

INTRODUCTION

On behalf of the City of Shaker Heights, the Cuyahoga County Department of Public Works (CCDPW) retained HNTB to collect, review, and analyze crash data for the Lee Road (C.R. 8) corridor. The study corridor begins in the south at Walden Avenue in the City of Cleveland, extends 2.2 miles northward through the City of Shaker Heights, and terminates in the north at Fairmount Boulevard in the City of Cleveland Heights. The purpose of this memorandum is to provide recommendations for locations that warrant further analysis through a formal safety study process to determine if they are good candidates for safety funding through the Ohio Department of Transportation's (ODOT's) Highway Safety Improvement Program (HSIP).

BACKGROUND

In 2012, the City adopted the *Lee Road Traffic Study & Corridor Plan* which recommended reconfiguration of Lee Road as a 3-lane roadway with bike shoulders from City Hall northward (not implemented), a 3-lane roadway with bike lanes between Lomond and Scottsdale (not implemented), sharrows between City Hall and Lomond (not implemented), and modification of signal phasing and timing (implemented 2019). See Attachment A for plans of the proposed reconfiguration. Furthermore, the City is currently developing a *Lee Road Corridor Action Plan* that will reevaluate the road configuration from Walden to Van Aken and provide a transition to the proposed lane changes north of Van Aken. The purpose of these changes is to promote urban design and streetscape, economic development, and intermodal transportation along the Lee Road corridor. This crash data analysis supports these efforts by evaluating if the proposed changes may result in safety benefits, as well.

METHODOLOGY

HNTB gathered crash data for the study area using the ODOT Transportation Information Mapping System (TIMS) and GIS Crash Analysis Tool (GCAT). Crash data was gathered for the years 2017, 2018, 2019, and 2020. Typically, the most current three years of crash data are utilized for analyses. However, additional years were reviewed to determine if the prevalence of COVID during 2020 significantly affected crashes. The 2020 data pulled from TIMS was lower than what was reported in 2018 and 2019. However, the 2017 data was even lower. Therefore, the crash analysis was conducted for the years 2018-2020.

The crash data gathered from TIMS and GCAT was verified by reviewing the associated crash reports. Specifically, the crash location, intersection control and configuration, crash type, and injury level were reviewed, and the data was corrected as necessary. Because the scope of this report is to screen locations for potential in-depth safety study, verification of additional details was not conducted as part of this effort. In addition, HNTB obtained original police reports of crashes along Lee Road in Shaker Heights and compared it to the data obtained from TIMS/GCATS. Based on this review, 38 crashes were added to the TIMS/GCAT data. HNTB also reviewed online police reports for the City of Cleveland Heights. Based on this analysis, six crashes were added to the TIMS/GCAT data. City of Cleveland police reports were not readily available and were not independently reviewed as part of this effort.

HNTB utilized ODOT's Crash Analysis Module (CAM) tool to analyze crashes on a corridor-wide level to determine if there are any corridor-wide crash trends. The data was also be subdivided to analyze crash data for the 18 intersection and 17 roadway segments within the study corridor.

LEE ROAD CORRIDOR

In the 2.2-mile study corridor, Lee Road is generally a 4-lane undivided urban roadway, although it transitions to a 3-lane section between North Park and Fairmount. Furthermore, a median is present for about 700 feet immediately north of Van Aken. The study area contains 14 signalized intersections, four intersections controlled by stop signs on the minor approach, and numerous private and commercial driveways. Left turn bays are provided on Lee Road at Chagrin, Van Aken, North Park, and Fairmount. The Greater Cleveland Rapid Transit Authority Green Line runs east-west through the median of Shaker Boulevard and crosses Lee Road at-grade in the intersection area. Van Aken and Fairmount have wide medians in the intersection areas. Chagrin and South Woodland are five-leg intersections¹; Hampstead, Lomond, and Nicholas are T-intersections; and the remaining intersections consist of four legs.

Lee Road from Walden to Chagrin; at Van Aken; and from South Park to Fairmount are indicated as high priority segments on ODOT’s SFY2015 Safety Integrated Project Maps for the Local System. In addition, Chagrin and Shaker are safety priority locations on ODOT’s 2018 Highway Safety Improvement Program (HSIP) maps. See Attachment B for copies of these maps.

Between 2018 and 2020, there were 415 crashes in the Lee Road corridor from Walden Avenue to Fairmount Boulevard (see Table 1). Crashes predominantly occurred at intersections (334 or 80-percent). The most prevalent crashes were rear end, left turn, sideswipe-passing, and angle. According to ODOT’s CAM tool, the proportions of these crashes are 1-percent to 5-percent higher than statewide averages for urban multilane undivided roadways. However, ODOT’s statewide averages for roadways do not account for intersections. Therefore, comparison of crash types to statewide averages is most appropriately evaluated at the intersection and individual road segment level.

