57	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	25,550	
Opening Year - Minor Road AADT	6,300	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	Opening Year AADT Outside of SPF Development Range
Traffic Signal (Alternative Configuration)	No	--	Opening Year AADT Outside of SPF Development Range
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range
2-Lane Roundabout	Yes	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Unsignalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Bowtie*	Yes	--	**SSI Only, No Crash Prediction Available*
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	**Please Select*
Other 2*		Minor Road Stop	**Please Select*

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	25,550	
Minor	6,300	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available?	No
Are peak hour turning movement counts available?	Yes

If "Yes", input values in Table 2-A
If "Yes", input values in Table 2-B
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	11414.1	
Major Left Turn 1	63.51499	
Major Right Turn 1	1297.38	
Major Thru 2	11787.57	
Major Left Turn 2	936.2073	
Major Right Turn 2	51.22294	
Minor Thru 1	428.4926	
Minor Left Turn 1	1540.257	
Minor Right Turn 1	1181.25	
Minor Thru 2	152.4113	
Minor Left Turn 2	1498.794	
Minor Right Turn 2	1498.794	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	866	0.885480573	924	0.901463	0.893472
Major Left Turn 1	NBL	4	0.00408998	6	0.005854	0.004972
Major Right Turn 1	NBR	108	0.110429448	95	0.092683	0.101556
Major Thru 2	SBT	935	0.918467583	1156	0.927025	0.922746
Major Left Turn 2	SBL	79	0.077603143	86	0.068966	0.073284
Major Right Turn 2	SBR	4	0.003929273	5	0.00401	0.003969
Minor Thru 1	EBT	1	0.058823529	0	0	0.029412
Minor Left Turn 1	EBL	6	0.352941176	5	0.625	0.488971
Minor Right Turn 1	EBR	10	0.588235294	3	0.375	0.481618
Minor Thru 2	WBT	3	0.010830325	0	0	0.005415
Minor Left Turn 2	WBL	119	0.429602888	83	0.522013	0.475808
Minor Right Turn 2	WBR	155	0.559566787	76	0.477987	0.518777

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.893471994
Major Left Turn 1	0.004971819
Major Right Turn 1	0.101556187
Major Thru 2	0.922706047
Major Left Turn 2	0.07328433
Major Right Turn 2	0.004009623
Minor Thru 1	0.136029412
Minor Left Turn 1	0.488970588
Minor Right Turn 1	0.375
Minor Thru 2	0.048384533
Minor Left Turn 2	0.475807733
Minor Right Turn 2	0.475807733

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	4ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	1	1	0	0	--	--	--	--	--	2
	Fatal/Injury	0	0	0	0	0						0
	PDO	0	1	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	1	1	0	0	--	--	--	--	--	2

Table 2, Cypress Lake Glen Boulevard N/Long Boat Lane SPICE Results - Crash Prediction

Build Type	Year	Intersection Control Rank 1 (Fatal & Injury Crashes)	Intersection Control Rank 2 (Fatal & Injury Crashes)	Intersection Control Rank 3 (Fatal & Injury Crashes)	Intersection Control Rank 4 (Fatal & Injury Crashes)	Intersection Control Rank 5 (Fatal & Injury Crashes)	Intersection Control Rank 6 (Fatal & Injury Crashes)	Intersection Control Rank 7 (Fatal & Injury Crashes)	Intersection Control Rank 8 (Fatal & Injury Crashes)	Intersection Control Rank 9 (Fatal & Injury Crashes)	Intersection Control Rank 10 (Fatal & Injury Crashes)
No-Build (2-lane)	2028	1 Lane Roundabout (0.36)	Signalized RCUT N-S (0.69)	Unsignalized RCUT N-S (0.74)	TWSC (0.86)	AWSC (0.95)	Jughandle (1.03)	MUT N-S (1.06)	DLT (1.22)	Traffic Signal (1.39)	Bowtie N-S (No SPF)
	2038	1 Lane Roundabout (0.41)	Unsignalized RCUT N-S (0.83)	Signalized RCUT N-S (0.87)	TWSC (0.94)	AWSC (1.11)	Jughandle (1.15)	MUT N-S (1.19)	DLT (1.37)	Traffic Signal (1.56)	Bowtie N-S (No SPF)
	2048	1 Lane Roundabout (0.45)	Unsignalized RCUT N-S (0.90)	TWSC (1.00)	Signalized RCUT N-S (1.04)	AWSC (1.26)	Jughandle (1.27)	MUT N-S (1.30)	DLT (1.51)	Traffic Signal (1.71)	Bowtie N-S (No SPF)
Build (4-lane)	2028	Unsignalized RCUT N-S (0.81)	Signalized RCUT N-S (0.82)	TWSC (0.91)	AWSC (1.08)	2 Lane Roundabout (1.11)	Jughandle (1.13)	MUT N-S (1.17)	DLT (1.35)	Traffic Signal (1.53)	Bowtie N-S (No SPF)
	2038	Unsignalized RCUT N-S (0.97)	TWSC (1.02)	Signalized RCUT N-S (1.16)	Jughandle (1.36)	AWSC (1.39)	MUT N-S (1.40)	2 Lane Roundabout (1.49)	DLT (1.62)	Traffic Signal (1.84)	Bowtie N-S (No SPF)
	2048	TWSC (1.10)	Unsignalized RCUT N-S (1.12)	Signalized RCUT N-S (1.51)	Jughandle (1.57)	MUT N-S (1.61)	AWSC (1.71)	DLT (1.86)	2 Lane Roundabout (1.88)	Traffic Signal (2.12)	Bowtie N-S (No SPF)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

Table 3, Cypress Lake Glen Boulevard N/Long Boat Lane SPICE Results - SSI Score

Build Type	Year	Intersection Control Rank 1 (SSI Score)	Intersection Control Rank 2 (SSI Score)	Intersection Control Rank 3 (SSI Score)	Intersection Control Rank 4 (SSI Score)	Intersection Control Rank 5 (SSI Score)	Intersection Control Rank 6 (SSI Score)	Intersection Control Rank 7 (SSI Score)	Intersection Control Rank 8 (SSI Score)	Intersection Control Rank 9 (SSI Score)	Intersection Control Rank 10 (SSI Score)
No-Build (2-lane)	2028	1 Lane Roundabout (100)	AWSC (99)	MUT N-S (98)	Signalized RCUT N-S (98)	Unsignalized RCUT N-S (97)	Traffic Signal (96)	Jughandle (96)	Signalized ThruCut N-S (96)	TWSC (95)	Bowtie N-S (94)
	2038	1 Lane Roundabout (100)	AWSC (99)	MUT N-S (97)	Signalized RCUT N-S (97)	Unsignalized RCUT N-S (96)	Traffic Signal (95)	Jughandle (95)	Signalized ThruCut N-S (95)	TWSC (93)	Bowtie N-S (93)
	2048	1 Lane Roundabout (100)	AWSC (99)	MUT N-S (97)	Signalized RCUT N-S (96)	Unsignalized RCUT N-S (95)	Traffic Signal (94)	Jughandle (94)	Signalized ThruCut N-S (94)	TWSC (92)	Bowtie N-S (91)
Build (4-lane)	2028	2 Lane Roundabout (99)	AWSC (98)	MUT N-S (96)	Signalized RCUT N-S (95)	Unsignalized RCUT N-S (93)	Traffic Signal (92)	Signalized ThruCut N-S (92)	Jughandle (91)	TWSC (89)	Unsignalized ThruCut N-S (88)
	2038	2 Lane Roundabout (99)	AWSC (98)	MUT N-S (94)	Signalized RCUT N-S (94)	Unsignalized RCUT N-S (91)	Traffic Signal (89)	Jughandle (88)	Signalized ThruCut N-S (88)	TWSC (85)	Unsignalized ThruCut N-S (83)
	2048	2 Lane Roundabout (99)	AWSC (97)	MUT N-S (93)	Signalized RCUT N-S (92)	Unsignalized RCUT N-S (88)	Traffic Signal (85)	Jughandle (84)	Signalized ThruCut N-S (84)	TWSC (80)	Unsignalized ThruCut N-S (78)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

SSI Legend	
	90-100
	80-89
	70-79
	< 70

CHULUOTA ROAD & CORNER LAKE DRIVE

CAP-X WORKSHEETS

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	50	0	45	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	518	21	3.48%	0.00%
Northbound	0	13	502	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	52	0	47
Westbound	0	0	0	0
Southbound	0	0	536	22
Northbound	0	13	519	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.30	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Continuous Green T	W		1	1				1	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Median U-Turn	N-S	1		1	0	1		1	1			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Unsignalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Bowtie	N-S			1	0			1	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		13	519	0		0	536	22		52	0	47		0	0	0
Two-Way Stop Control	N-S		13	519	0		0	536	22		52	0	47		0	0	0
All-Way Stop Control	FULL		13	519	0		0	536	22		52	0	47		0	0	0
Continuous Green T	W		13	519				536	22		52		47				
Signalized Restricted Crossing U-Turn	N-S	0	13	519	0	0	0	536	22				47				0
Unsignalized Restricted Crossing U-Turn	N-S	0	13	519	0	0	0	536	22				47				0
Median U-Turn	N-S	0		519	0	0		536	22			0	47			0	0
Partial Median U-Turn	N-S	0		519	0	0		536	22		52	0	47		0	0	0
Signalized ThruCut	N-S		13	519	0		0	536	22		52		47		0		0
Unsignalized ThruCut	N-S		13	519	0		0	536	22		52		47		0		0
Bowtie	N-S		0	534	0		0	536	22			52	47			74	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**13**	**1**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									605	0.35	0.35		
Two-Way Stop Control	N-S									--	0.30	0.30		
All-Way Stop Control	FULL									1189	0.79	0.79		
Continuous Green T	W									604	0.35	0.35		
Signalized Restricted Crossing U-Turn	N-S	558	*0.31*	597	*0.33*	571	*0.32*	652	*0.36*			0.36		
Unsignalized Restricted Crossing U-Turn	N-S	558	*0.00*	532	*0.06*	571	*0.00*	536	*0.18*			0.18		
Median U-Turn	N-S	574	*0.32*	597	*0.33*					652	0.36	0.36		
Partial Median U-Turn	N-S	574	*0.32*	532	*0.30*					591	0.34	0.34		
Bowtie	N-S	65	0.05	35	0.03	0	0.00	99	0.07	591	0.33	0.33		
Signalized ThruCut	N-S									605	0.35	0.35		
Unsignalized ThruCut	N-S									--	0.30	0.30		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.55*			*0.22*			*0.54*			*0.00*			0.55		
75 ICD	*0.55*			*0.21*			*0.53*			*0.00*			0.55		
1 X 1	*0.41*			*0.13*			*0.41*			*0.00*			0.41		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.18	1	--	--
Two-Way Stop Control N-S	0.30	2	--	--
Unsignalized ThruCut N-S	0.30	2	--	--
Bowtie N-S	0.33	4	--	--
Partial Median U-Turn N-S	0.34	5	--	--
Traffic Signal	0.35	6	--	--
Continuous Green T W	0.35	6	--	--
Signalized ThruCut N-S	0.35	6	--	--
Signalized Restricted Crossing U-Turn N-S	0.36	9	--	--
Median U-Turn N-S	0.36	9	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	52	0	47	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	627	22	3.48%	0.00%
Northbound	0	14	588	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	54	0	49
Westbound	0	0	0	0
Southbound	0	0	649	23
Northbound	0	14	608	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.36	Pedestrian Accommodation Score		--	Bicycle Accommodation Score		--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Continuous Green T	W		1	1				1	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Median U-Turn	N-S	1		1	0	1		1	1			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Unsignalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Bowtie	N-S			1	0			1	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		14	608	0		0	649	23		54	0	49		0	0	0
Two-Way Stop Control	N-S		14	608	0		0	649	23		54	0	49		0	0	0
All-Way Stop Control	FULL		14	608	0		0	649	23		54	0	49		0	0	0
Continuous Green T	W		14	608				649	23		54		49				
Signalized Restricted Crossing U-Turn	N-S	0	14	608	0	0	0	649	23				49				0
Unsignalized Restricted Crossing U-Turn	N-S	0	14	608	0	0	0	649	23				49				0
Median U-Turn	N-S	0		608	0	0		649	23			0	49			0	0
Partial Median U-Turn	N-S	0		608	0	0		649	23		54	0	49		0	0	0
Signalized ThruCut	N-S		14	608	0		0	649	23		54		49		0		0
Unsignalized ThruCut	N-S		14	608	0		0	649	23		54		49		0		0
Bowtie	N-S		0	624	0		0	649	23			54	49			78	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**13**	**0**	**1**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									721	0.41	0.41		
Two-Way Stop Control	N-S									--	0.36	0.36		
All-Way Stop Control	FULL									1397	0.93	0.93		
Continuous Green T	W									721	0.41	0.41		
Signalized Restricted Crossing U-Turn	N-S	672	*0.37*	690	*0.38*	662	*0.37*	770	*0.43*			0.43		
Unsignalized Restricted Crossing U-Turn	N-S	672	*0.00*	622	*0.07*	662	*0.00*	649	*0.22*			0.22		
Median U-Turn	N-S	690	*0.38*	690	*0.38*					770	0.43	0.43		
Partial Median U-Turn	N-S	690	*0.38*	622	*0.35*					707	0.40	0.40		
Bowtie	N-S	68	0.05	37	0.03	0	0.00	103	0.07	707	0.39	0.39		
Signalized ThruCut	N-S									721	0.41	0.41		
Unsignalized ThruCut	N-S									--	0.36	0.36		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.66*			*0.29*			*0.63*			*0.00*			0.66		
75 ICD	*0.66*			*0.27*			*0.62*			*0.00*			0.66		
1 X 1	*0.50*			*0.15*			*0.48*			*0.00*			0.50		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.22	1	--	--
Two-Way Stop Control N-S	0.36	2	--	--
Unsignalized ThruCut N-S	0.36	2	--	--
Bowtie N-S	0.39	4	--	--
Partial Median U-Turn N-S	0.40	5	--	--
Traffic Signal	0.41	6	--	--
Continuous Green T W	0.41	6	--	--
Signalized ThruCut N-S	0.41	6	--	--
Signalized Restricted Crossing U-Turn N-S	0.43	9	--	--
Median U-Turn N-S	0.43	9	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	54	0	49	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	735	22	3.48%	0.00%
Northbound	0	14	675	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	56	0	51
Westbound	0	0	0	0
Southbound	0	0	761	23
Northbound	0	14	698	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.43	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Continuous Green T	W		1	1				1	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Median U-Turn	N-S	1		1	0	1		1	1			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Unsignalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Bowtie	N-S			1	0			1	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		14	698	0		0	761	23		56	0	51		0	0	0
Two-Way Stop Control	N-S		14	698	0		0	761	23		56	0	51		0	0	0
All-Way Stop Control	FULL		14	698	0		0	761	23		56	0	51		0	0	0
Continuous Green T	W		14	698				761	23		56		51				
Signalized Restricted Crossing U-Turn	N-S	0	14	698	0	0	0	761	23				51				0
Unsignalized Restricted Crossing U-Turn	N-S	0	14	698	0	0	0	761	23				51				0
Median U-Turn	N-S	0		698	0	0		761	23			0	51			0	0
Partial Median U-Turn	N-S	0		698	0	0		761	23		56	0	51		0	0	0
Signalized ThruCut	N-S		14	698	0		0	761	23		56		51		0		0
Unsignalized ThruCut	N-S		14	698	0		0	761	23		56		51		0		0
Bowtie	N-S		0	714	0		0	761	23			56	51			80	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**11**	**2**	**0**	**1**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									835	0.48	0.48		
Two-Way Stop Control	N-S									--	0.43	0.43		
All-Way Stop Control	FULL									1603	1.07	1.07		
Continuous Green T	W									835	0.48	0.48		
Signalized Restricted Crossing U-Turn	N-S	784	*0.44*	782	*0.43*	754	*0.42*	887	*0.49*			0.49		
Unsignalized Restricted Crossing U-Turn	N-S	784	*0.00*	712	*0.08*	754	*0.00*	761	*0.27*			0.27		
Median U-Turn	N-S	802	*0.45*	782	*0.43*					887	0.49	0.49		
Partial Median U-Turn	N-S	802	*0.45*	712	*0.40*					821	0.47	0.47		
Bowtie	N-S	70	0.05	37	0.03	0	0.00	107	0.08	821	0.46	0.46		
Signalized ThruCut	N-S									835	0.48	0.48		
Unsignalized ThruCut	N-S									--	0.43	0.43		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.77			0.43			0.72			0.00			0.77		
75 ICD	0.77			0.37			0.71			0.00			0.77		
1 X 1	0.58			0.17			0.55			0.00			0.58		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.27	1	--	--
Two-Way Stop Control N-S	0.43	2	--	--
Unsignalized ThruCut N-S	0.43	3	--	--
Bowtie N-S	0.46	4	--	--
Partial Median U-Turn N-S	0.47	5	--	--
Traffic Signal	0.48	6	--	--
Continuous Green T W	0.48	6	--	--
Signalized ThruCut N-S	0.48	6	--	--
Signalized Restricted Crossing U-Turn N-S	0.49	9	--	--
Median U-Turn N-S	0.49	9	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	23	0	40	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	612	35	3.48%	0.00%
Northbound	0	21	532	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	24	0	41
Westbound	0	0	0	0
Southbound	0	0	633	36
Northbound	0	22	551	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.35	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Continuous Green T	W		1	1				1	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Median U-Turn	N-S	1		1	0	1		1	1			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Unsignalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Bowtie	N-S			1	0			1	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		22	551	0		0	633	36		24	0	41		0	0	0
Two-Way Stop Control	N-S		22	551	0		0	633	36		24	0	41		0	0	0
All-Way Stop Control	FULL		22	551	0		0	633	36		24	0	41		0	0	0
Continuous Green T	W		22	551				633	36		24		41				
Signalized Restricted Crossing U-Turn	N-S	0	22	551	0	0	0	633	36				41				0
Unsignalized Restricted Crossing U-Turn	N-S	0	22	551	0	0	0	633	36				41				0
Median U-Turn	N-S	0		551	0	0		633	36			0	41			0	0
Partial Median U-Turn	N-S	0		551	0	0		633	36		24	0	41		0	0	0
Signalized ThruCut	N-S		22	551	0		0	633	36		24		41		0		0
Unsignalized ThruCut	N-S		22	551	0		0	633	36		24		41		0		0
Bowtie	N-S		0	577	0		0	633	36			24	41			50	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**13**	**1**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									683	0.39	0.39		
Two-Way Stop Control	N-S									--	0.35	0.35		
All-Way Stop Control	FULL									1307	0.87	0.87		
Continuous Green T	W									681	0.39	0.39		
Signalized Restricted Crossing U-Turn	N-S	669	*0.37*	603	*0.34*	575	*0.32*	709	*0.39*			0.39		
Unsignalized Restricted Crossing U-Turn	N-S	669	*0.00*	573	*0.03*	575	*0.00*	633	*0.14*			0.14		
Median U-Turn	N-S	697	*0.39*	603	*0.34*					709	0.39	0.39		
Partial Median U-Turn	N-S	697	*0.39*	573	*0.32*					681	0.39	0.39		
Bowtie	N-S	46	0.03	58	0.04	0	0.00	65	0.05	681	0.38	0.38		
Signalized ThruCut	N-S									681	0.39	0.39		
Unsignalized ThruCut	N-S									--	0.35	0.35		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.67*			*0.19*			*0.56*			*0.00*			0.67		
75 ICD	*0.66*			*0.17*			*0.56*			*0.00*			0.66		
1 X 1	*0.50*			*0.09*			*0.43*			*0.00*			0.50		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.14	1	--	--
Two-Way Stop Control N-S	0.35	2	--	--
Unsignalized ThruCut N-S	0.35	2	--	--
Bowtie N-S	0.38	4	--	--
Traffic Signal	0.39	5	--	--
Continuous Green T W	0.39	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.39	5	--	--
Median U-Turn N-S	0.39	5	--	--
Partial Median U-Turn N-S	0.39	5	--	--
Signalized ThruCut N-S	0.39	5	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	24	0	42	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	734	37	3.48%	0.00%
Northbound	0	22	629	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	25	0	43
Westbound	0	0	0	0
Southbound	0	0	760	38
Northbound	0	23	651	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.42	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Continuous Green T	W		1	1				1	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Median U-Turn	N-S	1		1	0	1		1	1			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Unsignalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Bowtie	N-S			1	0			1	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		23	651	0		0	760	38		25	0	43		0	0	0
Two-Way Stop Control	N-S		23	651	0		0	760	38		25	0	43		0	0	0
All-Way Stop Control	FULL		23	651	0		0	760	38		25	0	43		0	0	0
Continuous Green T	W		23	651				760	38		25		43				
Signalized Restricted Crossing U-Turn	N-S	0	23	651	0	0	0	760	38				43				0
Unsignalized Restricted Crossing U-Turn	N-S	0	23	651	0	0	0	760	38				43				0
Median U-Turn	N-S	0		651	0	0		760	38			0	43			0	0
Partial Median U-Turn	N-S	0		651	0	0		760	38		25	0	43		0	0	0
Signalized ThruCut	N-S		23	651	0		0	760	38		25		43		0		0
Unsignalized ThruCut	N-S		23	651	0		0	760	38		25		43		0		0
Bowtie	N-S		0	678	0		0	760	38			25	43			52	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**11**	**2**	**0**	**1**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									812	0.46	0.46		
Two-Way Stop Control	N-S									--	0.42	0.42		
All-Way Stop Control	FULL									1540	1.03	1.03		
Continuous Green T	W									811	0.46	0.46		
Signalized Restricted Crossing U-Turn	N-S	798	*0.44*	705	*0.39*	676	*0.38*	840	*0.47*			0.47		
Unsignalized Restricted Crossing U-Turn	N-S	798	*0.00*	674	*0.03*	676	*0.00*	760	*0.17*			0.17		
Median U-Turn	N-S	827	*0.46*	705	*0.39*					840	0.47	0.47		
Partial Median U-Turn	N-S	827	*0.46*	674	*0.37*					811	0.46	0.46		
Bowtie	N-S	48	0.03	61	0.04	0	0.00	68	0.05	811	0.45	0.45		
Signalized ThruCut	N-S									810	0.46	0.46		
Unsignalized ThruCut	N-S									--	0.42	0.42		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.79			0.29			0.66			0.00			0.79		
75 ICD	0.79			0.25			0.66			0.00			0.79		
1 X 1	0.60			0.11			0.51			0.00			0.60		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.17	1	--	--
Two-Way Stop Control N-S	0.42	2	--	--
Unsignalized ThruCut N-S	0.42	2	--	--
Bowtie N-S	0.45	4	--	--
Traffic Signal	0.46	5	--	--
Continuous Green T W	0.46	5	--	--
Partial Median U-Turn N-S	0.46	5	--	--
Signalized ThruCut N-S	0.46	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.47	9	--	--
Median U-Turn N-S	0.47	9	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	25	0	44	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	856	38	3.48%	0.00%
Northbound	0	22	726	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	26	0	46
Westbound	0	0	0	0
Southbound	0	0	886	39
Northbound	0	23	751	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.49	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	1	0		0	1	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	1	0		0	1	1		1	0	1		0	0	0
Continuous Green T	W		1	1				1	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	1	0	1	0	1	1				1				0
Median U-Turn	N-S	1		1	0	1		1	1			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Unsignalized ThruCut	N-S		1	1	0		0	1	1		1		1		0		0
Bowtie	N-S			1	0			1	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		23	751	0		0	886	39		26	0	46		0	0	0
Two-Way Stop Control	N-S		23	751	0		0	886	39		26	0	46		0	0	0
All-Way Stop Control	FULL		23	751	0		0	886	39		26	0	46		0	0	0
Continuous Green T	W		23	751				886	39		26		46				
Signalized Restricted Crossing U-Turn	N-S	0	23	751	0	0	0	886	39				46				0
Unsignalized Restricted Crossing U-Turn	N-S	0	23	751	0	0	0	886	39				46				0
Median U-Turn	N-S	0		751	0	0		886	39			0	46			0	0
Partial Median U-Turn	N-S	0		751	0	0		886	39		26	0	46		0	0	0
Signalized ThruCut	N-S		23	751	0		0	886	39		26		46		0		0
Unsignalized ThruCut	N-S		23	751	0		0	886	39		26		46		0		0
Bowtie	N-S		0	778	0		0	886	39			26	46			54	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**11**	**0**	**2**	**1**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									941	0.54	0.54		
Two-Way Stop Control	N-S									--	0.49	0.49		
All-Way Stop Control	FULL									1771	1.18	1.18		
Continuous Green T	W									938	0.54	0.54		
Signalized Restricted Crossing U-Turn	N-S	925	*0.51*	807	*0.45*	777	*0.43*	971	*0.54*			0.54		
Unsignalized Restricted Crossing U-Turn	N-S	925	*0.00*	774	*0.04*	777	*0.00*	886	*0.21*			0.21		
Median U-Turn	N-S	954	*0.53*	807	*0.45*					971	0.54	0.54		
Partial Median U-Turn	N-S	954	*0.53*	774	*0.43*					940	0.54	0.54		
Bowtie	N-S	49	0.04	62	0.04	0	0.00	72	0.05	940	0.52	0.52		
Signalized ThruCut	N-S									940	0.54	0.54		
Unsignalized ThruCut	N-S									--	0.49	0.49		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.92			*0.58*			0.76			*0.00*			0.92		
75 ICD	0.91			*0.40*			0.75			*0.00*			0.91		
1 X 1	*0.69*			*0.13*			*0.58*			*0.00*			0.69		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.21	1	--	--
Two-Way Stop Control N-S	0.49	2	--	--
Unsignalized ThruCut N-S	0.49	2	--	--
Bowtie N-S	0.52	4	--	--
Traffic Signal	0.54	5	--	--
Continuous Green T W	0.54	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.54	5	--	--
Median U-Turn N-S	0.54	5	--	--
Partial Median U-Turn N-S	0.54	5	--	--
Signalized ThruCut N-S	0.54	5	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	51	0	47	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	597	21	3.48%	0.00%
Northbound	0	14	565	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	53	0	49
Westbound	0	0	0	0
Southbound	0	0	618	22
Northbound	0	14	585	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.21	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Continuous Green T	W		1	2				2	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Median U-Turn	N-S	1		2	0	1		2	1			0	1			0	0
Partial Median U-Turn	N-S	1		2	0	1		2	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Unsignalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Bowtie	N-S			2	0			2	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		14	585	0		0	618	22		53	0	49		0	0	0
Two-Way Stop Control	N-S		14	585	0		0	618	22		53	0	49		0	0	0
All-Way Stop Control	FULL		14	585	0		0	618	22		53	0	49		0	0	0
Continuous Green T	W		14	585				618	22		53		49				
Signalized Restricted Crossing U-Turn	N-S	0	14	585	0	0	0	618	22				49				0
Unsignalized Restricted Crossing U-Turn	N-S	0	14	585	0	0	0	618	22				49				0
Median U-Turn	N-S	0		585	0	0		618	22			0	49			0	0
Partial Median U-Turn	N-S	0		585	0	0		618	22		53	0	49		0	0	0
Signalized ThruCut	N-S		14	585	0		0	618	22		53		49		0		0
Unsignalized ThruCut	N-S		14	585	0		0	618	22		53		49		0		0
Bowtie	N-S		0	601	0		0	618	22			53	49			76	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**13**	**0**	**1**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									380	0.22	0.22		
Two-Way Stop Control	N-S									--	0.21	0.21		
All-Way Stop Control	FULL									1341	0.89	0.89		
Continuous Green T	W									380	0.22	0.22		
Signalized Restricted Crossing U-Turn	N-S	320	*0.18*	366	*0.20*	319	*0.18*	369	*0.21*			0.21		
Unsignalized Restricted Crossing U-Turn	N-S	640	*0.00*	599	*0.07*	638	*0.00*	618	*0.24*			0.24		
Median U-Turn	N-S	338	*0.19*	366	*0.20*					429	0.24	0.24		
Partial Median U-Turn	N-S	338	*0.19*	300	*0.17*					367	0.21	0.21		
Bowtie	N-S	53	0.04	29	0.02	0	0.00	49	0.03	367	0.20	0.20		
Signalized ThruCut	N-S									380	0.22	0.22		
Unsignalized ThruCut	N-S									--	0.33	0.33		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.63*			*0.27*			*0.61*			*0.00*			0.63		
75 ICD	*0.63*			*0.25*			*0.60*			*0.00*			0.63		
2NS X 1EW	*0.23*	*0.25*		*0.13*			*0.23*	0.24		*0.00*			0.25		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.20	1	--	--
Signalized Restricted Crossing U-Turn N-S	0.21	2	--	--
Two-Way Stop Control N-S	0.21	2	--	--
Partial Median U-Turn N-S	0.21	4	--	--
Traffic Signal	0.22	5	--	--
Continuous Green T W	0.22	5	--	--
Signalized ThruCut N-S	0.22	5	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.24	8	--	--
Median U-Turn N-S	0.24	9	--	--
2NS X 1EW	0.25	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	56	0	51	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	818	21	3.48%	0.00%
Northbound	0	15	741	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	58	0	53
Westbound	0	0	0	0
Southbound	0	0	846	22
Northbound	0	16	767	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.38	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Continuous Green T	W		1	2				2	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Median U-Turn	N-S	1		2	0	1		2	1			0	1			0	0
Partial Median U-Turn	N-S	1		2	0	1		2	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Unsignalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Bowtie	N-S			2	0			2	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		16	767	0		0	846	22		58	0	53		0	0	0
Two-Way Stop Control	N-S		16	767	0		0	846	22		58	0	53		0	0	0
All-Way Stop Control	FULL		16	767	0		0	846	22		58	0	53		0	0	0
Continuous Green T	W		16	767				846	22		58		53				
Signalized Restricted Crossing U-Turn	N-S	0	16	767	0	0	0	846	22				53				0
Unsignalized Restricted Crossing U-Turn	N-S	0	16	767	0	0	0	846	22				53				0
Median U-Turn	N-S	0		767	0	0		846	22			0	53			0	0
Partial Median U-Turn	N-S	0		767	0	0		846	22		58	0	53		0	0	0
Signalized ThruCut	N-S		16	767	0		0	846	22		58		53		0		0
Unsignalized ThruCut	N-S		16	767	0		0	846	22		58		53		0		0
Bowtie	N-S		0	786	0		0	846	22			58	53			84	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**11**	**2**	**0**	**1**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									502	0.29	0.29		
Two-Way Stop Control	N-S									--	0.38	0.38		
All-Way Stop Control	FULL									1762	1.17	1.17		
Continuous Green T	W									501	0.29	0.29		
Signalized Restricted Crossing U-Turn	N-S	434	*0.24*	464	*0.26*	413	*0.23*	488	*0.27*			0.27		
Unsignalized Restricted Crossing U-Turn	N-S	868	*0.00*	783	*0.09*	825	*0.00*	846	*0.37*			0.37		
Median U-Turn	N-S	454	*0.25*	464	*0.26*					554	0.31	0.31		
Partial Median U-Turn	N-S	454	*0.25*	392	*0.22*					485	0.28	0.28		
Bowtie	N-S	58	0.04	30	0.02	0	0.00	53	0.04	485	0.27	0.27		
Signalized ThruCut	N-S									501	0.29	0.29		
Unsignalized ThruCut	N-S									--	0.68	0.68		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.86			0.67			0.79			0.00			0.86		
75 ICD	0.85			0.51			0.79			0.00			0.85		
2NS X 1EW	0.32	0.34		0.17			0.30	0.32		0.00			0.34		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.27	1	--	--
Bowtie N-S	0.27	1	--	--
Partial Median U-Turn N-S	0.28	3	--	--
Traffic Signal	0.29	4	--	--
Continuous Green T W	0.29	4	--	--
Signalized ThruCut N-S	0.29	4	--	--
Median U-Turn N-S	0.31	7	--	--
2NS X 1EW	0.34	8	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.37	9	--	--
Two-Way Stop Control N-S	0.38	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	60	0	55	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	1039	25	3.48%	0.00%
Northbound	0	16	918	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	62	0	57
Westbound	0	0	0	0
Southbound	0	0	1075	26
Northbound	0	17	950	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.66	Pedestrian Accommodation Score		--	Bicycle Accommodation Score		--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Continuous Green T	W		1	2				2	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Median U-Turn	N-S	1		2	0	1		2	1			0	1			0	0
Partial Median U-Turn	N-S	1		2	0	1		2	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Unsignalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Bowtie	N-S			2	0			2	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		17	950	0		0	1075	26		62	0	57		0	0	0
Two-Way Stop Control	N-S		17	950	0		0	1075	26		62	0	57		0	0	0
All-Way Stop Control	FULL		17	950	0		0	1075	26		62	0	57		0	0	0
Continuous Green T	W		17	950				1075	26		62		57				
Signalized Restricted Crossing U-Turn	N-S	0	17	950	0	0	0	1075	26				57				0
Unsignalized Restricted Crossing U-Turn	N-S	0	17	950	0	0	0	1075	26				57				0
Median U-Turn	N-S	0		950	0	0		1075	26			0	57			0	0
Partial Median U-Turn	N-S	0		950	0	0		1075	26		62	0	57		0	0	0
Signalized ThruCut	N-S		17	950	0		0	1075	26		62		57		0		0
Unsignalized ThruCut	N-S		17	950	0		0	1075	26		62		57		0		0
Bowtie	N-S		0	970	0		0	1075	26			62	57			90	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**10**	**0**	**0**	**4**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									622	0.36	0.36		
Two-Way Stop Control	N-S									--	0.66	0.66		
All-Way Stop Control	FULL									2187	1.46	1.46		
Continuous Green T	W									621	0.35	0.35		
Signalized Restricted Crossing U-Turn	N-S	551	*0.31*	561	*0.31*	506	*0.28*	608	*0.34*			0.34		
Unsignalized Restricted Crossing U-Turn	N-S	1101	*0.00*	967	*0.11*	1012	*0.00*	1075	*0.56*			0.56		
Median U-Turn	N-S	572	*0.32*	561	*0.31*					678	0.38	0.38		
Partial Median U-Turn	N-S	572	*0.32*	484	*0.27*					605	0.35	0.35		
Bowtie	N-S	62	0.04	35	0.02	0	0.00	57	0.04	605	0.34	0.34		
Signalized ThruCut	N-S									620	0.35	0.35		
Unsignalized ThruCut	N-S									--	1.40	1.40		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.09			-2.40			0.99			0.00			1.09		
75 ICD	1.08			4.94			0.97			0.00			4.94		
2NS X 1EW	0.40	0.43		0.22			0.37	0.39		0.00			0.43		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.34	1	--	--
Bowtie N-S	0.34	1	--	--
Continuous Green T W	0.35	3	--	--
Partial Median U-Turn N-S	0.35	3	--	--
Signalized ThruCut N-S	0.35	3	--	--
Traffic Signal	0.36	6	--	--
Median U-Turn N-S	0.38	7	--	--
2NS X 1EW	0.43	8	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.56	9	--	--
Two-Way Stop Control N-S	0.66	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	24	0	42	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	700	36	3.48%	0.00%
Northbound	0	21	602	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	25	0	43
Westbound	0	0	0	0
Southbound	0	0	724	37
Northbound	0	22	623	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.20	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Continuous Green T	W		1	2				2	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Median U-Turn	N-S	1		2	0	1		2	1			0	1			0	0
Partial Median U-Turn	N-S	1		2	0	1		2	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Unsignalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Bowtie	N-S			2	0			2	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		22	623	0		0	724	37		25	0	43		0	0	0
Two-Way Stop Control	N-S		22	623	0		0	724	37		25	0	43		0	0	0
All-Way Stop Control	FULL		22	623	0		0	724	37		25	0	43		0	0	0
Continuous Green T	W		22	623				724	37		25		43				
Signalized Restricted Crossing U-Turn	N-S	0	22	623	0	0	0	724	37				43				0
Unsignalized Restricted Crossing U-Turn	N-S	0	22	623	0	0	0	724	37				43				0
Median U-Turn	N-S	0		623	0	0		724	37			0	43			0	0
Partial Median U-Turn	N-S	0		623	0	0		724	37		25	0	43		0	0	0
Signalized ThruCut	N-S		22	623	0		0	724	37		25		43		0		0
Unsignalized ThruCut	N-S		22	623	0		0	724	37		25		43		0		0
Bowtie	N-S		0	649	0		0	724	37			25	43			51	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**11**	**2**	**1**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									413	0.24	0.24		
Two-Way Stop Control	N-S									--	0.20	0.20		
All-Way Stop Control	FULL									1474	0.98	0.98		
Continuous Green T	W									411	0.24	0.24		
Signalized Restricted Crossing U-Turn	N-S	381	*0.21*	354	*0.20*	324	*0.18*	402	*0.22*			0.22		
Unsignalized Restricted Crossing U-Turn	N-S	761	*0.00*	645	*0.03*	648	*0.00*	724	*0.19*			0.19		
Median U-Turn	N-S	408	*0.23*	354	*0.20*					442	0.25	0.25		
Partial Median U-Turn	N-S	408	*0.23*	323	*0.18*					413	0.24	0.24		
Bowtie	N-S	25	0.02	48	0.03	0	0.00	43	0.03	413	0.23	0.23		
Signalized ThruCut	N-S									412	0.24	0.24		
Unsignalized ThruCut	N-S									--	0.20	0.20		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.76			0.25			0.63			0.00			0.76		
75 ICD	0.75			0.22			0.63			0.00			0.75		
2NS X 1EW	0.28	0.30		0.09			0.24	0.25		0.00			0.30		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.19	1	--	--
Two-Way Stop Control N-S	0.20	2	--	--
Unsignalized ThruCut N-S	0.20	3	--	--
Signalized Restricted Crossing U-Turn N-S	0.22	4	--	--
Bowtie N-S	0.23	5	--	--
Traffic Signal	0.24	6	--	--
Continuous Green T W	0.24	6	--	--
Partial Median U-Turn N-S	0.24	6	--	--
Signalized ThruCut N-S	0.24	6	--	--
Median U-Turn N-S	0.25	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	26	0	45	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	950	36	3.48%	0.00%
Northbound	0	23	800	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	27	0	47
Westbound	0	0	0	0
Southbound	0	0	983	37
Northbound	0	24	828	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.27	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Continuous Green T	W		1	2				2	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Median U-Turn	N-S	1		2	0	1		2	1			0	1			0	0
Partial Median U-Turn	N-S	1		2	0	1		2	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Unsignalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Bowtie	N-S			2	0			2	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		24	828	0		0	983	37		27	0	47		0	0	0
Two-Way Stop Control	N-S		24	828	0		0	983	37		27	0	47		0	0	0
All-Way Stop Control	FULL		24	828	0		0	983	37		27	0	47		0	0	0
Continuous Green T	W		24	828				983	37		27		47				
Signalized Restricted Crossing U-Turn	N-S	0	24	828	0	0	0	983	37				47				0
Unsignalized Restricted Crossing U-Turn	N-S	0	24	828	0	0	0	983	37				47				0
Median U-Turn	N-S	0		828	0	0		983	37			0	47			0	0
Partial Median U-Turn	N-S	0		828	0	0		983	37		27	0	47		0	0	0
Signalized ThruCut	N-S		24	828	0		0	983	37		27		47		0		0
Unsignalized ThruCut	N-S		24	828	0		0	983	37		27		47		0		0
Bowtie	N-S		0	856	0		0	983	37			27	47			56	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**11**	**0**	**0**	**3**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									548	0.31	0.31		
Two-Way Stop Control	N-S									--	0.27	0.27		
All-Way Stop Control	FULL									1946	1.30	1.30		
Continuous Green T	W									545	0.31	0.31		
Signalized Restricted Crossing U-Turn	N-S	510	*0.28*	460	*0.26*	428	*0.24*	535	*0.30*			0.30		
Unsignalized Restricted Crossing U-Turn	N-S	1020	*0.00*	852	*0.04*	855	*0.00*	983	*0.30*			0.30		
Median U-Turn	N-S	540	*0.30*	460	*0.26*					579	0.32	0.32		
Partial Median U-Turn	N-S	540	*0.30*	426	*0.24*					547	0.31	0.31		
Bowtie	N-S	27	0.02	49	0.03	0	0.00	47	0.03	547	0.30	0.30		
Signalized ThruCut	N-S									547	0.31	0.31		
Unsignalized ThruCut	N-S									--	0.45	0.45		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.02			2.04			0.84			*0.00*			2.04		
75 ICD	1.01			0.75			0.83			*0.00*			1.01		
2NS X 1EW	*0.37*	*0.40*		*0.12*			*0.31*	0.34		*0.00*			0.40		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Two-Way Stop Control N-S	0.27	1	--	--
Signalized Restricted Crossing U-Turn N-S	0.30	2	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.30	2	--	--
Bowtie N-S	0.30	4	--	--
Traffic Signal	0.31	5	--	--
Continuous Green T W	0.31	5	--	--
Partial Median U-Turn N-S	0.31	5	--	--
Signalized ThruCut N-S	0.31	5	--	--
Median U-Turn N-S	0.32	9	--	--
2NS X 1EW	0.40	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Number of Legs	3
Which leg is the minor street?	W

