

Hazard Elimination Project Evaluation

Project Information

Order ID: 41000038372

Project ID: W-5003

Location: Intersection of US 158 at SR 2422 (Monroeton Rd)/
SR 2426 (Cunningham Mill Rd)

County: Rockingham

City: Reidsville

Division: 7

Signal ID: 07-1478

Countermeasures: Widen for left turn lanes for both approaches on US 158

Project Completion: September 30, 2011

Project Cost: \$762,500.00

Map and Aerial (from Google Maps, Coordinates are 36.289647, -79.734901)



Naive Before and After Analysis

Before Period: March 1, 2007 through June 30, 2011 (4 years, 4 months)

Const. Period: July 1, 2011 through September 30, 2011

After Period: October 1, 2011 through January 31, 2016 (4 years, 4 months)

Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the US 158 and SR 2422 (Monroeton Rd)/SR 2426 (Cunningham Mill Rd) approaches.

| <u>Treatment Information</u> | Before | After | Percent Reduction (-) Percent Increase (+) |
|------------------------------|--------|-------|---|
| Total Crashes | 5 | 10 | + 100.0 % |
| Total Severity Index | 3.96 | 5.44 | + 37.4 % |
| | | | |
| Volume (2009, 2013) | 7,500 | 7,700 | + 2.7 % |

| <u>Injury Crash Summary</u> | Before | After | Percent Reduction (-) Percent Increase (+) |
|-----------------------------|--------|-------|---|
| Fatal injury Crashes | 0 | 0 | 0.0 % |
| Class A injury Crashes | 0 | 0 | 0.0 % |
| Class B injury Crashes | 1 | 1 | 0.0 % |
| Class C Injury Crashes | 1 | 5 | + 400.0 % |
| Property Damage Only | 3 | 4 | + 33.3 % |

| <u>Additional Information</u> | Before | After | Percent Reduction (-) Percent Increase (+) |
|-------------------------------|--------|-------|---|
| Angle | 1 | 3 | + 200.0 % |
| Left Turn, Different Roadway | 2 | 3 | + 50.0 % |
| Left Turn, Same Roadway | 2 | 0 | - 100.0 % |
| Rear End, Slow or Stop | 0 | 2 | + 100.0 % |
| Rear End, Turn | 0 | 1 | + 100.0 % |
| Animal | 0 | 1 | + 100.0 % |

Overall Summary Results

Total Crashes: + 100 % (increase)

Total Crash Severity: + 37 % (increase)

Volume: + 3 % (increase)

Additional Summary Results

| | | |
|---------------------------------------|---------|-------------|
| Angle Crashes: | + 200 % | (increase) |
| Left Turn, Different Roadway Crashes: | + 50 % | (increase) |
| Left Turn, Same Roadway Crashes: | - 100 % | (reduction) |

Items for Discussion/Concerns

In the before period, there were 2 crashes with vehicles on SR 2426 that were struck by US 158 westbound left turning vehicles. In the after period, there were 0 crashes with vehicles on SR 2426 that were struck by US 158 westbound left turning vehicles.

In the before period, there were 0 crashes with northbound SR 2426 vehicles and eastbound US 158 vehicles. In the after period, there were 3 crashes with northbound SR 2426 vehicles and eastbound US 158 vehicles.

In the before period, there were 0 crashes with southbound SR 2422 vehicles and westbound US 158 vehicles. In the after period, there were 3 crashes with southbound SR 2422 vehicles and westbound US 158 vehicles.

Please note that the before period crash data in this evaluation is not representative of the crash data this project was investigated, developed, justified, funded, and constructed with originally. Crash data counts can have random fluctuations from any given year to the next. The original crash data was analyzed for the time period of June 1, 2000 through May 31, 2005. Over this five year time frame there were 13 total crashes; of which there were 9 frontal impact crashes, 1 lane departure crash, and 3 rear-end crashes. There were 0 fatal crashes, 3 a-injury crashes, 5 b-injury crashes, 4 c-injury crashes, and 1 property damage only crash.

