

Five-Points Intersection Improvements

Review of Right-of-Way Impacts

Crash Data: 2015 - 2017

- 60 crashes in three years time
- Zero Fatalities
- Nine Crashes resulted in 13 persons injured
- 51 crashes resulted in property damage

Manner of Collision									
	Head On	Rear End	Backed Into	Angle	Sideswipe Opposite Direction	Sideswipe Same Direction	Not Collision with Motor Vehicle	Rear to Rear	Total
# of vehicles	4	29	1	12	3	5	5	1	60
% of vehicles	7%	48%	2%	20%	5%	8%	8%	2%	100%

5 Points Intersection Analysis

Preliminary LOS/Delay Results

DRAFT 4/26/2019

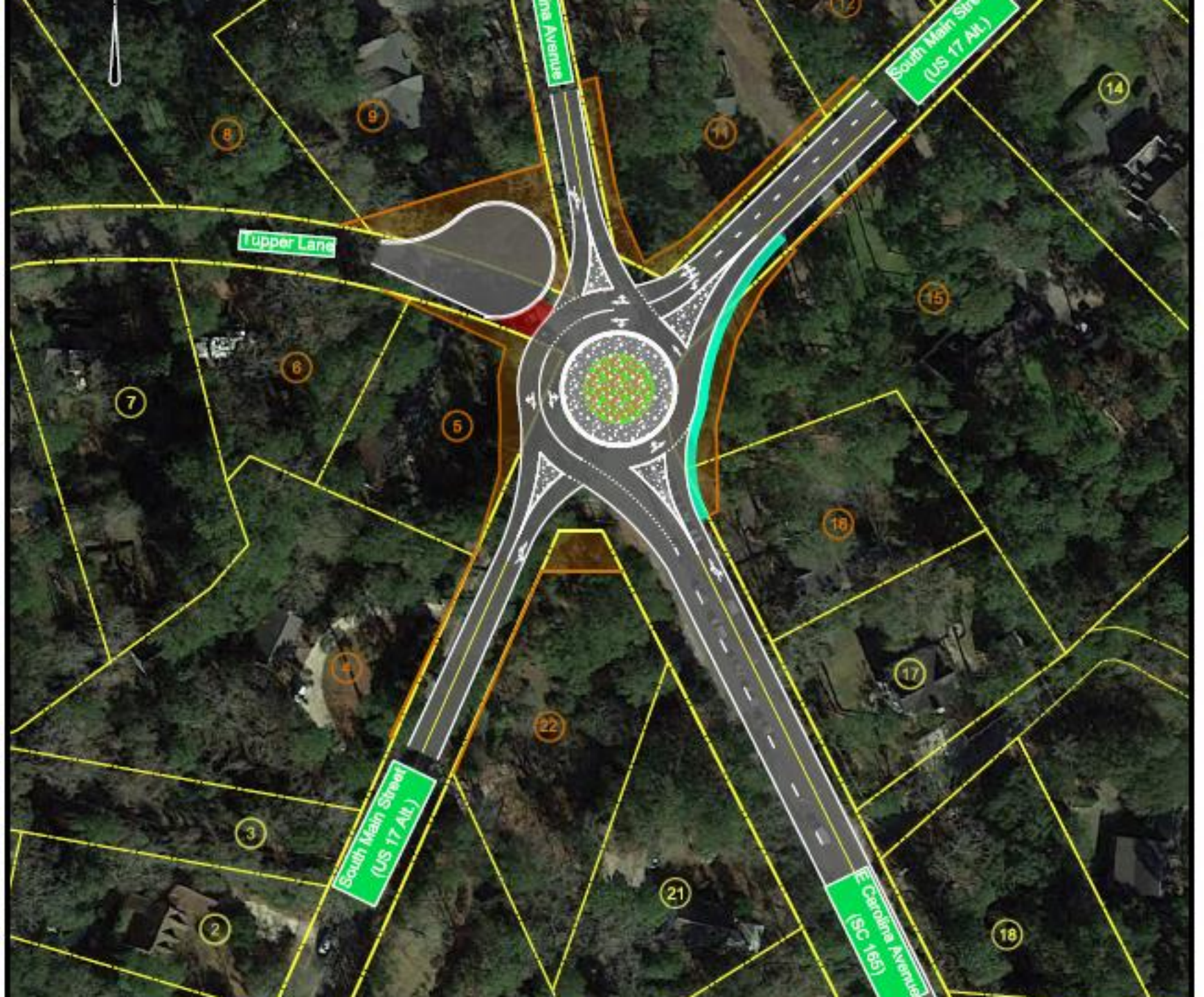
Table 1 - 2019 Existing Intersection Analysis Results (Without Berlin G. Myers Pkwy. Extension)