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	28	0	49	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	0	1199	43	3.48%	0.00%
Northbound	0	25	997	0	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	29	0	51
Westbound	0	0	0	0
Southbound	0	0	1241	44
Northbound	0	26	1032	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Which leg is the minor street?	W

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.45	Pedestrian Accommodation Score		--	Bicycle Accommodation Score		--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Two-Way Stop Control	N-S		1	2	0		0	2	1		1	0	1		0	0	0
All-Way Stop Control	FULL		1	2	0		0	2	1		1	0	1		0	0	0
Continuous Green T	W		1	2				2	1		1		1				
Signalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Unsignalized Restricted Crossing U-Turn	N-S	1	1	2	0	1	0	2	1				2				0
Median U-Turn	N-S	1		2	0	1		2	1			0	1			0	0
Partial Median U-Turn	N-S	1		2	0	1		2	1		1	0	1		0	0	0
Signalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Unsignalized ThruCut	N-S		1	2	0		0	2	1		1		1		0		0
Bowtie	N-S			2	0			2	1			0	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Corner Lake Drive
Date	March 18, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		26	1032	0		0	1241	44		29	0	51		0	0	0
Two-Way Stop Control	N-S		26	1032	0		0	1241	44		29	0	51		0	0	0
All-Way Stop Control	FULL		26	1032	0		0	1241	44		29	0	51		0	0	0
Continuous Green T	W		26	1032				1241	44		29		51				
Signalized Restricted Crossing U-Turn	N-S	0	26	1032	0	0	0	1241	44				51				0
Unsignalized Restricted Crossing U-Turn	N-S	0	26	1032	0	0	0	1241	44				51				0
Median U-Turn	N-S	0		1032	0	0		1241	44			0	51			0	0
Partial Median U-Turn	N-S	0		1032	0	0		1241	44		29	0	51		0	0	0
Signalized ThruCut	N-S		26	1032	0		0	1241	44		29		51		0		0
Unsignalized ThruCut	N-S		26	1032	0		0	1241	44		29		51		0		0
Bowtie	N-S		0	1063	0		0	1241	44			29	51			60	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Corner Lake Drive	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 18, 2024	**10**	**0**	**0**	**4**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									682	0.39	0.39		
Two-Way Stop Control	N-S									--	0.45	0.45		
All-Way Stop Control	FULL									2423	1.62	1.62		
Continuous Green T	W									678	0.39	0.39		
Signalized Restricted Crossing U-Turn	N-S	643	*0.36*	565	*0.31*	531	*0.29*	668	*0.37*			0.37		
Unsignalized Restricted Crossing U-Turn	N-S	1285	*0.00*	1058	*0.05*	1061	*0.00*	1241	*0.49*			0.49		
Median U-Turn	N-S	675	*0.38*	565	*0.31*					715	0.40	0.40		
Partial Median U-Turn	N-S	675	*0.38*	529	*0.29*					681	0.39	0.39		
Bowtie	N-S	29	0.02	57	0.04	0	0.00	51	0.04	681	0.38	0.38		
Signalized ThruCut	N-S									681	0.39	0.39		
Unsignalized ThruCut	N-S									--	1.04	1.04		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.28			-0.40			1.04			0.00			1.28		
75 ICD	1.27			-0.71			1.03			0.00			1.27		
2NS X 1EW	0.47	0.51		0.17			0.39	0.42		0.00			0.51		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.37	1	--	--
Bowtie N-S	0.38	2	--	--
Traffic Signal	0.39	3	--	--
Continuous Green T W	0.39	3	--	--
Partial Median U-Turn N-S	0.39	3	--	--
Signalized ThruCut N-S	0.39	3	--	--
Median U-Turn N-S	0.40	7	--	--
Two-Way Stop Control N-S	0.45	8	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.49	9	--	--
2NS X 1EW	0.51	10	--	--

Table 1, Corner Lake Drive Cap-x Results

Build Type	Year	Peak Hour	Intersection Control Rank 1 (V/C Ratio)	Intersection Control Rank 2 (V/C Ratio)	Intersection Control Rank 3 (V/C Ratio)	Intersection Control Rank 4 (V/C Ratio)	Intersection Control Rank 5 (V/C Ratio)	Intersection Control Rank 6 (V/C Ratio)	Intersection Control Rank 7 (V/C Ratio)	Intersection Control Rank 8 (V/C Ratio)	Intersection Control Rank 9 (V/C Ratio)	Intersection Control Rank 10 (V/C Ratio)
No-Build (2-lane)	2028	AM	Unsignalized RCUT N-S (0.18)	TWSC (0.30)	Unsignalized ThruCut N-S (0.30)	Bowtie N-S (0.33)	Partial MUT N-S (0.34)	Traffic Signal (0.35)	Continuous Green T (0.35)	Signalized ThruCut N-S (0.35)	Signalized RCUT N-S (0.36)	MUT N-S (0.36)
	2038		Unsignalized RCUT N-S (0.22)	TWSC (0.36)	Unsignalized ThruCut N-S (0.36)	Bowtie N-S (0.39)	Partial MUT N-S (0.40)	Traffic Signal (0.41)	Continuous Green T (0.41)	Signalized ThruCut N-S (0.41)	Signalized RCUT N-S (0.43)	MUT N-S (0.43)
	2048		Unsignalized RCUT N-S (0.27)	TWSC (0.43)	Unsignalized ThruCut N-S (0.43)	Bowtie N-S (0.46)	Partial MUT N-S (0.47)	Traffic Signal (0.48)	Continuous Green T (0.48)	Signalized ThruCut N-S (0.48)	Signalized RCUT N-S (0.49)	MUT N-S (0.49)
	2028	PM	Unsignalized RCUT N-S (0.14)	TWSC (0.35)	Unsignalized ThruCut N-S (0.35)	Bowtie N-S (0.38)	Traffic Signal (0.39)	Continuous Green T (0.39)	Signalized RCUT N-S (0.39)	MUT N-S (0.39)	Partial MUT N-S (0.39)	Signalized ThruCut N-S (0.39)
	2038		Unsignalized RCUT N-S (0.17)	TWSC (0.42)	Unsignalized ThruCut N-S (0.42)	Bowtie N-S (0.45)	Traffic Signal (0.46)	Continuous Green T (0.46)	Partial MUT N-S (0.46)	Signalized ThruCut N-S (0.46)	Signalized RCUT N-S (0.47)	MUT N-S (0.47)
	2048		Unsignalized RCUT N-S (0.21)	TWSC (0.49)	Unsignalized ThruCut N-S (0.49)	Bowtie N-S (0.52)	Traffic Signal (0.54)	Continuous Green T (0.54)	Signalized RCUT N-S (0.54)	MUT N-S (0.54)	Partial MUT N-S (0.54)	Signalized ThruCut N-S (0.54)
Build (4-lane)	2028	AM	Bowtie N-S (0.20)	Signalized RCUT N-S (0.21)	TWSC (0.21)	Partial MUT N-S (0.21)	Traffic Signal (0.22)	Continuous Green T (0.22)	Signalized ThruCut N-S (0.22)	Unsignalized RCUT N-S (0.24)	MUT N-S (0.24)	2NS X 1EW Roundabout (0.25)
	2038		Signalized RCUT N-S (0.27)	Bowtie N-S (0.27)	Partial MUT N-S (0.28)	Traffic Signal (0.29)	Continuous Green T (0.29)	Signalized ThruCut N-S (0.29)	MUT N-S (0.31)	2NS X 1EW Roundabout (0.34)	Unsignalized RCUT N-S (0.37)	TWSC (0.38)
	2048		Signalized RCUT N-S (0.34)	Bowtie N-S (0.34)	Continuous Green T (0.35)	Partial MUT N-S (0.35)	Signalized ThruCut N-S (0.35)	Traffic Signal (0.36)	MUT N-S (0.38)	2NS X 1EW Roundabout (0.43)	Unsignalized RCUT N-S (0.56)	TWSC (0.66)
	2028	PM	Unsignalized RCUT N-S (0.19)	TWSC (0.20)	Unsignalized ThruCut N-S (0.20)	Signalized RCUT N-S (0.22)	Bowtie N-S (0.23)	Traffic Signal (0.24)	Continuous Green T (0.24)	Partial MUT N-S (0.24)	Signalized ThruCut N-S (0.24)	MUT N-S (0.25)
	2038		TWSC (0.27)	Signalized RCUT N-S (0.30)	Unsignalized ThruCut N-S (0.30)	Bowtie N-S (0.30)	Traffic Signal (0.31)	Continuous Green T (0.31)	Partial MUT N-S (0.31)	Signalized ThruCut N-S (0.31)	MUT N-S (0.32)	2NS X 1EW Roundabout (0.40)
	2048		Signalized RCUT N-S (0.37)	Bowtie N-S (0.38)	Traffic Signal (0.39)	Continuous Green T (0.39)	Partial MUT N-S (0.39)	Signalized ThruCut N-S (0.39)	MUT N-S (0.40)	TWSC (0.45)	Unsignalized RCUT N-S (0.49)	2NS X 1EW Roundabout (0.51)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

V/C Ratio Legend	
	< 0.750
	0.750 - 0.875
	0.875 - 1.00
	≥ 1.00

SPICE WORKSHEETS

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Corner Lake Drive	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	1.59	--	--	6	Yes	Yes	Uncalibrated SPF	99		6
	Fatal & Injury	0.59	--	--							
Minor Road Stop	Total	1.28	--	--	5	Yes	Yes	Calibrated SPF w/ EB	98		7
	Fatal & Injury	0.53	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		2
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.77	--	--	1	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.19	--	--							
Signalized RCUT	Total	1.97	--	--	2	Yes	Yes	Uncalibrated SPF	100		3
	Fatal & Injury	0.35	--	--							
Unsignalized RCUT	Total	2.36	--	--	7	Yes	Yes	Uncalibrated SPF	99		5
	Fatal & Injury	0.63	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	1.53	--	--	4	N/A	N/A	CMF	99		4
	Fatal & Injury	0.50	--	--							
Jughandle	Total	1.18	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.44	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	13,950	
Opening Year - Minor Road AADT	1,600	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--		
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	No	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	No	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	13,950	
Minor	1,600	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	6711.893	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	263.1072	
Major Thru 2	6764.333	
Major Left Turn 2	210.6668	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~398.8852~~	
Minor Left Turn 1	169.2308	
Minor Right Turn 1	231.8841	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	518	0.810641628	612	0.744526	0.777584
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.156494523~~	~~175~~	~~0.212895~~	~~0.184695~~
Major Right Turn 1	NBR	21	0.03286385	35	0.042579	0.037721
Major Thru 2	SBT	502	0.92962963	532	0.920415	0.925022
Major Left Turn 2	SBL	13	0.024074074	21	0.036332	0.030203
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.046296296~~	~~25~~	~~0.043253~~	~~0.044774~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.512820513~~	~~75~~	~~0.543478~~	~~0.528149~~
Minor Left Turn 1	EBL	50	0.256410256	23	0.166667	0.211538
Minor Right Turn 1	EBR	45	0.230769231	40	0.289855	0.260312
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.962278537
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.037721463
Major Thru 2	0.969796873
Major Left Turn 2	0.030203127
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.498606466~~
Minor Left Turn 1	0.211538462
Minor Right Turn 1	0.289855072
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	25
Major thru	50
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	1	0	1	1	0	--	--	--	--	--	3
	Fatal/Injury	0	0	0	1	0						1
	PDO	1	0	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	1	0	1	1	0	--	--	--	--	--	3

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Corner Lake Drive	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	1.76	--	--	6	Yes	Yes	Uncalibrated SPF	99		6
	Fatal & Injury	0.66	--	--							
Minor Road Stop	Total	1.37	--	--	5	Yes	Yes	Calibrated SPF w/ EB	98		7
	Fatal & Injury	0.57	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		2
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.85	--	--	1	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.23	--	--							
Signalized RCUT	Total	2.42	--	--	2	Yes	Yes	Uncalibrated SPF	99		3
	Fatal & Injury	0.44	--	--							
Unsignalized RCUT	Total	2.54	--	--	7	Yes	Yes	Uncalibrated SPF	99		5
	Fatal & Injury	0.70	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	1.69	--	--	4	N/A	N/A	CMF	99		4
	Fatal & Injury	0.56	--	--							
Jughandle	Total	1.30	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.49	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	16,400	
Opening Year - Minor Road AADT	1,700	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--		
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	No	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	No	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	16,400	
Minor	1,700	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	7919.213	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	280.7866	
Major Thru 2	7975.021	
Major Left Turn 2	224.979	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~413.4128~~	
Minor Left Turn 1	183.3957	
Minor Right Turn 1	253.1915	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	627	0.837116155	734	0.775899	0.806507
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.133511348~~	~~175~~	~~0.184989~~	~~0.15925~~
Major Right Turn 1	NBR	22	0.029372497	37	0.039112	0.034242
Major Thru 2	SBT	588	0.937799043	629	0.930473	0.934136
Major Left Turn 2	SBL	14	0.022328549	22	0.032544	0.027436
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.039872408~~	~~25~~	~~0.036982~~	~~0.038427~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.502512563~~	~~75~~	~~0.531915~~	~~0.517214~~
Minor Left Turn 1	EBL	52	0.261306533	24	0.170213	0.21576
Minor Right Turn 1	EBR	47	0.236180905	42	0.297872	0.267027
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.965757726
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.034242274
Major Thru 2	0.972563536
Major Left Turn 2	0.027436464
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.48636801~~
Minor Left Turn 1	0.215759649
Minor Right Turn 1	0.29787234
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	25
Major thru	50
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	1	0	1	1	0	--	--	--	--	--	3
	Fatal/Injury	0	0	0	1	0						1
	PDO	1	0	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	1	0	1	1	0	--	--	--	--	--	3

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Corner Lake Drive	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	1.92	--	--	6	Yes	Yes	Uncalibrated SPF	99		6
	Fatal & Injury	0.72	--	--							
Minor Road Stop	Total	1.45	--	--	4	Yes	Yes	Calibrated SPF w/ EB	97		7
	Fatal & Injury	0.60	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		2
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.92	--	--	1	No	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.26	--	--							
Signalized RCUT	Total	2.88	--	--	2	Yes	Yes	Uncalibrated SPF	99		3
	Fatal & Injury	0.52	--	--							
Unsignalized RCUT	Total	2.72	--	--	7	Yes	Yes	Uncalibrated SPF	99		5
	Fatal & Injury	0.77	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	1.84	--	--	5	N/A	N/A	CMF	99		4
	Fatal & Injury	0.61	--	--							
Jughandle	Total	1.42	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.53	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	18,800	
Opening Year - Minor Road AADT	1,800	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	No	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	No	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	18,800	
Minor	1,800	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	9112.275	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	287.7255	
Major Thru 2	9174.079	
Major Left Turn 2	225.9214	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~427.1706~~	
Minor Left Turn 1	197.8294	
Minor Right Turn 1	275	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	735	0.85764294	856	0.800748	0.829196
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.116686114~~	~~175~~	~~0.163704~~	~~0.140195~~
Major Right Turn 1	NBR	22	0.025670945	38	0.035547	0.030609
Major Thru 2	SBT	675	0.945378151	726	0.939198	0.942288
Major Left Turn 2	SBL	14	0.019607843	22	0.028461	0.024034
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.035014006~~	~~25~~	~~0.032342~~	~~0.033678~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.492610837~~	~~75~~	~~0.520833~~	~~0.506722~~
Minor Left Turn 1	EBL	54	0.266009852	25	0.173611	0.21981
Minor Right Turn 1	EBR	49	0.24137931	44	0.305556	0.273467
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.969390907
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.030609093
Major Thru 2	0.975965807
Major Left Turn 2	0.024034193
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.474633963~~
Minor Left Turn 1	0.219810482
Minor Right Turn 1	0.305555556
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	25
Major thru	50
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	1	0	1	1	0	--	--	--	--	--	3
	Fatal/Injury	0	0	0	1	0						1
	PDO	1	0	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	1	0	1	1	0	--	--	--	--	--	3

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Corner Lake Drive	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	1.70	--	--	5	Yes	Yes	Uncalibrated SPF	98		6
	Fatal & Injury	0.63	--	--							
Minor Road Stop	Total	1.33	--	--	4	Yes	Yes	Calibrated SPF w/ EB	96		7
	Fatal & Injury	0.55	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		2
	Fatal & Injury	No SPF	--	--							
2-lane Roundabout	Total	3.24	--	--	6	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.66	--	--							
Signalized RCUT	Total	2.24	--	--	1	Yes	Yes	Uncalibrated SPF	99		4
	Fatal & Injury	0.40	--	--							
Unsignalized RCUT	Total	2.45	--	--	7	Yes	Yes	Uncalibrated SPF	99		5
	Fatal & Injury	0.68	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	1.63	--	--	3	N/A	N/A	CMF	99		3
	Fatal & Injury	0.54	--	--							
Jughandle	Total	1.26	--	--	2	N/A	N/A	CMF	--		--
	Fatal & Injury	0.47	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	15,700	
Opening Year - Minor Road AADT	1,600	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	No	--		
2-Lane Roundabout	Yes	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	No	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	No	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	15,700	
Minor	1,600	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	7580.098	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	269.9023	
Major Thru 2	7631.824	
Major Left Turn 2	218.1759	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~390.5867~~	
Minor Left Turn 1	171.1154	
Minor Right Turn 1	238.2979	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	597	0.831476323	700	0.768386	0.799931
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.139275766~~	~~175~~	~~0.192097~~	~~0.165686~~
Major Right Turn 1	NBR	21	0.029247911	36	0.039517	0.034382
Major Thru 2	SBT	565	0.935430464	602	0.929012	0.932221
Major Left Turn 2	SBL	14	0.023178808	21	0.032407	0.027793
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.041390728~~	~~25~~	~~0.03858~~	~~0.039985~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.505050505~~	~~75~~	~~0.531915~~	~~0.518483~~
Minor Left Turn 1	EBL	51	0.257575758	24	0.170213	0.213894
Minor Right Turn 1	EBR	47	0.237373737	42	0.297872	0.267623
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.965617537
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.034382463
Major Thru 2	0.972206892
Major Left Turn 2	0.027793108
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.488233398~~
Minor Left Turn 1	0.213894262
Minor Right Turn 1	0.29787234
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	25
Major thru	50
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	1	0	1	1	0	--	--	--	--	--	3
	Fatal/Injury	0	0	0	1	0						1
	PDO	1	0	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	1	0	1	1	0	--	--	--	--	--	3

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Corner Lake Drive	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	1.99	--	--	5	Yes	Yes	Uncalibrated SPF	97		6
	Fatal & Injury	0.74	--	--							
Minor Road Stop	Total	1.48	--	--	3	No	Yes	Calibrated SPF w/ EB	95		7
	Fatal & Injury	0.61	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	No SPF	--	--							
2-lane Roundabout	Total	4.29	--	--	7	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.92	--	--							
Signalized RCUT	Total	3.11	--	--	2	Yes	Yes	Uncalibrated SPF	99		4
	Fatal & Injury	0.56	--	--							
Unsignalized RCUT	Total	2.77	--	--	6	Yes	Yes	Uncalibrated SPF	98		5
	Fatal & Injury	0.80	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	1.91	--	--	4	N/A	N/A	CMF	99		3
	Fatal & Injury	0.63	--	--							
Jughandle	Total	1.47	--	--	1	N/A	N/A	CMF	--		--
	Fatal & Injury	0.55	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	20,600	
Opening Year - Minor Road AADT	1,700	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	Yes	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	No	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	No	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	20,600	
Minor	1,700	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No
Are peak hour turning movement counts available?	Yes

If "Yes", input values in **Table 2-A**
If "Yes", input values in **Table 2-B**

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	10025.13	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	274.8656	
Major Thru 2	10061.41	
Major Left Turn 2	238.5933	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~397.3529~~	
Minor Left Turn 1	190.6608	
Minor Right Turn 1	261.9863	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	818	0.87113951	950	0.81826	0.8447
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.106496273~~	~~175~~	~~0.150732~~	~~0.128614~~
Major Right Turn 1	NBR	21	0.022364217	36	0.031008	0.026686
Major Thru 2	SBT	741	0.948783611	800	0.943396	0.94609
Major Left Turn 2	SBL	15	0.019206146	23	0.027123	0.023164
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.032010243~~	~~25~~	~~0.029481~~	~~0.030746~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.483091787~~	~~75~~	~~0.513699~~	~~0.498395~~
Minor Left Turn 1	EBL	56	0.270531401	26	0.178082	0.224307
Minor Right Turn 1	EBR	51	0.246376812	45	0.308219	0.277298
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.973314015
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.026685985
Major Thru 2	0.976835606
Major Left Turn 2	0.023164394
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.467474026~~
Minor Left Turn 1	0.224306796
Minor Right Turn 1	0.308219178
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	25
Major thru	50
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	1	0	1	1	0	--	--	--	--	--	3
	Fatal/Injury	0	0	0	1	0						1
	PDO	1	0	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	1	0	1	1	0	--	--	--	--	--	3

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Corner Lake Drive	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/26/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	2.27	--	--	5	No	Yes	Uncalibrated SPF	97		6
	Fatal & Injury	0.85	--	--							
Minor Road Stop	Total	1.59	--	--	2	No	Yes	Calibrated SPF w/ EB	94		7
	Fatal & Injury	0.66	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	No SPF	--	--							
2-lane Roundabout	Total	5.38	--	--	7	No	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.20	--	--							
Signalized RCUT	Total	4.04	--	--	4	Yes	Yes	Uncalibrated SPF	98		4
	Fatal & Injury	0.72	--	--							
Unsignalized RCUT	Total	3.13	--	--	6	Yes	Yes	Uncalibrated SPF	98		5
	Fatal & Injury	0.92	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	2.18	--	--	3	N/A	N/A	CMF	99		3
	Fatal & Injury	0.72	--	--							
Jughandle	Total	1.68	--	--	1	N/A	N/A	CMF	--		--
	Fatal & Injury	0.63	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection
Analysis Year	Opening Year Only
Opening Year	2048
Design Year	
Facility Type	On Rural Two Lane Highway
Number of Legs	3-leg
1-Way/2-Way	
# of Major Street Lanes (both directions)	
Major Street Approach Speed	
Opening Year - Major Road AADT	25,550
Opening Year - Minor Road AADT	1,800
Design Year - Major Road AADT	
Design Year - Minor Road AADT	

For more information on how to determine these values, see the "Definitions" worksheet

Control Strategy	Include	Base Intersection		
Traffic Signal	Yes	--	Opening Year AADT Outside of SPF Development Range	
Traffic Signal (Alternative Configuration)	No	--	Opening Year AADT Outside of SPF Development Range	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	No	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	No	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	25,550	
Minor	1,800	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in **Table 2-A**
Are peak hour turning movement counts available?	Yes	If "Yes", input values in **Table 2-B**

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	12443.98	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	331.0224	
Major Thru 2	12515.91	
Major Left Turn 2	259.0884	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~401.3923~~	
Minor Left Turn 1	208.4761	
Minor Right Turn 1	290.1316	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	1039	0.892611684	1199	0.846154	0.869383
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.085910653~~	~~175~~	~~0.1235~~	~~0.104706~~
Major Right Turn 1	NBR	25	0.021477663	43	0.030346	0.025912
Major Thru 2	SBT	918	0.957247132	997	0.952245	0.954746
Major Left Turn 2	SBL	16	0.016684046	25	0.023878	0.020281
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.026068822~~	~~25~~	~~0.023878~~	~~0.024973~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.465116279~~	~~75~~	~~0.493421~~	~~0.479269~~
Minor Left Turn 1	EBL	60	0.279069767	28	0.184211	0.23164
Minor Right Turn 1	EBR	55	0.255813953	49	0.322368	0.289091
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.974088268
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.025911732
Major Thru 2	0.979719104
Major Left Turn 2	0.020280896
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.445991432~~
Minor Left Turn 1	0.231640147
Minor Right Turn 1	0.322368421
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	25
Major thru	50
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	1	0	1	1	0	--	--	--	--	--	3
	Fatal/Injury	0	0	0	1	0						1
	PDO	1	0	1	0	0						2
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	1	0	1	1	0	--	--	--	--	--	3

Table 2, Corner Lake Drive SPICE Results - Crash Prediction

Build Type	Year	Intersection Control Rank 1 (Fatal & Injury Crashes)	Intersection Control Rank 2 (Fatal & Injury Crashes)	Intersection Control Rank 3 (Fatal & Injury Crashes)	Intersection Control Rank 4 (Fatal & Injury Crashes)	Intersection Control Rank 5 (Fatal & Injury Crashes)	Intersection Control Rank 6 (Fatal & Injury Crashes)	Intersection Control Rank 7 (Fatal & Injury Crashes)	Intersection Control Rank 8 (Fatal & Injury Crashes)	Intersection Control Rank 9 (Fatal & Injury Crashes)	Intersection Control Rank 10 (Fatal & Injury Crashes)
No-Build (2-lane)	2028	1 Lane Roundabout (0.19)	Signalized RCUT N-S (0.35)	Jughandle (0.44)	Continuous Green T (0.50)	TWSC (0.53)	Traffic Signal (0.59)	Unsignalized RCUT N-S (0.63)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)	Unsignalized ThruCut N-S (No SPF)
	2038	1 Lane Roundabout (0.23)	Signalized RCUT N-S (0.44)	Jughandle (0.49)	Continuous Green T (0.56)	TWSC (0.57)	Traffic Signal (0.66)	Unsignalized RCUT N-S (0.70)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)	Unsignalized ThruCut N-S (No SPF)
	2048	1 Lane Roundabout (0.26)	Signalized RCUT N-S (0.52)	Jughandle (0.53)	TWSC (0.60)	Continuous Green T (0.61)	Traffic Signal (0.72)	Unsignalized RCUT N-S (0.77)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)	Unsignalized ThruCut N-S (No SPF)
Build (4-lane)	2028	Signalized RCUT N-S (0.40)	Jughandle (0.47)	Continuous Green T (0.54)	TWSC (0.55)	Traffic Signal (0.63)	2 Lane Roundabout (0.66)	Unsignalized RCUT N-S (0.68)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)	Unsignalized ThruCut N-S (No SPF)
	2038	Jughandle (0.55)	Signalized RCUT N-S (0.56)	TWSC (0.61)	Continuous Green T (0.63)	Traffic Signal (0.74)	Unsignalized RCUT N-S (0.80)	2 Lane Roundabout (0.92)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)	Unsignalized ThruCut N-S (No SPF)
	2048	Jughandle (0.63)	TWSC (0.66)	Continuous Green T (0.72)	Signalized RCUT N-S (0.72)	Traffic Signal (0.85)	Unsignalized RCUT N-S (0.92)	2 Lane Roundabout (1.20)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)	Unsignalized ThruCut N-S (No SPF)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

Table 3, Corner Lake Drive SPICE Results - SSI Score

Build Type	Year	Intersection Control Rank 1 (SSI Score)	Intersection Control Rank 2 (SSI Score)	Intersection Control Rank 3 (SSI Score)	Intersection Control Rank 4 (SSI Score)	Intersection Control Rank 5 (SSI Score)	Intersection Control Rank 6 (SSI Score)	Intersection Control Rank 7 (SSI Score)	Intersection Control Rank 8 (SSI Score)	Intersection Control Rank 9 (SSI Score)	Intersection Control Rank 10 (SSI Score)
No-Build (2-lane)	2028	1 Lane Roundabout (100)	AWSC (100)	Signalized RCUT N-S (100)	Continuous Green T (99)	Unsignalized RCUT N-S (99)	Traffic Signal (99)	TWSC (98)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
	2038	1 Lane Roundabout (100)	AWSC (100)	Signalized RCUT N-S (99)	Continuous Green T (99)	Unsignalized RCUT N-S (99)	Traffic Signal (99)	TWSC (98)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
	2048	1 Lane Roundabout (100)	AWSC (100)	Signalized RCUT N-S (99)	Continuous Green T (99)	Unsignalized RCUT N-S (99)	Traffic Signal (99)	TWSC (97)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
Build (4-lane)	2028	2 Lane Roundabout (100)	AWSC (100)	Continuous Green T (99)	Signalized RCUT N-S (99)	Unsignalized RCUT N-S (99)	Traffic Signal (98)	TWSC (96)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
	2038	2 Lane Roundabout (100)	AWSC (99)	Continuous Green T (99)	Signalized RCUT N-S (99)	Unsignalized RCUT N-S (98)	Traffic Signal (97)	TWSC (95)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
	2048	2 Lane Roundabout (99)	AWSC (99)	Continuous Green T (99)	Signalized RCUT N-S (98)	Unsignalized RCUT N-S (98)	Traffic Signal (97)	TWSC (94)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

