

**TOWNSHIP OF SOUTH ORANGE VILLAGE
DEPARTMENT OF PUBLIC SAFETY
TRAFFIC BUREAU**

To: Chief Kroll
From: Lt. A. Acevedo
Date: January 10, 2021
Subject: 2020 Traffic Crash Analysis

Sir,

During 2020, there were 349 motor vehicle crashes in the Township of South Orange. This total includes 10 bicycle crashes; 15 pedestrian involved crashes, crashes that occurred on private property and all county and municipal roadways that were responded to and investigated by the South Orange Police Department.

The purpose of this analysis is to identify areas of high crash occurrence and to identify the contributing circumstances to these crashes in order to develop solutions to minimize and mitigate future Motor Vehicle Collisions.

2020 Motor Crash Overview:

Characteristics:

- Majority of crashes occurred on Friday
- Between 2:00 pm & 6:00 pm
- Involving low-speed driving where vehicles were parked, parking, stopped in traffic, or backing.
- Where 83% of the motor vehicle crashes had no reported injuries.
- **3 Fatalities**
- **93 involving parked vehicles**
- **47 reported hit and run crashes**
- **2 crashes involving an emergency vehicle en-route to a call for service**

The following is an analysis of problematic roadway sections and intersections with high crash volumes.

Fatal Crashes:

In 2020, there were 3 crashes involving fatalities.

Crash 1 – Occurred at the intersection of South Orange Avenue and Valley Street. The Pedestrian entered the roadway and was struck by a NJ transit bus which was making a left turn. At the time of this report, the investigation which is being conducted by the Essex County Prosecutor's office is still ongoing.

Crash 2 – Occurred on South Orange Avenue near Kingman Road. A single vehicle, low speed crash. The Driver spoke to a witness and asked not to call the police before succumbing to a drug overdose. (As a formality, this incident is listed as a fatal because the driver overdosed while at the wheel however, the death was not caused by the crash itself)

Crash 3 – Occurred on South Orange Ave between Elm Ct and Ward Place. A single vehicle crash, a motorcyclist traveling west lost control and crashed hitting the ground and curb. The Driver was traveling at a very high rate of speed, was not wearing approved safety gear and there was a blood alcohol level that was of concern.

Bicycle vs. Motor Vehicle Crashes:

In 2020, there were 4 crashes involving bicycles. No one contributing circumstance stands out as a causation factor. Of these 4 incidents, 1 resulted in an injury. There is no detected *problem area* for vehicle vs. bicycle crashes however; a symposium was conducted in 2020 with aid of the StreetSmart NJ campaign to educate the public on same.

Pedestrian vs. Motor Vehicle Crashes:

In 2020, there were 13 motor vehicle crashes involving pedestrians. Of these 13 incidents:

- 7 resulted in the report of an injury. None of these 7 reported injuries were severe.
- 3 of these reported injuries, 1 resulted in transport to a hospital.
- 9 were at the fault of the pedestrian.
- 3 involved a hit and run
- 1 is the aforementioned fatal crash
- 3 involving vehicles that were reversing
- 4 involving vehicles making left turns
- 5 incidents occurring during low light conditions or where pedestrians wore dark clothing.

Although the Valley Street/Scotland Road corridor shares the most incidents (four from the Orange border to the Maplewood border), there is no specific problem area for pedestrian incidents. All 13 incidents are unique locations.