Data Prepared For

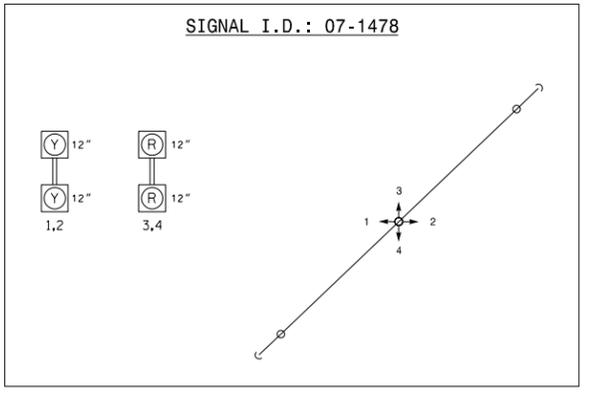
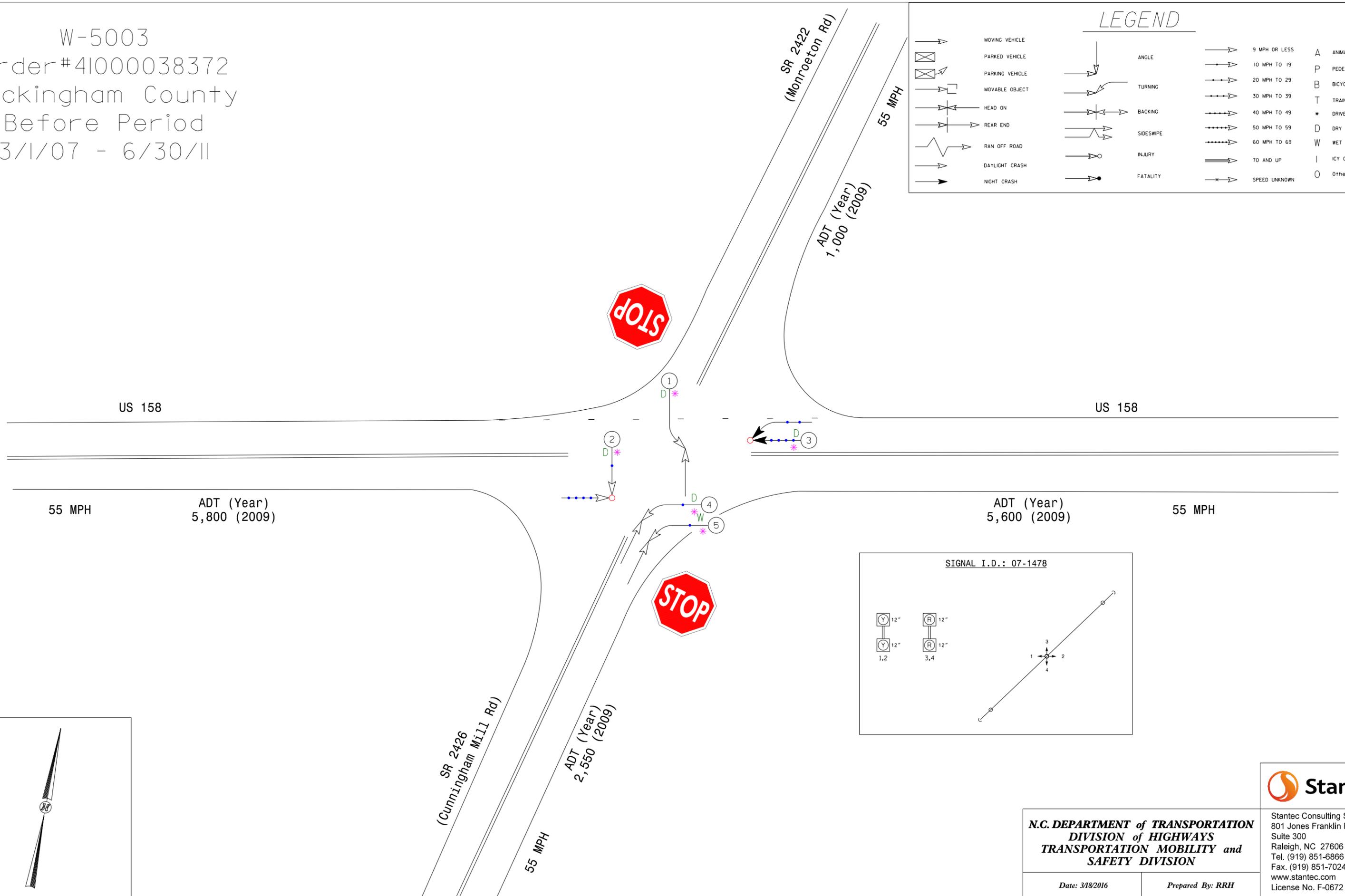
The Traffic Safety Unit *of the*
Transportation Mobility and Safety Division *of the*
Division of Highways *of the*
North Carolina Department of Transportation