Crash Type	Number of Crashes	Percent
Rear End	180	43.4%
Left turn	71	17.1%
Sideswipe - Passing	61	14.7%
Angle	58	14.0%
Fixed Object	21	5.1%
Right Turn	5	1.2%
Pedestrian	5	1.2%
Sideswipe - Meeting	4	1.0%
Backing	4	1.0%
Bicycles	3	0.7%
Head On	1	0.2%
Train	1	0.2%
Parked Vehicle	1	0.2%
Grand Total	415	100.0%

¹ The Van Aken intersection had five legs in 2018. However, a safety upgrade completed in October 2018 converted Chalfant Rd to right-in/right-out access. In 2019 and 2020, it operated as a 4-leg intersection.

Between 2018 and 2020, 32-percent of the crashes in the study area involved an injury, with no fatalities reported. According to ODOT’s CAM tool, the proportion of possible injury crashes was about 5-percent higher than statewide averages for urban multilane undivided roadways. However, similar to crash types, the comparison of injury levels to statewide averages is most appropriately evaluated at the intersection and individual road segment level. See Attachment C for data regarding the corridor-level analysis.

Between 2018 and 2020, eight pedestrian and bicycle crashes occurred throughout the corridor with no discernable patterns (see Figure 1). A road diet would not alter the overall distance that pedestrians must traverse in intersection areas, as the curb lines and curb ramps would remain. However, it may improve pedestrian safety by reducing the number of traffic lanes that pedestrians must cross and installing more prominent continental-style crosswalk lines. A road diet project may also improve bicycle safety by installing sharrows and “bicycles may use full lane” signage.

ODOT’s safety process includes a high-level screening to identify locations that may qualify for safety funding. The high-level screening identifies locations with greater than 3 crashes and 30-percent injury per year that may warrant further, more detailed investigation through a formal safety study. There are eighteen intersections and seventeen roadway segments totaling thirty-five discrete locations analyzed in the study corridor. Of these, fourteen intersections or road segments had greater than three crashes per year, with the Chagrin, Van Aken, Shaker, and S Woodland intersections ranking highest for total crashes (see Figure 2). Fourteen intersections or road segments had a greater than 30-percent injury rate (see Figure 3). Serious and minor injury crashes occurred most frequently at Chagrin, Shaker, Van Aken, S Woodland, Scottsdale, and North Park (see Figure 4).

Eight intersections or road segments had greater than 3 crashes per year and greater than 30-percent injuries:

- Throckley Avenue stop-controlled intersection
- Invermere Avenue signalized intersection
- Scottsdale Boulevard signalized intersection
- Lee Road from Hampstead Avenue to Lomond Boulevard
- Chagrin Boulevard signalized intersection
- Van Aken Boulevard signalized intersection
- Parkland Drive signalized intersection
- South Park Boulevard signalized intersection

Further analysis indicated the total number and severity of crashes at Van Aken fell after safety improvements were implemented in October 2018 (see Attachment D). Therefore, Van Aken was excluded from further analysis. Because they met ODOT’s screening criteria, the remaining seven locations were analyzed in greater detail. Injury rates at South Woodland and Shaker were both 28-percent, slightly lower than ODOT’s screening criteria. However, given the high relative crash frequency and the inclusion of Shaker on the HSIP map, these intersections were also analyzed in greater detail.