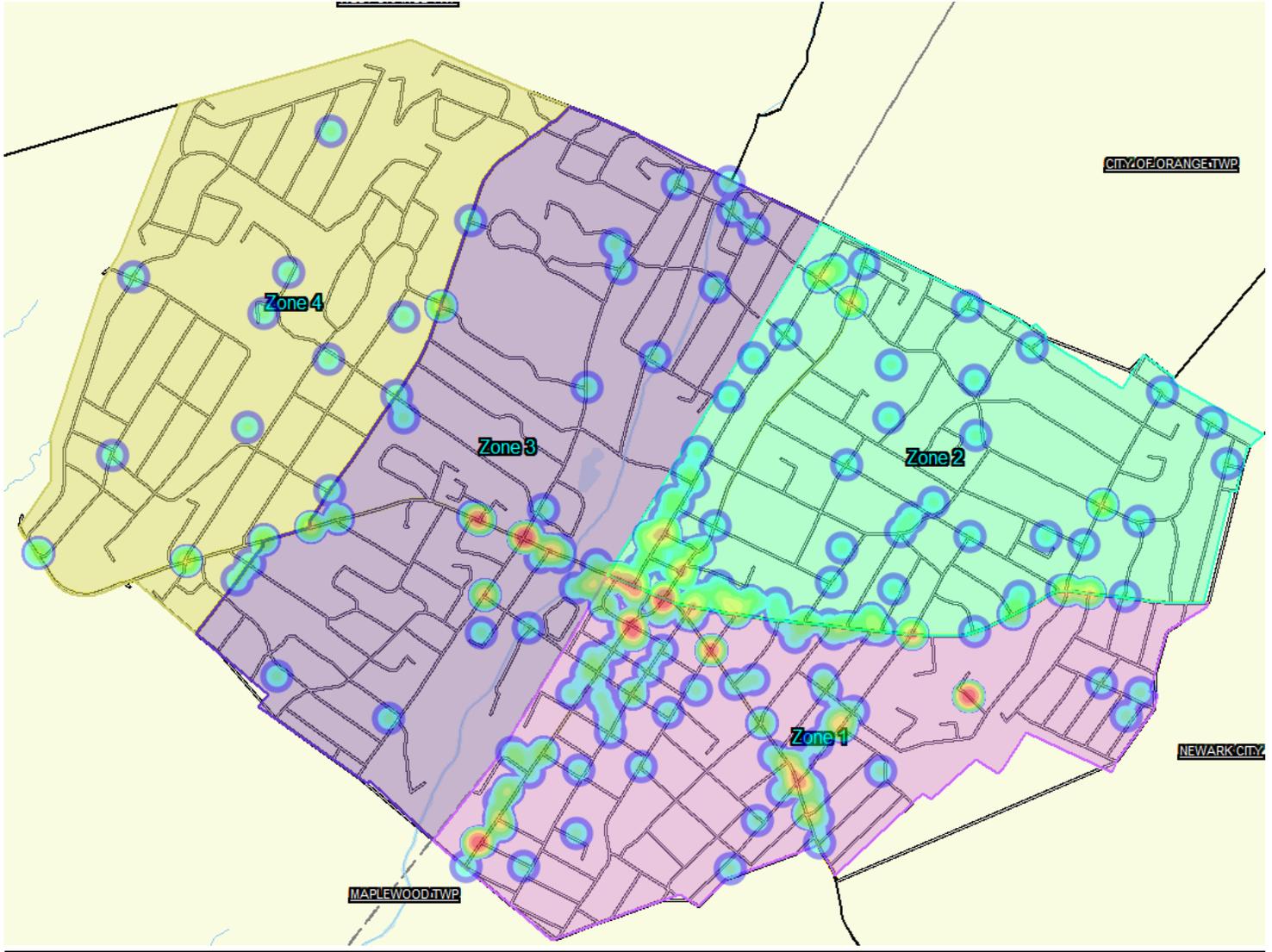
The following items were contributing factors to these crashes:

- Low light
- Dark clothing worn by pedestrians
- Pedestrians crossing outside of a crosswalk
- Pedestrians crossing in between parked cars
- Pedestrians crossing in the middle of a block

Major improvements have been and are currently being made to Scotland Road. They include rumble strips, speed tables, new signage and lighting. This has resulted in a slower rate of traffic, which we are currently studying to obtain accurate data.

Additionally, proper distances and sightlines were addressed along Valley Street, in particular where crosswalks are positioned.