5 Points Intersection Approach		Existing Conditions		Turn Lanes		1-Lane Roundabout (SIDRA, 4 Legs)		2-Lane Roundabout (SIDRA, 4 Legs)	
		AM	PM	AM	PM	AM	PM	AM	PM
S Main Street	EB	F/168.8	F/83.0	C/29.4	C/30.7	B/15.0	B/13.9	B/11.6	B/10.6
S Main Street	WB	C/25.2	C/34.4	B/13.9	B/18.3	C/15.2	F/120.5	A/8.6	C/15.4
E Carolina Avenue	NB	D/35.5	E/74.6	B/15.5	B/16.1	E/44.1	E/45.4	D/26.1	D/30.8
W Carolina Avenue	SB	D/46.8	F/267.6	C/30.5	D/46.6	B/13.5	E/36.2	B/10.5	C/23.5
Tupper Lane	SE	A/0.5	A/0.7	-	-	-	-	-	-
Overall		E/64.0	F/97.1	C/21.1	C/24.3	D/25.7	F/64.9	C/16.2	C/21.9

NOTE: the Berlin G. Myers Extension Pkwy. project is projected to divert approximately 25% of traffic from US 17A to BGM.

Two Lane Roundabout without Tupper Lane Closed

- Impacts 10 parcels
- 0.560 acres
- Construction Costs of \$690,000
- R/W Costs of \$98,000
- Total: \$788,000.00



Two Lane Roundabout with Tupper Lane

- Impacts Eight Parcels
- 0.404 acres
- Construction Costs of \$740,000
- R/W costs of \$70,400
- Total Costs of \$810,400



Turn Lanes Without Tupper Lane

- Impacts 14 Parcels
- 0.702 acres
- Construction Costs of \$690,000
- R/W costs of \$122,300
- Total Costs of \$812,300



Conceptual Improvement Alternatives for the "5 Points Intersection"
Town of Summerville
DRAFT

Parcel	Address	TMS	Approximate R/W Impacts by parcel (ac)		
			Turn Lane Improvements	Dual Lane Roundabout (Tupper Closed)	Dual Lane Roundabout (Tupper Open)
1	1006 S Main	145-02-12-001			
2	1004 S Main	145-02-12-003	0.021		
3	Lynch Ln	145-02-12-012	0.016		
4	1002 S Main	137-14-01-001	0.051	0.005	0.005
5	1000 S Main	137-14-01-002	0.073	0.087	0.062
6	112 Tupper	137-14-01-003	0.009	0.002	
7	116 Tupper	137-14-01-004			
8	115 Tupper	137-14-02-002	0.005	0.002	
9	100 W Carolina	137-14-02-001	0.179	0.179	0.025
10	109 W Carolina	137-14-04-009	0.044		
11	926 S Main	137-14-04-010	0.117	0.087	0.096
12	924 S Main	137-14-04-011		0.007	0.007
13	920 S Main	137-14-04-012			
14	927 S Main	137-14-09-011			
15	931 S Main	137-14-09-012	0.028	0.124	0.145
16	105 E Carolina	137-14-09-013	0.069	0.030	0.028
17	107 E Carolina	137-14-09-014	0.048		
18	113 E Carolina	137-14-09-017			
19	115 E Carolina	145-02-09-001			
20	108 E Carolina	145-02-10-001			
21	102 E Carolina*	137-14-10-002			
22	102 E Carolina	137-14-10-001	0.030	0.037	0.037
23	1013 S Main	145-02-10-007	0.014		

Total Approximate R/W Impacts (ac)

0.702

0.560

0.404

Number of Parcels Impacted

14

10

8

Summary and Comparisons

Turn Lanes

- Minimal Improvement to Safety as 32 potential crash conflicts still exist
- Most Property Impacts with 0.702 acres
- Cost of \$812,300
- Significant Traffic Improvement

Two Lane Roundabout with Tupper Lane Closed

- Most Significant Improvement to Safety and Traffic
- Property Impacts are less significant with 0.560 acres
- Lowest Cost of \$788,000
- SCDOT and Town Staff Recommended

Two Lane Roundabout with Tupper Lane Open

- Significant Improvement to Safety
- Least Amount Property Impacts with 0.404 acres
- Cost of \$810,400