

Intersection Traffic Safety Improvements
US 501 at Cannon Road, 3rd Avenue S.

City of Myrtle Beach Council Presentation
May 24, 2022

Location



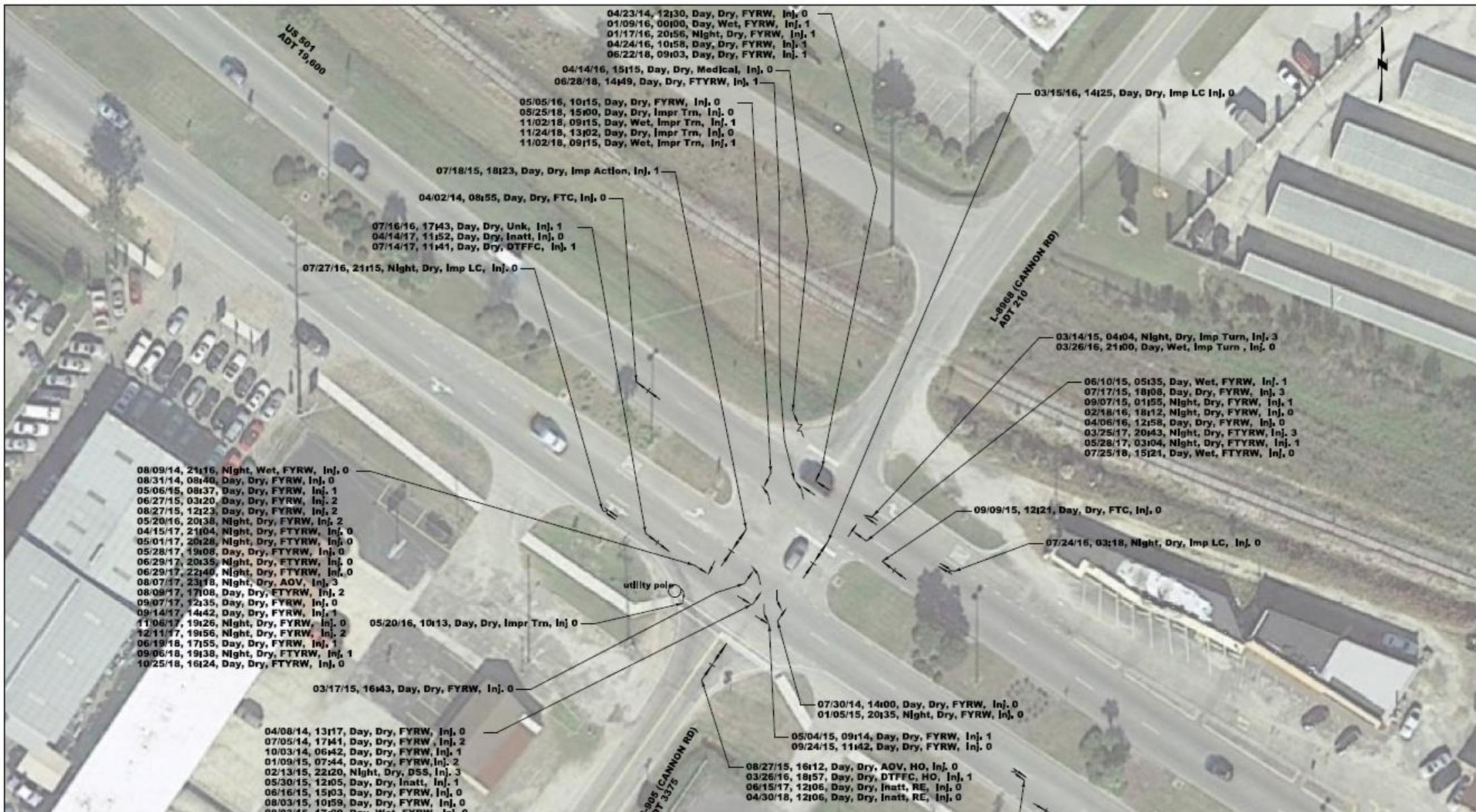
Crash Data

US 501 at Cannon Road

- **84** total crashes
 - 1/1/2014 to 9/20/2018
 - 67 right angle (80%), 8 rear end, 3 side swipe, and 4 head on
 - 39 injury, 5 serious injury, 0 fatal

US 501 at 3rd Avenue S.