2020 Motor Vehicle Crash Heat Map



Counter Measures/Actions:

- Increase public education campaigns on pedestrian safety
- Enforce pedestrian unsafe actions such as jay walking and crossing against illuminated signage.
- Increase the Township's presence on social media by using Bike Safety Messages provided by www.beststreetsmartnj.com.
- Participate in NJ Highway Traffic Safety's Bicycle Safety Month in May.
- Continue to push NJHTS's social media message of "Share the Road with Bicyclists"
- Assist schools in organizing and participating in NJHTS's "Bike To School Day on May 5th"
- Recurring education and training for officers on existing Motor Vehicle Laws concerning bicycles, skateboards and scooters as well as the Township's mandatory Helmet Ordinance.

Valley Street/Scotland Road Corridor:



Description:

Valley Street and Scotland Road (County Highway 638) is a roadway that travels north and south from Randolph Place (Orange border) to Hixon Place at the Maplewood Line. All intersecting streets are controlled by Stop Signs except Third Street and Montrose Avenue which are controlled by Traffic Signal.

The entire corridor experienced 49 motor vehicle crashes during calendar year 2020. The section of the roadway between South Orange Avenue & Third Street continues to be of particular concern. However, the area of Valley Street and First Street is most problematic.

Counter Measures/Actions:

- Increase police presence and enforcement by continually using NJHTS's "Cops in the Crosswalk" enforcement program.
- Continue the Street Smart NJ public education campaign coordinated by the North Jersey Transportation Planning Authority that is aimed to raise awareness of pedestrian and motorist laws
- Install spot lights either on a pole or nearby building to improve pedestrian/intersection visibility as intersection along this stretch of roadway are very dark at night.
- Improve line striping to delineate lane of travel and crosswalks.
- Remove parking spaces that obscure driver or pedestrian vantage points or otherwise impact line of sight. This has already been accomplished in the area of First Street and Valley Street, Roland Avenue and Valley Street and soon in the area of Hixon Place.



South Orange Avenue & Centre Street/Turrell Avenue:

Description:

The intersection of the three roadways is “star shaped”. The four approaches of South Orange Avenue & Centre Street are controlled by red light traffic signals with advanced left turn and pedestrian countdown indicators. Turrell Avenue intersects South Orange Avenue where Turrell Avenue is divided by a concrete island and controlled by a stop sign and crosswalk.

There were 3 crashes at these locations in 2020, a significant improvement from 2019 where 13 incidents occurred. This constitutes a reduction of crashes by approximately 77%.

Continued Measures/Actions:

- Increase police presence and enforcement efforts not just for Failure to Yield to Pedestrian Violations but all Title 39 violations at the intersection.
- Work with Seton Hall University Property Maintenance Department to ensure line of sight issues are addressed on their properties to ensure a safer intersection.
- Connecting Seton Hall University and Street Smart NJ to develop a social media campaign for commuter students.
- In 2020, traffic lights were reprogrammed by the Essex County traffic engineers to hold all lights in all directions for pedestrian crossings. This is known as LPI, Leading Pedestrian Intervals at signalized intersections allow pedestrians to walk, usually 3 to 4 seconds, before vehicles get a green signal. LPI increases visibility, reduces conflicts and improves yielding to pedestrians

West South Orange Avenue & Ridgewood Road:

Description:

The four approaches of West South Orange Avenue & Ridgewood Road are controlled by red light traffic signals with advanced left turn and pedestrian countdown indicators.

During 2020, there were 3 crashes at this intersection, 7 less than in 2019. This is due, in part, to the changing of traffic light timing, (see aforementioned note on LPI's)

Continued Measures/Actions:

- Continue to monitor the intersection and crashes to identify future concerns as the roadway naturally presents a crest while traveling northbound on South Ridgewood Road approaching the intersection of South Orange Avenue. This crest has the ability to create sightline concerns for oncoming left turning vehicles wishing to travel east on South Orange Avenue.