SSI Legend	
	90-100
	80-89
	70-79
	< 70

CHULUOTA ROAD & CYPRESS LAKE GLEN BOULEVARD S

CAP-X WORKSHEETS

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	186	0	39	3.48%	0.00%
Southbound	0	11	546	0	3.48%	0.00%
Northbound	0	0	470	69	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	192	0	40
Southbound	0	11	565	0
Northbound	0	0	486	71

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		0	1	1		1	1	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	**0.44**	**Pedestrian Accommodation Score**	**--**	**Bicycle Accommodation Score**	**--**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	1	1		1	1	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Median U-Turn	N-S	1		1	1	1		1	1			0	0			0	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Unsignalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Bowtie	N-S			1	1			1	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	486	71		11	565	0		0	0	0		192	0	40
Two-Way Stop Control	N-S		0	486	71		11	565	0		0	0	0		192	0	40
All-Way Stop Control	FULL		0	486	71		11	565	0		0	0	0		192	0	40
Continuous Green T	E			486	71		11	565							192		192
Signalized Restricted Crossing U-Turn	N-S	0	0	486	71	0	11	565	0				0				40
Unsignalized Restricted Crossing U-Turn	N-S	0	0	486	71	0	11	565	0				0				40
Median U-Turn	N-S	0		486	71	0		565	0			0	0			0	40
Partial Median U-Turn	N-S	0		486	71	0		565	0		0	0	0		192	0	40
Signalized ThruCut	N-S		0	486	71		11	565	0		0		0		192		40
Unsignalized ThruCut	N-S		0	486	71		11	565	0		0		0		192		40
Bowtie	N-S		0	486	71		11	565	0			237	0			192	40

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**11**	**2**	**1**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									767	0.44	0.44		
Two-Way Stop Control	N-S									--	0.84	0.84		
All-Way Stop Control	FULL									1365	0.91	0.91		
Continuous Green T	E									700	0.40	0.40		
Signalized Restricted Crossing U-Turn	N-S	816	*0.45*	557	*0.31*	759	*0.42*	757	*0.42*			0.45		
Unsignalized Restricted Crossing U-Turn	N-S	576	*0.23*	557	*0.00*	486	*0.40*	757	*0.00*			0.40		
Median U-Turn	N-S	816	*0.45*	571	*0.32*					849	0.47	0.47		
Partial Median U-Turn	N-S	576	*0.32*	571	*0.32*					778	0.44	0.44		
Bowtie	N-S	82	0.06	203	0.15	232	0.17	0	0.00	612	0.34	0.34		
Signalized ThruCut	N-S									767	0.44	0.44		
Unsignalized ThruCut	N-S									--	0.85	0.85		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.69*			*0.03*			*0.54*			*0.44*			0.69		
75 ICD	*0.67*			*0.03*			*0.54*			*0.40*			0.67		
1 X 1	*0.51*			*0.00*			*0.41*			*0.28*			0.51		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.34	1	--	--
Continuous Green T E	0.40	2	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.40	3	--	--
Traffic Signal	0.44	4	--	--
Partial Median U-Turn N-S	0.44	4	--	--
Signalized ThruCut N-S	0.44	4	--	--
Signalized Restricted Crossing U-Turn N-S	0.45	7	--	--
Median U-Turn N-S	0.47	8	--	--
1 X 1	0.51	9	--	--
75 ICD	0.67	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	194	0	41	3.48%	0.00%
Southbound	0	12	647	0	3.48%	0.00%
Northbound	0	0	550	72	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	201	0	42
Southbound	0	12	670	0
Northbound	0	0	569	75

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		0	1	1		1	1	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**0.50**	**Pedestrian Accommodation Score**		**--**	**Bicycle Accommodation Score**			**--**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	1	1		1	1	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Median U-Turn	N-S	1		1	1	1		1	1			0	0			0	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Unsignalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Bowtie	N-S			1	1			1	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	569	75		12	670	0		0	0	0		201	0	42
Two-Way Stop Control	N-S		0	569	75		12	670	0		0	0	0		201	0	42
All-Way Stop Control	FULL		0	569	75		12	670	0		0	0	0		201	0	42
Continuous Green T	E			569	75		12	670							201		201
Signalized Restricted Crossing U-Turn	N-S	0	0	569	75	0	12	670	0				0				42
Unsignalized Restricted Crossing U-Turn	N-S	0	0	569	75	0	12	670	0				0				42
Median U-Turn	N-S	0		569	75	0		670	0			0	0			0	42
Partial Median U-Turn	N-S	0		569	75	0		670	0		0	0	0		201	0	42
Signalized ThruCut	N-S		0	569	75		12	670	0		0		0		201		42
Unsignalized ThruCut	N-S		0	569	75		12	670	0		0		0		201		42
Bowtie	N-S		0	569	75		12	670	0			248	0			201	42

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**2**	**0**	**3**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									882	0.50	0.50		
Two-Way Stop Control	N-S									--	1.16	1.16		
All-Way Stop Control	FULL									1569	1.05	1.05		
Continuous Green T	E									793	0.45	0.45		
Signalized Restricted Crossing U-Turn	N-S	933	*0.52*	644	*0.36*	855	*0.47*	871	*0.48*			0.52		
Unsignalized Restricted Crossing U-Turn	N-S	682	*0.27*	644	*0.00*	569	*0.47*	871	*0.00*			0.47		
Median U-Turn	N-S	933	*0.52*	659	*0.37*					968	0.54	0.54		
Partial Median U-Turn	N-S	682	*0.38*	659	*0.37*					894	0.51	0.51		
Bowtie	N-S	87	0.06	213	0.15	243	0.18	0	0.00	719	0.40	0.40		
Signalized ThruCut	N-S									882	0.50	0.50		
Unsignalized ThruCut	N-S									--	1.16	1.16		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.83			*0.06*			*0.62*			*0.55*			0.83		
75 ICD	0.81			*0.05*			*0.62*			*0.48*			0.81		
1 X 1	*0.61*			*0.00*			*0.48*			*0.32*			0.61		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.40	1	--	--
Continuous Green T E	0.45	2	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.47	3	--	--
Traffic Signal	0.50	4	--	--
Signalized ThruCut N-S	0.50	4	--	--
Partial Median U-Turn N-S	0.51	6	--	--
Signalized Restricted Crossing U-Turn N-S	0.52	7	--	--
Median U-Turn N-S	0.54	8	--	--
1 X 1	0.61	9	--	--
75 ICD	0.81	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	202	0	43	3.48%	0.00%
Southbound	0	12	747	0	3.48%	0.00%
Northbound	0	0	629	75	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	209	0	44
Southbound	0	12	773	0
Northbound	0	0	651	78

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		0	1	1		1	1	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**0.57**	**Pedestrian Accommodation Score**		**--**	**Bicycle Accommodation Score**			**--**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	1	1		1	1	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Median U-Turn	N-S	1		1	1	1		1	1			0	0			0	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Unsignalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Bowtie	N-S			1	1			1	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	651	78		12	773	0		0	0	0		209	0	44
Two-Way Stop Control	N-S		0	651	78		12	773	0		0	0	0		209	0	44
All-Way Stop Control	FULL		0	651	78		12	773	0		0	0	0		209	0	44
Continuous Green T	E			651	78		12	773							209		209
Signalized Restricted Crossing U-Turn	N-S	0	0	651	78	0	12	773	0				0				44
Unsignalized Restricted Crossing U-Turn	N-S	0	0	651	78	0	12	773	0				0				44
Median U-Turn	N-S	0		651	78	0		773	0			0	0			0	44
Partial Median U-Turn	N-S	0		651	78	0		773	0		0	0	0		209	0	44
Signalized ThruCut	N-S		0	651	78		12	773	0		0		0		209		44
Unsignalized ThruCut	N-S		0	651	78		12	773	0		0		0		209		44
Bowtie	N-S		0	651	78		12	773	0			258	0			209	44

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**0**	**2**	**3**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									993	0.57	0.57		
Two-Way Stop Control	N-S									--	1.56	1.56		
All-Way Stop Control	FULL									1767	1.18	1.18		
Continuous Green T	E									884	0.50	0.50		
Signalized Restricted Crossing U-Turn	N-S	1046	*0.58*	729	*0.41*	949	*0.53*	982	*0.55*			0.58		
Unsignalized Restricted Crossing U-Turn	N-S	785	*0.31*	729	*0.00*	651	*0.54*	982	*0.00*			0.54		
Median U-Turn	N-S	1046	*0.58*	744	*0.41*					1083	0.60	0.60		
Partial Median U-Turn	N-S	785	*0.44*	744	*0.41*					1005	0.57	0.57		
Bowtie	N-S	90	0.07	221	0.16	253	0.18	0	0.00	825	0.46	0.46		
Signalized ThruCut	N-S									993	0.57	0.57		
Unsignalized ThruCut	N-S									--	1.57	1.57		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.96			0.30			0.71			0.70			0.96		
75 ICD	0.94			0.11			0.70			0.59			0.94		
1 X 1	0.71			0.00			0.54			0.36			0.71		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.46	1	--	--
Continuous Green T E	0.50	2	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.54	3	--	--
Traffic Signal	0.57	4	--	--
Partial Median U-Turn N-S	0.57	4	--	--
Signalized ThruCut N-S	0.57	4	--	--
Signalized Restricted Crossing U-Turn N-S	0.58	7	--	--
Median U-Turn N-S	0.60	8	--	--
1 X 1	0.71	9	--	--
75 ICD	0.94	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	153	0	21	3.48%	0.00%
Southbound	0	27	631	0	3.48%	0.00%
Northbound	0	0	538	200	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	158	0	22
Southbound	0	28	653	0
Northbound	0	0	557	207

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		0	1	1		1	1	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.47	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	1	1		1	1	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Median U-Turn	N-S	1		1	1	1		1	1			0	0			0	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Unsignalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Bowtie	N-S			1	1			1	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	557	207		28	653	0		0	0	0		158	0	22
Two-Way Stop Control	N-S		0	557	207		28	653	0		0	0	0		158	0	22
All-Way Stop Control	FULL		0	557	207		28	653	0		0	0	0		158	0	22
Continuous Green T	E			557	207		28	653							158		158
Signalized Restricted Crossing U-Turn	N-S	0	0	557	207	0	28	653	0				0				22
Unsignalized Restricted Crossing U-Turn	N-S	0	0	557	207	0	28	653	0				0				22
Median U-Turn	N-S	0		557	207	0		653	0			0	0			0	22
Partial Median U-Turn	N-S	0		557	207	0		653	0		0	0	0		158	0	22
Signalized ThruCut	N-S		0	557	207		28	653	0		0		0		158		22
Unsignalized ThruCut	N-S		0	557	207		28	653	0		0		0		158		22
Bowtie	N-S		0	557	207		28	653	0			214	0			158	22

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**2**	**0**	**3**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									819	0.47	0.47		
Two-Way Stop Control	N-S									--	1.02	1.02		
All-Way Stop Control	FULL									1625	1.08	1.08		
Continuous Green T	E									753	0.43	0.43		
Signalized Restricted Crossing U-Turn	N-S	879	*0.49*	764	*0.42*	769	*0.43*	811	*0.45*			0.49		
Unsignalized Restricted Crossing U-Turn	N-S	681	*0.21*	764	*0.00*	557	*0.34*	811	*0.00*			0.34		
Median U-Turn	N-S	879	*0.49*	799	*0.44*					893	0.50	0.50		
Partial Median U-Turn	N-S	681	*0.38*	799	*0.44*					847	0.48	0.48		
Bowtie	N-S	235	0.17	186	0.13	180	0.13	0	0.00	679	0.38	0.38		
Signalized ThruCut	N-S									819	0.47	0.47		
Unsignalized ThruCut	N-S									--	1.03	1.03		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.78			*0.05*			0.75			*0.39*			0.78		
75 ICD	0.77			*0.04*			*0.75*			*0.35*			0.77		
1 X 1	*0.59*			*0.00*			*0.58*			*0.23*			0.59		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.34	1	--	--
Bowtie N-S	0.38	2	--	--
Continuous Green T E	0.43	3	--	--
Traffic Signal	0.47	4	--	--
Signalized ThruCut N-S	0.47	4	--	--
Partial Median U-Turn N-S	0.48	6	--	--
Signalized Restricted Crossing U-Turn N-S	0.49	7	--	--
Median U-Turn N-S	0.50	8	--	--
1 X 1	0.59	9	--	--
75 ICD	0.77	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	159	0	22	3.48%	0.00%
Southbound	0	28	761	0	3.48%	0.00%
Northbound	0	0	628	209	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	165	0	23
Southbound	0	29	787	0
Northbound	0	0	650	216

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		0	1	1		1	1	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**0.55**	**Pedestrian Accommodation Score**		**--**	**Bicycle Accommodation Score**			**--**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	1	1		1	1	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Median U-Turn	N-S	1		1	1	1		1	1			0	0			0	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Unsignalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Bowtie	N-S			1	1			1	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	650	216		29	787	0		0	0	0		165	0	23
Two-Way Stop Control	N-S		0	650	216		29	787	0		0	0	0		165	0	23
All-Way Stop Control	FULL		0	650	216		29	787	0		0	0	0		165	0	23
Continuous Green T	E			650	216		29	787							165		165
Signalized Restricted Crossing U-Turn	N-S	0	0	650	216	0	29	787	0				0				23
Unsignalized Restricted Crossing U-Turn	N-S	0	0	650	216	0	29	787	0				0				23
Median U-Turn	N-S	0		650	216	0		787	0			0	0			0	23
Partial Median U-Turn	N-S	0		650	216	0		787	0		0	0	0		165	0	23
Signalized ThruCut	N-S		0	650	216		29	787	0		0		0		165		23
Unsignalized ThruCut	N-S		0	650	216		29	787	0		0		0		165		23
Bowtie	N-S		0	650	216		29	787	0			223	0			165	23

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**0**	**2**	**3**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									961	0.55	0.55		
Two-Way Stop Control	N-S									--	1.48	1.48		
All-Way Stop Control	FULL									1870	1.25	1.25		
Continuous Green T	E									854	0.49	0.49		
Signalized Restricted Crossing U-Turn	N-S	1022	*0.57*	866	*0.48*	871	*0.48*	952	*0.53*			0.57		
Unsignalized Restricted Crossing U-Turn	N-S	816	*0.25*	866	*0.00*	650	*0.40*	952	*0.00*			0.40		
Median U-Turn	N-S	1022	*0.57*	902	*0.50*					1037	0.58	0.58		
Partial Median U-Turn	N-S	816	*0.45*	902	*0.50*					990	0.57	0.57		
Bowtie	N-S	245	0.18	194	0.14	188	0.14	0	0.00	814	0.45	0.45		
Signalized ThruCut	N-S									961	0.55	0.55		
Unsignalized ThruCut	N-S									--	1.50	1.50		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.95			0.20			0.85			0.52			0.95		
75 ICD	0.93			0.10			0.85			0.44			0.93		
1 X 1	0.71			0.00			0.65			0.27			0.71		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.40	1	--	--
Bowtie N-S	0.45	2	--	--
Continuous Green T E	0.49	3	--	--
Traffic Signal	0.55	4	--	--
Signalized ThruCut N-S	0.55	4	--	--
Signalized Restricted Crossing U-Turn N-S	0.57	6	--	--
Partial Median U-Turn N-S	0.57	6	--	--
Median U-Turn N-S	0.58	8	--	--
1 X 1	0.71	9	--	--
75 ICD	0.93	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	166	0	22	3.48%	0.00%
Southbound	0	29	891	0	3.48%	0.00%
Northbound	0	0	719	218	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	172	0	23
Southbound	0	30	922	0
Northbound	0	0	744	226

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		0	1	1		1	1	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**0.63**	**Pedestrian Accommodation Score**		**--**	**Bicycle Accommodation Score**			**--**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	1	1		1	1	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	1	1		1	1	0		0	0	0		1	0	1
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	1	1	1	1	0				0				1
Median U-Turn	N-S	1		1	1	1		1	1			0	0			0	1
Partial Median U-Turn	N-S	1		1	1	1		1	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Unsignalized ThruCut	N-S		0	1	1		1	1	0		0		0		1		1
Bowtie	N-S			1	1			1	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	744	226		30	922	0		0	0	0		172	0	23
Two-Way Stop Control	N-S		0	744	226		30	922	0		0	0	0		172	0	23
All-Way Stop Control	FULL		0	744	226		30	922	0		0	0	0		172	0	23
Continuous Green T	E			744	226		30	922							172		172
Signalized Restricted Crossing U-Turn	N-S	0	0	744	226	0	30	922	0				0				23
Unsignalized Restricted Crossing U-Turn	N-S	0	0	744	226	0	30	922	0				0				23
Median U-Turn	N-S	0		744	226	0		922	0			0	0			0	23
Partial Median U-Turn	N-S	0		744	226	0		922	0		0	0	0		172	0	23
Signalized ThruCut	N-S		0	744	226		30	922	0		0		0		172		23
Unsignalized ThruCut	N-S		0	744	226		30	922	0		0		0		172		23
Bowtie	N-S		0	744	226		30	922	0			232	0			172	23

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**8**	**1**	**0**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1103	0.63	0.63		
Two-Way Stop Control	N-S									--	2.17	2.17		
All-Way Stop Control	FULL									2117	1.41	1.41		
Continuous Green T	E									957	0.55	0.55		
Signalized Restricted Crossing U-Turn	N-S	1167	*0.65*	970	*0.54*	973	*0.54*	1094	*0.61*			0.65		
Unsignalized Restricted Crossing U-Turn	N-S	952	*0.29*	970	*0.00*	744	*0.47*	1094	*0.00*			0.47		
Median U-Turn	N-S	1167	*0.65*	1008	*0.56*					1181	0.66	0.66		
Partial Median U-Turn	N-S	952	*0.53*	1008	*0.56*					1133	0.65	0.65		
Bowtie	N-S	256	0.19	202	0.15	195	0.14	0	0.00	949	0.53	0.53		
Signalized ThruCut	N-S									1103	0.63	0.63		
Unsignalized ThruCut	N-S									--	2.20	2.20		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.11			-0.08			0.96			0.73			1.11		
75 ICD	1.09			-0.57			0.95			0.57			1.09		
1 X 1	0.83			0.00			0.73			0.30			0.83		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.47	1	--	--
Bowtie N-S	0.53	2	--	--
Continuous Green T E	0.55	3	--	--
Traffic Signal	0.63	4	--	--
Signalized ThruCut N-S	0.63	4	--	--
Signalized Restricted Crossing U-Turn N-S	0.65	6	--	--
Partial Median U-Turn N-S	0.65	6	--	--
Median U-Turn N-S	0.66	8	--	--
1 X 1	0.83	9	--	--
75 ICD	1.09	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	192	0	41	3.48%	0.00%
Southbound	0	12	619	0	3.48%	0.00%
Northbound	0	0	528	71	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	199	0	42
Southbound	0	12	641	0
Northbound	0	0	546	73

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		0	2	1		1	2	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.30	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	2	1		1	2	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Continuous Green T	E			2	1		1	2							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Unsignalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Median U-Turn	N-S	1		2	1	1		2	1			0	0			0	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Unsignalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Bowtie	N-S			2	1			2	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	546	73		12	641	0		0	0	0		199	0	42
Two-Way Stop Control	N-S		0	546	73		12	641	0		0	0	0		199	0	42
All-Way Stop Control	FULL		0	546	73		12	641	0		0	0	0		199	0	42
Continuous Green T	E			546	73		12	641							199		199
Signalized Restricted Crossing U-Turn	N-S	0	0	546	73	0	12	641	0				0				42
Unsignalized Restricted Crossing U-Turn	N-S	0	0	546	73	0	12	641	0				0				42
Median U-Turn	N-S	0		546	73	0		641	0			0	0			0	42
Partial Median U-Turn	N-S	0		546	73	0		641	0		0	0	0		199	0	42
Signalized ThruCut	N-S		0	546	73		12	641	0		0		0		199		42
Unsignalized ThruCut	N-S		0	546	73		12	641	0		0		0		199		42
Bowtie	N-S		0	546	73		12	641	0			246	0			199	42

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**3**	**0**	**2**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									530	0.30	0.30		
Two-Way Stop Control	N-S									--	0.76	0.76		
All-Way Stop Control	FULL									1513	1.01	1.01		
Continuous Green T	E									495	0.28	0.28		
Signalized Restricted Crossing U-Turn	N-S	575	*0.32*	310	*0.17*	415	*0.23*	420	*0.23*			0.32		
Unsignalized Restricted Crossing U-Turn	N-S	653	*0.26*	619	*0.00*	546	*0.50*	840	*0.00*			0.50		
Median U-Turn	N-S	575	*0.32*	325	*0.18*					610	0.34	0.34		
Partial Median U-Turn	N-S	327	*0.18*	325	*0.18*					536	0.31	0.31		
Bowtie	N-S	79	0.06	199	0.14	199	0.15	0	0.00	370	0.21	0.21		
Signalized ThruCut	N-S									530	0.30	0.30		
Unsignalized ThruCut	N-S									--	1.24	1.24		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.79			0.05			0.60			0.52			0.79		
75 ICD	0.77			0.05			0.60			0.46			0.77		
2NS X 1EW	0.28	0.30		0.00			0.22	0.24		0.28			0.30		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.21	1	--	--
Continuous Green T E	0.28	2	--	--
2NS X 1EW	0.30	3	--	--
Traffic Signal	0.30	4	--	--
Signalized ThruCut N-S	0.30	4	--	--
Partial Median U-Turn N-S	0.31	6	--	--
Signalized Restricted Crossing U-Turn N-S	0.32	7	--	--
Median U-Turn N-S	0.34	8	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.50	9	--	--
Two-Way Stop Control N-S	0.76	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	208	0	44	3.48%	0.00%
Southbound	0	13	824	0	3.48%	0.00%
Northbound	0	0	690	78	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	215	0	46
Southbound	0	13	853	0
Northbound	0	0	714	81

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	2	1		1	2	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.37	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	2	1		1	2	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Continuous Green T	E			2	1		1	2							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Unsignalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Median U-Turn	N-S	1		2	1	1		2	1			0	0			0	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Unsignalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Bowtie	N-S			2	1			2	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	714	81		13	853	0		0	0	0		215	0	46
Two-Way Stop Control	N-S		0	714	81		13	853	0		0	0	0		215	0	46
All-Way Stop Control	FULL		0	714	81		13	853	0		0	0	0		215	0	46
Continuous Green T	E			714	81		13	853							215		215
Signalized Restricted Crossing U-Turn	N-S	0	0	714	81	0	13	853	0				0				46
Unsignalized Restricted Crossing U-Turn	N-S	0	0	714	81	0	13	853	0				0				46
Median U-Turn	N-S	0		714	81	0		853	0			0	0			0	46
Partial Median U-Turn	N-S	0		714	81	0		853	0		0	0	0		215	0	46
Signalized ThruCut	N-S		0	714	81		13	853	0		0		0		215		46
Unsignalized ThruCut	N-S		0	714	81		13	853	0		0		0		215		46
Bowtie	N-S		0	714	81		13	853	0			266	0			215	46

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**0**	**0**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									653	0.37	0.37		
Two-Way Stop Control	N-S									--	1.26	1.26		
All-Way Stop Control	FULL									1922	1.28	1.28		
Continuous Green T	E									597	0.34	0.34		
Signalized Restricted Crossing U-Turn	N-S	702	*0.39*	398	*0.22*	511	*0.28*	534	*0.30*			0.39		
Unsignalized Restricted Crossing U-Turn	N-S	866	*0.34*	795	*0.00*	714	*0.70*	1068	*0.00*			0.70		
Median U-Turn	N-S	702	*0.39*	414	*0.23*					740	0.41	0.41		
Partial Median U-Turn	N-S	433	*0.24*	414	*0.23*					659	0.38	0.38		
Bowtie	N-S	88	0.06	215	0.15	215	0.16	0	0.00	481	0.27	0.27		
Signalized ThruCut	N-S									653	0.37	0.37		
Unsignalized ThruCut	N-S									--	2.43	2.43		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.07			-0.15			0.77			0.88			1.07		
75 ICD	1.04			0.53			0.77			0.71			1.04		
2NS X 1EW	0.38	0.40		0.00			0.29	0.31		0.35			0.40		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.27	1	--	--
Continuous Green T E	0.34	2	--	--
Traffic Signal	0.37	3	--	--
Signalized ThruCut N-S	0.37	3	--	--
Partial Median U-Turn N-S	0.38	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.39	6	--	--
2NS X 1EW	0.40	7	--	--
Median U-Turn N-S	0.41	8	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.70	9	--	--
75 ICD	1.04	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	225	0	48	3.48%	0.00%
Southbound	0	14	1030	0	3.48%	0.00%
Northbound	0	0	851	84	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	233	0	50
Southbound	0	14	1066	0
Northbound	0	0	881	87

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	2	1		1	2	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.44	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	2	1		1	2	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Continuous Green T	E			2	1		1	2							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Unsignalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Median U-Turn	N-S	1		2	1	1		2	1			0	0			0	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Unsignalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Bowtie	N-S			2	1			2	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	881	87		14	1066	0		0	0	0		233	0	50
Two-Way Stop Control	N-S		0	881	87		14	1066	0		0	0	0		233	0	50
All-Way Stop Control	FULL		0	881	87		14	1066	0		0	0	0		233	0	50
Continuous Green T	E			881	87		14	1066							233		233
Signalized Restricted Crossing U-Turn	N-S	0	0	881	87	0	14	1066	0				0				50
Unsignalized Restricted Crossing U-Turn	N-S	0	0	881	87	0	14	1066	0				0				50
Median U-Turn	N-S	0		881	87	0		1066	0			0	0			0	50
Partial Median U-Turn	N-S	0		881	87	0		1066	0		0	0	0		233	0	50
Signalized ThruCut	N-S		0	881	87		14	1066	0		0		0		233		50
Unsignalized ThruCut	N-S		0	881	87		14	1066	0		0		0		233		50
Bowtie	N-S		0	881	87		14	1066	0			288	0			233	50

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name	Chuluota Road (CR 419) ICE Evaluation	**Number of Configurations**			
Project Number	Build (4-lane) AM Design Year (2048)	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**8**	**0**	**1**	**5**
Date	March 19, 2024				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									778	0.44	0.44		
Two-Way Stop Control	N-S									--	2.09	2.09		
All-Way Stop Control	FULL									2331	1.55	1.55		
Continuous Green T	E									701	0.40	0.40		
Signalized Restricted Crossing U-Turn	N-S	831	*0.46*	484	*0.27*	607	*0.34*	650	*0.36*			0.46		
Unsignalized Restricted Crossing U-Turn	N-S	1080	*0.45*	968	*0.00*	881	0.99	1299	*0.00*			0.99		
Median U-Turn	N-S	831	*0.46*	502	*0.28*					873	0.48	0.48		
Partial Median U-Turn	N-S	540	*0.30*	502	*0.28*					785	0.45	0.45		
Bowtie	N-S	94	0.07	233	0.16	233	0.17	0	0.00	592	0.33	0.33		
Signalized ThruCut	N-S									778	0.44	0.44		
Unsignalized ThruCut	N-S									--	4.81	4.81		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.36			-0.03			0.94			2.21			2.21		
75 ICD	1.32			-0.06			0.93			1.32			1.32		
2NS X 1EW	0.48	0.51		0.00			0.35	0.38		0.43			0.51		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.33	1	--	--
Continuous Green T E	0.40	2	--	--
Traffic Signal	0.44	3	--	--
Signalized ThruCut N-S	0.44	3	--	--
Partial Median U-Turn N-S	0.45	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.46	6	--	--
Median U-Turn N-S	0.48	7	--	--
2NS X 1EW	0.51	8	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.99	9	--	--
75 ICD	1.32	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	158	0	21	3.48%	0.00%
Southbound	0	28	726	0	3.48%	0.00%
Northbound	0	0	603	207	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	163	0	22
Southbound	0	29	751	0
Northbound	0	0	624	214

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		0	2	1		1	2	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.31	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	2	1		1	2	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Continuous Green T	E			2	1		1	2							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Unsignalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Median U-Turn	N-S	1		2	1	1		2	1			0	0			0	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Unsignalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Bowtie	N-S			2	1			2	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	624	214		29	751	0		0	0	0		163	0	22
Two-Way Stop Control	N-S		0	624	214		29	751	0		0	0	0		163	0	22
All-Way Stop Control	FULL		0	624	214		29	751	0		0	0	0		163	0	22
Continuous Green T	E			624	214		29	751							163		163
Signalized Restricted Crossing U-Turn	N-S	0	0	624	214	0	29	751	0				0				22
Unsignalized Restricted Crossing U-Turn	N-S	0	0	624	214	0	29	751	0				0				22
Median U-Turn	N-S	0		624	214	0		751	0			0	0			0	22
Partial Median U-Turn	N-S	0		624	214	0		751	0		0	0	0		163	0	22
Signalized ThruCut	N-S		0	624	214		29	751	0		0		0		163		22
Unsignalized ThruCut	N-S		0	624	214		29	751	0		0		0		163		22
Bowtie	N-S		0	624	214		29	751	0			221	0			163	22

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**0**	**3**	**2**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									547	0.31	0.31		
Two-Way Stop Control	N-S									--	0.91	0.91		
All-Way Stop Control	FULL									1803	1.20	1.20		
Continuous Green T	E									514	0.29	0.29		
Signalized Restricted Crossing U-Turn	N-S	594	*0.33*	419	*0.23*	421	*0.23*	457	*0.25*			0.33		
Unsignalized Restricted Crossing U-Turn	N-S	780	*0.24*	838	*0.00*	624	*0.44*	914	*0.00*			0.44		
Median U-Turn	N-S	594	*0.33*	455	*0.25*					608	0.34	0.34		
Partial Median U-Turn	N-S	390	*0.22*	455	*0.25*					562	0.32	0.32		
Bowtie	N-S	229	0.16	163	0.11	163	0.12	0	0.00	402	0.22	0.22		
Signalized ThruCut	N-S									548	0.31	0.31		
Unsignalized ThruCut	N-S									--	1.63	1.63		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.90			*0.11*			0.83			*0.48*			0.90		
75 ICD	0.89			*0.07*			0.82			*0.41*			0.89		
2NS X 1EW	*0.33*	*0.34*		*0.00*			*0.31*	0.33		*0.23*			0.34		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.22	1	--	--
Continuous Green T E	0.29	2	--	--
Traffic Signal	0.31	3	--	--
Signalized ThruCut N-S	0.31	3	--	--
Partial Median U-Turn N-S	0.32	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.33	6	--	--
Median U-Turn N-S	0.34	7	--	--
2NS X 1EW	0.34	8	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.44	9	--	--
75 ICD	0.89	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	171	0	23	3.48%	0.00%
Southbound	0	30	991	0	3.48%	0.00%
Northbound	0	0	788	225	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	177	0	24
Southbound	0	31	1025	0
Northbound	0	0	815	233

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	2	1		1	2	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.40	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	2	1		1	2	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Continuous Green T	E			2	1		1	2							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Unsignalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Median U-Turn	N-S	1		2	1	1		2	1			0	0			0	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Unsignalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Bowtie	N-S			2	1			2	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	815	233		31	1025	0		0	0	0		177	0	24
Two-Way Stop Control	N-S		0	815	233		31	1025	0		0	0	0		177	0	24
All-Way Stop Control	FULL		0	815	233		31	1025	0		0	0	0		177	0	24
Continuous Green T	E			815	233		31	1025							177		177
Signalized Restricted Crossing U-Turn	N-S	0	0	815	233	0	31	1025	0				0				24
Unsignalized Restricted Crossing U-Turn	N-S	0	0	815	233	0	31	1025	0				0				24
Median U-Turn	N-S	0		815	233	0		1025	0			0	0			0	24
Partial Median U-Turn	N-S	0		815	233	0		1025	0		0	0	0		177	0	24
Signalized ThruCut	N-S		0	815	233		31	1025	0		0		0		177		24
Unsignalized ThruCut	N-S		0	815	233		31	1025	0		0		0		177		24
Bowtie	N-S		0	815	233		31	1025	0			239	0			177	24

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**0**	**0**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									699	0.40	0.40		
Two-Way Stop Control	N-S									--	1.67	1.67		
All-Way Stop Control	FULL									2305	1.54	1.54		
Continuous Green T	E									626	0.36	0.36		
Signalized Restricted Crossing U-Turn	N-S	749	*0.42*	524	*0.29*	526	*0.29*	601	*0.33*			0.42		
Unsignalized Restricted Crossing U-Turn	N-S	1056	*0.33*	1048	*0.00*	815	*0.63*	1202	*0.00*			0.63		
Median U-Turn	N-S	749	*0.42*	563	*0.31*					764	0.42	0.42		
Partial Median U-Turn	N-S	528	*0.29*	563	*0.31*					714	0.41	0.41		
Bowtie	N-S	249	0.18	177	0.12	177	0.13	0	0.00	541	0.30	0.30		
Signalized ThruCut	N-S									699	0.40	0.40		
Unsignalized ThruCut	N-S									--	3.77	3.77		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.24			-0.04			1.04			1.04			1.24		
75 ICD	1.22			-0.09			1.03			0.73			1.22		
2NS X 1EW	0.45	0.47		0.00			0.39	0.41		0.29			0.47		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.30	1	--	--
Continuous Green T E	0.36	2	--	--
Traffic Signal	0.40	3	--	--
Signalized ThruCut N-S	0.40	3	--	--
Partial Median U-Turn N-S	0.41	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.42	6	--	--
Median U-Turn N-S	0.42	6	--	--
2NS X 1EW	0.47	8	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.63	9	--	--
75 ICD	1.22	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	3.48%	0.00%
Westbound	0	185	0	25	3.48%	0.00%
Southbound	0	33	1256	0	3.48%	0.00%
Northbound	0	0	973	243	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	0	0
Westbound	0	191	0	26
Southbound	0	34	1300	0
Northbound	0	0	1007	251

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		0	2	1		1	2	0		0	0	0		1	0	1