Figure 1: Pedestrian and Bicycle Crashes

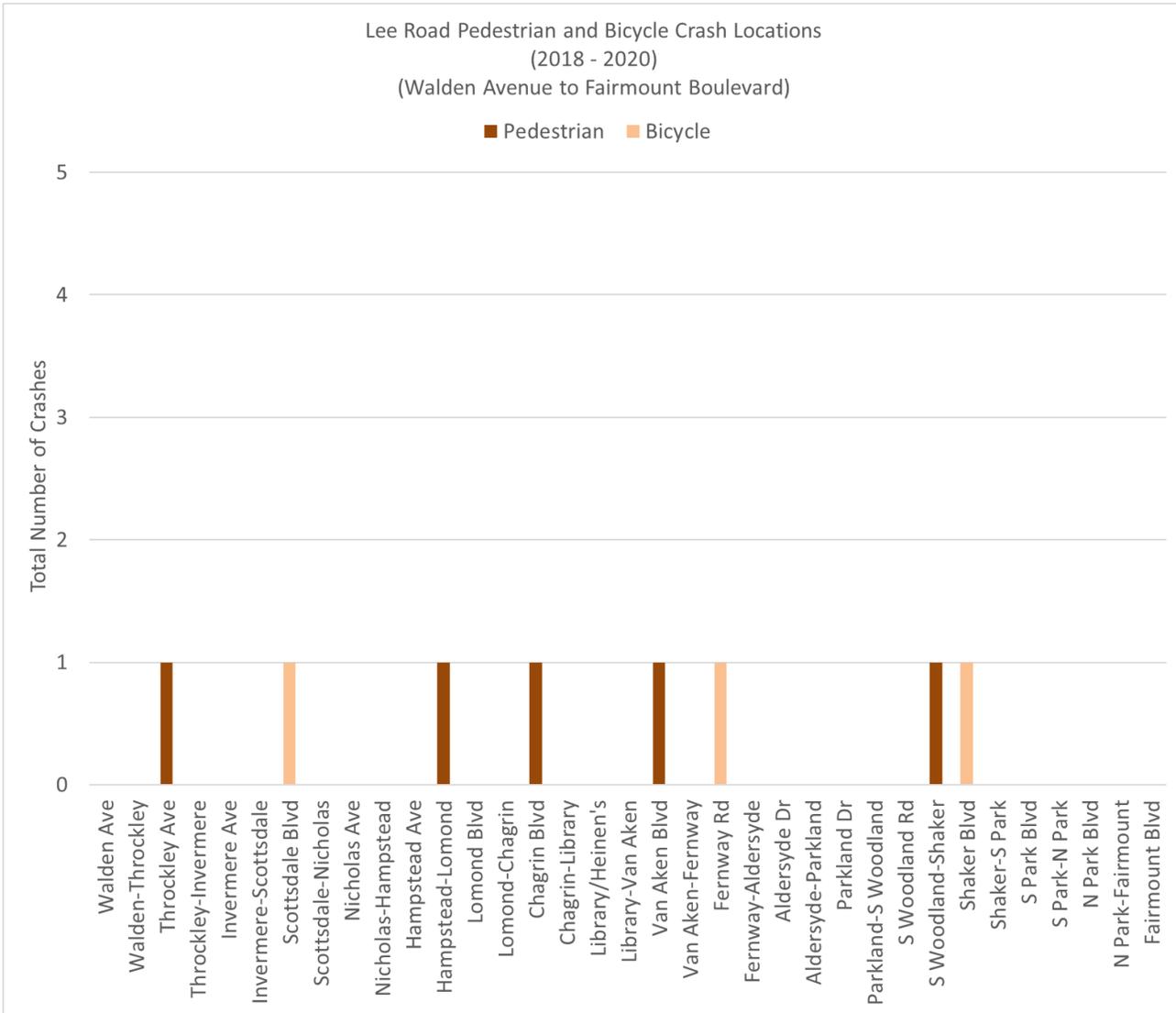
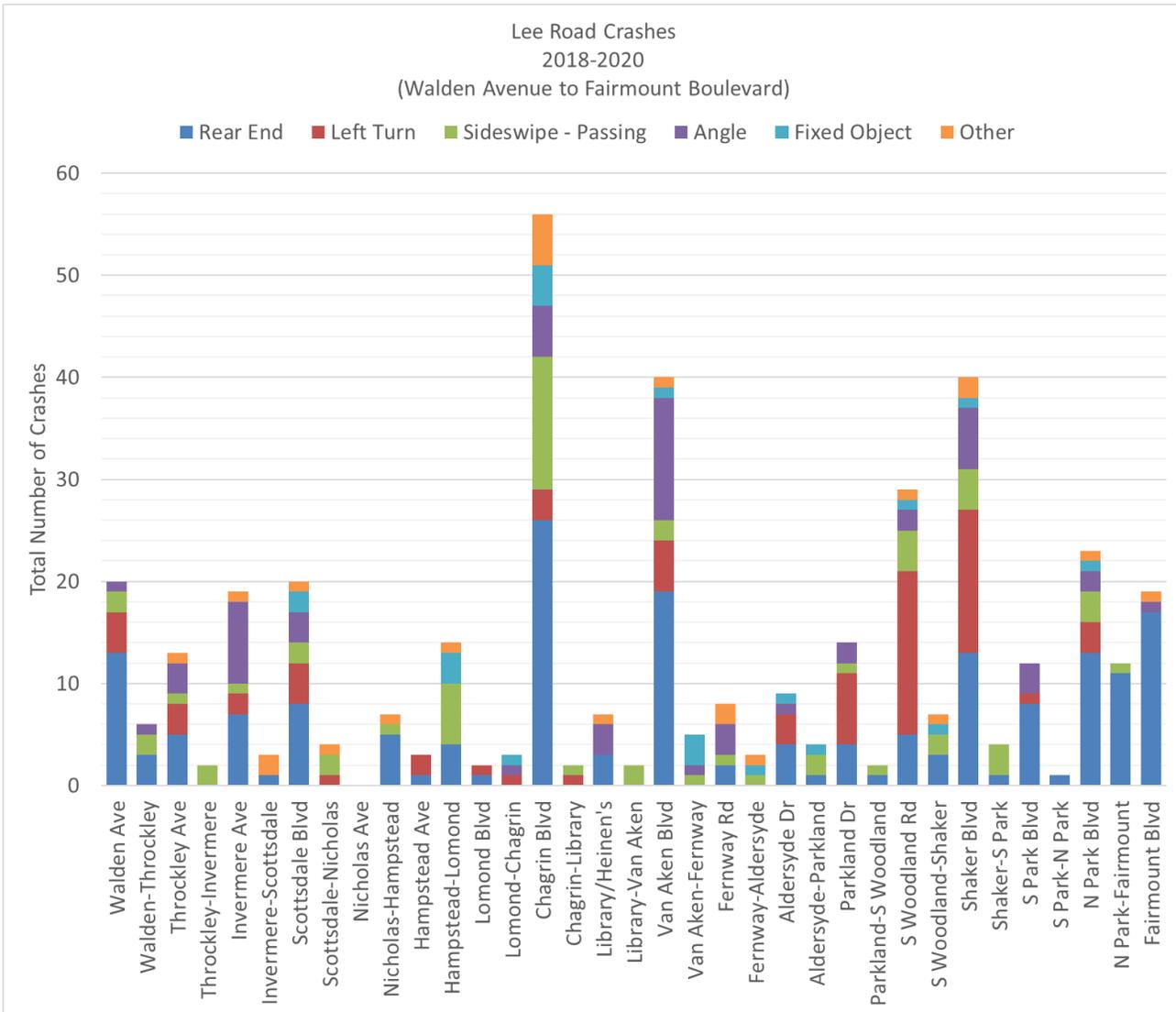