Irvington Avenue & Prospect Street:

Description:

The four approaches of Irvington Avenue & Prospect Street. are controlled by red light traffic signals with pedestrian countdown indicators.

The Irvington Avenue Corridor has experienced 25 crashes along its length during 2020. There were 34 crashes in 2019. This decrease of 9 is a 27% reduction. In addition to South Orange Avenue and Valley Street, the Irvington Avenue Corridor has one of the highest crash rates in the Township.

This intersection has highest number of crashes at single intersection along this corridor with 7. None of the crashes seem to be severe or endangered life, most are low speed.

Counter Measures/Actions:

- Continue to work with township and county engineers in addressing sightline issues and pedestrian crosswalks.
- Increase police presence to enforce the “No Stopping/No Standing” Ordinance which is supported by yellow roadway markings.
- Installation of a spot light to illuminate the intersection should help greatly.

- Partner with NJHTS and participate in their May Motorcycle Safety Awareness Campaign
- As suggested in prior reports, improvements to Irvington Avenue are imminent; Essex County has already begun this project which runs the length of Irvington Avenue through South Orange, Maplewood and Irvington. The work has started on the east end of Irvington Avenue and is currently working its way towards South Orange.

Sloan Street Corridor:

Description:

Sloan Street is a municipal two lane roadway that travels north and south from South Orange Avenue to Third Street and runs between South Orange Avenue and First Street. There is a mid-block crossing and crosswalks at all other intersections. Additionally the roadway has numerous signs prohibiting certain actions by motorists within this corridor.

During 2020, there were 7 motor vehicle crashes along Sloan Street. One report of a pedestrian stuck, however an investigation could not confirm if it actually occurred. Sloan Street, particularly between South Orange Avenue and First Street is one of our busiest roads when factoring in commuters and retail patrons. All of the 7 incidents were low speed with a majority being caused by drivers backing out of a parking space.

Counter Measures/Actions:

- Continue police presence and enforcement efforts
- Sloan Street remains one of our top streets for the issuing of summonses, a majority of which are for violating the No Left Turn ordinance. These are followed closely by summonses for parked in a Loading Zone, Handicapped and other various moving violations.

- Coordinate with the Engineering Department as well as the Parking Authority to create solutions to possibly ease congestion.
- It appears changing angled parking to parallel to the curb parking would yield the greatest benefit in eliminating accidents while also widening the corridor yet this would substantially decrease available parking spots. Another option is to widen the angled spots. This will result in losing one space for each bank of spots but increase line of sight and turn angles for vehicles moving in and out.

Ward Place & Wilden Place:



Description:

Ward Place and Wilden Place is a municipal intersection where north & south bound Ward Place traffic meets east & west bound Wilden Place Traffic. Wilden Place is controlled by a Stop Sign. Ward Place is heavily traveled by members of the Seton Hall University community as well as other drivers who use the road as a “cut through” from Irvington Avenue to South

Orange Avenue. Average Daily Total, of vehicles passing through this area, is 11,000.

During 2020, there were a total of 12 crashes on Ward Place with 2 crashes at this intersection. This is a 40% reduction from 2019 where that same stretch of road experienced a reported 20 crashes (4 of which were at Wilden Place/Ward Place)

Counter Measures/Actions:

- In 2020 we addressed sightline issues by expanding no parking areas, repainting yellow curbing, eliminating parking spaces and installing new signs. This resulted in a decrease of crashes on Ward Place, specifically in the area of Wilden Place.
- Continue to monitor the intersection and crashes to identify future concerns and solutions to address same.

Montrose Avenue & Vose Avenue:

Description:

Montrose Avenue & Vose Avenue is a municipal intersection where east and west bound Montrose Avenue traffic is controlled by two overhead, flashing, amber-colored lights. North and south bound Vose Avenue traffic is controlled by two overhead, flashing red lights and two retro-reflective Stop Signs in each direction.