Data Prepared By

Principal Investigator: Rosi Hennein
Work Group/Consultant: Stantec Consulting Services Inc
Date: March 18, 2016

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 Order#41000038372
 Rockingham County
 Before Period
 3/1/07 - 6/30/11

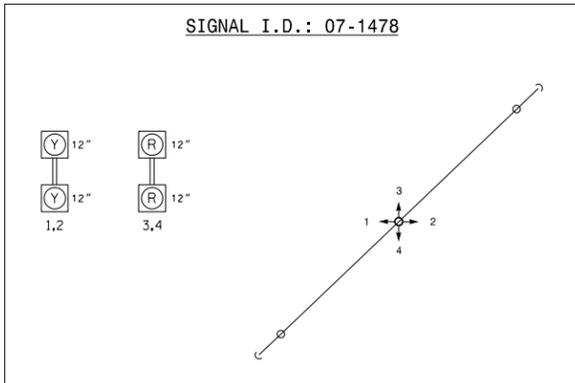
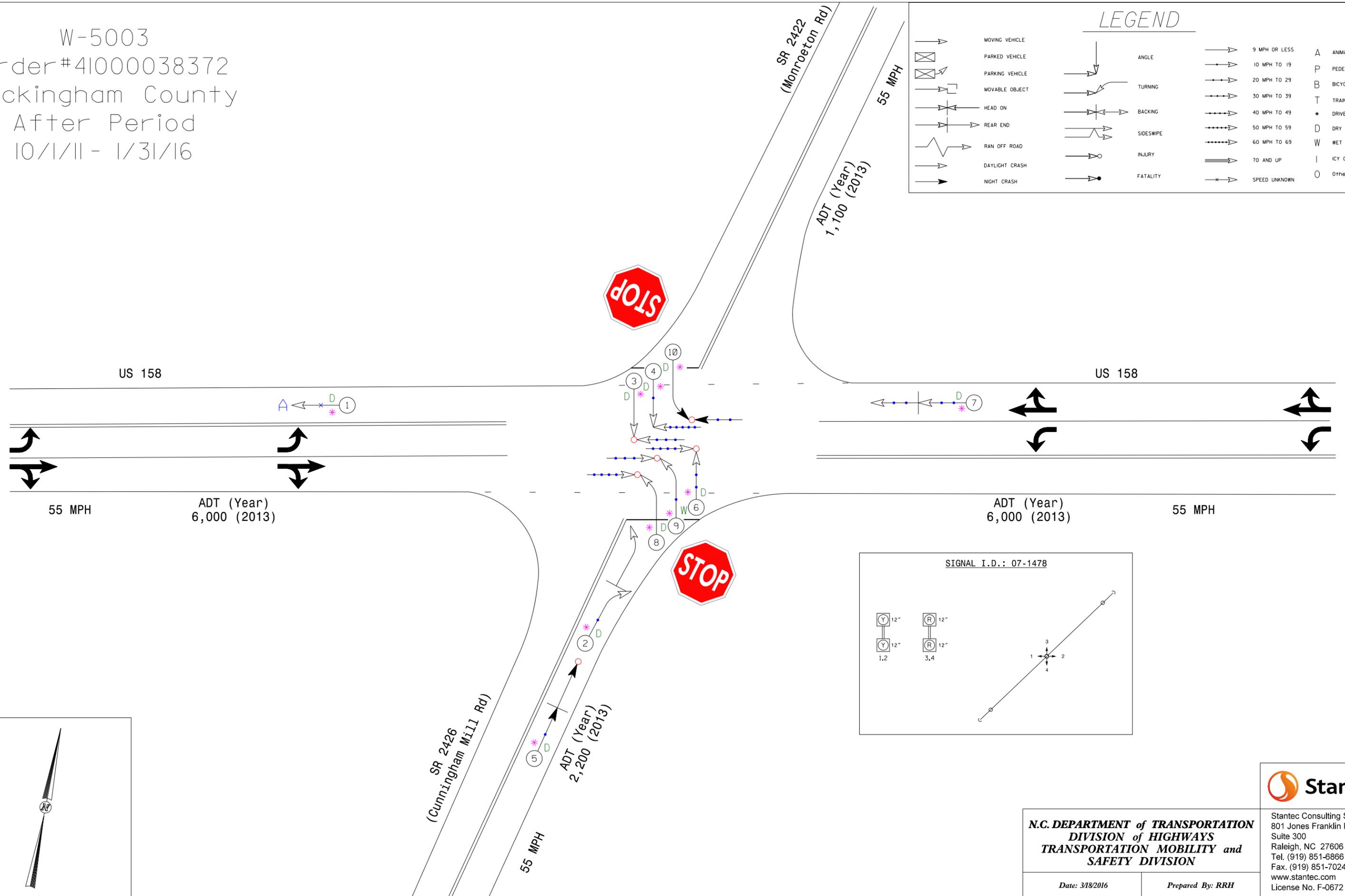
| LEGEND | | | | | | | |
|--------|-----------------|--|--------------|--|---------------|--|-------------------|
| | MOVING VEHICLE | | ANGLE | | 9 MPH OR LESS | | A ANIMAL |
| | PARKED VEHICLE | | TURNING | | 10 MPH TO 19 | | P PEDESTRIAN |
| | PARKING VEHICLE | | BACKING | | 20 MPH TO 29 | | B BICYCLE |
| | MOVABLE OBJECT | | SIDESWIPE | | 30 MPH TO 39 | | T TRAIN |
| | HEAD ON | | INJURY | | 40 MPH TO 49 | | * DRIVER AT FAULT |
| | REAR END | | FATALITY | | 50 MPH TO 59 | | D DRY |
| | RAN OFF ROAD | | 60 MPH TO 69 | | W WET | | I ICY OR SNOWY |
| | DAYLIGHT CRASH | | 70 AND UP | | SPEED UNKNOWN | | O Other |
| | NIGHT CRASH | | | | | | |



| | |
|---|--|
| N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS TRANSPORTATION MOBILITY and SAFETY DIVISION | |
| | Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672 |
| Date: 3/18/2016 | Prepared By: RRH |

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 Rockingham County
 After Period
 10/1/11 - 1/31/16

| LEGEND | | | |
|--------|-----------------|--|-------------------|
| | MOVING VEHICLE | | ANGLE |
| | PARKED VEHICLE | | TURNING |
| | PARKING VEHICLE | | BACKING |
| | MOVABLE OBJECT | | SIDESWIPE |
| | HEAD ON | | INJURY |
| | REAR END | | FATALITY |
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| | | | B BICYCLE |
| | | | T TRAIN |
| | | | * DRIVER AT FAULT |
| | | | D DRY |
| | | | W WET |
| | | | I ICY OR SNOWY |
| | | | O Other |



N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
TRANSPORTATION MOBILITY and SAFETY DIVISION

Date: 3/8/2016

Prepared By: RRR

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