- **30** total crashes
 - 1/1/2016 to 3/31/2021
 - 14 right angle (47%), 15 rear end, and 1 side swipe
 - 11 injury, 0 serious injury, 0 fatal



08/09/14, 2116, Night, Wet, FYRW, Inj, 0
 08/31/14, 0814, Day, Dry, FYRW, Inj, 0
 05/06/15, 08137, Day, Dry, FYRW, Inj, 1
 06/27/15, 03120, Day, Dry, FYRW, Inj, 2
 08/27/15, 12123, Day, Dry, FYRW, Inj, 2
 05/20/16, 20138, Night, Dry, FYRW, Inj, 2
 04/15/17, 21104, Night, Dry, FTYRW, Inj, 0
 05/01/17, 20128, Night, Dry, FTYRW, Inj, 0
 05/28/17, 19108, Day, Dry, FTYRW, Inj, 0
 06/29/17, 20135, Night, Dry, FTYRW, Inj, 0
 06/29/17, 22140, Night, Dry, FTYRW, Inj, 0
 08/07/17, 23118, Night, Dry, AOV, Inj, 3
 08/08/17, 17108, Day, Dry, FTYRW, Inj, 2
 09/07/17, 12135, Day, Dry, FYRW, Inj, 0
 09/14/17, 14142, Day, Dry, FYRW, Inj, 1
 11/06/17, 19126, Night, Dry, FYRW, Inj, 0
 12/11/17, 19156, Night, Dry, FYRW, Inj, 2
 06/19/18, 17155, Day, Dry, FYRW, Inj, 1
 09/06/18, 19138, Night, Dry, FTYRW, Inj, 1
 10/25/18, 16124, Day, Dry, FTYRW, Inj, 0

05/20/16, 10113, Day, Dry, Impr Trn, Inj 0

03/17/15, 16143, Day, Dry, FYRW, Inj, 0

04/08/14, 13117, Day, Dry, FYRW, Inj, 0
 07/05/14, 17141, Day, Dry, FYRW, Inj, 2
 10/03/14, 06142, Day, Dry, FYRW, Inj, 1
 01/09/15, 07144, Day, Dry, FYRW, Inj, 2
 02/13/15, 22120, Night, Dry, DSS, Inj, 3
 05/30/15, 12105, Day, Dry, Inatt, Inj, 1
 06/16/15, 15103, Day, Dry, FYRW, Inj, 0
 08/03/15, 10159, Day, Dry, FYRW, Inj, 0
 08/03/15, 17100, Day, Wet, FYRW, Inj, 0
 10/23/15, 18116, Night, Dry, FYRW, Inj, 0
 07/31/16, 16136, Day, Wet, FTYRW, Inj, 1
 08/17/16, 21116, Night, Dry, FTYRW, Inj, 0
 09/10/16, 14125, Day, Dry, FTYRW, Inj, 1
 05/01/17, 17109, Day, Dry, FTYRW, Inj, 0
 05/28/17, 11122, Day, Dry, FTYRW, Inj, 1
 06/07/17, 12144, Day, Wet, FTYRW, Inj, 0
 08/28/17, 15100, Day, Wet, FTYRW, Inj, 2
 05/19/18, 01135, Night, Dry, FYRW, Inj, 0
 07/03/18, 16134, Day, Dry, FYRW, Inj, 1
 07/12/18, 16120, Day, Dry, FTYRW, Inj, 0
 07/14/18, 22154, Night, Dry, FTYRW, Inj, 1

YR	2014	2015	2016	2017	2018	Total
RA	7	17	10	17	14	65
RE	1	1	1	3	2	8
SS	0	1	4	0	0	5
HO	0	2	2	0	0	4
OC	0	0	0	0	0	0
HA	0	0	0	0	0	0
OTH	0	0	2	0	0	2
Total	8	21	19	20	16	84

Night - 25
 Day - 59
 Wet - 11
 Dry - 73

Total = 84
 AADT = 21,393
 Years = 4.75
 01/01/14 - 09/30/18
 CR = 2,265
 SI = 4,368

POG - 45
 Inj. 1 - 26
 Inj. 2 - 8
 Inj. 3 - 5
 Fatal - 0

LEGEND

DSS = Disregarded Sign or Signal (with Installation)
 DTFFC = Driving Too Fast for Conditions
 FYRW = Failure to Yield Right of Way
 ROIF = Run off Road
 FTC = Followed Too Closely
 AOV = Aggressive Operation of Vehicle
 SAO = Swerving to Avoid Object
 DUI = Under the Influence
 Imp LC = Improper Lane Change

RA = Right Angle
 RE = Rear End
 SS = Side Swipe
 HO = Head On
 OC = Out of Control
 HA = Hit Animal
 OTH = Other