During 2020, there were 2 crashes at the intersection, a reduction from the 5 crashes that occurred in 2019, a 60% reduction. No pedestrian related crashes occurred.

Counter Measures/Actions:

- Increase police presence while enforcing Failure to Yield to Pedestrians in Crosswalk violation and Stop Sign violations.
- Install advanced warning, Pedestrian Crossing Ahead signs to the east & west of the intersection.
- Install solar powered, flashing, Stop signs on the north & south side of the intersection (So. Wyoming Avenue & Lenox Avenue)
- Continue to work with DPW for the pruning of trees which may cause sightline issues or block posted signage.

Conclusion:

The purpose of the analysis is to continue the assessment of road safety conditions along the highways and at intersections in South Orange with the objective of reducing the occurrence and severity of roadway crashes. Emphasis has been placed on improving road safety through targeted road safety Engineering, Educational/Behavioral and Enforcement programs.

Since the completion of the 2019 report, ***overall we have seen a 40% decrease in Vehicle Crashes.*** Although the Covid 19 pandemic has resulted in fewer vehicles on our roadways, this decrease is due partly to the measures the South Orange Police Department along with our local and Essex County government partners have taken during the past year.

Improvements to Valley Street, Scotland Road and Irvington Avenue are ongoing and we anticipate seeing similar positive results when they are completed.

Our 2021 efforts in crash reduction will continue to focus in three broad categories of Education, Engineering, and Enforcement:

Education:

- The primary function is to educate the public about traffic safety and to convince the public to change their driving behaviors in a way that leads to greater safety on the roads.
- Improve website and social media availability & accessibility of assorted education tools on both Police Department and Township websites

- Priority areas to be supported included:
 - Distracted driving,
 - Seat belt usage,
 - Child passenger safety,
 - Pedestrian safety,
 - Bicycle safety,
 - Distracted driving,
 - Aggressive driving,
 - Impaired driving
 - Motorcycle safety.

Engineering:

- There continues to be a need for a traffic engineering infrastructure to monitor highway operations, recommend improvements in the highway system and improve the safety for vehicle operators, pedestrians and bicyclists.
- South Orange streets and highways are expected to safely and efficiently move hundreds of thousands of vehicles each year.
- Many problems can be associated with this network:

- The growing and shifting population may cause some routes to become inadequate;
- Maintenance costs often increase; the public's wide array of national backgrounds makes sign communications difficult;
- Increasing congestion also increases frustration levels and the growing population causes drastic alterations in traffic flow patterns.
- Responsibility for the design, construction and maintenance of the highway system falls on the engineering and public works departments, at the county and local levels of government.

Enforcement:

- The South Orange Police Department will continue its efforts to address the most prevalent causation factors for pedestrians and vehicle crashes. Our commitment is to the safe passage of all roadway users in the township as we move towards fewer crashes and zero fatalities.
- To achieve this goal we will continue to work with our traffic safety partners from StreetSmart NJ, US/NJ Highway Traffic Safety Administrations, AAA, NJ Department of Transportation, NJ State Police, NJ Motor Vehicle Commission, and the Essex County Traffic Officers' Association and participate in their traffic safety enforcement programs The areas of concentration include:
 - Pedestrian Decoy programs/Cops in Crosswalk program
 - Share the Road with Motorcycles and Bicycles
 - "Hang Up! Just Drive"; distracted driving program
 - Bi-annual "Click It or Ticket"; occupant protection campaign
 - Bi-annual "Drive Sober or get Pulled Over"; impaired driving campaign
 - "Obey the Sign or Pay the Fine"; aggressive driving campaign

- “Heads up Phone Down“ campaign

Through the above multi-pronged approach, we will continue to work toward reducing crash related injuries and fatalities. The goal is to increase community awareness and understanding of traffic safety to cause a shift in community attitudes toward a safe behavior on the roads.