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.49	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-Leg Intersection
Displaced Left Turn		No	3-Leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Two-Way Stop Control	N-S		0	2	1		1	2	0		0	0	0		1	0	1
All-Way Stop Control	FULL		0	2	1		1	2	0		0	0	0		1	0	1
Continuous Green T	E			2	1		1	2							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Unsignalized Restricted Crossing U-Turn	N-S	1	0	2	1	1	1	2	0				0				2
Median U-Turn	N-S	1		2	1	1		2	1			0	0			0	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		0	0	0		1	0	1
Signalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Unsignalized ThruCut	N-S		0	2	1		1	2	0		0		0		1		1
Bowtie	N-S			2	1			2	1			0	0			0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1007	251		34	1300	0		0	0	0		191	0	26
Two-Way Stop Control	N-S		0	1007	251		34	1300	0		0	0	0		191	0	26
All-Way Stop Control	FULL		0	1007	251		34	1300	0		0	0	0		191	0	26
Continuous Green T	E			1007	251		34	1300							191		191
Signalized Restricted Crossing U-Turn	N-S	0	0	1007	251	0	34	1300	0				0				26
Unsignalized Restricted Crossing U-Turn	N-S	0	0	1007	251	0	34	1300	0				0				26
Median U-Turn	N-S	0		1007	251	0		1300	0			0	0			0	26
Partial Median U-Turn	N-S	0		1007	251	0		1300	0		0	0	0		191	0	26
Signalized ThruCut	N-S		0	1007	251		34	1300	0		0		0		191		26
Unsignalized ThruCut	N-S		0	1007	251		34	1300	0		0		0		191		26
Bowtie	N-S		0	1007	251		34	1300	0			259	0			191	26

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**8**	**0**	**1**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									851	0.49	0.49		
Two-Way Stop Control	N-S									--	3.12	3.12		
All-Way Stop Control	FULL									2809	1.87	1.87		
Continuous Green T	E									740	0.42	0.42		
Signalized Restricted Crossing U-Turn	N-S	906	*0.50*	629	*0.35*	631	*0.35*	746	*0.41*			0.50		
Unsignalized Restricted Crossing U-Turn	N-S	1334	*0.47*	1258	*0.00*	1007	0.92	1491	*0.00*			0.92		
Median U-Turn	N-S	906	*0.50*	672	*0.37*					922	0.51	0.51		
Partial Median U-Turn	N-S	667	*0.37*	672	*0.37*					868	0.50	0.50		
Bowtie	N-S	268	0.19	191	0.13	191	0.14	0	0.00	681	0.38	0.38		
Signalized ThruCut	N-S									851	0.49	0.49		
Unsignalized ThruCut	N-S									--	8.88	8.88		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.60			-0.02			1.25			#####			1.60		
75 ICD	1.56			-0.03			1.24			2.28			2.28		
2NS X 1EW	0.57	0.60		0.00			0.47	0.50		0.37			0.60		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Bowtie N-S	0.38	1	--	--
Continuous Green T E	0.42	2	--	--
Traffic Signal	0.49	3	--	--
Signalized ThruCut N-S	0.49	3	--	--
Signalized Restricted Crossing U-Turn N-S	0.50	5	--	--
Partial Median U-Turn N-S	0.50	5	--	--
Median U-Turn N-S	0.51	7	--	--
2NS X 1EW	0.60	8	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.92	9	--	--
50 ICD	1.60	10	--	--

Table 1, Cypress Lake Glen Boulevard S Cap-x Results

Build Type	Year	Peak Hour	Intersection Control Rank 1 (V/C Ratio)	Intersection Control Rank 2 (V/C Ratio)	Intersection Control Rank 3 (V/C Ratio)	Intersection Control Rank 4 (V/C Ratio)	Intersection Control Rank 5 (V/C Ratio)	Intersection Control Rank 6 (V/C Ratio)	Intersection Control Rank 7 (V/C Ratio)	Intersection Control Rank 8 (V/C Ratio)	Intersection Control Rank 9 (V/C Ratio)	Intersection Control Rank 10 (V/C Ratio)
No-Build (2-lane)	2028	AM	Bowtie N-S (0.34)	Continuous Green T (0.40)	Unsignalized RCUT N-S (0.40)	Traffic Signal (0.44)	Partial MUT N-S (0.44)	Signalized ThruCut N-S (0.44)	Signalized RCUT N-S (0.45)	MUT N-S (0.47)	1 X 1 Roundabout (0.51)	75 ICD Mini-Roundabout (0.67)
	2038		Bowtie N-S (0.40)	Continuous Green T (0.45)	Unsignalized RCUT N-S (0.47)	Traffic Signal (0.50)	Signalized ThruCut N-S (0.50)	Partial MUT N-S (0.51)	Signalized RCUT N-S (0.52)	MUT N-S (0.54)	1 X 1 Roundabout (0.61)	75 ICD Mini-Roundabout (0.81)
	2048		Bowtie N-S (0.46)	Continuous Green T (0.50)	Unsignalized RCUT N-S (0.54)	Traffic Signal (0.57)	Partial MUT N-S (0.57)	Signalized ThruCut N-S (0.57)	Signalized RCUT N-S (0.58)	MUT N-S (0.60)	1 X 1 Roundabout (0.71)	75 ICD Mini-Roundabout (0.94)
	2028	PM	Unsignalized RCUT N-S (0.34)	Bowtie N-S (0.38)	Continuous Green T (0.43)	Traffic Signal (0.47)	Signalized ThruCut N-S (0.47)	Partial MUT N-S (0.48)	Signalized RCUT N-S (0.49)	MUT N-S (0.50)	1 X 1 Roundabout (0.59)	75 ICD Mini-Roundabout (0.77)
	2038		Unsignalized RCUT N-S (0.40)	Bowtie N-S (0.45)	Continuous Green T (0.49)	Traffic Signal (0.55)	Signalized ThruCut N-S (0.55)	Signalized RCUT N-S (0.57)	Partial MUT N-S (0.57)	MUT N-S (0.58)	1 X 1 Roundabout (0.71)	75 ICD Mini-Roundabout (0.93)
	2048		Unsignalized RCUT N-S (0.47)	Bowtie N-S (0.53)	Continuous Green T (0.55)	Traffic Signal (0.63)	Signalized ThruCut N-S (0.63)	Signalized RCUT N-S (0.65)	Partial MUT N-S (0.65)	MUT N-S (0.66)	1 X 1 Roundabout (0.83)	75 ICD Mini-Roundabout (1.09)
Build (4-lane)	2028	AM	Bowtie N-S (0.21)	Continuous Green T (0.28)	2NS X 1EW Roundabout (0.30)	Traffic Signal (0.30)	Signalized ThruCut N-S (0.30)	Partial MUT N-S (0.31)	Signalized RCUT N-S (0.32)	MUT N-S (0.34)	Unsignalized RCUT N-S (0.50)	TWSC (0.76)
	2038		Bowtie N-S (0.27)	Continuous Green T (0.34)	Traffic Signal (0.37)	Signalized ThruCut N-S (0.37)	Partial MUT N-S (0.38)	Signalized RCUT N-S (0.39)	2NS X 1EW Roundabout (0.40)	MUT N-S (0.41)	Unsignalized RCUT N-S (0.70)	75 ICD Mini-Roundabout (1.04)
	2048		Bowtie N-S (0.33)	Continuous Green T (0.40)	Traffic Signal (0.44)	Signalized ThruCut N-S (0.44)	Partial MUT N-S (0.45)	Signalized RCUT N-S (0.46)	MUT N-S (0.48)	2NS X 1EW Roundabout (0.51)	Unsignalized RCUT N-S (0.99)	75 ICD Mini-Roundabout (1.32)
	2028	PM	Bowtie N-S (0.22)	Continuous Green T (0.29)	Traffic Signal (0.31)	Signalized ThruCut N-S (0.31)	Partial MUT N-S (0.32)	Signalized RCUT N-S (0.33)	MUT N-S (0.34)	2NS X 1EW Roundabout (0.34)	Unsignalized RCUT N-S (0.44)	75 ICD Mini-Roundabout (0.89)
	2038		Bowtie N-S (0.30)	Continuous Green T (0.36)	Traffic Signal (0.40)	Signalized ThruCut N-S (0.40)	Partial MUT N-S (0.41)	Signalized RCUT N-S (0.42)	MUT N-S (0.42)	2NS X 1EW Roundabout (0.47)	Unsignalized RCUT N-S (0.63)	75 ICD Mini-Roundabout (1.22)
	2048		Bowtie N-S (0.38)	Continuous Green T (0.42)	Traffic Signal (0.49)	Signalized ThruCut N-S (0.49)	Signalized RCUT N-S (0.50)	Partial MUT N-S (0.50)	MUT N-S (0.51)	2NS X 1EW Roundabout (0.60)	Unsignalized RCUT N-S (0.92)	50 ICD Mini-Roundabout (1.60)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

V/C Ratio Legend	
	< 0.750
	0.750 - 0.875
	0.875 - 1.00
	≥ 1.00

SPICE WORKSHEETS

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/31/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	3.05	--	--	7	Yes	Yes	Uncalibrated SPF w/ EB	98		6
	Fatal & Injury	1.14	--	--							
Minor Road Stop	Total	3.31	--	--	8	Yes	Yes	Calibrated SPF	95		7
	Fatal & Injury	1.37	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		2
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.89	--	--	1	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.25	--	--							
Median U-Turn (MUT)	Total	1.92	--	--	5	N/A	N/A	CMF	--		--
	Fatal & Injury	0.86	--	--							
Signalized RCUT	Total	3.22	--	--	2	Yes	Yes	Uncalibrated SPF	99		3
	Fatal & Injury	0.66	--	--							
Unsignalized RCUT	Total	3.26	--	--	3	Yes	Yes	Uncalibrated SPF	99		4
	Fatal & Injury	0.77	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	2.92	--	--	6	N/A	N/A	CMF	99		5
	Fatal & Injury	0.97	--	--							
Jughandle	Total	2.25	--	--	4	N/A	N/A	CMF	--		--
	Fatal & Injury	0.84	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	15,850	
Opening Year - Minor Road AADT	3,600	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--		
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available*	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available*	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available*	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select*	
Other 2*		Minor Road Stop	*Please Select*	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	15,850	
Minor	3,600	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	6629.107	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	1295.893	
Major Thru 2	7693.464	
Major Left Turn 2	231.5361	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~580.1038~~	
Minor Left Turn 1	1068.089	
Minor Right Turn 1	151.8072	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	470	0.735524257	538	0.589266	0.662395
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.156494523~~	~~175~~	~~0.191676~~	~~0.174085~~
Major Right Turn 1	NBR	69	0.107981221	200	0.219058	0.16352
Major Thru 2	SBT	546	0.93814433	631	0.923865	0.931005
Major Left Turn 2	SBL	11	0.018900344	27	0.039531	0.029216
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.042955326~~	~~25~~	~~0.036603~~	~~0.039779~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.307692308~~	~~75~~	~~0.301205~~	~~0.304449~~
Minor Left Turn 1	EBL	186	0.572307692	153	0.614458	0.593383
Minor Right Turn 1	EBR	39	0.12	21	0.084337	0.102169
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.836480364
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.163519636
Major Thru 2	0.970784089
Major Left Turn 2	0.029215911
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.322279889~~
Minor Left Turn 1	0.593382762
Minor Right Turn 1	0.084337349
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/31/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	3.24	--	--	7	Yes	Yes	Uncalibrated SPF w/ EB	97		6
	Fatal & Injury	1.21	--	--							
Minor Road Stop	Total	3.91	--	--	8	Yes	Yes	Calibrated SPF	93		7
	Fatal & Injury	1.62	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.98	--	--	1	No	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.29	--	--							
Median U-Turn (MUT)	Total	2.04	--	--	5	N/A	N/A	CMF	--		--
	Fatal & Injury	0.92	--	--							
Signalized RCUT	Total	3.98	--	--	2	Yes	Yes	Uncalibrated SPF	99		3
	Fatal & Injury	0.81	--	--							
Unsignalized RCUT	Total	3.55	--	--	3	Yes	Yes	Uncalibrated SPF	98		4
	Fatal & Injury	0.86	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	3.11	--	--	6	N/A	N/A	CMF	98		5
	Fatal & Injury	1.03	--	--							
Jughandle	Total	2.40	--	--	4	N/A	N/A	CMF	--		--
	Fatal & Injury	0.89	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	18,600	
Opening Year - Minor Road AADT	3,900	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available*	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available*	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available*	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select*	
Other 2*		Minor Road Stop	*Please Select*	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	18,600	
Minor	3,900	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	7875.962	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	1424.038	
Major Thru 2	9058.47	
Major Left Turn 2	241.5298	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~612.2286~~	
Minor Left Turn 1	1170.193	
Minor Right Turn 1	167.5781	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	550	0.761772853	628	0.620553	0.691163
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.138504155~~	~~175~~	~~0.172925~~	~~0.155715~~
Major Right Turn 1	NBR	72	0.099722992	209	0.206522	0.153122
Major Thru 2	SBT	647	0.945906433	761	0.934889	0.940398
Major Left Turn 2	SBL	12	0.01754386	28	0.034398	0.025971
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.036549708~~	~~25~~	~~0.030713~~	~~0.033631~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.298507463~~	~~75~~	~~0.292969~~	~~0.295738~~
Minor Left Turn 1	EBL	194	0.579104478	159	0.621094	0.600099
Minor Right Turn 1	EBR	41	0.12238806	22	0.085938	0.104163
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.846877635
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.153122365
Major Thru 2	0.974029053
Major Left Turn 2	0.025970947
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.313963386~~
Minor Left Turn 1	0.600099114
Minor Right Turn 1	0.0859375
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/31/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	3.41	--	--	7	Yes	Yes	Uncalibrated SPF w/ EB	97		6
	Fatal & Injury	1.27	--	--							
Minor Road Stop	Total	4.46	--	--	8	No	Yes	Calibrated SPF	92		7
	Fatal & Injury	1.85	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	1.06	--	--	1	No	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	0.33	--	--							
Median U-Turn (MUT)	Total	2.15	--	--	4	N/A	N/A	CMF	--		--
	Fatal & Injury	0.97	--	--							
Signalized RCUT	Total	4.74	--	--	5	Yes	Yes	Uncalibrated SPF	99		3
	Fatal & Injury	0.97	--	--							
Unsignalized RCUT	Total	3.83	--	--	2	Yes	Yes	Uncalibrated SPF	98		4
	Fatal & Injury	0.94	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	3.27	--	--	6	N/A	N/A	CMF	98		5
	Fatal & Injury	1.08	--	--							
Jughandle	Total	2.52	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.94	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	21,350	
Opening Year - Minor Road AADT	4,100	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	21,350	
Minor	4,100	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	9130.718	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	1544.282	
Major Thru 2	10429.51	
Major Left Turn 2	245.4927	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~631.414~~	
Minor Left Turn 1	1247.103	
Minor Right Turn 1	171.4829	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	629	0.782338308	719	0.646583	0.714461
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.124378109~~	~~175~~	~~0.157374~~	~~0.140876~~
Major Right Turn 1	NBR	75	0.093283582	218	0.196043	0.144663
Major Thru 2	SBT	747	0.952806122	891	0.942857	0.947832
Major Left Turn 2	SBL	12	0.015306122	29	0.030688	0.022997
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.031887755~~	~~25~~	~~0.026455~~	~~0.029171~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.289855072~~	~~75~~	~~0.285171~~	~~0.287513~~
Minor Left Turn 1	EBL	202	0.585507246	166	0.631179	0.608343
Minor Right Turn 1	EBR	43	0.124637681	22	0.08365	0.104144
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.855336626
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.144663374
Major Thru 2	0.977003023
Major Left Turn 2	0.022996977
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.308006833~~
Minor Left Turn 1	0.608342977
Minor Right Turn 1	0.08365019
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/31/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	3.17	--	--	7	Yes	Yes	Uncalibrated SPF w/ EB	96		6
	Fatal & Injury	1.18	--	--							
Minor Road Stop	Total	3.64	--	--	8	Yes	Yes	Calibrated SPF	90		7
	Fatal & Injury	1.51	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	No SPF	--	--							
2-lane Roundabout	Total	4.11	--	--	4	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	0.88	--	--							
Median U-Turn (MUT)	Total	1.99	--	--	5	N/A	N/A	CMF	--		--
	Fatal & Injury	0.90	--	--							
Signalized RCUT	Total	3.67	--	--	1	Yes	Yes	Uncalibrated SPF	98		4
	Fatal & Injury	0.74	--	--							
Unsignalized RCUT	Total	3.40	--	--	2	Yes	Yes	Uncalibrated SPF	98		5
	Fatal & Injury	0.83	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	3.04	--	--	6	N/A	N/A	CMF	98		3
	Fatal & Injury	1.00	--	--							
Jughandle	Total	2.34	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.87	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection
Analysis Year	Opening Year Only
Opening Year	2028
Design Year	
Facility Type	On Rural Two Lane Highway
Number of Legs	3-leg
1-Way/2-Way	
# of Major Street Lanes (both directions)	
Major Street Approach Speed	
Opening Year - Major Road AADT	17,850
Opening Year - Minor Road AADT	3,600
Design Year - Major Road AADT	
Design Year - Minor Road AADT	

For more information on how to determine these values, see the "Definitions" worksheet

Control Strategy	Include	Base Intersection		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	Yes	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available*	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available*	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available*	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select*	
Other 2*		Minor Road Stop	*Please Select*	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	17,850	
Minor	3,600	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	7533.923	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	1391.077	
Major Thru 2	8682.971	
Major Left Turn 2	242.029	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~572.4197~~	
Minor Left Turn 1	1078.761	
Minor Right Turn 1	148.8189	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	528	0.755364807	603	0.612183	0.683774
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.143061516~~	~~175~~	~~0.177665~~	~~0.160363~~
Major Right Turn 1	NBR	71	0.101573677	207	0.210152	0.155863
Major Thru 2	SBT	619	0.943597561	726	0.931964	0.937781
Major Left Turn 2	SBL	12	0.018292683	28	0.035944	0.027118
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.038109756~~	~~25~~	~~0.032092~~	~~0.035101~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.3003003~~	~~75~~	~~0.295276~~	~~0.297788~~
Minor Left Turn 1	EBL	192	0.576576577	158	0.622047	0.599312
Minor Right Turn 1	EBR	41	0.123123123	21	0.082677	0.1029
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.84413702
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.15586298
Major Thru 2	0.9728819
Major Left Turn 2	0.0271181
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.318010924~~
Minor Left Turn 1	0.59931191
Minor Right Turn 1	0.082677165
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/31/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	3.48	--	--	7	Yes	Yes	Uncalibrated SPF w/ EB	94		6
	Fatal & Injury	1.30	--	--							
Minor Road Stop	Total	4.68	--	--	8	No	Yes	Calibrated SPF	85		7
	Fatal & Injury	1.94	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	No SPF	--	--							
2-lane Roundabout	Total	5.37	--	--	6	No	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.20	--	--							
Median U-Turn (MUT)	Total	2.19	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.99	--	--							
Signalized RCUT	Total	5.13	--	--	4	Yes	Yes	Uncalibrated SPF	97		4
	Fatal & Injury	1.04	--	--							
Unsignalized RCUT	Total	3.92	--	--	2	Yes	Yes	Uncalibrated SPF	97		5
	Fatal & Injury	0.98	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	3.34	--	--	5	N/A	N/A	CMF	98		3
	Fatal & Injury	1.10	--	--							
Jughandle	Total	2.58	--	--	1	N/A	N/A	CMF	--		--
	Fatal & Injury	0.96	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	23,400	
Opening Year - Minor Road AADT	3,900	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available*	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available*	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available*	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select*	
Other 2*		Minor Road Stop	*Please Select*	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	23,400	
Minor	3,900	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	10066.35	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	1633.646	
Major Thru 2	11443.99	
Major Left Turn 2	256.0071	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~587.3395~~	
Minor Left Turn 1	1195.932	
Minor Right Turn 1	166.7286	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	690	0.794930876	788	0.6633	0.729115
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.115207373~~	~~175~~	~~0.147306~~	~~0.131257~~
Major Right Turn 1	NBR	78	0.089861751	225	0.189394	0.139628
Major Thru 2	SBT	824	0.955916473	991	0.947419	0.951668
Major Left Turn 2	SBL	13	0.015081206	30	0.028681	0.021881
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.02900232~~	~~25~~	~~0.023901~~	~~0.026451~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.284090909~~	~~75~~	~~0.27881~~	~~0.281451~~
Minor Left Turn 1	EBL	208	0.590909091	171	0.635688	0.613298
Minor Right Turn 1	EBR	44	0.125	23	0.085502	0.105251
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.860372155
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.139627845
Major Thru 2	0.978119053
Major Left Turn 2	0.021880947
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.30119973~~
Minor Left Turn 1	0.613298412
Minor Right Turn 1	0.085501859
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Cypress Lake Glen Boulevard S	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	1/31/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	3.73	--	--	6	No	Yes	Uncalibrated SPF w/ EB	92		6
	Fatal & Injury	1.39	--	--							
Minor Road Stop	Total	5.68	--	--	8	No	Yes	Calibrated SPF	81		7
	Fatal & Injury	2.36	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	98		2
	Fatal & Injury	No SPF	--	--							
2-lane Roundabout	Total	6.65	--	--	7	No	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.54	--	--							
Median U-Turn (MUT)	Total	2.35	--	--	2	N/A	N/A	CMF	--		--
	Fatal & Injury	1.06	--	--							
Signalized RCUT	Total	6.64	--	--	5	Yes	Yes	Uncalibrated SPF	97		4
	Fatal & Injury	1.35	--	--							
Unsignalized RCUT	Total	4.49	--	--	3	Yes	Yes	Uncalibrated SPF	96		5
	Fatal & Injury	1.13	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	3.58	--	--	4	N/A	N/A	CMF	97		3
	Fatal & Injury	1.18	--	--							
Jughandle	Total	2.76	--	--	1	N/A	N/A	CMF	--		--
	Fatal & Injury	1.03	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	29,000	
Opening Year - Minor Road AADT	4,100	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--	Opening Year AADT Outside of SPF Development Range	
Traffic Signal (Alternative Configuration)	No	--	Opening Year AADT Outside of SPF Development Range	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	29,000	
Minor	4,100	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	12645.06	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	1854.941	
Major Thru 2	14222.97	
Major Left Turn 2	277.0262	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~586.527~~	
Minor Left Turn 1	1283.648	
Minor Right Turn 1	179.8246	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	851	0.822222222	973	0.699497	0.760859
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.096618357~~	~~175~~	~~0.125809~~	~~0.111214~~
Major Right Turn 1	NBR	84	0.08115942	243	0.174694	0.127927
Major Thru 2	SBT	1030	0.963517306	1256	0.95586	0.959689
Major Left Turn 2	SBL	14	0.013096352	33	0.025114	0.019105
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.023386342~~	~~25~~	~~0.019026~~	~~0.021206~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.268096515~~	~~75~~	~~0.263158~~	~~0.265627~~
Minor Left Turn 1	EBL	225	0.603217158	185	0.649123	0.62617
Minor Right Turn 1	EBR	48	0.128686327	25	0.087719	0.108203
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.872073058
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.127926942
Major Thru 2	0.980894747
Major Left Turn 2	0.019105253
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.286110719~~
Minor Left Turn 1	0.626169983
Minor Right Turn 1	0.087719298
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Table 2, Cypress Lake Glen Boulevard S SPICE Results - Crash Prediction

Build Type	Year	Intersection Control Rank 1 (Fatal & Injury Crashes)	Intersection Control Rank 2 (Fatal & Injury Crashes)	Intersection Control Rank 3 (Fatal & Injury Crashes)	Intersection Control Rank 4 (Fatal & Injury Crashes)	Intersection Control Rank 5 (Fatal & Injury Crashes)	Intersection Control Rank 6 (Fatal & Injury Crashes)	Intersection Control Rank 7 (Fatal & Injury Crashes)	Intersection Control Rank 8 (Fatal & Injury Crashes)	Intersection Control Rank 9 (Fatal & Injury Crashes)	Intersection Control Rank 10 (Fatal & Injury Crashes)
No-Build (2-lane)	2028	1 Lane Roundabout (0.25)	Signalized RCUT N-S (0.66)	Unsignalized RCUT N-S (0.77)	Jughandle (0.84)	MUT N-S (0.86)	Continuous Green T (0.97)	Traffic Signal (1.14)	TWSC (1.37)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)
	2038	1 Lane Roundabout (0.29)	Signalized RCUT N-S (0.81)	Unsignalized RCUT N-S (0.86)	Jughandle (0.89)	MUT N-S (0.92)	Continuous Green T (1.03)	Traffic Signal (1.21)	TWSC (1.62)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)
	2048	1 Lane Roundabout (0.33)	Unsignalized RCUT N-S (0.94)	Jughandle (0.94)	MUT N-S (0.97)	Signalized RCUT N-S (0.97)	Continuous Green T (1.08)	Traffic Signal (1.27)	TWSC (1.85)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)
Build (4-lane)	2028	Signalized RCUT N-S (0.74)	Unsignalized RCUT N-S (0.83)	Jughandle (0.87)	2 Lane Roundabout (0.88)	MUT N-S (0.90)	Continuous Green T (1.00)	Traffic Signal (1.18)	TWSC (1.51)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)
	2038	Jughandle (0.96)	Unsignalized RCUT N-S (0.98)	MUT N-S (0.99)	Signalized RCUT N-S (1.04)	Continuous Green T (1.10)	2 Lane Roundabout (1.20)	Traffic Signal (1.30)	TWSC (1.94)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)
	2048	Jughandle (1.03)	MUT N-S (1.06)	Unsignalized RCUT N-S (1.13)	Continuous Green T (1.18)	Signalized RCUT N-S (1.35)	Traffic Signal (1.39)	2 Lane Roundabout (1.54)	TWSC (2.36)	Bowtie N-S (No SPF)	Signalized ThruCut N-S (No SPF)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

Table 3, Cypress Lake Glen Boulevard S SPICE Results - SSI Score

Build Type	Year	Intersection Control Rank 1 (SSI Score)	Intersection Control Rank 2 (SSI Score)	Intersection Control Rank 3 (SSI Score)	Intersection Control Rank 4 (SSI Score)	Intersection Control Rank 5 (SSI Score)	Intersection Control Rank 6 (SSI Score)	Intersection Control Rank 7 (SSI Score)	Intersection Control Rank 8 (SSI Score)	Intersection Control Rank 9 (SSI Score)	Intersection Control Rank 10 (SSI Score)
No-Build (2-lane)	2028	1 Lane Roundabout (100)	AWSC (100)	Signalized RCUT N-S (99)	Unsignalized RCUT N-S (99)	Continuous Green T (99)	Traffic Signal (98)	TWSC (95)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
	2038	1 Lane Roundabout (100)	AWSC (99)	Signalized RCUT N-S (99)	Unsignalized RCUT N-S (98)	Continuous Green T (98)	Traffic Signal (97)	TWSC (93)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
	2048	1 Lane Roundabout (100)	AWSC (99)	Signalized RCUT N-S (99)	Unsignalized RCUT N-S (98)	Continuous Green T (98)	Traffic Signal (97)	TWSC (92)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
Build (4-lane)	2028	2 Lane Roundabout (99)	AWSC (99)	Continuous Green T (98)	Signalized RCUT N-S (98)	Unsignalized RCUT N-S (98)	Traffic Signal (96)	TWSC (90)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
	2038	2 Lane Roundabout (99)	AWSC (99)	Continuous Green T (98)	Signalized RCUT N-S (97)	Unsignalized RCUT N-S (97)	Traffic Signal (94)	TWSC (85)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)
	2048	2 Lane Roundabout (99)	AWSC (98)	Continuous Green T (97)	Signalized RCUT N-S (97)	Unsignalized RCUT N-S (96)	Traffic Signal (92)	TWSC (81)	Bowtie N-S (N/A)	Unsignalized ThruCut N-S (N/A)	Jughandle (N/A)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

SSI Legend	
	90-100
	80-89
	70-79
	< 70

CORNER SCHOOL
DRIVE & SCHOOLVIEW
WAY

CAP-X WORKSHEETS

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	7	0	3	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	5	30	0	3.48%	0.00%
Northbound	0	0	21	36	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	7	0	3
Westbound	0	0	0	0
Southbound	0	5	31	0
Northbound	0	0	22	37

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.07	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	59	0		0	36	0		7	0	3		0	0	0
Two-Way Stop Control	N-S		0	59	0		0	36	0		7	0	3		0	0	0
All-Way Stop Control	FULL		0	59	0		0	36	0		7	0	3		0	0	0
Continuous Green T	E			22	37		5	31							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	59	0	0	0	36	0				3				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	59	0	0	0	36	0				3				0
Median U-Turn	N-S	0		59	0	0		31	0			0	3			0	0
Partial Median U-Turn	N-S	0		59	0	0		31	0		7	0	3		0	0	0
Signalized ThruCut	N-S		0	66	0		0	36	0		7		3		0		0
Unsignalized ThruCut	N-S		0	59	0		0	36	0		7		3		0		0
Bowtie	N-S		0	66	0		0	36	0			12	3			8	0

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name	Chuloata Road (CR 419) ICE Evaluation	**Number of Configurations**			
Project Number	No-build (2-lane) AM Opening Year (2028)	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Location	Corner School Drive at Schoolview Way	**14**	**0**	**0**	**0**
Date	March 19, 2024				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									66	0.04	0.04		
Two-Way Stop Control	N-S									--	0.03	0.03		
All-Way Stop Control	FULL									105	0.07	0.07		
Continuous Green T	E									27	0.02	0.02		
Signalized Restricted Crossing U-Turn	N-S	36	*0.02*	68	*0.04*	49	*0.03*	43	*0.02*			0.04		
Unsignalized Restricted Crossing U-Turn	N-S	36	*0.00*	59	*0.01*	66	*0.00*	31	*0.01*			0.01		
Median U-Turn	N-S	36	*0.02*	74	*0.04*					71	0.04	0.04		
Partial Median U-Turn	N-S	36	*0.02*	65	*0.04*					66	0.04	0.04		
Bowtie	N-S	49	0.04	5	0.00	0	0.00	10	0.01	78	0.04	0.04		
Signalized ThruCut	N-S									73	0.04	0.04		
Unsignalized ThruCut	N-S									--	0.03	0.03		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.04*			*0.02*			*0.06*			*0.00*			0.06		
75 ICD	*0.04*			*0.02*			*0.06*			*0.00*			0.06		
1 X 1	*0.03*			*0.01*			*0.04*			*0.00*			0.04		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.01	1	--	--
Continuous Green T E	0.02	2	--	--
Two-Way Stop Control N-S	0.03	3	--	--
Unsignalized ThruCut N-S	0.03	3	--	--
Traffic Signal	0.04	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.04	5	--	--
Median U-Turn N-S	0.04	5	--	--
1 X 1	0.04	5	--	--
Partial Median U-Turn N-S	0.04	5	--	--
Signalized ThruCut N-S	0.04	5	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	8	0	3	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	6	33	0	3.48%	0.00%
Northbound	0	0	23	37	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	8	0	3
Westbound	0	0	0	0
Southbound	0	6	34	0
Northbound	0	0	24	38

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.08	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	62	0		0	40	0		8	0	3		0	0	0
Two-Way Stop Control	N-S		0	62	0		0	40	0		8	0	3		0	0	0
All-Way Stop Control	FULL		0	62	0		0	40	0		8	0	3		0	0	0
Continuous Green T	E			24	38		6	34							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	62	0	0	0	40	0				3				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	62	0	0	0	40	0				3				0
Median U-Turn	N-S	0		62	0	0		34	0			0	3			0	0
Partial Median U-Turn	N-S	0		62	0	0		34	0		8	0	3		0	0	0
Signalized ThruCut	N-S		0	69	0		0	40	0		8		3		0		0
Unsignalized ThruCut	N-S		0	62	0		0	40	0		8		3		0		0
Bowtie	N-S		0	69	0		0	40	0			14	3			9	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Interim Year (2038)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									70	0.04	0.04		
Two-Way Stop Control	N-S									--	0.03	0.03		
All-Way Stop Control	FULL									113	0.08	0.08		
Continuous Green T	E									30	0.02	0.02		
Signalized Restricted Crossing U-Turn	N-S	40	*0.02*	72	*0.04*	51	*0.03*	47	*0.03*			0.04		
Unsignalized Restricted Crossing U-Turn	N-S	40	*0.00*	62	*0.01*	70	*0.00*	34	*0.01*			0.01		
Median U-Turn	N-S	40	*0.02*	80	*0.04*					75	0.04	0.04		
Partial Median U-Turn	N-S	40	*0.02*	70	*0.04*					70	0.04	0.04		
Bowtie	N-S	52	0.04	6	0.00	0	0.00	11	0.01	83	0.05	0.05		
Signalized ThruCut	N-S									77	0.04	0.04		
Unsignalized ThruCut	N-S									--	0.03	0.03		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.04*			*0.02*			*0.06*			*0.00*			0.06		
75 ICD	*0.04*			*0.02*			*0.06*			*0.00*			0.06		
1 X 1	*0.03*			*0.01*			*0.05*			*0.00*			0.05		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.01	1	--	--
Continuous Green T E	0.02	2	--	--
Two-Way Stop Control N-S	0.03	3	--	--
Unsignalized ThruCut N-S	0.03	3	--	--
Traffic Signal	0.04	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.04	5	--	--
Median U-Turn N-S	0.04	5	--	--
Partial Median U-Turn N-S	0.04	5	--	--
Signalized ThruCut N-S	0.04	5	--	--
1 X 1	0.05	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	9	0	4	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	6	36	0	3.48%	0.00%
Northbound	0	0	25	38	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	9	0	4
Westbound	0	0	0	0
Southbound	0	6	37	0
Northbound	0	0	26	39

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.08	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) AM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	65	0		0	43	0		9	0	4		0	0	0
Two-Way Stop Control	N-S		0	65	0		0	43	0		9	0	4		0	0	0
All-Way Stop Control	FULL		0	65	0		0	43	0		9	0	4		0	0	0
Continuous Green T	E			26	39		6	37							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	65	0	0	0	43	0				4				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	65	0	0	0	43	0				4				0
Median U-Turn	N-S	0		65	0	0		37	0			0	4			0	0
Partial Median U-Turn	N-S	0		65	0	0		37	0		9	0	4		0	0	0
Signalized ThruCut	N-S		0	72	0		0	43	0		9		4		0		0
Unsignalized ThruCut	N-S		0	65	0		0	43	0		9		4		0		0
Bowtie	N-S		0	72	0		0	43	0			15	4			11	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) AM Design Year (2048)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									74	0.04	0.04		
Two-Way Stop Control	N-S									--	0.04	0.04		
All-Way Stop Control	FULL									121	0.08	0.08		
Continuous Green T	E									32	0.02	0.02		
Signalized Restricted Crossing U-Turn	N-S	43	*0.02*	76	*0.04*	52	*0.03*	52	*0.03*			0.04		
Unsignalized Restricted Crossing U-Turn	N-S	43	*0.00*	65	*0.01*	74	*0.00*	37	*0.01*			0.01		
Median U-Turn	N-S	43	*0.02*	84	*0.05*					80	0.04	0.05		
Partial Median U-Turn	N-S	43	*0.02*	73	*0.04*					74	0.04	0.04		
Bowtie	N-S	54	0.04	6	0.00	0	0.00	13	0.01	87	0.05	0.05		
Signalized ThruCut	N-S									81	0.05	0.05		
Unsignalized ThruCut	N-S									--	0.04	0.04		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.04*			*0.02*			*0.06*			*0.00*			0.06		
75 ICD	*0.04*			*0.02*			*0.06*			*0.00*			0.06		
1 X 1	*0.03*			*0.01*			*0.05*			*0.00*			0.05		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.01	1	--	--
Continuous Green T E	0.02	2	--	--
Two-Way Stop Control N-S	0.04	3	--	--
Unsignalized ThruCut N-S	0.04	3	--	--
Traffic Signal	0.04	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.04	5	--	--
Partial Median U-Turn N-S	0.04	5	--	--
1 X 1	0.05	8	--	--
Median U-Turn N-S	0.05	9	--	--
Signalized ThruCut N-S	0.05	9	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	40	0	9	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	6	17	0	3.48%	0.00%
Northbound	0	0	73	89	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	41	0	9
Westbound	0	0	0	0
Southbound	0	6	18	0
Northbound	0	0	76	92