Figure 2: Lee Road Crashes



Note: "Other" crashes include pedestrian, right turn, sideswipe-meeting, backing, bicycle, train, head on, and parking.

Figure 3: Lee Road Percent Injury Crashes

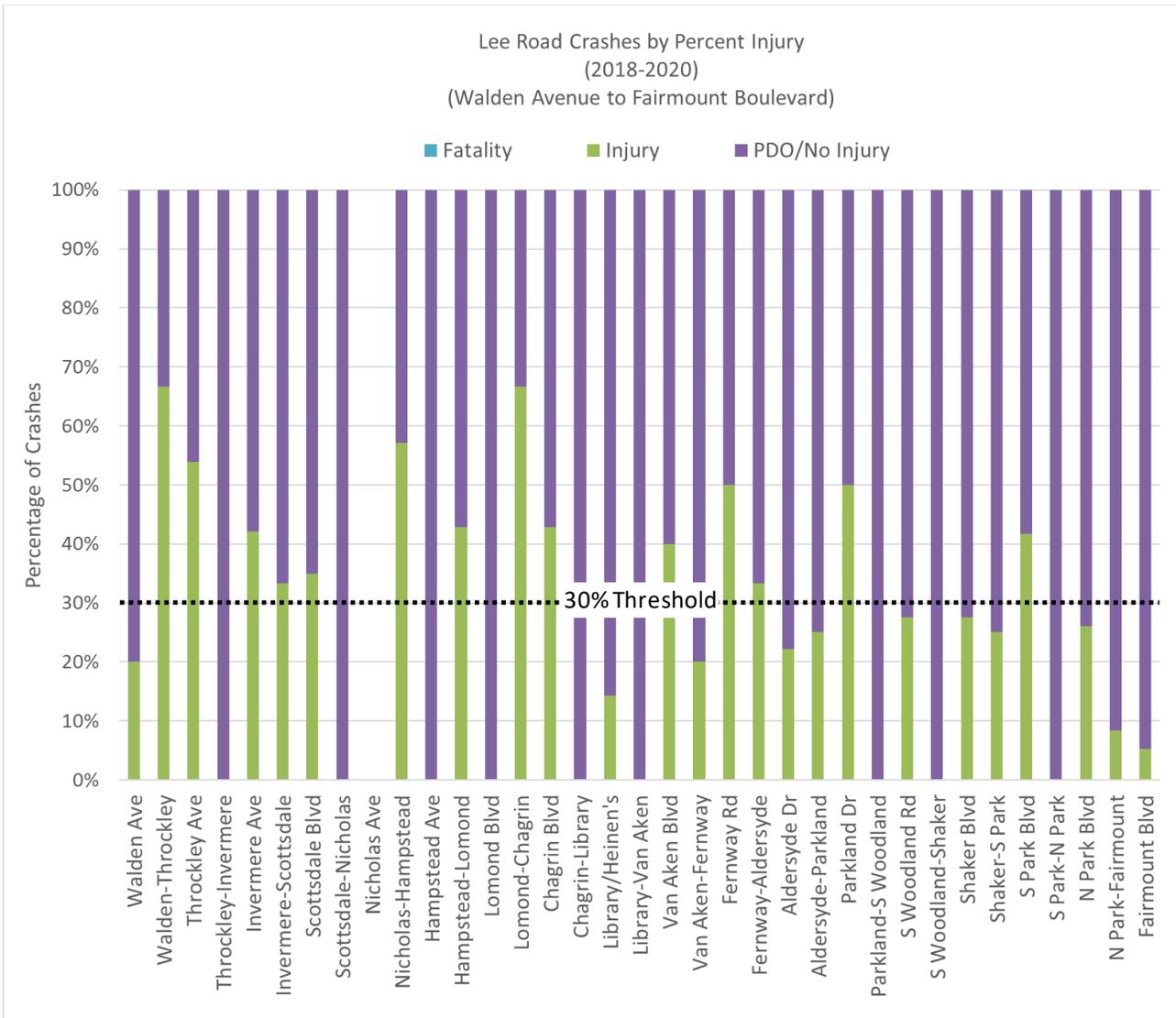
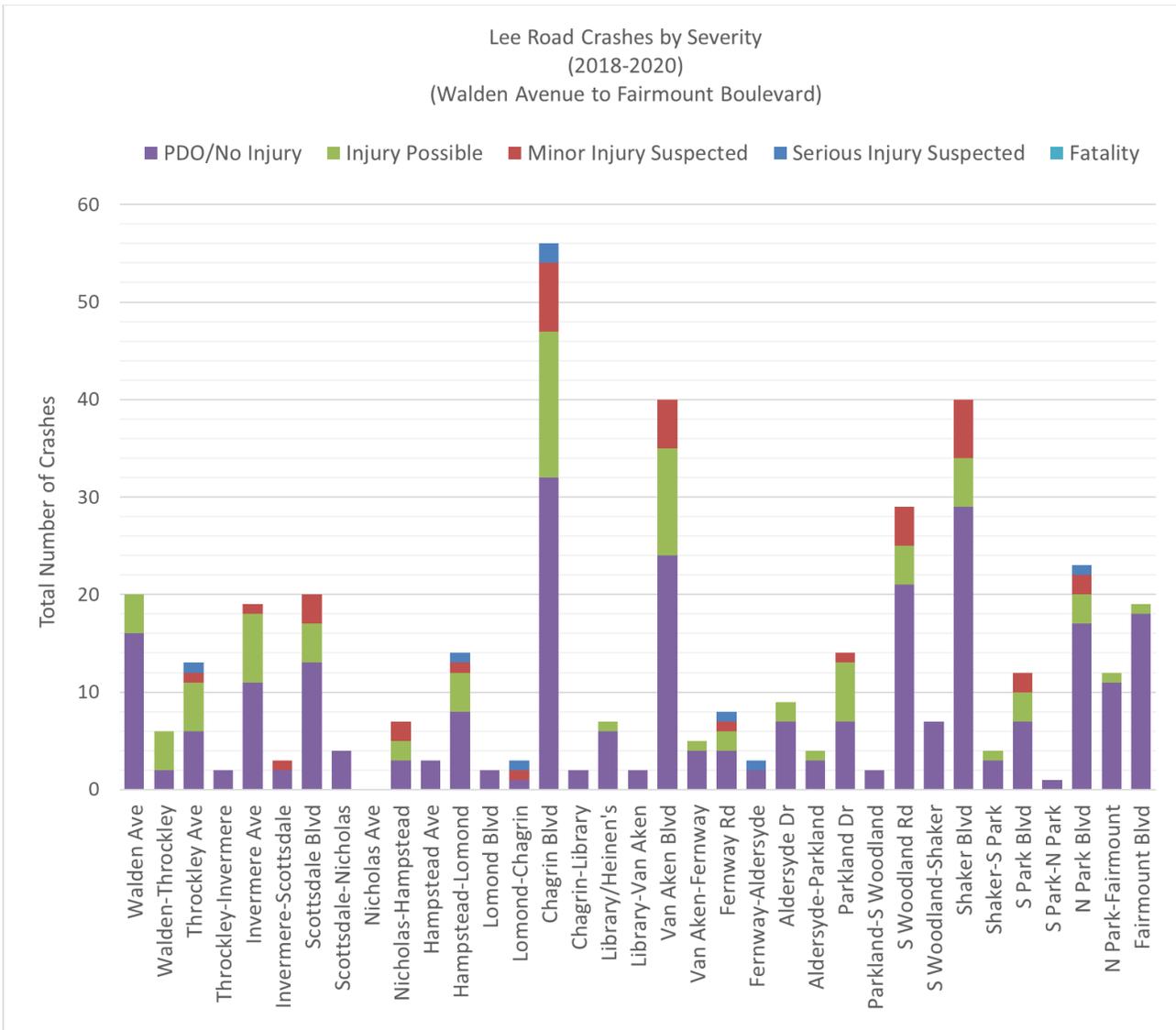


