

Safety Project Evaluation

Order ID:	41000074886
Project ID:	SS-6011B / 11-19-208
Signal ID:	11-1353 (overhead flasher)
Location:	NC 18 (Whitehead Street) at US 21 Truck/SR 1206 (Sparta Parkway)
GPS Coordinates:	36.50263, -81.12386
County:	Alleghany
City:	Sparta
Division:	11

Countermeasure(s):	Install double indicated oversize W3-1 stop ahead warning signs with distance plaques and bright reflective strips on posts for SR 1206. Install double indicated oversize R1-1 stop regulatory signs with flashing beacons, W4-4P Cross Traffic Does Not Stop warning plaques and bright reflective strips. Replace stop ahead pavement markings with thermoplastic transverse rumble strips and re-mark stop bars (SR 1206).
Estimated Project Cost:	\$15,000
Completion Date:	12/10/2020

	Start Date	End Date	Length
Before Period	10/1/2016	9/30/2020	4y, 0m
Construction Period	10/1/2020	12/31/2020	0y, 3m
After Period	1/1/2021	12/31/2024	4y, 0m

Analysis Criteria:	Intersection (150' Y-line)
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Target Crashes:	Frontal Impact Crashes Involving Vehicles on Treated Approaches (US 21 Truck/SR 1206)
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Project Development Comparison

Crashes Per Year by Project Time Period	Project Development	Before Period	After Period
Years	10.00 years	4.00 years	4.00 years
Start Date	8/1/2009	10/1/2016	1/1/2021
End Date	7/31/2019	9/30/2020	12/31/2024
Total	1.30	4.00	2.00
Fatal Injury	0.10	0.00	0.00
Class A Injury	0.00	0.75	0.00
Class B Injury	0.60	0.75	1.00
Class C Injury	0.40	1.50	0.25
Property Damage Only	0.20	1.00	0.75

Items for Discussion

- o Before period failure-to-yield (FY) crashes by approaches (US 21 Trk being EB/WB): 2 EB FY to NB, 4 EB FY to SB, 2 WB FY to NB, 1 WB FY to SB. After period: 1 EB FY to SB, 4 WB FY to SB. 1 after period target crash was not classified as failure to stop or yield as it may have been caused by confusion with a flagger.
- o Single-indicated stop ahead warning signs were present on US 21 Truck/SR 1206 before the project. Stop signs were single-indicated on WB US 21 Truck/SR 1206 and double-indicated on EB US 21 Truck/SR 1206. The project added flashing beacons to the stop signs on the right-hand side. 2 sets of transverse rumble strips were installed on each approach: the first set about 500' from the stop bar and the second, closer-spaced set about 300' from the stop bar at the stop ahead warning signs.
- o The overhead flasher's yellow beacons for NC 18 are actuated by loops on the US 21 Truck/SR 1206 approaches. Red beacons flash continuously. Intersection warning signs were added to NC 18 between June 2016 and October 2016.
- o Speed limit on US 21 Truck/SR 1206 approaches reduced from 45 mph to 35 mph on 10/4/2019. The US 21 Truck designation replaced SR 1206 on 6/25/2020.

Data Prepared For:

The Traffic Safety Unit of the
Transportation Mobility and Safety Division of the
Division of Highways of the
North Carolina Department of Transportation

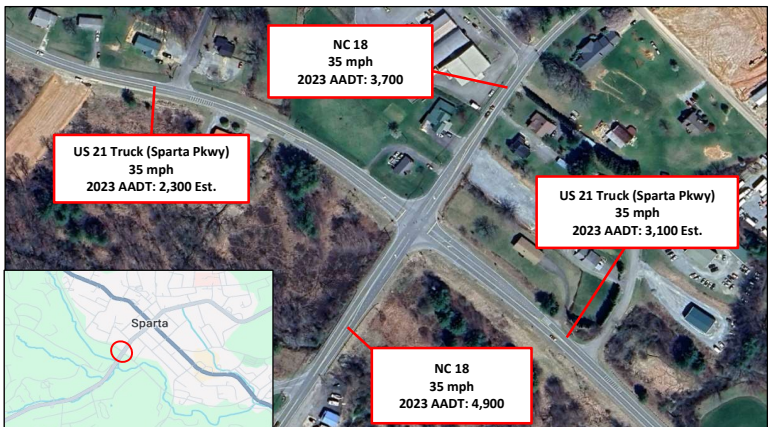
Treatment Information	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	16	8	-50.00%
Total Severity Index	19.38	5.63	-70.97%
Target Crashes	16	7	-56.25%
Target Crash Severity Index	19.38	6.29	-67.56%
Volume (2019, 2023)	5,900	7,000	18.64%

Injury Crash Summary	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal Injury Crashes	0	0	n/a
Class A Injury Crashes	3	0	-100.00%
Class B Injury Crashes	3	4	33.33%
Class C Injury Crashes	6	1	-83.33%
Property Damage Only	4	3	-25.00%

Target Injury Crash Summary	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal Injury Crashes	0	0	n/a
Class A Injury Crashes	3	0	-100.00%
Class B Injury Crashes	3	4	33.33%
Class C Injury Crashes	6	1	-83.33%
Property Damage Only	4	2	-50.00%

Additional Information	Before	After	Percent Reduction (-) Percent Increase (+)
Target: EB US 21Trk Fail to Stop	6	0	-100.00%
Target: WB US 21Trk Fail to Stop	1	1	0.00%
Target: EB US 21Trk Fail to Yield	6	1	-83.33%
Target: WB US 21Trk Fail to Yield	3	4	33.33%

Map/Satellite Views



Data Prepared By:

Principal Investigator:	John Stanford, E.I.
Work Group/Consultant:	HNTB
Date:	2/28/2025

DISCLAIMER FOR 2020 DATA:

Reductions in typical roadway volumes were experienced Statewide in 2020 due to the COVID-19 pandemic. In addition, the frequency of total crashes in 2020 was found to have decreased from prior years, but the frequency of fatal crashes in 2020 was found to have increased from prior years. The potential impact of the COVID-19 pandemic and shift in data trends should be kept in mind when reviewing traffic safety analyses and/or data reports that incorporate 2020 volume and/or crash data. The analyses and reports that include this data may not represent typical conditions of the areas and locations being reviewed.