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.16	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	168	0		0	24	0		41	0	9		0	0	0
Two-Way Stop Control	N-S		0	168	0		0	24	0		41	0	9		0	0	0
All-Way Stop Control	FULL		0	168	0		0	24	0		41	0	9		0	0	0
Continuous Green T	E			76	92		6	18							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	168	0	0	0	24	0				9				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	168	0	0	0	24	0				9				0
Median U-Turn	N-S	0		168	0	0		18	0			0	9			0	0
Partial Median U-Turn	N-S	0		168	0	0		18	0		41	0	9		0	0	0
Signalized ThruCut	N-S		0	184	0		0	24	0		41		9		0		0
Unsignalized ThruCut	N-S		0	168	0		0	24	0		41		9		0		0
Bowtie	N-S		0	184	0		0	24	0			47	9			48	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									211	0.12	0.12		
Two-Way Stop Control	N-S									--	0.09	0.09		
All-Way Stop Control	FULL									242	0.16	0.16		
Continuous Green T	E									82	0.05	0.05		
Signalized Restricted Crossing U-Turn	N-S	24	*0.01*	219	*0.12*	123	*0.07*	77	*0.04*			0.12		
Unsignalized Restricted Crossing U-Turn	N-S	24	*0.00*	168	*0.03*	209	*0.00*	18	*0.05*			0.05		
Median U-Turn	N-S	24	*0.01*	227	*0.13*					227	0.13	0.13		
Partial Median U-Turn	N-S	24	*0.01*	176	*0.10*					211	0.12	0.12		
Bowtie	N-S	139	0.10	6	0.00	0	0.00	50	0.04	231	0.13	0.13		
Signalized ThruCut	N-S									227	0.13	0.13		
Unsignalized ThruCut	N-S									--	0.09	0.09		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.02*			*0.06*			*0.17*			*0.00*			0.17		
75 ICD	*0.02*			*0.06*			*0.17*			*0.00*			0.17		
1 X 1	*0.02*			*0.04*			*0.13*			*0.00*			0.13		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Unsignalized Restricted Crossing U-Turn N-S	0.05	1	--	--
Continuous Green T E	0.05	2	--	--
Two-Way Stop Control N-S	0.09	3	--	--
Unsignalized ThruCut N-S	0.09	3	--	--
Traffic Signal	0.12	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.12	5	--	--
Partial Median U-Turn N-S	0.12	5	--	--
1 X 1	0.13	8	--	--
Median U-Turn N-S	0.13	9	--	--
Signalized ThruCut N-S	0.13	9	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	46	0	10	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	7	18	0	3.48%	0.00%
Northbound	0	0	80	100	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	48	0	10
Westbound	0	0	0	0
Southbound	0	7	19	0
Northbound	0	0	83	103

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.18	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	186	0		0	26	0		48	0	10		0	0	0
Two-Way Stop Control	N-S		0	186	0		0	26	0		48	0	10		0	0	0
All-Way Stop Control	FULL		0	186	0		0	26	0		48	0	10		0	0	0
Continuous Green T	E			83	103		7	19							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	186	0	0	0	26	0				10				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	186	0	0	0	26	0				10				0
Median U-Turn	N-S	0		186	0	0		19	0			0	10			0	0
Partial Median U-Turn	N-S	0		186	0	0		19	0		48	0	10		0	0	0
Signalized ThruCut	N-S		0	204	0		0	26	0		48		10		0		0
Unsignalized ThruCut	N-S		0	186	0		0	26	0		48		10		0		0
Bowtie	N-S		0	204	0		0	26	0			55	10			56	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									237	0.14	0.14		
Two-Way Stop Control	N-S									--	0.10	0.10		
All-Way Stop Control	FULL									270	0.18	0.18		
Continuous Green T	E									90	0.05	0.05		
Signalized Restricted Crossing U-Turn	N-S	26	*0.01*	246	*0.14*	138	*0.08*	87	*0.05*			0.14		
Unsignalized Restricted Crossing U-Turn	N-S	26	*0.00*	186	*0.04*	234	*0.01*	19	*0.05*			0.05		
Median U-Turn	N-S	26	*0.01*	255	*0.14*					254	0.14	0.14		
Partial Median U-Turn	N-S	26	*0.01*	195	*0.11*					237	0.14	0.14		
Bowtie	N-S	158	0.11	7	0.01	0	0.00	58	0.04	259	0.14	0.14		
Signalized ThruCut	N-S									255	0.15	0.15		
Unsignalized ThruCut	N-S									--	0.10	0.10		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.03*			*0.07*			*0.19*			*0.00*			0.19		
75 ICD	*0.03*			*0.07*			*0.19*			*0.00*			0.19		
1 X 1	*0.02*			*0.04*			*0.14*			*0.00*			0.14		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Continuous Green T E	0.05	1	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.05	2	--	--
Two-Way Stop Control N-S	0.10	3	--	--
Unsignalized ThruCut N-S	0.10	3	--	--
Traffic Signal	0.14	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.14	5	--	--
Median U-Turn N-S	0.14	5	--	--
Partial Median U-Turn N-S	0.14	5	--	--
1 X 1	0.14	5	--	--
Bowtie N-S	0.14	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	51	0	11	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	7	20	0	3.48%	0.00%
Northbound	0	0	76	110	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	53	0	11
Westbound	0	0	0	0
Southbound	0	7	21	0
Northbound	0	0	79	114

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.19	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	No-build (2-lane) PM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	193	0		0	28	0		53	0	11		0	0	0
Two-Way Stop Control	N-S		0	193	0		0	28	0		53	0	11		0	0	0
All-Way Stop Control	FULL		0	193	0		0	28	0		53	0	11		0	0	0
Continuous Green T	E			79	114		7	21							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	193	0	0	0	28	0				11				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	193	0	0	0	28	0				11				0
Median U-Turn	N-S	0		193	0	0		21	0			0	11			0	0
Partial Median U-Turn	N-S	0		193	0	0		21	0		53	0	11		0	0	0
Signalized ThruCut	N-S		0	213	0		0	28	0		53		11		0		0
Unsignalized ThruCut	N-S		0	193	0		0	28	0		53		11		0		0
Bowtie	N-S		0	213	0		0	28	0			60	11			62	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	No-build (2-lane) PM Design Year (2048)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									249	0.14	0.14		
Two-Way Stop Control	N-S									--	0.11	0.11		
All-Way Stop Control	FULL									285	0.19	0.19		
Continuous Green T	E									86	0.05	0.05		
Signalized Restricted Crossing U-Turn	N-S	28	*0.02*	259	*0.14*	141	*0.08*	96	*0.05*			0.14		
Unsignalized Restricted Crossing U-Turn	N-S	28	*0.00*	193	*0.05*	246	*0.01*	21	*0.06*			0.06		
Median U-Turn	N-S	28	*0.02*	268	*0.15*					268	0.15	0.15		
Partial Median U-Turn	N-S	28	*0.02*	202	*0.11*					249	0.14	0.14		
Bowtie	N-S	174	0.13	7	0.01	0	0.00	64	0.05	273	0.15	0.15		
Signalized ThruCut	N-S									269	0.15	0.15		
Unsignalized ThruCut	N-S									--	0.11	0.11		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.03*			*0.07*			*0.20*			*0.00*			0.20		
75 ICD	*0.03*			*0.07*			*0.19*			*0.00*			0.19		
1 X 1	*0.02*			*0.05*			*0.15*			*0.00*			0.15		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Continuous Green T E	0.05	1	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.06	2	--	--
Two-Way Stop Control N-S	0.11	3	--	--
Unsignalized ThruCut N-S	0.11	3	--	--
Traffic Signal	0.14	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.14	5	--	--
Partial Median U-Turn N-S	0.14	5	--	--
Median U-Turn N-S	0.15	8	--	--
1 X 1	0.15	8	--	--
Signalized ThruCut N-S	0.15	8	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	51	0	3	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	5	30	0	3.48%	0.00%
Northbound	0	0	21	38	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	53	0	3
Westbound	0	0	0	0
Southbound	0	5	31	0
Northbound	0	0	22	39

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	**FULL**		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**0.10**	**Pedestrian Accommodation Score**		**--**	**Bicycle Accommodation Score**			**--**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	61	0		0	36	0		53	0	3		0	0	0
Two-Way Stop Control	N-S		0	61	0		0	36	0		53	0	3		0	0	0
All-Way Stop Control	FULL		0	61	0		0	36	0		53	0	3		0	0	0
Continuous Green T	E			22	39		5	31							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	61	0	0	0	36	0				3				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	61	0	0	0	36	0				3				0
Median U-Turn	N-S	0		61	0	0		31	0			0	3			0	0
Partial Median U-Turn	N-S	0		61	0	0		31	0		53	0	3		0	0	0
Signalized ThruCut	N-S		0	68	0		0	36	0		53		3		0		0
Unsignalized ThruCut	N-S		0	61	0		0	36	0		53		3		0		0
Bowtie	N-S		0	68	0		0	36	0			58	3			62	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Opening Year (2028)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									117	0.07	0.07		
Two-Way Stop Control	N-S									--	0.06	0.06		
All-Way Stop Control	FULL									153	0.10	0.10		
Continuous Green T	E									27	0.02	0.02		
Signalized Restricted Crossing U-Turn	N-S	36	*0.02*	127	*0.07*	80	*0.04*	97	*0.05*			0.07		
Unsignalized Restricted Crossing U-Turn	N-S	36	*0.00*	61	*0.04*	114	*0.00*	31	*0.05*			0.05		
Median U-Turn	N-S	36	*0.02*	134	*0.07*					127	0.07	0.07		
Partial Median U-Turn	N-S	36	*0.02*	67	*0.04*					117	0.07	0.07		
Bowtie	N-S	97	0.07	5	0.00	0	0.00	56	0.04	126	0.07	0.07		
Signalized ThruCut	N-S									124	0.07	0.07		
Unsignalized ThruCut	N-S									--	0.06	0.06		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.04*			*0.06*			*0.06*			*0.00*			0.06		
75 ICD	*0.04*			*0.07*			*0.06*			*0.00*			0.07		
1 X 1	*0.03*			*0.04*			*0.05*			*0.00*			0.05		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Continuous Green T E	0.02	1	--	--
1 X 1	0.05	2	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.05	3	--	--
Two-Way Stop Control N-S	0.06	4	--	--
Unsignalized ThruCut N-S	0.06	5	--	--
50 ICD	0.06	6	--	--
75 ICD	0.07	7	--	--
Traffic Signal	0.07	8	--	--
Bowtie N-S	0.07	8	--	--
Signalized Restricted Crossing U-Turn N-S	0.07	8	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	55	0	3	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	6	33	0	3.48%	0.00%
Northbound	0	0	23	40	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	57	0	3
Westbound	0	0	0	0
Southbound	0	6	34	0
Northbound	0	0	24	41

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	**FULL**		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**0.11**	**Pedestrian Accommodation Score**		**--**	**Bicycle Accommodation Score**			**--**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 → Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	65	0		0	40	0		57	0	3		0	0	0
Two-Way Stop Control	N-S		0	65	0		0	40	0		57	0	3		0	0	0
All-Way Stop Control	FULL		0	65	0		0	40	0		57	0	3		0	0	0
Continuous Green T	E			24	41		6	34							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	65	0	0	0	40	0				3				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	65	0	0	0	40	0				3				0
Median U-Turn	N-S	0		65	0	0		34	0			0	3			0	0
Partial Median U-Turn	N-S	0		65	0	0		34	0		57	0	3		0	0	0
Signalized ThruCut	N-S		0	72	0		0	40	0		57		3		0		0
Unsignalized ThruCut	N-S		0	65	0		0	40	0		57		3		0		0
Bowtie	N-S		0	72	0		0	40	0			63	3			67	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Interim Year (2038)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									125	0.07	0.07		
Two-Way Stop Control	N-S									--	0.06	0.06		
All-Way Stop Control	FULL									165	0.11	0.11		
Continuous Green T	E									30	0.02	0.02		
Signalized Restricted Crossing U-Turn	N-S	40	*0.02*	136	*0.08*	87	*0.05*	105	*0.06*			0.08		
Unsignalized Restricted Crossing U-Turn	N-S	40	*0.00*	65	*0.04*	122	*0.00*	34	*0.06*			0.06		
Median U-Turn	N-S	40	*0.02*	144	*0.08*					136	0.08	0.08		
Partial Median U-Turn	N-S	40	*0.02*	73	*0.04*					125	0.07	0.07		
Bowtie	N-S	104	0.08	6	0.00	0	0.00	60	0.04	135	0.08	0.08		
Signalized ThruCut	N-S									132	0.08	0.08		
Unsignalized ThruCut	N-S									--	0.06	0.06		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.04*			*0.07*			*0.07*			*0.00*			0.07		
75 ICD	*0.04*			*0.07*			*0.07*			*0.00*			0.07		
1 X 1	*0.03*			*0.05*			*0.05*			*0.00*			0.05		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Continuous Green T E	0.02	1	--	--
1 X 1	0.05	2	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.06	3	--	--
Two-Way Stop Control N-S	0.06	4	--	--
Unsignalized ThruCut N-S	0.06	5	--	--
50 ICD	0.07	6	--	--
Traffic Signal	0.07	7	--	--
75 ICD	0.07	7	--	--
Partial Median U-Turn N-S	0.07	9	--	--
Signalized Restricted Crossing U-Turn N-S	0.08	10	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	59	0	4	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	6	36	0	3.48%	0.00%
Northbound	0	0	25	44	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	61	0	4
Westbound	0	0	0	0
Southbound	0	6	37	0
Northbound	0	0	26	46

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	**FULL**		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**0.12**	**Pedestrian Accommodation Score**		**--**	**Bicycle Accommodation Score**			**--**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) AM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	72	0		0	43	0		61	0	4		0	0	0
Two-Way Stop Control	N-S		0	72	0		0	43	0		61	0	4		0	0	0
All-Way Stop Control	FULL		0	72	0		0	43	0		61	0	4		0	0	0
Continuous Green T	E			26	46		6	37							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	72	0	0	0	43	0				4				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	72	0	0	0	43	0				4				0
Median U-Turn	N-S	0		72	0	0		37	0			0	4			0	0
Partial Median U-Turn	N-S	0		72	0	0		37	0		61	0	4		0	0	0
Signalized ThruCut	N-S		0	80	0		0	43	0		61		4		0		0
Unsignalized ThruCut	N-S		0	72	0		0	43	0		61		4		0		0
Bowtie	N-S		0	80	0		0	43	0			67	4			72	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) AM Design Year (2048)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									136	0.08	0.08		
Two-Way Stop Control	N-S									--	0.07	0.07		
All-Way Stop Control	FULL									180	0.12	0.12		
Continuous Green T	E									32	0.02	0.02		
Signalized Restricted Crossing U-Turn	N-S	43	*0.02*	148	*0.08*	93	*0.05*	113	*0.06*			0.08		
Unsignalized Restricted Crossing U-Turn	N-S	43	*0.00*	72	*0.05*	133	*0.00*	37	*0.06*			0.06		
Median U-Turn	N-S	43	*0.02*	156	*0.09*					148	0.08	0.09		
Partial Median U-Turn	N-S	43	*0.02*	80	*0.04*					136	0.08	0.08		
Bowtie	N-S	113	0.08	6	0.00	0	0.00	65	0.05	147	0.08	0.08		
Signalized ThruCut	N-S									144	0.08	0.08		
Unsignalized ThruCut	N-S									--	0.07	0.07		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.04*			*0.07*			*0.07*			*0.00*			0.07		
75 ICD	*0.04*			*0.08*			*0.07*			*0.00*			0.08		
1 X 1	*0.03*			*0.05*			*0.06*			*0.00*			0.06		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Continuous Green T E	0.02	1	--	--
1 X 1	0.06	2	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.06	3	--	--
Two-Way Stop Control N-S	0.07	4	--	--
Unsignalized ThruCut N-S	0.07	5	--	--
50 ICD	0.07	6	--	--
75 ICD	0.08	7	--	--
Traffic Signal	0.08	8	--	--
Bowtie N-S	0.08	8	--	--
Signalized Restricted Crossing U-Turn N-S	0.08	8	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	52	0	9	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	6	23	0	3.48%	0.00%
Northbound	0	0	64	100	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	54	0	9
Westbound	0	0	0	0
Southbound	0	6	24	0
Northbound	0	0	66	103

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.17	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Opening Year (2028)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	169	0		0	30	0		54	0	9		0	0	0
Two-Way Stop Control	N-S		0	169	0		0	30	0		54	0	9		0	0	0
All-Way Stop Control	FULL		0	169	0		0	30	0		54	0	9		0	0	0
Continuous Green T	E			66	103		6	24							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	169	0	0	0	30	0				9				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	169	0	0	0	30	0				9				0
Median U-Turn	N-S	0		169	0	0		24	0			0	9			0	0
Partial Median U-Turn	N-S	0		169	0	0		24	0		54	0	9		0	0	0
Signalized ThruCut	N-S		0	187	0		0	30	0		54		9		0		0
Unsignalized ThruCut	N-S		0	169	0		0	30	0		54		9		0		0
Bowtie	N-S		0	187	0		0	30	0			60	9			64	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Opening Year (2028)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									226	0.13	0.13		
Two-Way Stop Control	N-S									--	0.09	0.09		
All-Way Stop Control	FULL									262	0.17	0.17		
Continuous Green T	E									72	0.04	0.04		
Signalized Restricted Crossing U-Turn	N-S	30	*0.02*	237	*0.13*	127	*0.07*	98	*0.05*			0.13		
Unsignalized Restricted Crossing U-Turn	N-S	30	*0.00*	169	*0.05*	223	*0.00*	24	*0.06*			0.06		
Median U-Turn	N-S	30	*0.02*	244	*0.14*					243	0.14	0.14		
Partial Median U-Turn	N-S	30	*0.02*	177	*0.10*					226	0.13	0.13		
Bowtie	N-S	163	0.12	6	0.00	0	0.00	63	0.05	247	0.14	0.14		
Signalized ThruCut	N-S									244	0.14	0.14		
Unsignalized ThruCut	N-S									--	0.09	0.09		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.03*			*0.07*			*0.17*			*0.00*			0.17		
75 ICD	*0.03*			*0.07*			*0.17*			*0.00*			0.17		
1 X 1	*0.02*			*0.05*			*0.13*			*0.00*			0.13		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Continuous Green T E	0.04	1	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.06	2	--	--
Two-Way Stop Control N-S	0.09	3	--	--
Unsignalized ThruCut N-S	0.09	3	--	--
Traffic Signal	0.13	5	--	--
1 X 1	0.13	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.13	5	--	--
Partial Median U-Turn N-S	0.13	8	--	--
Median U-Turn N-S	0.14	9	--	--
Signalized ThruCut N-S	0.14	9	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	63	0	10	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	7	25	0	3.48%	0.00%
Northbound	0	0	70	120	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	65	0	10
Westbound	0	0	0	0
Southbound	0	7	26	0
Northbound	0	0	72	124

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.20	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Interim Year (2038)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	196	0		0	33	0		65	0	10		0	0	0
Two-Way Stop Control	N-S		0	196	0		0	33	0		65	0	10		0	0	0
All-Way Stop Control	FULL		0	196	0		0	33	0		65	0	10		0	0	0
Continuous Green T	E			72	124		7	26							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	196	0	0	0	33	0				10				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	196	0	0	0	33	0				10				0
Median U-Turn	N-S	0		196	0	0		26	0			0	10			0	0
Partial Median U-Turn	N-S	0		196	0	0		26	0		65	0	10		0	0	0
Signalized ThruCut	N-S		0	218	0		0	33	0		65		10		0		0
Unsignalized ThruCut	N-S		0	196	0		0	33	0		65		10		0		0
Bowtie	N-S		0	218	0		0	33	0			72	10			76	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Interim Year (2038)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									264	0.15	0.15		
Two-Way Stop Control	N-S									--	0.11	0.11		
All-Way Stop Control	FULL									304	0.20	0.20		
Continuous Green T	E									79	0.05	0.05		
Signalized Restricted Crossing U-Turn	N-S	33	*0.02*	277	*0.15*	153	*0.09*	114	*0.06*			0.15		
Unsignalized Restricted Crossing U-Turn	N-S	33	*0.00*	196	*0.06*	261	*0.01*	26	*0.07*			0.07		
Median U-Turn	N-S	33	*0.02*	286	*0.16*					284	0.16	0.16		
Partial Median U-Turn	N-S	33	*0.02*	205	*0.11*					264	0.15	0.15		
Bowtie	N-S	196	0.14	7	0.01	0	0.00	75	0.05	290	0.16	0.16		
Signalized ThruCut	N-S									286	0.16	0.16		
Unsignalized ThruCut	N-S									--	0.11	0.11		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.03*			*0.08*			*0.20*			*0.00*			0.20		
75 ICD	*0.03*			*0.09*			*0.20*			*0.00*			0.20		
1 X 1	*0.02*			*0.06*			*0.15*			*0.00*			0.15		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Continuous Green T E	0.05	1	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.07	2	--	--
Two-Way Stop Control N-S	0.11	3	--	--
Unsignalized ThruCut N-S	0.11	3	--	--
Traffic Signal	0.15	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.15	5	--	--
Partial Median U-Turn N-S	0.15	5	--	--
1 X 1	0.15	8	--	--
Median U-Turn N-S	0.16	9	--	--
Signalized ThruCut N-S	0.16	9	--	--

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Number of Legs	3
Which leg is the minor street?	E

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	76	0	11	3.48%	0.00%
Westbound	0	0	0	0	3.48%	0.00%
Southbound	0	7	27	0	3.48%	0.00%
Northbound	0	0	76	143	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	79	0	11
Westbound	0	0	0	0
Southbound	0	7	28	0
Northbound	0	0	79	148

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Which leg is the minor street?	E

Existing Intersection Configuration	*All-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.23	Pedestrian Accommodation Score	--		Bicycle Accommodation Score			--

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		No	3-leg Intersection
Displaced Left Turn		No	3-leg Intersection
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		Yes	
1NS x 2EW		No	1x1 Roundabout Only
2NS x 1EW		No	1x1 Roundabout Only
2x2		No	1x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Two-Way Stop Control	N-S		0	1	0		0	1	0		1	0	1		0	0	0
All-Way Stop Control	FULL		0	1	0		0	1	0		1	0	1		0	0	0
Continuous Green T	E			1	1		1	1							1		1
Signalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Unsignalized Restricted Crossing U-Turn	N-S	1	0	1	0	1	0	1	0				1				0
Median U-Turn	N-S	1		1	0	1		1	0			0	1			0	0
Partial Median U-Turn	N-S	1		1	0	1		1	0		1	0	1		0	0	0
Signalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Unsignalized ThruCut	N-S		0	1	0		0	1	0		1		1		0		0
Bowtie	N-S			1	0			1	0			1	1			0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuloata Road (CR 419) ICE Evaluation
Project Number	Build (4-lane) PM Design Year (2048)
Location	Corner School Drive at Schoolview Way
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	227	0		0	35	0		79	0	11		0	0	0
Two-Way Stop Control	N-S		0	227	0		0	35	0		79	0	11		0	0	0
All-Way Stop Control	FULL		0	227	0		0	35	0		79	0	11		0	0	0
Continuous Green T	E			79	148		7	28							0		0
Signalized Restricted Crossing U-Turn	N-S	0	0	227	0	0	0	35	0				11				0
Unsignalized Restricted Crossing U-Turn	N-S	0	0	227	0	0	0	35	0				11				0
Median U-Turn	N-S	0		227	0	0		28	0			0	11			0	0
Partial Median U-Turn	N-S	0		227	0	0		28	0		79	0	11		0	0	0
Signalized ThruCut	N-S		0	253	0		0	35	0		79		11		0		0
Unsignalized ThruCut	N-S		0	227	0		0	35	0		79		11		0		0
Bowtie	N-S		0	253	0		0	35	0			86	11			93	0

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuloata Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build (4-lane) PM Design Year (2048)	**Number of Configurations**			
Location	Corner School Drive at Schoolview Way	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**14**	**0**	**0**	**0**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									310	0.18	0.18		
Two-Way Stop Control	N-S									--	0.13	0.13		
All-Way Stop Control	FULL									352	0.23	0.23		
Continuous Green T	E									86	0.05	0.05		
Signalized Restricted Crossing U-Turn	N-S	35	*0.02*	326	*0.18*	181	*0.10*	134	*0.07*			0.18		
Unsignalized Restricted Crossing U-Turn	N-S	35	*0.00*	227	*0.07*	306	*0.01*	28	*0.09*			0.09		
Median U-Turn	N-S	35	*0.02*	335	*0.19*					333	0.18	0.19		
Partial Median U-Turn	N-S	35	*0.02*	236	*0.13*					310	0.18	0.18		
Bowtie	N-S	234	0.17	7	0.01	0	0.00	90	0.07	339	0.19	0.19		
Signalized ThruCut	N-S									336	0.19	0.19		
Unsignalized ThruCut	N-S									--	0.13	0.13		

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	*0.03*			*0.10*			*0.24*			*0.00*			0.24		
75 ICD	*0.03*			*0.10*			*0.23*			*0.00*			0.23		
1 X 1	*0.03*			*0.07*			*0.18*			*0.00*			0.18		

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Continuous Green T E	0.05	1	--	--
Unsignalized Restricted Crossing U-Turn N-S	0.09	2	--	--
Two-Way Stop Control N-S	0.13	3	--	--
Unsignalized ThruCut N-S	0.13	3	--	--
Traffic Signal	0.18	5	--	--
1 X 1	0.18	5	--	--
Signalized Restricted Crossing U-Turn N-S	0.18	5	--	--
Partial Median U-Turn N-S	0.18	8	--	--
Median U-Turn N-S	0.19	9	--	--
Signalized ThruCut N-S	0.19	9	--	--

Table 1, Corner School Drive & Schoolview Way Cap-x Results

Build Type	Year	Peak Hour	Intersection Control Rank 1 (V/C Ratio)	Intersection Control Rank 2 (V/C Ratio)	Intersection Control Rank 3 (V/C Ratio)	Intersection Control Rank 4 (V/C Ratio)	Intersection Control Rank 5 (V/C Ratio)	Intersection Control Rank 6 (V/C Ratio)	Intersection Control Rank 7 (V/C Ratio)	Intersection Control Rank 8 (V/C Ratio)	Intersection Control Rank 9 (V/C Ratio)	Intersection Control Rank 10 (V/C Ratio)
No-Build (2-lane)	2028	AM	Unsignalized RCUT N-S (0.01)	Continuous Green T (0.02)	TWSC (0.03)	Unsignalized ThruCut N-S (0.03)	Traffic Signal (0.04)	Signalized RCUT N-S (0.04)	1 X 1 Roundabout (0.04)	MUT N-S (0.04)	Partial MUT N-S (0.04)	Signalized ThruCut N-S (0.04)
	2038		Unsignalized RCUT N-S (0.01)	Continuous Green T (0.02)	TWSC (0.03)	Unsignalized ThruCut N-S (0.03)	Traffic Signal (0.04)	Signalized RCUT N-S (0.04)	MUT N-S (0.04)	Partial MUT N-S (0.04)	Signalized ThruCut N-S (0.04)	1 X 1 Roundabout (0.05)
	2048		Unsignalized RCUT N-S (0.01)	Continuous Green T (0.02)	TWSC (0.04)	Unsignalized ThruCut N-S (0.04)	Traffic Signal (0.04)	Signalized RCUT N-S (0.04)	Partial MUT N-S (0.04)	1 X 1 Roundabout (0.05)	MUT N-S (0.05)	Signalized ThruCut N-S (0.05)
	2028	PM	Unsignalized RCUT N-S (0.05)	Continuous Green T (0.05)	TWSC (0.09)	Unsignalized ThruCut N-S (0.09)	Traffic Signal (0.12)	Signalized RCUT N-S (0.12)	Partial MUT N-S (0.12)	1 X 1 Roundabout (0.13)	MUT N-S (0.13)	Signalized ThruCut N-S (0.13)
	2038		Continuous Green T (0.05)	Unsignalized RCUT N-S (0.05)	TWSC (0.10)	Unsignalized ThruCut N-S (0.10)	Traffic Signal (0.14)	Signalized RCUT N-S (0.14)	MUT N-S (0.14)	Partial MUT N-S (0.14)	1 X 1 Roundabout (0.14)	Bowtie N-S (0.14)
	2048		Continuous Green T (0.05)	Unsignalized RCUT N-S (0.06)	TWSC (0.11)	Unsignalized ThruCut N-S (0.11)	Traffic Signal (0.14)	Signalized RCUT N-S (0.14)	Partial MUT N-S (0.14)	MUT N-S (0.15)	1 X 1 Roundabout (0.15)	Signalized ThruCut N-S (0.15)
Build (4-lane)	2028	AM	Continuous Green T (0.02)	1 X 1 Roundabout (0.05)	Unsignalized RCUT N-S (0.05)	TWSC (0.06)	Unsignalized ThruCut N-S (0.06)	50 ICD Mini-Roundabout (0.06)	75 ICD Mini-Roundabout (0.07)	Traffic Signal (0.07)	Bowtie N-S (0.07)	Signalized RCUT N-S (0.07)
	2038		Continuous Green T (0.02)	1 X 1 Roundabout (0.05)	Unsignalized RCUT N-S (0.06)	TWSC (0.06)	Unsignalized ThruCut N-S (0.06)	50 ICD Mini-Roundabout (0.07)	Traffic Signal (0.07)	75 ICD Mini-Roundabout (0.07)	Partial MUT N-S (0.07)	Signalized RCUT N-S (0.08)
	2048		Continuous Green T (0.02)	1 X 1 Roundabout (0.06)	Unsignalized RCUT N-S (0.06)	TWSC (0.07)	Unsignalized ThruCut N-S (0.07)	50 ICD Mini-Roundabout (0.07)	75 ICD Mini-Roundabout (0.08)	Traffic Signal (0.08)	Bowtie N-S (0.08)	Signalized RCUT N-S (0.08)
	2028	PM	Continuous Green T (0.04)	Unsignalized RCUT N-S (0.06)	TWSC (0.09)	Unsignalized ThruCut N-S (0.09)	Traffic Signal (0.13)	1 X 1 Roundabout (0.13)	Signalized RCUT N-S (0.13)	Partial MUT N-S (0.13)	MUT N-S (0.14)	Signalized ThruCut N-S (0.14)
	2038		Continuous Green T (0.05)	Unsignalized RCUT N-S (0.07)	TWSC (0.11)	Unsignalized ThruCut N-S (0.11)	Traffic Signal (0.15)	Signalized RCUT N-S (0.15)	Partial MUT N-S (0.15)	1 X 1 Roundabout (0.15)	MUT N-S (0.16)	Signalized ThruCut N-S (0.16)
	2048		Continuous Green T (0.05)	Unsignalized RCUT N-S (0.09)	TWSC (0.13)	Unsignalized ThruCut N-S (0.13)	Traffic Signal (0.18)	1 X 1 Roundabout (0.18)	Signalized RCUT N-S (0.18)	Partial MUT N-S (0.18)	MUT N-S (0.19)	Signalized ThruCut N-S (0.19)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

V/C Ratio Legend	
	< 0.750
	0.750 - 0.875
	0.875 - 1.00
	≥ 1.00

SPICE WORKSHEETS

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Corner School Drive and Schoolview Way	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	2/27/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	0.54	--	--	7	Yes	Yes	Uncalibrated SPF	100		4
	Fatal & Injury	0.20	--	--							
Minor Road Stop	Total	0.54	--	--	8	Yes	Yes	Calibrated SPF w/ EB	100		7
	Fatal & Injury	0.22	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		5
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.27	--	--	2	Yes	Yes	Uncalibrated SPF	100		6
	Fatal & Injury	0.03	--	--							
Median U-Turn (MUT)	Total	0.34	--	--	4	N/A	N/A	CMF	--		--
	Fatal & Injury	0.15	--	--							
Signalized RCUT	Total	0.15	--	--	1	No	Yes	Uncalibrated SPF	100		2
	Fatal & Injury	0.02	--	--							
Unsignalized RCUT	Total	1.26	--	--	5	No	Yes	Uncalibrated SPF	100		3
	Fatal & Injury	0.17	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	0.52	--	--	6	N/A	N/A	CMF	100		1
	Fatal & Injury	0.17	--	--							
Jughandle	Total	0.40	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.15	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	2,055	
Opening Year - Minor Road AADT	544	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--		
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	2,055	
Minor	544	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	774.0187	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	253.4813	
Major Thru 2	920.4688	
Major Left Turn 2	107.0313	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~199.7326~~	
Minor Left Turn 1	52.52551	
Minor Right Turn 1	19.74194	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	21	0.133757962	73	0.216617	0.175188
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.636942675~~	~~175~~	~~0.519288~~	~~0.578115~~
Major Right Turn 1	NBR	36	0.229299363	89	0.264095	0.246697
Major Thru 2	SBT	30	0.5	17	0.354167	0.427083
Major Left Turn 2	SBL	5	0.083333333	6	0.125	0.104167
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.416666667~~	~~25~~	~~0.520833~~	~~0.46875~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.909090909~~	~~75~~	~~0.604839~~	~~0.756965~~
Minor Left Turn 1	EBL	7	0.063636364	40	0.322581	0.193109
Minor Right Turn 1	EBR	3	0.027272727	9	0.072581	0.049927
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.753302841
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.246697159
Major Thru 2	0.895833333
Major Left Turn 2	0.104166667
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.73431085~~
Minor Left Turn 1	0.193108504
Minor Right Turn 1	0.072580645
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	25
Minor Posted Speed Limit	25
Major thru	25
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	0	0	0	1	--	--	--	--	--	1
	Fatal/Injury	0	0	0	0	1						1
	PDO	0	0	0	0	0						0
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	0	0	0	1	--	--	--	--	--	1