Figure 4: Lee Road Crash Severity



INTERSECTIONS AND ROAD SEGMENTS

Detailed crash data was compiled for the eight intersections and one road segment that exceeded 3 crashes per year and 30-percent injury. Each location was evaluated to determine the potential for a road diet project to the reduce crashes that occurred at these locations. Where applicable, additional potential safety improvements were identified.

While the following sections discuss the potential to reduce existing crashes, it is important to note that a road diet project may also increase certain crash types throughout the corridor, including the locations discussed below. For example, rear end crashes may increase if the reduced capacity results in longer traffic queues. Furthermore, increased traffic congestion and reduced availability of acceptable gaps could

potentially increase red light running, left turning, and sideswipe-passing crashes. The net effect on crashes would be dependent on the traffic volumes, traffic operations, signal phasing, geometry, and other factors at each intersection or road segment. A detailed safety study would be required to fully evaluate the tradeoffs in crash frequency and severity associated with a road diet project.

The nine intersections and road segments analyzed in detail are summarized below (see also Attachment E).

Throckley Avenue

- 13 crashes / 54% injury / 1 pedestrian crash / SIP location
- The proportion of rear end, left turn, and angle crashes exceed statewide averages.
- Most left turn crashes involved vehicles turning from Lee Road.
- Most rear end crashes involved vehicles slowing or stopped on Lee Road.
- Angle crashes occurred when vehicles did not yield at the minor road stop sign.

A road diet project may reduce left turn crashes by providing left turn bays, aligning left turn lanes, and reducing the number of lanes crossed by turning vehicles. Furthermore, rear end crashes may be reduced by separating left turning and through traffic. Angle crashes may also be reduced because vehicles would have to cross fewer lanes of traffic when traveling across Lee Road.

However, the current plans do not extend the road diet this far south. Therefore, no further study is recommended at this time. If the *Lee Road Corridor Action Plan* subsequently recommends a change in lane configuration at this location, the City may desire to reevaluate potential safety benefits and explore funding eligibility.

Invermere Avenue

- 19 crashes / 42% injury / SIP location
- The proportion of angle crashes exceeds the statewide average.
- Running a red light on the minor street approaches is primary contributing factor to the angle crashes.

A road diet project is not predicted to reduce crashes at Invermere. However, additional investigation by the local authorities is recommended to determine the causes of red light running on the Invermere approaches. Potential countermeasures could include assuring side street actuation is operational, optimizing signal timing, adjusting the yellow and all-red intervals, improving signal visibility, and installing advance warning signs, among others.

Scottsdale Boulevard

- 20 crashes / 35% injury / 1 bicycle crash / SIP location
- The proportion of angle, left turn, and fixed object crashes exceed statewide averages.
- All left turn crashes involved vehicles turning from Lee Road.
- All angle crashes involved running a red light.
- Fixed object crashes were minor such as striking a curb.

A road diet may reduce left turn crashes at Scottsdale by providing left turn bays, aligning left turn lanes, and reducing the number of lanes crossed by turning vehicles. Further investigation may also reveal low-cost measures that could be incorporated into a road diet project to reduce angle crashes associated with red light running. Such countermeasures could include assuring side street actuation is operational, optimizing signal timing, adjusting the yellow and all-red intervals, improving signal visibility, and installing advance warning signs, among others.