SCDOT TRAFFIC ENGINEERING DIVISION
 South Carolina Department of Transportation
 COLUMBIA, S.C.
 TRAFFIC SAFETY PROGRAM

SUBJECT TITLE: **Collision Diagram**

SPECIFIC LOCATION: **US 501 & S-905**

CITY: **Myrtle Beach** COUNTY: **Horry**

DRAWN BY: **WWB** DATE: **02/26/19** SCALE: **None** PAGE: **1 of 1**

LEGEND

DSS = Disregarded Sign or Signal
 Inat = Inattention
 DTFFC = Driving Too Fast for Conditions
 FYRW = Failure to Yield Right of Way
 ROR = Ran off Road
 FTC = Followed Too Closely
 ADV = Aggressive Operation of Vehicle
 SAC = Swerving to Avoid Object
 DUI = Under the Influence
 Imp LC = Improper Lane Change

RA = Right Angle
 RE = Rear End
 SS = Side Swipe
 HO = Head On
 OC = Out of Control
 HA = Hit Animal
 OTH = Other



YR	2016	2017	2018	2019	2020	2021	Total
RA	0	1	2	8	4	1	14
RE	5	4	5	0	0	1	15
SS	1	0	0	0	0	0	1
HO	0	0	0	0	0	0	0
OC	0	0	0	0	0	0	0
HA	0	0	0	0	0	0	0
OTH	0	0	0	0	0	0	0
Total	6	5	7	6	4	2	30

Total = 30
 AADT = 19350
 Years = 5.25
 01/01/16 - 03/31/21
 CR = 0.809
 SI = 1.402