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Corner School Drive and Schoolview Way	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	2/27/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	0.59	--	--	7	Yes	Yes	Uncalibrated SPF	100		4
	Fatal & Injury	0.22	--	--							
Minor Road Stop	Total	0.63	--	--	8	Yes	Yes	Calibrated SPF w/ EB	100		7
	Fatal & Injury	0.26	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		5
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.29	--	--	2	Yes	Yes	Uncalibrated SPF	100		6
	Fatal & Injury	0.03	--	--							
Median U-Turn (MUT)	Total	0.37	--	--	4	N/A	N/A	CMF	--		--
	Fatal & Injury	0.17	--	--							
Signalized RCUT	Total	0.18	--	--	1	No	Yes	Uncalibrated SPF	100		2
	Fatal & Injury	0.03	--	--							
Unsignalized RCUT	Total	1.33	--	--	5	No	Yes	Uncalibrated SPF	100		3
	Fatal & Injury	0.18	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	0.57	--	--	6	N/A	N/A	CMF	100		1
	Fatal & Injury	0.19	--	--							
Jughandle	Total	0.44	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.16	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection
Analysis Year	Opening Year Only
Opening Year	2038
Design Year	
Facility Type	On Rural Two Lane Highway
Number of Legs	3-leg
1-Way/2-Way	
# of Major Street Lanes (both directions)	
Major Street Approach Speed	
Opening Year - Major Road AADT	2,278
Opening Year - Minor Road AADT	622
Design Year - Major Road AADT	
Design Year - Minor Road AADT	

For more information on how to determine these values, see the "Definitions" worksheet

Control Strategy	Include	Base Intersection		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--		
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	2,278	
Minor	622	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in **Table 2-A**
Are peak hour turning movement counts available?	Yes	If "Yes", input values in **Table 2-B**

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	846.8806	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	292.1194	
Major Thru 2	1005.879	
Major Left Turn 2	133.1206	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~221.4493~~	
Minor Left Turn 1	65.81026	
Minor Right Turn 1	23.74046	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	23	0.14375	80	0.225352	0.184551
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.625~~	~~175~~	~~0.492958~~	~~0.558979~~
Major Right Turn 1	NBR	37	0.23125	100	0.28169	0.25647
Major Thru 2	SBT	33	0.515625	18	0.36	0.437813
Major Left Turn 2	SBL	6	0.09375	7	0.14	0.116875
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.390625~~	~~25~~	~~0.5~~	~~0.445313~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.900900901~~	~~75~~	~~0.572519~~	~~0.73671~~
Minor Left Turn 1	EBL	8	0.072072072	46	0.351145	0.211609
Minor Right Turn 1	EBR	3	0.027027027	10	0.076336	0.051681
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.74352993
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.25647007
Major Thru 2	0.883125
Major Left Turn 2	0.116875
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.712055567~~
Minor Left Turn 1	0.211608555
Minor Right Turn 1	0.076335878
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	25
Minor Posted Speed Limit	25
Major thru	25
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	0	0	0	1	--	--	--	--	--	1
	Fatal/Injury	0	0	0	0	1						1
	PDO	0	0	0	0	0						0
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	0	0	0	1	--	--	--	--	--	1

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Corner School Drive and Schoolview Way	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	No-Build (2-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	2/27/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	0.62	--	--	7	Yes	Yes	Uncalibrated SPF	100		4
	Fatal & Injury	0.23	--	--							
Minor Road Stop	Total	0.68	--	--	8	Yes	Yes	Calibrated SPF w/ EB	100		7
	Fatal & Injury	0.28	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		5
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.29	--	--	2	Yes	Yes	Uncalibrated SPF	100		6
	Fatal & Injury	0.03	--	--							
Median U-Turn (MUT)	Total	0.39	--	--	4	N/A	N/A	CMF	--		--
	Fatal & Injury	0.18	--	--							
Signalized RCUT	Total	0.19	--	--	1	No	Yes	Uncalibrated SPF	100		2
	Fatal & Injury	0.03	--	--							
Unsignalized RCUT	Total	1.38	--	--	5	No	Yes	Uncalibrated SPF	100		3
	Fatal & Injury	0.19	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	0.60	--	--	6	N/A	N/A	CMF	100		1
	Fatal & Injury	0.20	--	--							
Jughandle	Total	0.46	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.17	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	2,367	
Opening Year - Minor Road AADT	689	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--		
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	2,367	
Minor	689	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in **Table 2-A**
Are peak hour turning movement counts available?	Yes	If "Yes", input values in **Table 2-B**

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	865.2344	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	318.2656	
Major Thru 2	1050.849	
Major Left Turn 2	132.6512	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~238.9981~~	
Minor Left Turn 1	77.84129	
Minor Right Turn 1	27.66058	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	25	0.153374233	76	0.210526	0.18195
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.613496933~~	~~175~~	~~0.484765~~	~~0.549131~~
Major Right Turn 1	NBR	38	0.233128834	110	0.304709	0.268919
Major Thru 2	SBT	36	0.537313433	20	0.384615	0.460964
Major Left Turn 2	SBL	6	0.089552239	7	0.134615	0.112084
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.373134328~~	~~25~~	~~0.480769~~	~~0.426952~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.884955752~~	~~75~~	~~0.547445~~	~~0.716201~~
Minor Left Turn 1	EBL	9	0.079646018	51	0.372263	0.225954
Minor Right Turn 1	EBR	4	0.03539823	11	0.080292	0.057845
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.731081012
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.268918988
Major Thru 2	0.887916188
Major Left Turn 2	0.112083812
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.693753633~~
Minor Left Turn 1	0.225954396
Minor Right Turn 1	0.080291971
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	25
Minor Posted Speed Limit	25
Major thru	25
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	0	0	0	1	--	--	--	--	--	1
	Fatal/Injury	0	0	0	0	1						1
	PDO	0	0	0	0	0						0
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	0	0	0	1	--	--	--	--	--	1

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Corner School Drive and Schoolview Way	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	2/27/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	0.59	--	--	7	Yes	Yes	Uncalibrated SPF	100		4
	Fatal & Injury	0.22	--	--							
Minor Road Stop	Total	0.62	--	--	8	Yes	Yes	Calibrated SPF w/ EB	100		7
	Fatal & Injury	0.26	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		5
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.28	--	--	2	Yes	Yes	Uncalibrated SPF	100		6
	Fatal & Injury	0.03	--	--							
Median U-Turn (MUT)	Total	0.37	--	--	4	N/A	N/A	CMF	--		--
	Fatal & Injury	0.17	--	--							
Signalized RCUT	Total	0.17	--	--	1	No	Yes	Uncalibrated SPF	100		2
	Fatal & Injury	0.03	--	--							
Unsignalized RCUT	Total	1.36	--	--	5	No	Yes	Uncalibrated SPF	100		3
	Fatal & Injury	0.18	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	0.56	--	--	6	N/A	N/A	CMF	100		1
	Fatal & Injury	0.19	--	--							
Jughandle	Total	0.43	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.16	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection
Analysis Year	Opening Year Only
Opening Year	2028
Design Year	
Facility Type	On Rural Two Lane Highway
Number of Legs	3-leg
1-Way/2-Way	
# of Major Street Lanes (both directions)	
Major Street Approach Speed	
Opening Year - Major Road AADT	2,144
Opening Year - Minor Road AADT	678
Design Year - Major Road AADT	
Design Year - Minor Road AADT	

For more information on how to determine these values, see the "Definitions" worksheet

Control Strategy	Include	Base Intersection		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--		
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	2,144	
Minor	678	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	785.7873	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	286.2127	
Major Thru 2	967.7778	
Major Left Turn 2	104.2222	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~195.6242~~	
Minor Left Turn 1	120.9419	
Minor Right Turn 1	22.43382	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	21	0.132075472	64	0.188791	0.160433
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.628930818~~	~~175~~	~~0.516224~~	~~0.572578~~
Major Right Turn 1	NBR	38	0.238993711	100	0.294985	0.266989
Major Thru 2	SBT	30	0.5	23	0.425926	0.462963
Major Left Turn 2	SBL	5	0.083333333	6	0.111111	0.097222
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.416666667~~	~~25~~	~~0.462963~~	~~0.439815~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.649350649~~	~~75~~	~~0.551471~~	~~0.600411~~
Minor Left Turn 1	EBL	51	0.331168831	52	0.382353	0.356761
Minor Right Turn 1	EBR	3	0.019480519	9	0.066176	0.042828
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.733010519
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.266989481
Major Thru 2	0.902777778
Major Left Turn 2	0.097222222
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.577062643~~
Minor Left Turn 1	0.356760886
Minor Right Turn 1	0.066176471
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	25
Minor Posted Speed Limit	25
Major thru	25
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	0	0	0	1	--	--	--	--	--	1
	Fatal/Injury	0	0	0	0	1						1
	PDO	0	0	0	0	0						0
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	0	0	0	1	--	--	--	--	--	1

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Corner School Drive and Schoolview Way	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	2/27/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	0.66	--	--	7	Yes	Yes	Uncalibrated SPF	100		4
	Fatal & Injury	0.25	--	--							
Minor Road Stop	Total	0.76	--	--	8	Yes	Yes	Calibrated SPF w/ EB	100		7
	Fatal & Injury	0.32	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		5
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.31	--	--	1	Yes	Yes	Uncalibrated SPF	100		6
	Fatal & Injury	0.04	--	--							
Median U-Turn (MUT)	Total	0.41	--	--	4	N/A	N/A	CMF	--		--
	Fatal & Injury	0.19	--	--							
Signalized RCUT	Total	0.22	--	--	2	No	Yes	Uncalibrated SPF	100		2
	Fatal & Injury	0.04	--	--							
Unsignalized RCUT	Total	1.46	--	--	5	No	Yes	Uncalibrated SPF	100		3
	Fatal & Injury	0.20	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	0.63	--	--	6	N/A	N/A	CMF	100		1
	Fatal & Injury	0.21	--	--							
Jughandle	Total	0.49	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.18	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection
Analysis Year	Opening Year Only
Opening Year	2038
Design Year	
Facility Type	On Rural Two Lane Highway
Number of Legs	3-leg
1-Way/2-Way	
# of Major Street Lanes (both directions)	
Major Street Approach Speed	
Opening Year - Major Road AADT	2,467
Opening Year - Minor Road AADT	811
Design Year - Major Road AADT	
Design Year - Minor Road AADT	

For more information on how to determine these values, see the "Definitions" worksheet

Control Strategy	Include	Base Intersection		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--		
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	2,467	
Minor	811	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	879.3832	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	354.1168	
Major Thru 2	1099.938	
Major Left Turn 2	133.5615	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~221.2181~~	
Minor Left Turn 1	156.8833	
Minor Right Turn 1	27.39865	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	23	0.141104294	70	0.191781	0.166443
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.613496933~~	~~175~~	~~0.479452~~	~~0.546474~~
Major Right Turn 1	NBR	40	0.245398773	120	0.328767	0.287083
Major Thru 2	SBT	33	0.515625	25	0.438596	0.477111
Major Left Turn 2	SBL	6	0.09375	7	0.122807	0.108279
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.390625~~	~~25~~	~~0.438596~~	~~0.414611~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.632911392~~	~~75~~	~~0.506757~~	~~0.569834~~
Minor Left Turn 1	EBL	55	0.348101266	63	0.425676	0.386888
Minor Right Turn 1	EBR	3	0.018987342	10	0.067568	0.043277
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.712917052
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.287082948
Major Thru 2	0.891721491
Major Left Turn 2	0.108278509
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.545543962~~
Minor Left Turn 1	0.386888471
Minor Right Turn 1	0.067567568
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	25
Minor Posted Speed Limit	25
Major thru	25
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	0	0	0	1	--	--	--	--	--	1
	Fatal/Injury	0	0	0	0	1						1
	PDO	0	0	0	0	0						0
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	0	0	0	1	--	--	--	--	--	1

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419) ICE Evaluation	**Intersection Type**	At-Grade Intersection
Intersection:	Corner School Drive and Schoolview Way	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	Build (4-lane) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	3-leg
State:	FL	**1-Way/2-Way**	
Date:	2/27/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	0.74	--	--	7	Yes	Yes	Uncalibrated SPF	100		4
	Fatal & Injury	0.27	--	--							
Minor Road Stop	Total	0.92	--	--	8	Yes	Yes	Calibrated SPF w/ EB	100		7
	Fatal & Injury	0.38	--	--							
All Way Stop	Total	No SPF	--	--	--	No	Yes	Uncalibrated SPF w/ EB	100		5
	Fatal & Injury	No SPF	--	--							
1-lane Roundabout	Total	0.33	--	--	1	Yes	Yes	Uncalibrated SPF	100		6
	Fatal & Injury	0.04	--	--							
Median U-Turn (MUT)	Total	0.46	--	--	4	N/A	N/A	CMF	--		--
	Fatal & Injury	0.21	--	--							
Signalized RCUT	Total	0.27	--	--	2	No	Yes	Uncalibrated SPF	100		2
	Fatal & Injury	0.05	--	--							
Unsignalized RCUT	Total	1.57	--	--	5	No	Yes	Uncalibrated SPF	100		3
	Fatal & Injury	0.22	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	--		--
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	--	--	--
	Fatal & Injury	No SPF	--	--							
Continuous Green-T Intersection	Total	0.71	--	--	6	N/A	N/A	CMF	100		1
	Fatal & Injury	0.23	--	--							
Jughandle	Total	0.54	--	--	3	N/A	N/A	CMF	--		--
	Fatal & Injury	0.20	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	3-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	2,811	
Opening Year - Minor Road AADT	967	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--		
All Way Stop Control	Yes	--	No SPF Available	No SPF
1-Lane Roundabout	Yes	--		
2-Lane Roundabout	No	--		
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	1
Minor number thru lanes (one direction)	0

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	2,811	
Minor	967	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	7	
Major NM 2	7	
Minor NM 1	7	
~~Minor NM 2~~	~~0~~	

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	967.4765	
~~Major Left Turn 1~~	~~0~~	
Major Right Turn 1	438.0235	
Major Thru 2	1259.19	
Major Left Turn 2	146.31	
~~Major Right Turn 2~~	~~0~~	
~~Minor Thru 1~~	~~249.7516~~	
Minor Left Turn 1	200.9182	
Minor Right Turn 1	32.83025	
~~Minor Thru 2~~	~~0~~	
~~Minor Left Turn 2~~	~~0~~	
~~Minor Right Turn 2~~	~~0~~	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	25	0.147928994	76	0.192893	0.170411
~~Major Left Turn 1~~	~~NBL~~	~~100~~	~~0.591715976~~	~~175~~	~~0.444162~~	~~0.517939~~
Major Right Turn 1	NBR	44	0.26035503	143	0.362944	0.31165
Major Thru 2	SBT	36	0.537313433	27	0.457627	0.49747
Major Left Turn 2	SBL	6	0.089552239	7	0.118644	0.104098
~~Major Right Turn 2~~	~~SBR~~	~~25~~	~~0.373134328~~	~~25~~	~~0.423729~~	~~0.398432~~
~~Minor Thru 1~~	~~EBT~~	~~100~~	~~0.613496933~~	~~75~~	~~0.462963~~	~~0.53823~~
Minor Left Turn 1	EBL	59	0.36196319	76	0.469136	0.415549
Minor Right Turn 1	EBR	4	0.024539877	11	0.067901	0.046221
~~Minor Thru 2~~	~~WBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~WBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~WBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.688350404
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.311649596
Major Thru 2	0.895901847
Major Left Turn 2	0.104098153
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.516549269~~
Minor Left Turn 1	0.415549496
Minor Right Turn 1	0.067901235
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	25
Minor Posted Speed Limit	25
Major thru	25
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	0	0	0	0	1	--	--	--	--	--	1
	Fatal/Injury	0	0	0	0	1						1
	PDO	0	0	0	0	0						0
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	0	0	0	0	1	--	--	--	--	--	1

Table 2, Corner School Drive & Schoolview Way SPICE Results - Crash Prediction

Build Type	Year	Intersection Control Rank 1 (Fatal & Injury Crashes)	Intersection Control Rank 2 (Fatal & Injury Crashes)	Intersection Control Rank 3 (Fatal & Injury Crashes)	Intersection Control Rank 4 (Fatal & Injury Crashes)	Intersection Control Rank 5 (Fatal & Injury Crashes)	Intersection Control Rank 6 (Fatal & Injury Crashes)	Intersection Control Rank 7 (Fatal & Injury Crashes)	Intersection Control Rank 8 (Fatal & Injury Crashes)	Intersection Control Rank 9 (Fatal & Injury Crashes)	Intersection Control Rank 10 (Fatal & Injury Crashes)
No-Build (2-lane)	2028	Signalized RCUT N-S (0.02)	1 Lane Roundabout (0.03)	Jughandle (0.15)	MUT N-S (0.15)	Unsignalized RCUT N-S (0.17)	Continuous Green T (0.17)	Traffic Signal (0.20)	TWSC (0.22)	AWSC (No SPF)	Bowtie N-S (No SPF)
	2038	Signalized RCUT N-S (0.03)	1 Lane Roundabout (0.03)	Jughandle (0.16)	MUT N-S (0.17)	Unsignalized RCUT N-S (0.18)	Continuous Green T (0.19)	Traffic Signal (0.22)	TWSC (0.26)	AWSC (No SPF)	Bowtie N-S (No SPF)
	2048	Signalized RCUT N-S (0.03)	1 Lane Roundabout (0.03)	Jughandle (0.17)	MUT N-S (0.18)	Unsignalized RCUT N-S (0.19)	Continuous Green T (0.20)	Traffic Signal (0.23)	TWSC (0.28)	AWSC (No SPF)	Bowtie N-S (No SPF)
Build (4-lane)	2028	Signalized RCUT N-S (0.03)	1 Lane Roundabout (0.03)	Jughandle (0.16)	MUT N-S (0.17)	Unsignalized RCUT N-S (0.18)	Continuous Green T (0.19)	Traffic Signal (0.22)	TWSC (0.26)	AWSC (No SPF)	Bowtie N-S (No SPF)
	2038	1 Lane Roundabout (0.04)	Signalized RCUT N-S (0.04)	Jughandle (0.18)	MUT N-S (0.19)	Unsignalized RCUT N-S (0.20)	Continuous Green T (0.21)	Traffic Signal (0.25)	TWSC (0.32)	AWSC (No SPF)	Bowtie N-S (No SPF)
	2048	1 Lane Roundabout (0.04)	Signalized RCUT N-S (0.05)	Jughandle (0.20)	MUT N-S (0.21)	Unsignalized RCUT N-S (0.22)	Continuous Green T (0.23)	Traffic Signal (0.27)	TWSC (0.38)	AWSC (No SPF)	Bowtie N-S (No SPF)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

Table 3, Corner School Drive & Schoolview Way SPICE Results - SSI Score

Build Type	Year	Intersection Control Rank 1 (SSI Score)	Intersection Control Rank 2 (SSI Score)	Intersection Control Rank 3 (SSI Score)	Intersection Control Rank 4 (SSI Score)	Intersection Control Rank 5 (SSI Score)	Intersection Control Rank 6 (SSI Score)	Intersection Control Rank 7 (SSI Score)	Intersection Control Rank 8 (SSI Score)	Intersection Control Rank 9 (SSI Score)	Intersection Control Rank 10 (SSI Score)
No-Build (2-lane)	2028	Continuous Green T (100)	Signalized RCUT N-S (100)	Unsignalized RCUT N-S (100)	Traffic Signal (100)	AWSC (100)	1 Lane Roundabout (100)	TWSC (100)	MUT N-S (N/A)	Bowtie N-S (N/A)	Jughandle (N/A)
	2038	Continuous Green T (100)	Signalized RCUT N-S (100)	Unsignalized RCUT N-S (100)	Traffic Signal (100)	AWSC (100)	1 Lane Roundabout (100)	TWSC (100)	MUT N-S (N/A)	Bowtie N-S (N/A)	Jughandle (N/A)
	2048	Continuous Green T (100)	Signalized RCUT N-S (100)	Unsignalized RCUT N-S (100)	Traffic Signal (100)	AWSC (100)	1 Lane Roundabout (100)	TWSC (100)	MUT N-S (N/A)	Bowtie N-S (N/A)	Jughandle (N/A)
Build (4-lane)	2028	Continuous Green T (100)	Signalized RCUT N-S (100)	Unsignalized RCUT N-S (100)	Traffic Signal (100)	AWSC (100)	1 Lane Roundabout (100)	TWSC (100)	MUT N-S (N/A)	Bowtie N-S (N/A)	Jughandle (N/A)
	2038	Continuous Green T (100)	Signalized RCUT N-S (100)	Unsignalized RCUT N-S (100)	Traffic Signal (100)	AWSC (100)	1 Lane Roundabout (100)	TWSC (100)	MUT N-S (N/A)	Bowtie N-S (N/A)	Jughandle (N/A)
	2048	Continuous Green T (100)	Signalized RCUT N-S (100)	Unsignalized RCUT N-S (100)	Traffic Signal (100)	AWSC (100)	1 Lane Roundabout (100)	TWSC (100)	MUT N-S (N/A)	Bowtie N-S (N/A)	Jughandle (N/A)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

SSI Legend	
	90-100
	80-89
	70-79
	< 70

CHULUOTA ROAD & SCHOOLVIEW WAY/CYPRESS LAKE GLEN BOULEVARD S

CAP-X WORKSHEETS

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	30	5	8	3.48%	0.00%
Westbound	0	192	8	41	3.48%	0.00%
Southbound	0	12	619	43	3.48%	0.00%
Northbound	0	3	528	71	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	31	5	8
Westbound	0	199	8	42
Southbound	0	12	641	44
Northbound	0	3	546	73

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.32	Pedestrian Accommodation Score	4.79	Bicycle Accommodation Score	4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-Leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 → Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		3	546	73		12	641	44		31	13	0		199	50	0
Two-Way Stop Control	N-S		3	546	73		12	641	44		31	13	0		199	50	0
All-Way Stop Control	FULL		3	546	73		12	641	44		31	13	0		199	50	0
Partial Displaced Left Turn	N-S		3	546	73		12	641	44		31	13	0		199	50	0
Displaced Left Turn	FULL		3	546	73		12	641	44		31	5	8		199	8	42
Signalized Restricted Crossing U-Turn	N-S	0	3	546	73	0	12	641	44				8				42
Unsignalized Restricted Crossing U-Turn	N-S	0	3	546	73	0	12	641	44				8				42
Median U-Turn	N-S	0		546	73	0		641	44			5	8			8	42
Partial Median U-Turn	N-S	0		546	73	0		641	44		31	13	0		199	50	0
Signalized ThruCut	N-S		3	546	73		12	641	44		34		11		203		46
Unsignalized ThruCut	N-S		3	546	73		12	641	44		34		11		203		46
Bowtie	N-S		3	546	73		12	641	44			48	207			210	73

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build A (Close Schoolview) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**10**	**2**	**2**	**1**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									546	0.32	0.32	4.79	4.49
Two-Way Stop Control	N-S									--	0.99	0.99	2.65	3.75
All-Way Stop Control	FULL									1612	0.90	0.90	3.62	4.49
Partial Displaced Left Turn	N-S	322	*0.18*	427	*0.24*					543	0.31	0.31	2.86	3.16
Displaced Left Turn	FULL	301	*0.17*	423	*0.24*	226	*0.13*	44	*0.02*	530	0.29	0.29	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	478	*0.27*	334	*0.19*	435	*0.24*	446	*0.25*			0.27	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	697	*0.28*	622	*0.05*	577	*0.55*	840	*0.14*			0.55	2.62	3.00
Median U-Turn	N-S	601	*0.33*	365	*0.20*					610	0.34	0.34	3.00	4.49
Partial Median U-Turn	N-S	352	*0.20*	326	*0.18*					549	0.31	0.31	2.91	4.49
Bowtie	N-S	113	0.08	249	0.18	249	0.18	11	0.01	565	0.31	0.31	4.70	4.49
Signalized ThruCut	N-S									547	0.31	0.31	4.86	4.49
Unsignalized ThruCut	N-S									--	1.67	1.67	4.18	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.86			*0.31*			*0.63*			*0.58*			0.86	5.36	4.62
75 ICD	0.83			*0.24*			*0.62*			*0.50*			0.83	5.36	4.62
2NS X 1EW	*0.31*	*0.33*		*0.07*			*0.24*	0.25		*0.30*			0.33	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.27	1	2.94	4.08
Displaced Left Turn	0.29	2	3.01	3.16
Partial Displaced Left Turn N-S	0.31	3	2.86	3.16
Partial Median U-Turn N-S	0.31	3	2.91	4.49
Signalized ThruCut N-S	0.31	3	4.86	4.49
Bowtie N-S	0.31	3	4.70	4.49
Traffic Signal	0.32	7	4.79	4.49
2NS X 1EW	0.33	8	4.97	4.54
Median U-Turn N-S	0.34	9	3.00	4.49
Unsignalized Restricted Crossing U-Turn N-S	0.55	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	32	6	8	3.48%	0.00%
Westbound	0	208	8	44	3.48%	0.00%
Southbound	0	13	760	46	3.48%	0.00%
Northbound	0	4	690	78	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	33	6	8
Westbound	0	215	8	46
Southbound	0	13	786	48
Northbound	0	4	714	81

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.38	Pedestrian Accommodation Score		4.79	Bicycle Accommodation Score			4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		4	714	81		13	786	48		33	14	0		215	54	0
Two-Way Stop Control	N-S		4	714	81		13	786	48		33	14	0		215	54	0
All-Way Stop Control	FULL		4	714	81		13	786	48		33	14	0		215	54	0
Partial Displaced Left Turn	N-S		4	714	81		13	786	48		33	14	0		215	54	0
Displaced Left Turn	FULL		4	714	81		13	786	48		33	6	8		215	8	46
Signalized Restricted Crossing U-Turn	N-S	0	4	714	81	0	13	786	48				8				46
Unsignalized Restricted Crossing U-Turn	N-S	0	4	714	81	0	13	786	48				8				46
Median U-Turn	N-S	0		714	81	0		786	48			6	8			8	46
Partial Median U-Turn	N-S	0		714	81	0		786	48		33	14	0		215	54	0
Signalized ThruCut	N-S		4	714	81		13	786	48		36		11		219		50
Unsignalized ThruCut	N-S		4	714	81		13	786	48		36		11		219		50
Bowtie	N-S		4	714	81		13	786	48			52	223			227	79

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build A (Close Schoolview) AM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**1**	**0**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									638	0.38	0.38	4.79	4.49
Two-Way Stop Control	N-S									--	1.73	1.73	2.65	3.75
All-Way Stop Control	FULL									1962	1.09	1.09	3.62	4.49
Partial Displaced Left Turn	N-S	410	*0.23*	509	*0.28*					633	0.36	0.36	2.86	3.16
Displaced Left Turn	FULL	387	*0.22*	505	*0.28*	245	*0.14*	47	*0.03*	619	0.34	0.34	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	563	*0.31*	424	*0.24*	532	*0.30*	528	*0.29*			0.31	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	847	*0.35*	799	*0.06*	747	0.76	1001	*0.20*			0.76	2.62	3.00
Median U-Turn	N-S	697	*0.39*	457	*0.25*					707	0.39	0.39	3.00	4.49
Partial Median U-Turn	N-S	429	*0.24*	416	*0.23*					640	0.37	0.37	2.91	4.49
Bowtie	N-S	124	0.09	269	0.19	269	0.20	11	0.01	655	0.36	0.36	4.70	4.49
Signalized ThruCut	N-S									636	0.36	0.36	4.86	4.49
Unsignalized ThruCut	N-S									--	3.16	3.16	4.18	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.06			7.25			0.81			1.04			7.25	5.36	4.62
75 ICD	1.03			*0.71*			0.80			0.80			1.03	5.36	4.62
2NS X 1EW	*0.38*	*0.40*		*0.08*			*0.31*	0.33		*0.38*			0.40	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.31	1	2.94	4.08
Displaced Left Turn	0.34	2	3.01	3.16
Partial Displaced Left Turn N-S	0.36	3	2.86	3.16
Signalized ThruCut N-S	0.36	3	4.86	4.49
Bowtie N-S	0.36	3	4.70	4.49
Partial Median U-Turn N-S	0.37	6	2.91	4.49
Traffic Signal	0.38	7	4.79	4.49
Median U-Turn N-S	0.39	8	3.00	4.49
2NS X 1EW	0.40	9	4.97	4.54
Unsignalized Restricted Crossing U-Turn N-S	0.76	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	35	6	9	3.48%	0.00%
Westbound	0	225	9	48	3.48%	0.00%
Southbound	0	14	927	50	3.48%	0.00%
Northbound	0	4	850	84	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	36	6	9
Westbound	0	233	9	50
Southbound	0	14	959	52
Northbound	0	4	880	87

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.44	Pedestrian Accommodation Score	4.79	Bicycle Accommodation Score	4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) AM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		4	880	87		14	959	52		36	15	0		233	59	0
Two-Way Stop Control	N-S		4	880	87		14	959	52		36	15	0		233	59	0
All-Way Stop Control	FULL		4	880	87		14	959	52		36	15	0		233	59	0
Partial Displaced Left Turn	N-S		4	880	87		14	959	52		36	15	0		233	59	0
Displaced Left Turn	FULL		4	880	87		14	959	52		36	6	9		233	9	50
Signalized Restricted Crossing U-Turn	N-S	0	4	880	87	0	14	959	52				9				50
Unsignalized Restricted Crossing U-Turn	N-S	0	4	880	87	0	14	959	52				9				50
Median U-Turn	N-S	0		880	87	0		959	52			6	9			9	50
Partial Median U-Turn	N-S	0		880	87	0		959	52		36	15	0		233	59	0
Signalized ThruCut	N-S		4	880	87		14	959	52		39		12		238		55
Unsignalized ThruCut	N-S		4	880	87		14	959	52		39		12		238		55
Bowtie	N-S		4	880	87		14	959	52			56	242			246	86

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build A (Close Schoolview) AM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**0**	**0**	**6**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									744	0.44	0.44	4.79	4.49
Two-Way Stop Control	N-S									--	3.23	3.23	2.65	3.75
All-Way Stop Control	FULL									2339	1.30	1.30	3.62	4.49
Partial Displaced Left Turn	N-S	498	0.28	605	0.34					740	0.42	0.42	2.86	3.16
Displaced Left Turn	FULL	473	0.26	600	0.33	265	0.15	51	0.03	725	0.40	0.40	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	664	0.37	512	0.28	630	0.35	626	0.35			0.37	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	1025	0.44	971	0.07	916	1.07	1192	0.29			1.07	2.62	3.00
Median U-Turn	N-S	809	0.45	548	0.30					819	0.46	0.46	3.00	4.49
Partial Median U-Turn	N-S	518	0.29	503	0.28					747	0.43	0.43	2.91	4.49
Bowtie	N-S	133	0.09	292	0.21	292	0.21	12	0.01	765	0.43	0.43	4.70	4.49
Signalized ThruCut	N-S									744	0.43	0.43	4.86	4.49
Unsignalized ThruCut	N-S									--	6.31	6.31	4.18	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.32			-0.32			0.98			3.32			3.32	5.36	4.62
75 ICD	1.28			-0.65			0.97			1.65			1.65	5.36	4.62
2NS X 1EW	0.47	0.50		0.11			0.37	0.40		0.47			0.50	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.37	1	2.94	4.08
Displaced Left Turn	0.40	2	3.01	3.16
Partial Displaced Left Turn N-S	0.42	3	2.86	3.16
Partial Median U-Turn N-S	0.43	4	2.91	4.49
Signalized ThruCut N-S	0.43	4	4.86	4.49
Bowtie N-S	0.43	4	4.70	4.49
Traffic Signal	0.44	7	4.79	4.49
Median U-Turn N-S	0.46	8	3.00	4.49
2NS X 1EW	0.50	9	4.97	4.54
Unsignalized Restricted Crossing U-Turn N-S	1.07	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	79	12	14	3.48%	0.00%
Westbound	0	158	7	21	3.48%	0.00%
Southbound	0	28	726	44	3.48%	0.00%
Northbound	0	10	603	207	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C3R-Suburban Residential**	
Critical Lane Volume Threshold – 2-phase signal	**Suggested = 1800**	**1800**
Critical Lane Volume Threshold – 3-phase signal	**Suggested = 1750**	**1750**
Critical Lane Volume Threshold – 4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	Left	Thru	Right
Eastbound	0	82	12	14
Westbound	0	163	7	22
Southbound	0	29	751	46
Northbound	0	10	624	214

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	**0.34**	**Pedestrian Accommodation Score**		**4.79**	**Bicycle Accommodation Score**			**4.49**

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 → Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		10	624	214		29	751	46		82	26	0		163	29	0
Two-Way Stop Control	N-S		10	624	214		29	751	46		82	26	0		163	29	0
All-Way Stop Control	FULL		10	624	214		29	751	46		82	26	0		163	29	0
Partial Displaced Left Turn	N-S		10	624	214		29	751	46		82	26	0		163	29	0
Displaced Left Turn	FULL		10	624	214		29	751	46		82	12	14		163	7	22
Signalized Restricted Crossing U-Turn	N-S	0	10	624	214	0	29	751	46				14				22
Unsignalized Restricted Crossing U-Turn	N-S	0	10	624	214	0	29	751	46				14				22
Median U-Turn	N-S	0		624	214	0		751	46			12	14			7	22
Partial Median U-Turn	N-S	0		624	214	0		751	46		82	26	0		163	29	0
Signalized ThruCut	N-S		10	624	214		29	751	46		88		20		167		26
Unsignalized ThruCut	N-S		10	624	214		29	751	46		88		20		167		26
Bowtie	N-S		10	624	214		29	751	46			123	177			180	104