However, the current plans do not extend the road diet this far south. Therefore, no further study is recommended at this time. If the *Lee Road Corridor Action Plan* subsequently recommends a change in lane configuration at this location, the City may desire to reevaluate potential safety benefits and funding eligibility.

Hampstead Avenue to Lomond Boulevard

- 14 crashes / 43% injury / 1 pedestrian crash / SIP location
- The proportion of sideswipe-passing and fixed object crashes exceed statewide averages.
- All sideswipe crashes involved vehicles changing lanes.
- All fixed object crashes involved excessive speed.

A road diet project may reduce crashes between Hampstead and Lomond by reducing lane changes and potentially slowing speeding vehicles. However, the current plans only reduce the number of lanes in the southbound direction while retaining two through lanes northbound. Therefore, the improvements may not be substantial enough to warrant safety funding. Furthermore, this section of roadway is short (700 feet) and is bounded by two intersections that do not meet the minimum safety screening criteria. Therefore, further study is not recommended at this time. If the *Lee Road Corridor Action Plan* subsequently recommends a change in lane configuration at this location, the City may desire to reevaluate potential safety benefits and funding eligibility.

Chagrin Boulevard

- 56 crashes / 43% injury / 1 pedestrian crash / SIP location / HSIP location
- The proportion of sideswipe-passing, fixed object, and rear end crashes exceed statewide averages.
- The sideswipe-passing crashes involved vehicles executing last minute lane changes on the intersection approaches, attempting to turn from the incorrect lane, or attempting to travel through the intersection in the incorrect lane.
- The fixed object crashes involved vehicles losing control while traveling through the intersection due to excessive speed or impairment.
- The rear end crashes were associated with stopped traffic (congestion).

The road diet project does not change the intersection configuration at Chagrin and is not predicted to reduce crashes at this location. However, a separate project to eliminate the Kenyon leg from this intersection may improve safety by freeing up signal timing for other movements (reducing rear ends) and simplifying the intersection geometry (reducing sideswipes). Additional investigation into options for better aligning the through lanes on Lee Road may also be beneficial.

Parkland Drive

- 14 crashes / 50% injury
- The proportion of left turn and angle crashes exceed statewide averages.
- All left turn crashes involved vehicles turning from Lee Road.
- Angle crashes involved running a red light.

A road diet project may reduce left turn crashes at Parkland by providing left turn bays, aligning left turn lanes, and reducing the number of lanes crossed by turning vehicles. Further investigation may also reveal low-cost measures that could be incorporated into a road diet project to reduce angle crashes associated with red light running. Such countermeasures could include assuring side street actuation is operational, optimizing signal timing, adjusting the yellow and all-red intervals, improving signal visibility, and installing advance warning signs, among others. Therefore, additional study is recommended to determine if this location would qualify for safety funding and to evaluate low-cost countermeasures for red light running.

South Woodland Road

- 29 crashes / 28% injury
- The proportion of sideswipe-passing and left turn crashes exceeds statewide averages.
- Most left turn crashes involved vehicles turning from Lee Road.
- Most sideswipe-passing crashes involved lane changes on South Woodland.

A road diet project may reduce left-turn crashes at South Woodland by providing left turn bays, aligning left turn lanes, and reducing the number of lanes crossed by turning vehicles. Sideswipe-passing crashes may also be reduced due to elimination of one through lane in each direction on Lee Road. However, sideswipe-passing crashes on South Woodland would remain since the road diet does not alter the South Woodland approaches. Additional study is recommended to determine if this location would qualify for safety funding.

Shaker Boulevard

- 40 crashes / 28% injury / 1 bicycle crash / HSIP location
- The proportion of left turn and angle crashes exceeds statewide averages.
- All left turn crashes involved vehicles turning from Lee Road.
- Angle crashes involved running a red light.

A road diet project may reduce left turn crashes by providing left turn bays, aligning left turn lanes, and reducing the number of lanes crossed by turning vehicles. Further investigation may also reveal low-cost measures that could be incorporated into a road diet project to reduce angle crashes associated with red light running. Such countermeasures could include assuring side street actuation is operational, optimizing signal timing, adjusting the yellow and all-red intervals, improving signal visibility, and installing advance warning signs, among others. Therefore, additional study is recommended to determine if this location would qualify for safety funding and to evaluate low-cost countermeasures for red light running.

South Park Boulevard

- 12 crashes / 42% injury / SIP location
- The proportion of rear end and angle crashes exceeds statewide averages.
- About 25-percent of the rear end crashes involved vehicles stopped in traffic to turn left from Lee Road.
- Angle crashes involved running a red light.