PDO = 19
 Inj. = 8
 Inj. 2-3 = 3
 Inj. 3-0 = 0
 Fatal = 0

SCDOT TRAFFIC ENGINEERING DIVISION
 Columbia, S.C.
TRAFFIC SAFETY PROGRAM

SUBJECT TITLE: **Collision Diagram**

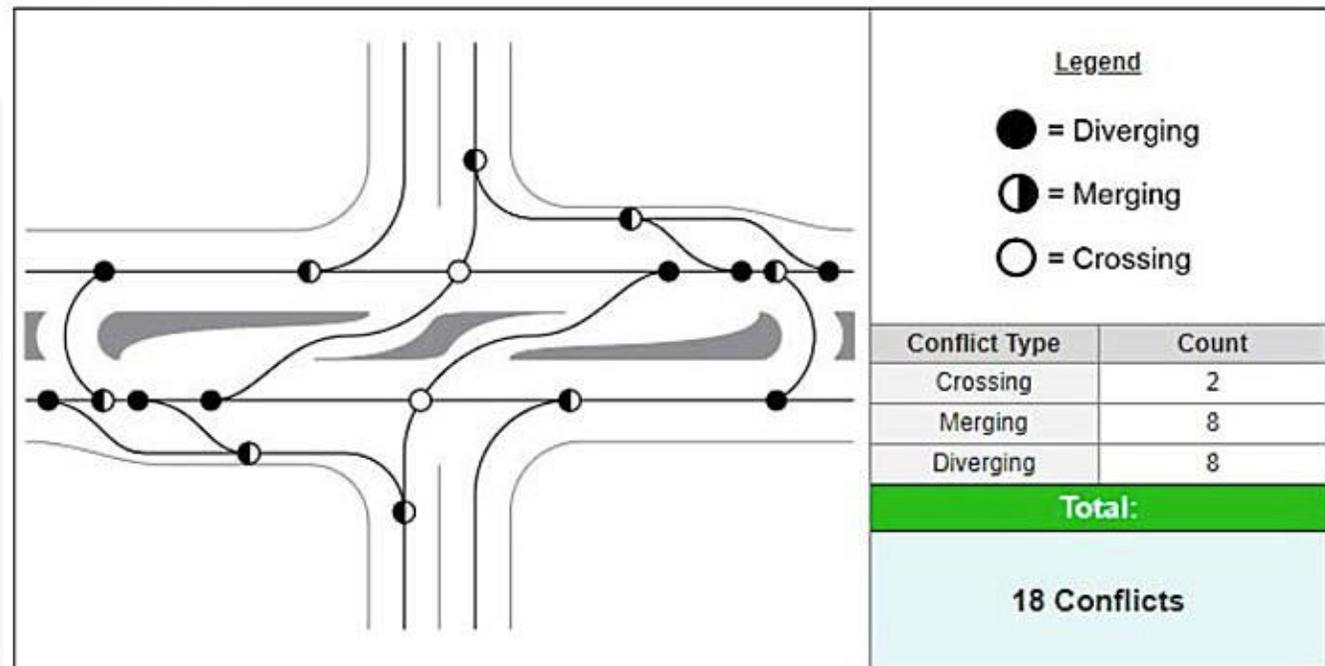
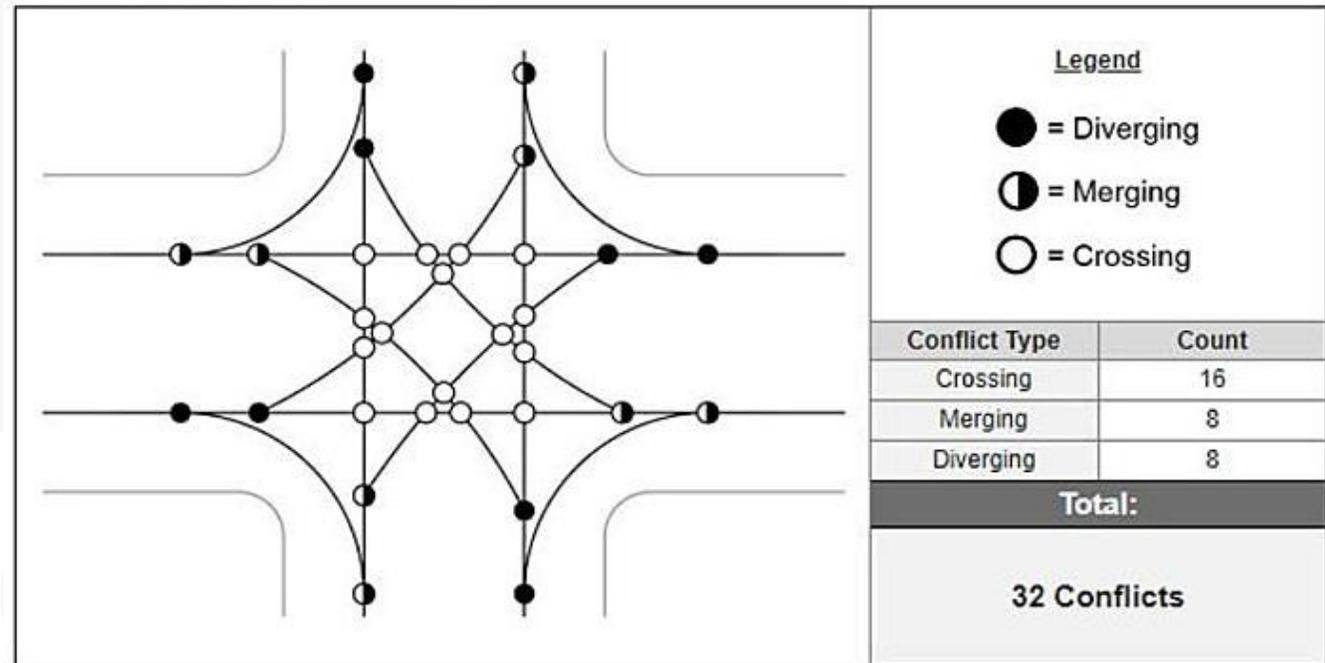
SPECIFIC LOCATION: **US 501 & L-84 (3rd Ave S.)**