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build A (Close Schoolview) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**10**	**0**	**1**	**4**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									584	0.34	0.34	4.79	4.49
Two-Way Stop Control	N-S									--	1.56	1.56	2.65	3.75
All-Way Stop Control	FULL									1974	1.10	1.10	3.62	4.49
Partial Displaced Left Turn	N-S	395	0.22	475	0.26					573	0.33	0.33	2.86	3.16
Displaced Left Turn	FULL	384	0.21	468	0.26	213	0.12	103	0.06	547	0.30	0.30	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	519	0.29	483	0.27	466	0.26	521	0.29			0.29	2.91	4.08
Unsignalized Restricted Crossing U-Turn	N-S	826	0.26	848	0.15	706	0.51	914	0.40			0.51	2.62	3.00
Median U-Turn	N-S	629	0.35	563	0.31					608	0.34	0.35	3.00	4.49
Partial Median U-Turn	N-S	426	0.24	460	0.26					588	0.34	0.34	2.89	4.49
Bowtie	N-S	317	0.22	218	0.15	192	0.15	20	0.02	584	0.32	0.32	4.70	4.49
Signalized ThruCut	N-S									574	0.33	0.33	4.86	4.49
Unsignalized ThruCut	N-S									--	2.47	2.47	4.18	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.98			1.46			0.92			*0.65*			1.46	5.35	4.62
75 ICD	0.96			0.80			0.91			*0.52*			0.96	5.35	4.62
2NS X 1EW	*0.36*	*0.38*		*0.18*			*0.35*	0.37		*0.26*			0.38	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.29	1	2.91	4.08
Displaced Left Turn	0.30	2	3.01	3.16
Bowtie N-S	0.32	3	4.70	4.49
Partial Displaced Left Turn N-S	0.33	4	2.86	3.16
Signalized ThruCut N-S	0.33	4	4.86	4.49
Traffic Signal	0.34	6	4.79	4.49
Partial Median U-Turn N-S	0.34	6	2.89	4.49
Median U-Turn N-S	0.35	8	3.00	4.49
2NS X 1EW	0.38	9	4.97	4.54
Unsignalized Restricted Crossing U-Turn N-S	0.51	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	99	13	15	3.48%	0.00%
Westbound	0	171	7	23	3.48%	0.00%
Southbound	0	30	991	56	3.48%	0.00%
Northbound	0	10	788	225	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	102	13	16
Westbound	0	177	7	24
Southbound	0	31	1025	58
Northbound	0	10	815	233

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.43	Pedestrian Accommodation Score		4.79	Bicycle Accommodation Score			4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		10	815	233		31	1025	58		102	29	0		177	31	0
Two-Way Stop Control	N-S		10	815	233		31	1025	58		102	29	0		177	31	0
All-Way Stop Control	FULL		10	815	233		31	1025	58		102	29	0		177	31	0
Partial Displaced Left Turn	N-S		10	815	233		31	1025	58		102	29	0		177	31	0
Displaced Left Turn	FULL		10	815	233		31	1025	58		102	13	16		177	7	24
Signalized Restricted Crossing U-Turn	N-S	0	10	815	233	0	31	1025	58				16				24
Unsignalized Restricted Crossing U-Turn	N-S	0	10	815	233	0	31	1025	58				16				24
Median U-Turn	N-S	0		815	233	0		1025	58			13	16			7	24
Partial Median U-Turn	N-S	0		815	233	0		1025	58		102	29	0		177	31	0
Signalized ThruCut	N-S		10	815	233		31	1025	58		109		23		181		28
Unsignalized ThruCut	N-S		10	815	233		31	1025	58		109		23		181		28
Bowtie	N-S		10	815	233		31	1025	58			146	193			194	126

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build A (Close Schoolview) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**1**	**0**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									739	0.43	0.43	4.79	4.49
Two-Way Stop Control	N-S									--	5.15	5.15	2.60	3.75
All-Way Stop Control	FULL									2511	1.40	1.40	3.62	4.49
Partial Displaced Left Turn	N-S	503	*0.28*	620	*0.34*					728	0.42	0.42	2.85	3.16
Displaced Left Turn	FULL	491	*0.27*	612	*0.34*	230	*0.13*	124	*0.07*	699	0.39	0.39	3.00	3.16
Signalized Restricted Crossing U-Turn	N-S	672	*0.37*	601	*0.33*	581	*0.32*	678	*0.38*			0.38	2.91	4.08
Unsignalized Restricted Crossing U-Turn	N-S	1114	*0.37*	1058	*0.22*	917	0.77	1202	0.75			0.77	2.62	3.00
Median U-Turn	N-S	791	*0.44*	695	*0.39*					764	0.42	0.44	3.00	4.49
Partial Median U-Turn	N-S	570	*0.32*	568	*0.32*					743	0.42	0.42	2.89	4.49
Bowtie	N-S	357	0.25	244	0.17	208	0.16	23	0.02	740	0.41	0.41	4.70	4.41
Signalized ThruCut	N-S									729	0.42	0.42	4.86	4.49
Unsignalized ThruCut	N-S									--	6.38	6.38	4.14	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.34			-0.66			1.18			2.62			2.62	5.35	4.62
75 ICD	1.31			-1.17			1.16			1.23			1.31	5.35	4.62
2NS X 1EW	0.49	0.52		0.28			0.44	0.47		0.34			0.52	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.38	1	2.91	4.08
Displaced Left Turn	0.39	2	3.00	3.16
Bowtie N-S	0.41	3	4.70	4.41
Partial Displaced Left Turn N-S	0.42	4	2.85	3.16
Partial Median U-Turn N-S	0.42	4	2.89	4.49
Signalized ThruCut N-S	0.42	4	4.86	4.49
Traffic Signal	0.43	7	4.79	4.49
Median U-Turn N-S	0.44	8	3.00	4.49
2NS X 1EW	0.52	9	4.97	4.54
Unsignalized Restricted Crossing U-Turn N-S	0.77	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	120	14	16	3.48%	0.00%
Westbound	0	185	8	25	3.48%	0.00%
Southbound	0	33	1256	68	3.48%	0.00%
Northbound	0	11	973	243	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	124	14	17
Westbound	0	191	8	26
Southbound	0	34	1300	70
Northbound	0	11	1007	251

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.53	Pedestrian Accommodation Score		4.79	Bicycle Accommodation Score			4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build A (Close Schoolview) PM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		11	1007	251		34	1300	70		124	31	0		191	34	0
Two-Way Stop Control	N-S		11	1007	251		34	1300	70		124	31	0		191	34	0
All-Way Stop Control	FULL		11	1007	251		34	1300	70		124	31	0		191	34	0
Partial Displaced Left Turn	N-S		11	1007	251		34	1300	70		124	31	0		191	34	0
Displaced Left Turn	FULL		11	1007	251		34	1300	70		124	14	17		191	8	26
Signalized Restricted Crossing U-Turn	N-S	0	11	1007	251	0	34	1300	70				17				26
Unsignalized Restricted Crossing U-Turn	N-S	0	11	1007	251	0	34	1300	70				17				26
Median U-Turn	N-S	0		1007	251	0		1300	70			14	17			8	26
Partial Median U-Turn	N-S	0		1007	251	0		1300	70		124	31	0		191	34	0
Signalized ThruCut	N-S		11	1007	251		34	1300	70		131		24		195		30
Unsignalized ThruCut	N-S		11	1007	251		34	1300	70		131		24		195		30
Bowtie	N-S		11	1007	251		34	1300	70			172	208			210	150

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build A (Close Schoolview) PM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**0**	**0**	**6**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									894	0.53	0.53	4.79	4.49
Two-Way Stop Control	N-S									--	>10	>10	2.55	3.75
All-Way Stop Control	FULL									3053	1.70	1.70	3.62	4.49
Partial Displaced Left Turn	N-S	614	*0.34*	766	*0.43*					882	0.50	0.50	2.85	3.16
Displaced Left Turn	FULL	601	*0.33*	757	*0.42*	249	*0.14*	150	*0.08*	851	0.47	0.47	3.00	3.16
Signalized Restricted Crossing U-Turn	N-S	826	*0.46*	721	*0.40*	698	*0.39*	837	*0.46*			0.46	2.91	4.08
Unsignalized Restricted Crossing U-Turn	N-S	1404	*0.52*	1269	*0.32*	1131	1.15	1491	1.40			1.40	2.62	3.00
Median U-Turn	N-S	955	*0.53*	832	*0.46*					922	0.51	0.53	3.00	4.49
Partial Median U-Turn	N-S	716	*0.40*	677	*0.38*					899	0.51	0.51	2.87	4.49
Bowtie	N-S	399	0.28	271	0.19	225	0.18	24	0.02	895	0.50	0.50	4.70	4.33
Signalized ThruCut	N-S									884	0.51	0.51	4.86	4.49
Unsignalized ThruCut	N-S									--	17.03	17.03	4.14	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.72			-0.32			1.46			-1.64			1.72	5.32	4.62
75 ICD	1.68			-0.42			1.43			-7.22			1.68	5.32	4.62
2NS X 1EW	0.62	0.66		0.42			0.54	0.58		0.44			0.66	4.93	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.46	1	2.91	4.08
Displaced Left Turn	0.47	2	3.00	3.16
Partial Displaced Left Turn N-S	0.50	3	2.85	3.16
Bowtie N-S	0.50	3	4.70	4.33
Partial Median U-Turn N-S	0.51	5	2.87	4.49
Signalized ThruCut N-S	0.51	5	4.86	4.49
Traffic Signal	0.53	7	4.79	4.49
Median U-Turn N-S	0.53	7	3.00	4.49
2NS X 1EW	0.66	9	4.93	4.54
Unsignalized Restricted Crossing U-Turn N-S	1.40	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	30	5	0	3.48%	0.00%
Westbound	0	192	8	41	3.48%	0.00%
Southbound	0	12	654	8	3.48%	0.00%
Northbound	0	3	528	71	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	31	5	0
Westbound	0	199	8	42
Southbound	0	12	677	8
Northbound	0	3	546	73

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.33	Pedestrian Accommodation Score		4.79	Bicycle Accommodation Score			4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	2x1 Roundabout Only
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 → Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		3	546	73		12	677	8		31	5	0		199	50	0
Two-Way Stop Control	N-S		3	546	73		12	677	8		31	5	0		199	50	0
All-Way Stop Control	FULL		3	546	73		12	677	8		31	5	0		199	50	0
Partial Displaced Left Turn	N-S		3	546	73		12	677	8		31	5	0		199	50	0
Displaced Left Turn	FULL		3	546	73		12	677	8		31	5	0		199	8	42
Signalized Restricted Crossing U-Turn	N-S	0	3	546	73	0	12	677	8				0				42
Unsignalized Restricted Crossing U-Turn	N-S	0	3	546	73	0	12	677	8				0				42
Median U-Turn	N-S	0		546	73	0		677	8			5	0			8	42
Partial Median U-Turn	N-S	0		546	73	0		677	8		31	5	0		199	50	0
Signalized ThruCut	N-S		3	546	73		12	677	8		34		3		203		46
Unsignalized ThruCut	N-S		3	546	73		12	677	8		34		3		203		46
Bowtie	N-S		3	546	73		12	677	8			48	199			210	73

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build B (Schoolview RI-RO) AM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**10**	**2**	**2**	**1**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									556	0.33	0.33	4.79	4.49
Two-Way Stop Control	N-S									--	0.98	0.98	2.65	3.75
All-Way Stop Control	FULL									1604	0.89	0.89	3.62	4.49
Partial Displaced Left Turn	N-S	322	0.18	441	0.25					553	0.32	0.32	2.86	3.16
Displaced Left Turn	FULL	301	0.17	441	0.25	226	0.13	44	0.02	548	0.30	0.30	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	478	0.27	334	0.19	435	0.24	459	0.26			0.27	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	697	0.28	622	0.05	577	0.55	876	0.12			0.55	2.62	3.00
Median U-Turn	N-S	601	0.33	365	0.20					628	0.35	0.35	3.00	4.49
Partial Median U-Turn	N-S	352	0.20	326	0.18					559	0.32	0.32	2.91	4.49
Bowtie	N-S	113	0.08	213	0.15	249	0.18	3	0.00	573	0.32	0.32	4.70	4.49
Signalized ThruCut	N-S									556	0.32	0.32	4.86	4.49
Unsignalized ThruCut	N-S									--	1.74	1.74	4.18	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.86			0.33			0.63			0.58			0.86	5.36	4.62
75 ICD	0.83			0.23			0.62			0.50			0.83	5.36	4.62
2NS X 1EW	0.31	0.33		0.06			0.24	0.25		0.30			0.33	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.27	1	2.94	4.08
Displaced Left Turn	0.30	2	3.01	3.16
Partial Displaced Left Turn N-S	0.32	3	2.86	3.16
Partial Median U-Turn N-S	0.32	3	2.91	4.49
Signalized ThruCut N-S	0.32	3	4.86	4.49
Bowtie N-S	0.32	3	4.70	4.49
2NS X 1EW	0.33	7	4.97	4.54
Traffic Signal	0.33	8	4.79	4.49
Median U-Turn N-S	0.35	9	3.00	4.49
Unsignalized Restricted Crossing U-Turn N-S	0.55	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	32	6	0	3.48%	0.00%
Westbound	0	208	8	44	3.48%	0.00%
Southbound	0	13	798	8	3.48%	0.00%
Northbound	0	4	689	78	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	33	6	0
Westbound	0	215	8	46
Southbound	0	13	826	8
Northbound	0	4	713	81

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.38	Pedestrian Accommodation Score		4.79	Bicycle Accommodation Score			4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		4	713	81		13	826	8		33	6	0		215	54	0
Two-Way Stop Control	N-S		4	713	81		13	826	8		33	6	0		215	54	0
All-Way Stop Control	FULL		4	713	81		13	826	8		33	6	0		215	54	0
Partial Displaced Left Turn	N-S		4	713	81		13	826	8		33	6	0		215	54	0
Displaced Left Turn	FULL		4	713	81		13	826	8		33	6	0		215	8	46
Signalized Restricted Crossing U-Turn	N-S	0	4	713	81	0	13	826	8				0				46
Unsignalized Restricted Crossing U-Turn	N-S	0	4	713	81	0	13	826	8				0				46
Median U-Turn	N-S	0		713	81	0		826	8			6	0			8	46
Partial Median U-Turn	N-S	0		713	81	0		826	8		33	6	0		215	54	0
Signalized ThruCut	N-S		4	713	81		13	826	8		36		3		219		50
Unsignalized ThruCut	N-S		4	713	81		13	826	8		36		3		219		50
Bowtie	N-S		4	713	81		13	826	8			52	215			227	79

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build B (Schoolview RI-RO) AM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**1**	**0**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									650	0.38	0.38	4.79	4.49
Two-Way Stop Control	N-S									--	1.66	1.66	2.65	3.75
All-Way Stop Control	FULL									1953	1.09	1.09	3.62	4.49
Partial Displaced Left Turn	N-S	410	0.23	525	0.29					645	0.37	0.37	2.86	3.16
Displaced Left Turn	FULL	387	0.21	525	0.29	245	0.14	47	0.03	639	0.36	0.36	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	563	0.31	423	0.24	531	0.30	543	0.30			0.31	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	847	0.35	798	0.06	746	0.76	1041	0.17			0.76	2.62	3.00
Median U-Turn	N-S	697	0.39	457	0.25					727	0.40	0.40	3.00	4.49
Partial Median U-Turn	N-S	429	0.24	415	0.23					652	0.37	0.37	2.91	4.49
Bowtie	N-S	124	0.09	229	0.16	269	0.20	3	0.00	666	0.37	0.37	4.70	4.49
Signalized ThruCut	N-S									648	0.37	0.37	4.86	4.49
Unsignalized ThruCut	N-S									--	3.31	3.31	4.18	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.06			-1.49			0.81			1.03			1.06	5.36	4.62
75 ICD	1.03			1.10			0.80			0.80			1.10	5.36	4.62
2NS X 1EW	0.38	0.40		0.07			0.31	0.33		0.38			0.40	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.31	1	2.94	4.08
Displaced Left Turn	0.36	2	3.01	3.16
Partial Displaced Left Turn N-S	0.37	3	2.86	3.16
Partial Median U-Turn N-S	0.37	3	2.91	4.49
Signalized ThruCut N-S	0.37	3	4.86	4.49
Bowtie N-S	0.37	3	4.70	4.49
Traffic Signal	0.38	7	4.79	4.49
Median U-Turn N-S	0.40	8	3.00	4.49
2NS X 1EW	0.40	9	4.97	4.54
Unsignalized Restricted Crossing U-Turn N-S	0.76	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	35	6	0	3.48%	0.00%
Westbound	0	225	9	48	3.48%	0.00%
Southbound	0	14	968	9	3.48%	0.00%
Northbound	0	4	850	84	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C3R-Suburban Residential**		
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	36	6	0
Westbound	0	233	9	50
Southbound	0	14	1002	9
Northbound	0	4	880	87

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.45	Pedestrian Accommodation Score		4.79	Bicycle Accommodation Score			4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) AM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		4	880	87		14	1002	9		36	6	0		233	59	0
Two-Way Stop Control	N-S		4	880	87		14	1002	9		36	6	0		233	59	0
All-Way Stop Control	FULL		4	880	87		14	1002	9		36	6	0		233	59	0
Partial Displaced Left Turn	N-S		4	880	87		14	1002	9		36	6	0		233	59	0
Displaced Left Turn	FULL		4	880	87		14	1002	9		36	6	0		233	9	50
Signalized Restricted Crossing U-Turn	N-S	0	4	880	87	0	14	1002	9				0				50
Unsignalized Restricted Crossing U-Turn	N-S	0	4	880	87	0	14	1002	9				0				50
Median U-Turn	N-S	0		880	87	0		1002	9			6	0			9	50
Partial Median U-Turn	N-S	0		880	87	0		1002	9		36	6	0		233	59	0
Signalized ThruCut	N-S		4	880	87		14	1002	9		39		3		238		55
Unsignalized ThruCut	N-S		4	880	87		14	1002	9		39		3		238		55
Bowtie	N-S		4	880	87		14	1002	9			56	233			246	86

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build B (Schoolview RI-RO) AM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**0**	**0**	**6**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									757	0.45	0.45	4.79	4.49
Two-Way Stop Control	N-S									--	2.92	2.92	2.65	3.75
All-Way Stop Control	FULL									2330	1.29	1.29	3.62	4.49
Partial Displaced Left Turn	N-S	498	*0.28*	622	*0.35*					752	0.43	0.43	2.86	3.16
Displaced Left Turn	FULL	473	*0.26*	622	*0.35*	265	*0.15*	51	*0.03*	746	0.41	0.41	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	664	*0.37*	512	*0.28*	630	*0.35*	642	*0.36*			0.37	2.94	4.08
Unsignalized Restricted Crossing U-Turn	N-S	1025	*0.44*	971	*0.07*	916	1.07	1235	*0.25*			1.07	2.62	3.00
Median U-Turn	N-S	809	*0.45*	548	*0.30*					841	0.47	0.47	3.00	4.49
Partial Median U-Turn	N-S	518	*0.29*	503	*0.28*					759	0.43	0.43	2.91	4.49
Bowtie	N-S	133	0.09	249	0.18	292	0.21	3	0.00	775	0.43	0.43	4.70	4.49
Signalized ThruCut	N-S									755	0.43	0.43	4.86	4.49
Unsignalized ThruCut	N-S									--	6.63	6.63	4.18	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.32			-0.22			0.98			3.32			3.32	5.36	4.62
75 ICD	1.28			-0.39			0.97			1.65			1.65	5.36	4.62
2NS X 1EW	0.47	0.50		0.09			0.37	0.40		0.47			0.50	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.37	1	2.94	4.08
Displaced Left Turn	0.41	2	3.01	3.16
Partial Displaced Left Turn N-S	0.43	3	2.86	3.16
Partial Median U-Turn N-S	0.43	3	2.91	4.49
Signalized ThruCut N-S	0.43	3	4.86	4.49
Bowtie N-S	0.43	3	4.70	4.49
Traffic Signal	0.45	7	4.79	4.49
Median U-Turn N-S	0.47	8	3.00	4.49
2NS X 1EW	0.50	9	4.97	4.54
Unsignalized Restricted Crossing U-Turn N-S	1.07	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	79	12	0	3.48%	0.00%
Westbound	0	158	7	21	3.48%	0.00%
Southbound	0	28	758	12	3.48%	0.00%
Northbound	0	10	603	207	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	82	12	0
Westbound	0	163	7	22
Southbound	0	29	784	12
Northbound	0	10	624	214

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	**FULL**		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF		Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	
Overall v/c Ratio	0.35	Pedestrian Accommodation Score		4.79	Bicycle Accommodation Score			4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 → Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Opening Year (2028)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		10	624	214		29	784	12		82	12	0		163	29	0
Two-Way Stop Control	N-S		10	624	214		29	784	12		82	12	0		163	29	0
All-Way Stop Control	FULL		10	624	214		29	784	12		82	12	0		163	29	0
Partial Displaced Left Turn	N-S		10	624	214		29	784	12		82	12	0		163	29	0
Displaced Left Turn	FULL		10	624	214		29	784	12		82	12	0		163	7	22
Signalized Restricted Crossing U-Turn	N-S	0	10	624	214	0	29	784	12				0				22
Unsignalized Restricted Crossing U-Turn	N-S	0	10	624	214	0	29	784	12				0				22
Median U-Turn	N-S	0		624	214	0		784	12			12	0			7	22
Partial Median U-Turn	N-S	0		624	214	0		784	12		82	12	0		163	29	0
Signalized ThruCut	N-S		10	624	214		29	784	12		88		6		167		26
Unsignalized ThruCut	N-S		10	624	214		29	784	12		88		6		167		26
Bowtie	N-S		10	624	214		29	784	12			123	163			180	104

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build B (Schoolview RI-RO) PM Opening Year (2028)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**10**	**0**	**1**	**4**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									587	0.35	0.35	4.79	4.49
Two-Way Stop Control	N-S									--	1.38	1.38	2.65	3.75
All-Way Stop Control	FULL									1959	1.09	1.09	3.62	4.49
Partial Displaced Left Turn	N-S	395	0.22	484	0.27					576	0.33	0.33	2.86	3.16
Displaced Left Turn	FULL	384	0.21	484	0.27	213	0.12	103	0.06	564	0.31	0.31	3.01	3.16
Signalized Restricted Crossing U-Turn	N-S	519	0.29	483	0.27	466	0.26	529	0.29			0.29	2.91	4.08
Unsignalized Restricted Crossing U-Turn	N-S	825	0.26	848	0.15	706	0.51	947	0.36			0.51	2.62	3.00
Median U-Turn	N-S	629	0.35	563	0.31					624	0.35	0.35	3.00	4.49
Partial Median U-Turn	N-S	425	0.24	460	0.26					590	0.34	0.34	2.89	4.49
Bowtie	N-S	317	0.22	184	0.13	192	0.15	6	0.00	584	0.32	0.32	4.70	4.49
Signalized ThruCut	N-S									578	0.33	0.33	4.86	4.49
Unsignalized ThruCut	N-S									--	2.52	2.52	4.18	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	0.98			2.21			0.92			0.65			2.21	5.35	4.62
75 ICD	0.96			0.89			0.91			0.52			0.96	5.35	4.62
2NS X 1EW	0.36	0.38		0.16			0.35	0.37		0.26			0.38	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.29	1	2.91	4.08
Displaced Left Turn	0.31	2	3.01	3.16
Bowtie N-S	0.32	3	4.70	4.49
Partial Displaced Left Turn N-S	0.33	4	2.86	3.16
Signalized ThruCut N-S	0.33	4	4.86	4.49
Partial Median U-Turn N-S	0.34	6	2.89	4.49
Traffic Signal	0.35	7	4.79	4.49
Median U-Turn N-S	0.35	7	3.00	4.49
2NS X 1EW	0.38	9	4.97	4.54
Unsignalized Restricted Crossing U-Turn N-S	0.51	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	99	13	0	3.48%	0.00%
Westbound	0	171	7	23	3.48%	0.00%
Southbound	0	30	1033	14	3.48%	0.00%
Northbound	0	10	788	225	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	102	13	0
Westbound	0	177	7	24
Southbound	0	31	1069	14
Northbound	0	10	815	233

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.44	Pedestrian Accommodation Score	4.79	Bicycle Accommodation Score	4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Interim Year (2038)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		10	815	233		31	1069	14		102	13	0		177	31	0
Two-Way Stop Control	N-S		10	815	233		31	1069	14		102	13	0		177	31	0
All-Way Stop Control	FULL		10	815	233		31	1069	14		102	13	0		177	31	0
Partial Displaced Left Turn	N-S		10	815	233		31	1069	14		102	13	0		177	31	0
Displaced Left Turn	FULL		10	815	233		31	1069	14		102	13	0		177	7	24
Signalized Restricted Crossing U-Turn	N-S	0	10	815	233	0	31	1069	14				0				24
Unsignalized Restricted Crossing U-Turn	N-S	0	10	815	233	0	31	1069	14				0				24
Median U-Turn	N-S	0		815	233	0		1069	14			13	0			7	24
Partial Median U-Turn	N-S	0		815	233	0		1069	14		102	13	0		177	31	0
Signalized ThruCut	N-S		10	815	233		31	1069	14		109		7		181		28
Unsignalized ThruCut	N-S		10	815	233		31	1069	14		109		7		181		28
Bowtie	N-S		10	815	233		31	1069	14			146	177			194	126

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build B (Schoolview RI-RO) PM Interim Year (2038)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**1**	**0**	**5**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									745	0.44	0.44	4.79	4.49
Two-Way Stop Control	N-S									--	3.26	3.26	2.60	3.75
All-Way Stop Control	FULL									2495	1.39	1.39	3.62	4.49
Partial Displaced Left Turn	N-S	503	*0.28*	634	*0.35*					734	0.42	0.42	2.85	3.16
Displaced Left Turn	FULL	491	*0.27*	634	*0.35*	230	*0.13*	124	*0.07*	721	0.40	0.40	3.00	3.16
Signalized Restricted Crossing U-Turn	N-S	672	*0.37*	601	*0.33*	581	*0.32*	691	*0.38*			0.38	2.91	4.08
Unsignalized Restricted Crossing U-Turn	N-S	1114	*0.37*	1058	*0.22*	917	0.77	1246	*0.71*			0.77	2.62	3.00
Median U-Turn	N-S	791	*0.44*	695	*0.39*					786	0.44	0.44	3.00	4.49
Partial Median U-Turn	N-S	570	*0.32*	568	*0.32*					749	0.43	0.43	2.89	4.49
Bowtie	N-S	357	0.25	200	0.14	208	0.16	7	0.01	743	0.41	0.41	4.70	4.41
Signalized ThruCut	N-S									735	0.42	0.42	4.86	4.49
Unsignalized ThruCut	N-S									--	6.57	6.57	4.14	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.34			-0.48			1.18			2.62			2.62	5.35	4.62
75 ICD	1.31			-0.78			1.16			1.23			1.31	5.35	4.62
2NS X 1EW	0.49	0.52		0.25			0.44	0.47		0.34			0.52	4.97	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.38	1	2.91	4.08
Displaced Left Turn	0.40	2	3.00	3.16
Bowtie N-S	0.41	3	4.70	4.41
Partial Displaced Left Turn N-S	0.42	4	2.85	3.16
Signalized ThruCut N-S	0.42	4	4.86	4.49
Partial Median U-Turn N-S	0.43	6	2.89	4.49
Traffic Signal	0.44	7	4.79	4.49
Median U-Turn N-S	0.44	7	3.00	4.49
2NS X 1EW	0.52	9	4.97	4.54
Unsignalized Restricted Crossing U-Turn N-S	0.77	10	2.62	3.00

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Number of Legs	4
Major Street Direction	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	120	14	0	3.48%	0.00%
Westbound	0	185	8	25	3.48%	0.00%
Southbound	0	33	1309	15	3.48%	0.00%
Northbound	0	11	973	243	3.48%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C3R-Suburban Residential**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	124	14	0
Westbound	0	191	8	26
Southbound	0	34	1355	16
Northbound	0	11	1007	251

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Major Street Direction	North-South

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0

Results for Existing Configuration

TYPE OF	Sheet	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	

Overall v/c Ratio	0.53	Pedestrian Accommodation Score	4.79	Bicycle Accommodation Score	4.49

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		Yes	
Continuous Green T		No	4-leg Intersection
Quadrant Roadway	S-W	No	No Nearby Quadrant Roadway
	N-E	No	No Nearby Quadrant Roadway
	S-E	No	No Nearby Quadrant Roadway
	N-W	No	No Nearby Quadrant Roadway
Partial Displaced Left Turn		Yes	
Displaced Left Turn		Yes	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		Yes	
Signalized ThruCut		Yes	
Unsignalized ThruCut		Yes	
Roundabouts?		Yes	
50 ICD Miniroundabout		Yes	
75 ICD Miniroundabout		Yes	
1x1		No	2x1 Roundabout Only
1NS x 2EW		No	2x1 Roundabout Only
2NS x 1EW		Yes	
2x2		No	2x1 Roundabout Only
Ramp Terminal Intersections?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond			
Single Point Diamond			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Two-Way Stop Control	N-S		1	2	1		1	2	1		1	1	0		1	1	0
All-Way Stop Control	FULL		1	2	1		1	2	1		1	1	0		1	1	0
Partial Displaced Left Turn	N-S		1	2	1		1	2	1		1	1	0		1	1	0
Displaced Left Turn	FULL		1	2	1		1	2	1		1	1	1		1	1	1
Signalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Unsignalized Restricted Crossing U-Turn	N-S	2	1	2	1	2	1	2	1				2				2
Median U-Turn	N-S	1		2	1	1		2	1			1	1			1	1
Partial Median U-Turn	N-S	1		2	1	1		2	1		1	1	0		1	1	0
Signalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Unsignalized ThruCut	N-S		1	2	1		1	2	1		1		1		1		1
Bowtie	N-S			2	1			2	1			1	1			1	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name	Chuluota Road (CR 419) ICE Evaluation
Project Number	Build B (Schoolview RI-RO) PM Design Year (2048)
Location	Chuluota Road at Schoolview Way Relocation
Date	March 19, 2024
Analysis Type	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		11	1007	251		34	1355	16		124	14	0		191	34	0
Two-Way Stop Control	N-S		11	1007	251		34	1355	16		124	14	0		191	34	0
All-Way Stop Control	FULL		11	1007	251		34	1355	16		124	14	0		191	34	0
Partial Displaced Left Turn	N-S		11	1007	251		34	1355	16		124	14	0		191	34	0
Displaced Left Turn	FULL		11	1007	251		34	1355	16		124	14	0		191	8	26
Signalized Restricted Crossing U-Turn	N-S	0	11	1007	251	0	34	1355	16				0				26
Unsignalized Restricted Crossing U-Turn	N-S	0	11	1007	251	0	34	1355	16				0				26
Median U-Turn	N-S	0		1007	251	0		1355	16			14	0			8	26
Partial Median U-Turn	N-S	0		1007	251	0		1355	16		124	14	0		191	34	0
Signalized ThruCut	N-S		11	1007	251		34	1355	16		131		7		195		30
Unsignalized ThruCut	N-S		11	1007	251		34	1355	16		131		7		195		30
Bowtie	N-S		11	1007	251		34	1355	16			172	191			210	150

Capacity Analysis for Planning of Junctions

Results Worksheet

Project Name	Chuluota Road (CR 419) ICE Evaluation	***Estimated Volume-to-Capacity Ratio***			
Project Number	Build B (Schoolview RI-RO) PM Design Year (2048)	**Number of Configurations**			
Location	Chuluota Road at Schoolview Way Relocation	**< 0.750**	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
Date	March 19, 2024	**9**	**0**	**0**	**6**

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									905	0.53	0.53	4.79	4.49
Two-Way Stop Control	N-S									--	>10	>10	2.60	3.75
All-Way Stop Control	FULL									3037	1.69	1.69	3.62	4.49
Partial Displaced Left Turn	N-S	614	*0.34*	785	*0.44*					893	0.51	0.51	2.85	3.16
Displaced Left Turn	FULL	601	*0.33*	785	*0.44*	249	*0.14*	150	*0.08*	879	0.49	0.49	3.00	3.16
Signalized Restricted Crossing U-Turn	N-S	827	*0.46*	721	*0.40*	698	*0.39*	854	*0.47*			0.47	2.91	4.08
Unsignalized Restricted Crossing U-Turn	N-S	1405	*0.52*	1269	*0.32*	1131	1.15	1546	1.36			1.36	2.62	3.00
Median U-Turn	N-S	955	*0.53*	832	*0.46*					950	0.53	0.53	3.00	4.49
Partial Median U-Turn	N-S	716	*0.40*	677	*0.38*					910	0.52	0.52	2.87	4.49
Bowtie	N-S	399	0.28	217	0.15	225	0.18	7	0.01	903	0.50	0.50	4.70	4.41
Signalized ThruCut	N-S									894	0.51	0.51	4.86	4.49
Unsignalized ThruCut	N-S									--	17.69	17.69	4.14	4.17

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
50 ICD	1.72			-0.26			1.46			-1.64			1.72	5.32	4.62
75 ICD	1.68			-0.34			1.43			-7.22			1.68	5.32	4.62
2NS X 1EW	0.62	0.66		0.39			0.54	0.58		0.44			0.66	4.93	4.54

Results for Ramp Terminal Intersections

TYPE OF RAMP TERMINAL INTERSECTION	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accom. Score	Bicycle Accom. Score
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodation Score	Bicycle Accommodation Score
Signalized Restricted Crossing U-Turn N-S	0.47	1	2.91	4.08
Displaced Left Turn	0.49	2	3.00	3.16
Bowtie N-S	0.50	3	4.70	4.41
Partial Displaced Left Turn N-S	0.51	4	2.85	3.16
Signalized ThruCut N-S	0.51	4	4.86	4.49
Partial Median U-Turn N-S	0.52	6	2.87	4.49
Traffic Signal	0.53	7	4.79	4.49
Median U-Turn N-S	0.53	7	3.00	4.49
2NS X 1EW	0.66	9	4.93	4.54
Unsignalized Restricted Crossing U-Turn N-S	1.36	10	2.62	3.00

Table 1, Schoolview Way Relocation/Cypress Lake Glen Boulevard S Cap-x Results

Build Type	Year	Peak Hour	Intersection Control Rank 1 (V/C Ratio)	Intersection Control Rank 2 (V/C Ratio)	Intersection Control Rank 3 (V/C Ratio)	Intersection Control Rank 4 (V/C Ratio)	Intersection Control Rank 5 (V/C Ratio)	Intersection Control Rank 6 (V/C Ratio)	Intersection Control Rank 7 (V/C Ratio)	Intersection Control Rank 8 (V/C Ratio)	Intersection Control Rank 9 (V/C Ratio)	Intersection Control Rank 10 (V/C Ratio)
Build A (Leg Removal)	2028	AM	Signalized RCUT N-S (0.27)	DLT (0.29)	Partial DLT N-S (0.31)	Partial MUT N-S (0.31)	Signalized ThruCut N-S (0.31)	Bowtie N-S (0.31)	Traffic Signal (0.32)	2NS X 1EW Roundabout (0.33)	MUT N-S (0.34)	Unsignalized RCUT N-S (0.55)
	2038		Signalized RCUT N-S (0.31)	DLT (0.34)	Partial DLT N-S (0.36)	Signalized ThruCut N-S (0.36)	Bowtie N-S (0.36)	Partial MUT N-S (0.37)	Traffic Signal (0.38)	MUT N-S (0.39)	2NS X 1EW Roundabout (0.40)	Unsignalized RCUT N-S (0.76)
	2048		Signalized RCUT N-S (0.37)	DLT (0.40)	Partial DLT N-S (0.42)	Partial MUT N-S (0.43)	Signalized ThruCut N-S (0.43)	Bowtie N-S (0.43)	Traffic Signal (0.44)	MUT N-S (0.46)	2NS X 1EW Roundabout (0.50)	Unsignalized RCUT N-S (1.07)
	2028	PM	Signalized RCUT N-S (0.29)	DLT (0.30)	Bowtie N-S (0.32)	Partial DLT N-S (0.33)	Signalized ThruCut N-S (0.33)	Traffic Signal (0.34)	Partial MUT N-S (0.34)	MUT N-S (0.35)	2NS X 1EW Roundabout (0.38)	Unsignalized RCUT N-S (0.51)
	2038		Signalized RCUT N-S (0.38)	DLT (0.39)	Bowtie N-S (0.41)	Partial DLT N-S (0.42)	Partial MUT N-S (0.42)	Signalized ThruCut N-S (0.42)	Traffic Signal (0.43)	MUT N-S (0.44)	2NS X 1EW Roundabout (0.52)	Unsignalized RCUT N-S (0.77)
	2048		Signalized RCUT N-S (0.46)	DLT (0.47)	Partial DLT N-S (0.50)	Bowtie N-S (0.50)	Partial MUT N-S (0.51)	Signalized ThruCut N-S (0.51)	Traffic Signal (0.53)	MUT N-S (0.53)	2NS X 1EW Roundabout (0.66)	Unsignalized RCUT N-S (1.40)
Build B (Leg RI-RO)	2028	AM	Signalized RCUT N-S (0.27)	DLT (0.30)	Partial DLT N-S (0.32)	Partial MUT N-S (0.32)	Signalized ThruCut N-S (0.32)	Bowtie N-S (0.32)	2NS X 1EW Roundabout (0.33)	Traffic Signal (0.33)	MUT N-S (0.35)	Unsignalized RCUT N-S (0.55)
	2038		Signalized RCUT N-S (0.31)	DLT (0.36)	Partial DLT N-S (0.37)	Partial MUT N-S (0.37)	Signalized ThruCut N-S (0.37)	Bowtie N-S (0.37)	Traffic Signal (0.38)	MUT N-S (0.40)	2NS X 1EW Roundabout (0.40)	Unsignalized RCUT N-S (0.76)
	2048		Signalized RCUT N-S (0.37)	DLT (0.41)	Partial DLT N-S (0.43)	Partial MUT N-S (0.43)	Signalized ThruCut N-S (0.43)	Bowtie N-S (0.43)	Traffic Signal (0.45)	MUT N-S (0.47)	2NS X 1EW Roundabout (0.50)	Unsignalized RCUT N-S (1.07)
	2028	PM	Signalized RCUT N-S (0.29)	DLT (0.31)	Bowtie N-S (0.32)	Partial DLT N-S (0.33)	Signalized ThruCut N-S (0.33)	Partial MUT N-S (0.34)	Traffic Signal (0.35)	MUT N-S (0.35)	2NS X 1EW Roundabout (0.38)	Unsignalized RCUT N-S (0.51)
	2038		Signalized RCUT N-S (0.38)	DLT (0.40)	Bowtie N-S (0.41)	Partial DLT N-S (0.42)	Signalized ThruCut N-S (0.42)	Partial MUT N-S (0.43)	Traffic Signal (0.44)	MUT N-S (0.44)	2NS X 1EW Roundabout (0.52)	Unsignalized RCUT N-S (0.77)
	2048		Signalized RCUT N-S (0.47)	DLT (0.49)	Bowtie N-S (0.50)	Partial DLT N-S (0.51)	Signalized ThruCut N-S (0.51)	Partial MUT N-S (0.52)	Traffic Signal (0.53)	MUT N-S (0.53)	2NS X 1EW Roundabout (0.66)	Unsignalized RCUT N-S (1.36)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

V/C Ratio Legend	
	< 0.750
	0.750 - 0.875
	0.875 - 1.00
	≥ 1.00

SPICE WORKSHEETS

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419)	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Schoolview Way Relocation	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	Build A (Close Schoolview) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	2/28/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.13	--	--	9	Yes	Yes	Calibrated SPF w/ EB	97		5
	Fatal & Injury	1.41	--	--							
Minor Road Stop	Total	2.45	--	--	4	No	Yes	Calibrated SPF	95		8
	Fatal & Injury	1.05	--	--							
All Way Stop	Total	3.95	--	--	6	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	1.09	--	--							
2-lane Roundabout	Total	5.27	--	--	7	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.12	--	--							
Displaced Left Turn (DLT)	Total	3.64	--	--	8	N/A	N/A	CMF	90		11
	Fatal & Injury	1.24	--	--							
Median U-Turn (MUT)	Total	2.60	--	--	5	N/A	N/A	CMF	99		3
	Fatal & Injury	1.07	--	--							
Signalized RCUT	Total	3.53	--	--	1	Yes	Yes	Uncalibrated SPF	97		4
	Fatal & Injury	0.70	--	--							
Unsignalized RCUT	Total	3.28	--	--	2	Yes	Yes	Uncalibrated SPF	96		7
	Fatal & Injury	0.82	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	93		9
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	90		12
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	92	####	10
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.06	--	--	3	N/A	N/A	CMF	96		6
	Fatal & Injury	1.04	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	17,978	
Opening Year - Minor Road AADT	3,233	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	No	--	
2-Lane Roundabout	Yes	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	*Please Select
Other 2*		Minor Road Stop	*Please Select

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	17,978	
Minor	3,233	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available? No If "Yes", input values in Table 2-A
Are peak hour turning movement counts available? Yes If "Yes", input values in Table 2-B
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	7247.122	
Major Left Turn 1	77.20882	
Major Right Turn 1	1664.669	
Major Thru 2	8255.643	
Major Left Turn 2	237.7225	
Major Right Turn 2	495.6341	
Minor Thru 1	228.9594	
Minor Left Turn 1	1172.007	
Minor Right Turn 1	215.5333	
Minor Thru 2	-1044.49	
Minor Left Turn 2	1330.495	
Minor Right Turn 2	1330.495	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	528	0.877076412	603	0.735366	0.806221
Major Left Turn 1	NBL	3	0.004983389	10	0.012195	0.008589
Major Right Turn 1	NBR	71	0.117940199	207	0.252439	0.18519
Major Thru 2	SBT	619	0.918397626	726	0.909774	0.914086
Major Left Turn 2	SBL	12	0.017804154	28	0.035088	0.026446
Major Right Turn 2	SBR	43	0.06379822	44	0.055138	0.059468
Minor Thru 1	EBT	5	0.11627907	12	0.114286	0.115282
Minor Left Turn 1	EBL	30	0.697674419	79	0.752381	0.725028
Minor Right Turn 1	EBR	8	0.186046512	14	0.133333	0.15969
Minor Thru 2	WBT	8	0.033195021	7	0.037634	0.035415
Minor Left Turn 2	WBL	192	0.796680498	158	0.849462	0.823071
Minor Right Turn 2	WBR	41	0.170124481	21	0.112903	0.141514

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.806221133
Major Left Turn 1	0.008589255
Major Right Turn 1	0.185189612
Major Thru 2	0.918416219
Major Left Turn 2	0.026445937
Major Right Turn 2	0.055137845
Minor Thru 1	0.141638981
Minor Left Turn 1	0.725027685
Minor Right Turn 1	0.133333333
Minor Thru 2	-0.646142864
Minor Left Turn 2	0.823071432
Minor Right Turn 2	0.823071432

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419)	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Schoolview Way Relocation	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	Build A (Close Schoolview) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	2/28/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.48	--	--	9	Yes	Yes	Calibrated SPF w/ EB	95		5
	Fatal & Injury	1.52	--	--							
Minor Road Stop	Total	3.08	--	--	5	No	Yes	Calibrated SPF	93		8
	Fatal & Injury	1.33	--	--							
All Way Stop	Total	5.17	--	--	7	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	1.42	--	--							
2-lane Roundabout	Total	6.97	--	--	8	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.52	--	--							
Displaced Left Turn (DLT)	Total	3.94	--	--	6	N/A	N/A	CMF	86		11
	Fatal & Injury	1.34	--	--							
Median U-Turn (MUT)	Total	2.82	--	--	4	N/A	N/A	CMF	98		3
	Fatal & Injury	1.16	--	--							
Signalized RCUT	Total	4.96	--	--	2	Yes	Yes	Uncalibrated SPF	96		4
	Fatal & Injury	1.00	--	--							
Unsignalized RCUT	Total	3.83	--	--	1	Yes	Yes	Uncalibrated SPF	94		7
	Fatal & Injury	0.97	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	89		9
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	85		12
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	88	####	10
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.32	--	--	3	N/A	N/A	CMF	95		6
	Fatal & Injury	1.13	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	23,333	
Opening Year - Minor Road AADT	3,644	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	Yes	--		
Displaced Left Turn (DLT)	Yes	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	No	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	23,333	
Minor	3,644	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available? No — If "Yes", input values in Table 2-A
Are peak hour turning movement counts available? Yes — If "Yes", input values in Table 2-B
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	9706.912	
Major Left Turn 1	87.24511	
Major Right Turn 1	1872.343	
Major Thru 2	10804.81	
Major Left Turn 2	255.0773	
Major Right Turn 2	606.6147	
Minor Thru 1	262.9144	
Minor Left Turn 1	1343.889	
Minor Right Turn 1	215.1969	
Minor Thru 2	-1185.66	
Minor Left Turn 2	1503.83	
Minor Right Turn 2	1503.83	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	690	0.893782383	788	0.770283	0.832033
Major Left Turn 1	NBL	4	0.005181347	10	0.009775	0.007478
Major Right Turn 1	NBR	78	0.101036269	225	0.219941	0.160489
Major Thru 2	SBT	760	0.927960928	991	0.920149	0.924055
Major Left Turn 2	SBL	13	0.015873016	30	0.027855	0.021864
Major Right Turn 2	SBR	46	0.056166056	56	0.051996	0.054081
Minor Thru 1	EBT	6	0.130434783	13	0.102362	0.116398
Minor Left Turn 1	EBL	32	0.695652174	99	0.779528	0.73759
Minor Right Turn 1	EBR	8	0.173913043	15	0.11811	0.146012
Minor Thru 2	WBT	8	0.030769231	7	0.034826	0.032798
Minor Left Turn 2	WBL	208	0.8	171	0.850746	0.825373
Minor Right Turn 2	WBR	44	0.169230769	23	0.114428	0.141829

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.832032932
Major Left Turn 1	0.007478259
Major Right Turn 1	0.160488809
Major Thru 2	0.926139629
Major Left Turn 2	0.021864085
Major Right Turn 2	0.051996286
Minor Thru 1	0.144299897
Minor Left Turn 1	0.737589866
Minor Right Turn 1	0.118110236
Minor Thru 2	-0.650746269
Minor Left Turn 2	0.825373134
Minor Right Turn 2	0.825373134

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419)	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Schoolview Way Relocation	**Opening Year**	2048
Agency:	Orange County	**Design Year**	0
Project Reference:	Build A (Close Schoolview) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	2/28/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?		Source of Prediction	SSI Score		
						(Open Year)	(Design Year)		Opening Year	Design Year	Rank
Traffic Signal	Total	4.76	--	--	7	No	Yes	Calibrated SPF w/ EB	93		5
	Fatal & Injury	1.62	--	--							
Minor Road Stop	Total	3.74	--	--	6	No	Yes	Calibrated SPF	91		8
	Fatal & Injury	1.61	--	--							
All Way Stop	Total	6.44	--	--	8	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	1.77	--	--							
2-lane Roundabout	Total	8.74	--	--	9	No	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.95	--	--							
Displaced Left Turn (DLT)	Total	4.19	--	--	5	N/A	N/A	CMF	81		11
	Fatal & Injury	1.42	--	--							
Median U-Turn (MUT)	Total	3.00	--	--	3	N/A	N/A	CMF	97		3
	Fatal & Injury	1.23	--	--							
Signalized RCUT	Total	6.56	--	--	4	Yes	Yes	Uncalibrated SPF	94		4
	Fatal & Injury	1.33	--	--							
Unsignalized RCUT	Total	4.46	--	--	1	Yes	Yes	Uncalibrated SPF	92		7
	Fatal & Injury	1.12	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	85		9
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	80		12
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	84	####	10
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.52	--	--	2	N/A	N/A	CMF	93		6
	Fatal & Injury	1.20	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2048	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	28,711	
Opening Year - Minor Road AADT	4,089	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--	Opening Year AADT Outside of SPF Development Range	
Traffic Signal (Alternative Configuration)	No	--	Opening Year AADT Outside of SPF Development Range	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	
Displaced Left Turn (DLT)	Yes	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	No	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	28,711	
Minor	4,089	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available?	No
Are peak hour turning movement counts available?	Yes

If "Yes", input values in Table 2-A
If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	12196.25	
Major Left Turn 1	94.95695	
Major Right Turn 1	2064.294	
Major Thru 2	13360.19	
Major Left Turn 2	275.9521	
Major Right Turn 2	719.3618	
Minor Thru 1	293.045	
Minor Left Turn 1	1533.375	
Minor Right Turn 1	218.08	
Minor Thru 2	-1321.761	
Minor Left Turn 2	1683.131	
Minor Right Turn 2	1683.131	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	850	0.906183369	973	0.792991	0.849587
Major Left Turn 1	NBL	4	0.004264392	11	0.008965	0.006615
Major Right Turn 1	NBR	84	0.089552239	243	0.198044	0.143798
Major Thru 2	SBT	927	0.935418769	1256	0.925571	0.930495
Major Left Turn 2	SBL	14	0.014127144	33	0.024318	0.019223
Major Right Turn 2	SBR	50	0.050454087	68	0.050111	0.050282
Minor Thru 1	EBT	6	0.12	14	0.093333	0.106667
Minor Left Turn 1	EBL	35	0.7	120	0.8	0.75
Minor Right Turn 1	EBR	9	0.18	16	0.106667	0.143333
Minor Thru 2	WBT	9	0.031914894	8	0.036697	0.034306
Minor Left Turn 2	WBL	225	0.79787234	185	0.848624	0.823248
Minor Right Turn 2	WBR	48	0.170212766	25	0.114679	0.142446

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.849587202
Major Left Turn 1	0.006614674
Major Right Turn 1	0.143798124
Major Thru 2	0.930666715
Major Left Turn 2	0.019222747
Major Right Turn 2	0.050110538
Minor Thru 1	0.143333333
Minor Left Turn 1	0.75
Minor Right Turn 1	0.106666667
Minor Thru 2	-0.646496194
Minor Left Turn 2	0.823248097
Minor Right Turn 2	0.823248097

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419)	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Schoolview Way Relocation	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	Build B (Schoolview RI-RO) Opening Year (2028)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	2/28/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.11	--	--	9	Yes	Yes	Calibrated SPF w/ EB	98		4
	Fatal & Injury	1.40	--	--							
Minor Road Stop	Total	2.37	--	--	3	No	Yes	Calibrated SPF	97		7
	Fatal & Injury	1.02	--	--							
All Way Stop	Total	3.92	--	--	6	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	1.08	--	--							
2-lane Roundabout	Total	5.22	--	--	7	Yes	Yes	Uncalibrated SPF	100		1
	Fatal & Injury	1.11	--	--							
Displaced Left Turn (DLT)	Total	3.62	--	--	8	N/A	N/A	CMF	91		11
	Fatal & Injury	1.23	--	--							
Median U-Turn (MUT)	Total	2.59	--	--	5	N/A	N/A	CMF	99		3
	Fatal & Injury	1.06	--	--							
Signalized RCUT	Total	3.46	--	--	1	Yes	Yes	Uncalibrated SPF	97		6
	Fatal & Injury	0.68	--	--							
Unsignalized RCUT	Total	3.23	--	--	2	Yes	Yes	Uncalibrated SPF	96		8
	Fatal & Injury	0.81	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	93		9
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	89		12
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	93	####	10
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.04	--	--	4	N/A	N/A	CMF	97		5
	Fatal & Injury	1.04	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	17,978	
Opening Year - Minor Road AADT	3,078	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
1-Lane Roundabout	No	--		
2-Lane Roundabout	Yes	--		
Displaced Left Turn (DLT)	Yes	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	No	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the **"Exposure"** inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the **"Severity"** inputs
4. Complete the **"Conflicting Traffic Complexity"** inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	17,978	
Minor	3,078	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available? **No** If "Yes", input values in **Table 2-A**
Are peak hour turning movement counts available? **Yes** If "Yes", input values in **Table 2-B**
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in **Table 2-C**

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	7247.122	
Major Left Turn 1	77.20882	
Major Right Turn 1	1664.669	
Major Thru 2	8616.105	
Major Left Turn 2	237.7225	
Major Right Turn 2	135.1729	
Minor Thru 1	-173.3489	
Minor Left Turn 1	1327.599	
Minor Right Turn 1	384.75	
Minor Thru 2	-994.4139	
Minor Left Turn 2	1266.707	
Minor Right Turn 2	1266.707	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	528	0.877076412	603	0.735366	0.806221
Major Left Turn 1	NBL	3	0.004983389	10	0.012195	0.008589
Major Right Turn 1	NBR	71	0.117940199	207	0.252439	0.18519
Major Thru 2	SBT	654	0.970326409	758	0.949875	0.960101
Major Left Turn 2	SBL	12	0.017804154	28	0.035088	0.026446
Major Right Turn 2	SBR	8	0.011869436	12	0.015038	0.013454
Minor Thru 1	EBT	5	0.142857143	12	0.131868	0.137363
Minor Left Turn 1	EBL	30	0.857142857	79	0.868132	0.862637
Minor Right Turn 1	EBR	0	0	0	0	0
Minor Thru 2	WBT	8	0.033195021	7	0.037634	0.035415
Minor Left Turn 2	WBL	192	0.796680498	158	0.849462	0.823071
Minor Right Turn 2	WBR	41	0.170124481	21	0.112903	0.141514

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.806221133
Major Left Turn 1	0.008589255
Major Right Turn 1	0.185189612
Major Thru 2	0.958516469
Major Left Turn 2	0.026445937
Major Right Turn 2	0.015037594
Minor Thru 1	-0.112637363
Minor Left Turn 1	0.862637363
Minor Right Turn 1	0.25
Minor Thru 2	-0.646142864
Minor Left Turn 2	0.823071432
Minor Right Turn 2	0.823071432

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419)	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Schoolview Way Relocation	**Opening Year**	2038
Agency:	Orange County	**Design Year**	0
Project Reference:	Build B (Schoolview RI-RO) Interim Year (2038)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	2/28/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.46	--	--	9	Yes	Yes	Calibrated SPF w/ EB	97		4
	Fatal & Injury	1.52	--	--							
Minor Road Stop	Total	2.99	--	--	5	No	Yes	Calibrated SPF	95		7
	Fatal & Injury	1.29	--	--							
All Way Stop	Total	5.13	--	--	7	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	1.41	--	--							
2-lane Roundabout	Total	6.92	--	--	8	Yes	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.51	--	--							
Displaced Left Turn (DLT)	Total	3.93	--	--	6	N/A	N/A	CMF	87		11
	Fatal & Injury	1.34	--	--							
Median U-Turn (MUT)	Total	2.81	--	--	4	N/A	N/A	CMF	99		3
	Fatal & Injury	1.15	--	--							
Signalized RCUT	Total	4.87	--	--	2	Yes	Yes	Uncalibrated SPF	96		6
	Fatal & Injury	0.97	--	--							
Unsignalized RCUT	Total	3.76	--	--	1	Yes	Yes	Uncalibrated SPF	94		8
	Fatal & Injury	0.97	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	89		9
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	85		12
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	89	####	10
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.30	--	--	3	N/A	N/A	CMF	96		5
	Fatal & Injury	1.12	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2038	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	23,333	
Opening Year - Minor Road AADT	3,478	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**	
Traffic Signal	Yes	--	
Traffic Signal (Alternative Configuration)	No	--	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range
2-Lane Roundabout	Yes	--	
Displaced Left Turn (DLT)	Yes	Traffic Signal	
Median U-Turn (MUT)	Yes	Traffic Signal	
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--	
Signalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Unsignalized Thru-Cut*	Yes	--	**SSI Only, No Crash Prediction Available*
Bowtie*	Yes	--	**SSI Only, No Crash Prediction Available*
Continuous Green-T Intersection	No	Traffic Signal	
Jughandle	Yes	Traffic Signal	
Other 1*		Traffic Signal	**Please Select*
Other 2*		Minor Road Stop	**Please Select*

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	23,333	
Minor	3,478	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available?	No
Are peak hour turning movement counts available?	Yes

If "Yes", input values in Table 2-A
If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	9706.109	
Major Left Turn 1	87.28431	
Major Right Turn 1	1873.107	
Major Thru 2	11259.77	
Major Left Turn 2	255.0773	
Major Right Turn 2	151.6537	
Minor Thru 1	-196.5364	
Minor Left Turn 1	1500.786	
Minor Right Turn 1	434.75	
Minor Thru 2	-1131.648	
Minor Left Turn 2	1435.324	
Minor Right Turn 2	1435.324	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	689	0.893644617	788	0.770283	0.831964
Major Left Turn 1	NBL	4	0.005188067	10	0.009775	0.007482
Major Right Turn 1	NBR	78	0.101167315	225	0.219941	0.160554
Major Thru 2	SBT	798	0.974358974	1033	0.959146	0.966752
Major Left Turn 2	SBL	13	0.015873016	30	0.027855	0.021864
Major Right Turn 2	SBR	8	0.00976801	14	0.012999	0.011384
Minor Thru 1	EBT	6	0.157894737	13	0.116071	0.136983
Minor Left Turn 1	EBL	32	0.842105263	99	0.883929	0.863017
Minor Right Turn 1	EBR	0	0	0	0	0
Minor Thru 2	WBT	8	0.030769231	7	0.034826	0.032798
Minor Left Turn 2	WBL	208	0.8	171	0.850746	0.825373
Minor Right Turn 2	WBR	44	0.169230769	23	0.114428	0.141829

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.831964049
Major Left Turn 1	0.007481619
Major Right Turn 1	0.160554332
Major Thru 2	0.965136844
Major Left Turn 2	0.021864085
Major Right Turn 2	0.012999071
Minor Thru 1	-0.113016917
Minor Left Turn 1	0.863016917
Minor Right Turn 1	0.25
Minor Thru 2	-0.650746269
Minor Left Turn 2	0.825373134
Minor Right Turn 2	0.825373134

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	Chuluota Road (CR 419)	**Intersection Type**	At-Grade Intersection
Intersection:	Chuluota Road (CR 419) at Schoolview Way Relocation	**Opening Year**	2028
Agency:	Orange County	**Design Year**	0
Project Reference:	Build B (Schoolview RI-RO) Design Year (2048)	**Facility Type**	On Rural Two Lane Highway
City:	Orlando	**Number of Legs**	4-leg
State:	FL	**1-Way/2-Way**	
Date:	2/28/2024	**# of Major Street Lanes (both directions)**	
Analyst:	JMT	**Major Street Approach Speed**	

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range? (Open Year)	AADT Within SPF Prediction Range? (Design Year)	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	4.74	--	--	7	No	Yes	Calibrated SPF w/ EB	96		4
	Fatal & Injury	1.61	--	--							
Minor Road Stop	Total	3.64	--	--	6	No	Yes	Calibrated SPF	94		7
	Fatal & Injury	1.57	--	--							
All Way Stop	Total	6.40	--	--	8	No	Yes	Uncalibrated SPF w/ EB	99		2
	Fatal & Injury	1.76	--	--							
2-lane Roundabout	Total	8.69	--	--	9	No	Yes	Uncalibrated SPF	99		1
	Fatal & Injury	1.94	--	--							
Displaced Left Turn (DLT)	Total	4.18	--	--	5	N/A	N/A	CMF	83		11
	Fatal & Injury	1.42	--	--							
Median U-Turn (MUT)	Total	2.99	--	--	3	N/A	N/A	CMF	99		3
	Fatal & Injury	1.23	--	--							
Signalized RCUT	Total	6.44	--	--	4	Yes	Yes	Uncalibrated SPF	95		6
	Fatal & Injury	1.30	--	--							
Unsignalized RCUT	Total	4.39	--	--	1	Yes	Yes	Uncalibrated SPF	93		8
	Fatal & Injury	1.11	--	--							
Signalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	85		10
	Fatal & Injury	No SPF	--	--							
Unsignalized Thru-Cut	Total	No SPF	--	--	--	N/A	N/A	N/A	80		12
	Fatal & Injury	No SPF	--	--							
Bowtie	Total	No SPF	--	--	--	N/A	N/A	N/A	86	####	9
	Fatal & Injury	No SPF	--	--							
Jughandle	Total	3.51	--	--	2	N/A	N/A	CMF	95		5
	Fatal & Injury	1.19	--	--							
Other 1*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
Other 2*	Total	No SPF	--	--	--	N/A	N/A	CMF	--		--
	Fatal & Injury	No SPF	--	--							
			--	--							
			--	--							

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection	
Analysis Year	Opening Year Only	
Opening Year	2028	
Design Year		
Facility Type	On Rural Two Lane Highway	For more information on how to determine these values, see the "Definitions" worksheet
Number of Legs	4-leg	
1-Way/2-Way		
# of Major Street Lanes (both directions)		
Major Street Approach Speed		
Opening Year - Major Road AADT	28,711	
Opening Year - Minor Road AADT	3,911	
Design Year - Major Road AADT		
Design Year - Minor Road AADT		

Control Strategy	**Include**	**Base Intersection**		
Traffic Signal	Yes	--	Opening Year AADT Outside of SPF Development Range	
Traffic Signal (Alternative Configuration)	No	--	Opening Year AADT Outside of SPF Development Range	
Minor Road Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
All Way Stop Control	Yes	--	Opening Year AADT Outside of SPF Development Range	
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	
2-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	
Displaced Left Turn (DLT)	Yes	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Bowtie*	Yes	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	No	Traffic Signal		
Jughandle	Yes	Traffic Signal		
Other 1*		Traffic Signal	*Please Select	
Other 2*		Minor Road Stop	*Please Select	

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	2
Minor number thru lanes (one direction)	1

Major Street Designation	
Select major street direction	N-S
Median Presence on Major Road	No
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	28,711	
Minor	3,911	

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADBP (ped-bike/day)	Activity Level	ADBP Value (ped-
Open Year Total Intersection NM	Low (20)	20
Design Year Total Intersection NM		

(or overwrite ped movement ADBPs below)

Nonmotorized Movement ADBP (ped-bike/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	5	
Major NM 2	5	
Minor NM 1	5	
Minor NM 2	5	

Are turning movement ADT values are available? No — If "Yes", input values in Table 2-A
Are peak hour turning movement counts available? Yes — If "Yes", input values in Table 2-B
If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	12196.25	
Major Left Turn 1	94.95695	
Major Right Turn 1	2064.294	
Major Thru 2	13920.87	
Major Left Turn 2	275.9521	
Major Right Turn 2	158.6828	
Minor Thru 1	-243.6366	
Minor Left Turn 1	1710.262	
Minor Right Turn 1	488.875	
Minor Thru 2	-1264.223	
Minor Left Turn 2	1609.862	
Minor Right Turn 2	1609.862	

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	NBT	850	0.906183369	973	0.792991	0.849587
Major Left Turn 1	NBL	4	0.004264392	11	0.008965	0.006615
Major Right Turn 1	NBR	84	0.089552239	243	0.198044	0.143798
Major Thru 2	SBT	968	0.97679112	1309	0.964628	0.970709
Major Left Turn 2	SBL	14	0.014127144	33	0.024318	0.019223
Major Right Turn 2	SBR	9	0.009081736	15	0.011054	0.010068
Minor Thru 1	EBT	6	0.146341463	14	0.104478	0.12541
Minor Left Turn 1	EBL	35	0.853658537	120	0.895522	0.87459
Minor Right Turn 1	EBR	0	0	0	0	0
Minor Thru 2	WBT	9	0.031914894	8	0.036697	0.034306
Minor Left Turn 2	WBL	225	0.79787234	185	0.848624	0.823248
Minor Right Turn 2	WBR	48	0.170212766	25	0.114679	0.142446

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.849587202
Major Left Turn 1	0.006614674
Major Right Turn 1	0.143798124
Major Thru 2	0.969723458
Major Left Turn 2	0.019222747
Major Right Turn 2	0.011053795
Minor Thru 1	-0.124590462
Minor Left Turn 1	0.874590462
Minor Right Turn 1	0.25
Minor Thru 2	-0.646496194
Minor Left Turn 2	0.823248097
Minor Right Turn 2	0.823248097

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	50
Minor Posted Speed Limit	35
Major thru	50
Major left	20
Major right	15
Minor thru	29.75
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected/Permitted
Minor LT signal phasing (drop-down)	Protected/Permitted
Exclusive Pedestrian phasing (drop-down)	No

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2016
Historical Intx Type:	3SG		

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total	2	3	3	7	8	--	--	--	--	--	23
	Fatal/Injury	1	2	0	1	4						8
	PDO	1	1	3	6	4						15
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	1	0	0						1
Total	All	2	3	4	7	8	--	--	--	--	--	24

Table 2, Schoolview Way Relocation/Cypress Lake Glen Boulevard S SPICE Results - Crash Prediction

Build Type	Year	Intersection Control Rank 1 (Fatal & Injury Crashes)	Intersection Control Rank 2 (Fatal & Injury Crashes)	Intersection Control Rank 3 (Fatal & Injury Crashes)	Intersection Control Rank 4 (Fatal & Injury Crashes)	Intersection Control Rank 5 (Fatal & Injury Crashes)	Intersection Control Rank 6 (Fatal & Injury Crashes)	Intersection Control Rank 7 (Fatal & Injury Crashes)	Intersection Control Rank 8 (Fatal & Injury Crashes)	Intersection Control Rank 9 (Fatal & Injury Crashes)	Intersection Control Rank 10 (Fatal & Injury Crashes)
Build A (Leg Removal)	2028	Signalized RCUT N-S (0.70)	Unsignalized RCUT N-S (0.82)	Jughandle (1.04)	TWSC (1.05)	MUT N-S (1.07)	AWSC (1.09)	2 Lane Roundabout (1.12)	DLT (1.24)	Traffic Signal (1.41)	Bowtie N-S (No SPF)
	2038	Unsignalized RCUT N-S (0.97)	Signalized RCUT N-S (1.00)	Jughandle (1.13)	MUT N-S (1.16)	TWSC (1.33)	DLT (1.34)	AWSC (1.42)	2 Lane Roundabout (1.52)	Traffic Signal (1.52)	Bowtie N-S (No SPF)
	2048	Unsignalized RCUT N-S (1.12)	Jughandle (1.20)	MUT N-S (1.23)	Signalized RCUT N-S (1.33)	DLT (1.42)	TWSC (1.61)	Traffic Signal (1.62)	AWSC (1.77)	2 Lane Roundabout (1.95)	Bowtie N-S (No SPF)
Build B (Leg RI-RO)	2028	Signalized RCUT N-S (0.68)	Unsignalized RCUT N-S (0.81)	TWSC (1.02)	Jughandle (1.04)	MUT N-S (1.06)	AWSC (1.08)	2 Lane Roundabout (1.11)	DLT (1.23)	Traffic Signal (1.40)	Bowtie N-S (No SPF)
	2038	Unsignalized RCUT N-S (0.97)	Signalized RCUT N-S (0.97)	Jughandle (1.12)	MUT N-S (1.15)	TWSC (1.29)	DLT (1.34)	AWSC (1.41)	2 Lane Roundabout (1.51)	Traffic Signal (1.52)	Bowtie N-S (No SPF)
	2048	Unsignalized RCUT N-S (1.11)	Jughandle (1.19)	MUT N-S (1.23)	Signalized RCUT N-S (1.30)	DLT (1.42)	TWSC (1.57)	Traffic Signal (1.61)	AWSC (1.76)	2 Lane Roundabout (1.94)	Bowtie N-S (No SPF)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

Table 3, Schoolview Way Relocation/Cypress Lake Glen Boulevard S SPICE Results - SSI Score

Build Type	Year	Intersection Control Rank 1 (SSI Score)	Intersection Control Rank 2 (SSI Score)	Intersection Control Rank 3 (SSI Score)	Intersection Control Rank 4 (SSI Score)	Intersection Control Rank 5 (SSI Score)	Intersection Control Rank 6 (SSI Score)	Intersection Control Rank 7 (SSI Score)	Intersection Control Rank 8 (SSI Score)	Intersection Control Rank 9 (SSI Score)	Intersection Control Rank 10 (SSI Score)
Build A (Leg Removal)	2028	2 Lane Roundabout (99)	AWSC (99)	MUT N-S (99)	Signalized RCUT N-S (97)	Traffic Signal (97)	Jughandle (96)	Unsignalized RCUT N-S (96)	TWSC (95)	Signalized ThruCut N-S (93)	Bowtie N-S (92)
	2038	2 Lane Roundabout (99)	AWSC (99)	MUT N-S (98)	Signalized RCUT N-S (96)	Traffic Signal (95)	Jughandle (95)	Unsignalized RCUT N-S (94)	TWSC (93)	Signalized ThruCut N-S (89)	Bowtie N-S (88)
	2048	2 Lane Roundabout (99)	AWSC (99)	MUT N-S (97)	Signalized RCUT N-S (94)	Traffic Signal (93)	Jughandle (93)	Unsignalized RCUT N-S (92)	TWSC (91)	Signalized ThruCut N-S (85)	Bowtie N-S (84)
Build B (Leg RI-RO)	2028	2 Lane Roundabout (100)	AWSC (99)	MUT N-S (99)	Traffic Signal (98)	Jughandle (97)	Signalized RCUT N-S (97)	TWSC (97)	Unsignalized RCUT N-S (96)	Signalized ThruCut N-S (93)	Bowtie N-S (93)
	2038	2 Lane Roundabout (99)	AWSC (99)	MUT N-S (99)	Traffic Signal (97)	Jughandle (96)	Signalized RCUT N-S (96)	TWSC (95)	Unsignalized RCUT N-S (94)	Signalized ThruCut N-S (89)	Bowtie N-S (89)
	2048	2 Lane Roundabout (99)	AWSC (99)	MUT N-S (99)	Traffic Signal (96)	Jughandle (95)	Signalized RCUT N-S (95)	TWSC (94)	Unsignalized RCUT N-S (93)	Bowtie N-S (86)	Signalized ThruCut N-S (85)

Greyed out cells indicate that the intersection control type may not be viable due to right-of-way, cost, or other factors

SSI Legend	
	90-100
	80-89
	70-79
	< 70