CITY: **Myrtle Beach** COUNTY: **Horry**

DRAWN BY: **REW** DATE: **08/03/21** SCALE: **None** PAGE: **1 of 1**

RCIs

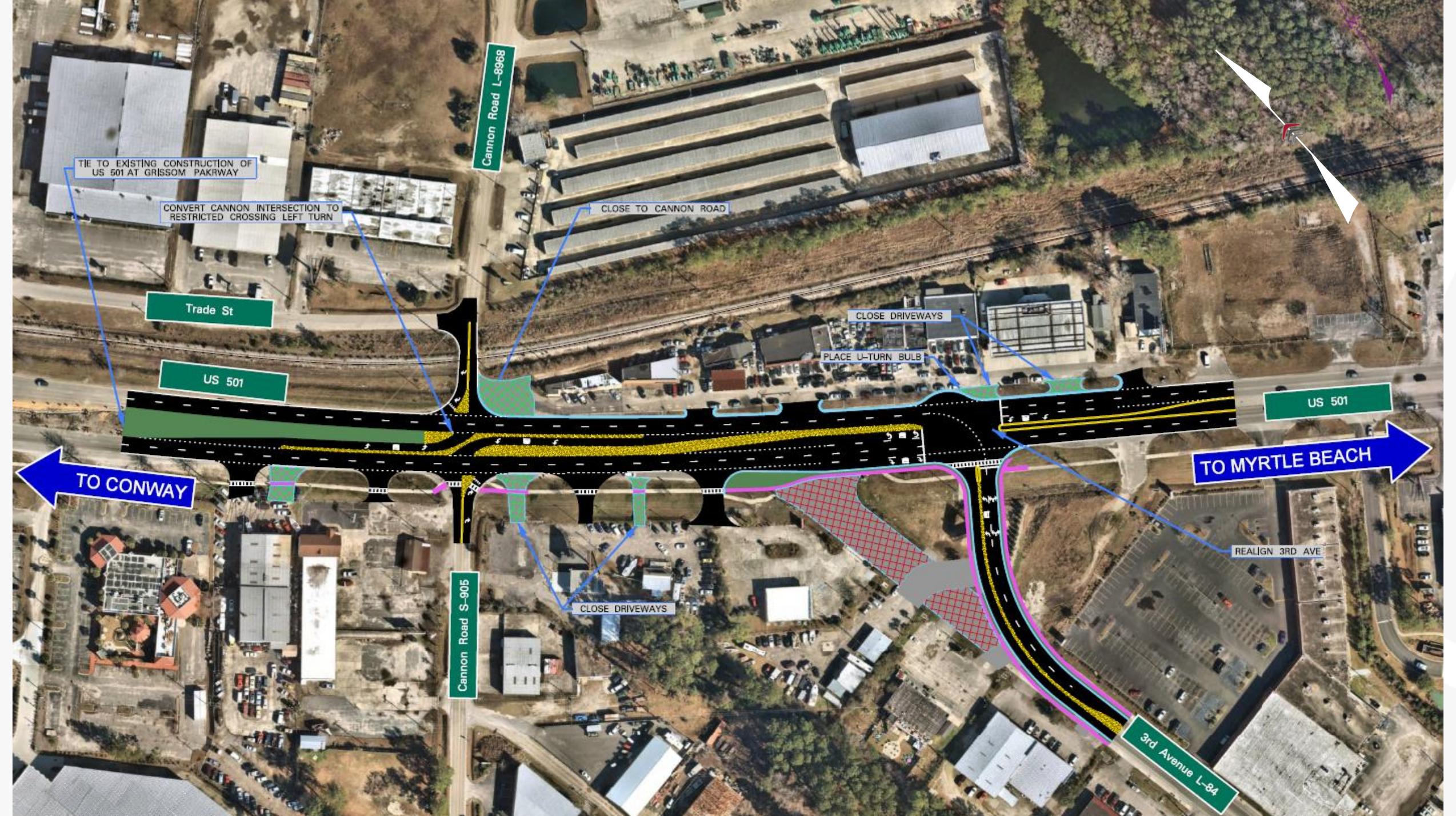
- Reduced Conflict Intersection (RCI)
- Innovative intersection design that improves traffic safety and operations by changing how minor road traffic crosses or turns left at a major road.
- RCIs reduces the total number and overall severity of vehicle-to-vehicle conflict points.
- At a typical four-leg intersection, an RCI design **reduces** the total number of conflict points from **32** to **18**.



Improvement Alternative

Cannon Road Implement a Reduced Conflict Intersection

3rd Avenue S. Install SB U-Turn Lane + Realign 3rd Avenue S. approach



TIE TO EXISTING CONSTRUCTION OF US 501 AT GRISSOM PARKWAY

CONVERT CANNON INTERSECTION TO RESTRICTED CROSSING LEFT TURN

Cannon Road L-9968

CLOSE TO CANNON ROAD

Trade St

US 501

CLOSE DRIVEWAYS

PLACE U-TURN BULB

US 501

TO CONWAY

TO MYRTLE BEACH

REALIGN 3RD AVE

Cannon Road S-905

CLOSE DRIVEWAYS

3rd Avenue L-84

Improvement Alternative Analysis Results

Cannon Road Implement a Reduced Conflict Intersection

3rd Avenue S. Install SB U-Turn Lane + Realign 3rd Avenue S. approach

➤ *Capacity Analysis*

Alternative will improve level of service from **F** to **C** for the Cannon Road approaches (no change for the 3rd Avenue S. intersection)

➤ *Crash Modification Analysis*

Alternative will reduce future crash potential by **75%** at Cannon Road and **17%** at 3rd Avenue S.

➤ *Benefit-Cost Analysis*

Alternative has a benefit-to-cost ratio of **13.11**

Intersection Traffic Safety Improvements
US 501 at Cannon Road, 3rd Avenue S.

Thank You!

rick.reiff@kimley-horn.com
meetzkr@scdot.org