A road diet project may reduce rear end crashes by providing left turn bays to separate turning and through traffic. Although the South Park intersection meets the minimum screening criteria for safety funding eligibility, the total number of crashes along Lee Road falls substantially in the vicinity of South Park. In fact, the adjacent roadway segments (Shaker-South Park and South Park-North Park) only have a combined five crashes over the three-year study period. Therefore, the South Park intersection is not recommended for further evaluation for safety funding eligibility due to the relatively small number of total crashes and the limited potential of a road diet project to substantially reduce the rear end crashes occurring at this location. However, additional investigation may reveal low-cost countermeasures that may be incorporated into the project to reduce angle crashes associated with red light running.

CONCLUSION

The crash analysis did not reveal any corridor-wide safety problems. Therefore, the road diet project in its entirety is not a strong candidate for safety funding. The crash analysis did, however, reveal potential safety concerns at specific intersections and road segments within the corridor. These observations are based on a high-level screening of the Lee Road corridor for inclusion on ODOT's SIP/HSIP maps, total crashes per year, injury rates, and comparison of crash proportions to statewide averages. With few exceptions, the final decision to apply for safety funding should be based on a quantitative safety study to determine if the following criteria are met:

- The expected crash frequency at any given location is greater than the predicted crash frequency;²
- The proposed road diet project and/or other countermeasures lower the expected crash frequency; and
- There is a reasonable reduction of expected crash frequency relative to cost.

To that end, the following activities are recommended for the Lee Road corridor (see Figure 5):

1. The road diet project may reduce the high proportion of left turning crashes documented from Parkland to Shaker. A formal safety study is recommended to determine if this portion of the road diet project would qualify for safety funding and to evaluate additional countermeasures to reduce red light running at Parkland and Shaker. The incorporation of improved crosswalks and bicycle accommodations in the road diet project may also improve eligibility for safety funding due to the two pedestrian and

² The predicted crash frequency is the crash frequency predicted to occur at the site based on peer sites with similar characteristics (traffic volume, traffic control, number and width of lanes, etc.) in Ohio. The expected crash frequency considers the actual crashes observed at the site over a period of time and reflects the long-term average crash frequency expected to occur at the site under a given set of geometric conditions and traffic volumes. If the expected crash frequency is greater than the predicted crash frequency, the site is believed to have potential for safety improvement. (ODOT Safety Analysis Guidelines, June 2021).

bicycle crashes that occurred in this section. If the city desires, the safety study could be extended to South Park to fully evaluate the effects to rear end crashes and potential measures to reduce red light running.

2. A stand-alone safety study of the Chagrin intersection, specifically to close the Kenyon leg at Chagrin/Lee and potentially improve lane alignments, is recommended.
3. If the *Lee Road Corridor Action Plan* subsequently recommends a change in lane configuration between Throckley and Lomond, the City may desire to reevaluate potential safety benefits and explore funding eligibility. Regardless, the City may desire to further investigate low-cost countermeasures to address red light running at Scottsdale.
4. The City may consider submitting an application for ODOT's HSIP Systemic Safety Funding for Lee Road from Scottsdale to Van Aken. Between 2018 and 2020, four pedestrian and bicycle crashes occurred along this stretch of Lee Road. As currently planned, the road diet may improve pedestrian safety by reducing the number of traffic lanes that pedestrians must cross and installing more prominent continental-style crosswalk lines. A road diet project may also improve bicycle safety by installing sharrows and "bicycles may use full lane" signage. If the *Lee Road Corridor Action Plan* subsequently recommends extending these countermeasures south to Throckley, then City may desire to extend the HSIP Systemic Safety Funding application to cover this area, as well.
5. The City of Cleveland may desire to further investigate low-cost countermeasures to address the high incidence of red light running at Invermere.

Before initiating any of the above actions, the City may desire to meet with ODOT District 12 safety personnel to present the preliminary data and obtain feedback on the study scope and/or funding application process.

Any formal safety study will require the following data:

- Traffic volumes (average daily traffic for all road segments and intersection legs)
- Pedestrian crossing volumes
- Signal phasing (existing and proposed)
- Roadway geometry (lane width, curbs, horizontal curves, grades, intersection skew, etc.)
- Roadway characteristics (lighting, speed, fixed objects, driveways, on-street parking, etc.)
- Study area characteristics (bus stops, schools, etc.)

ODOT's Systemic Safety Funding application does not require a formal safety study (see #4 above). The application process requires a list of prioritized locations, countermeasures tied to each location, estimated cost by phase, proposed funding source (10-percent local match), and a list of key safety metrics for each location.

Figure 5: Recommendations

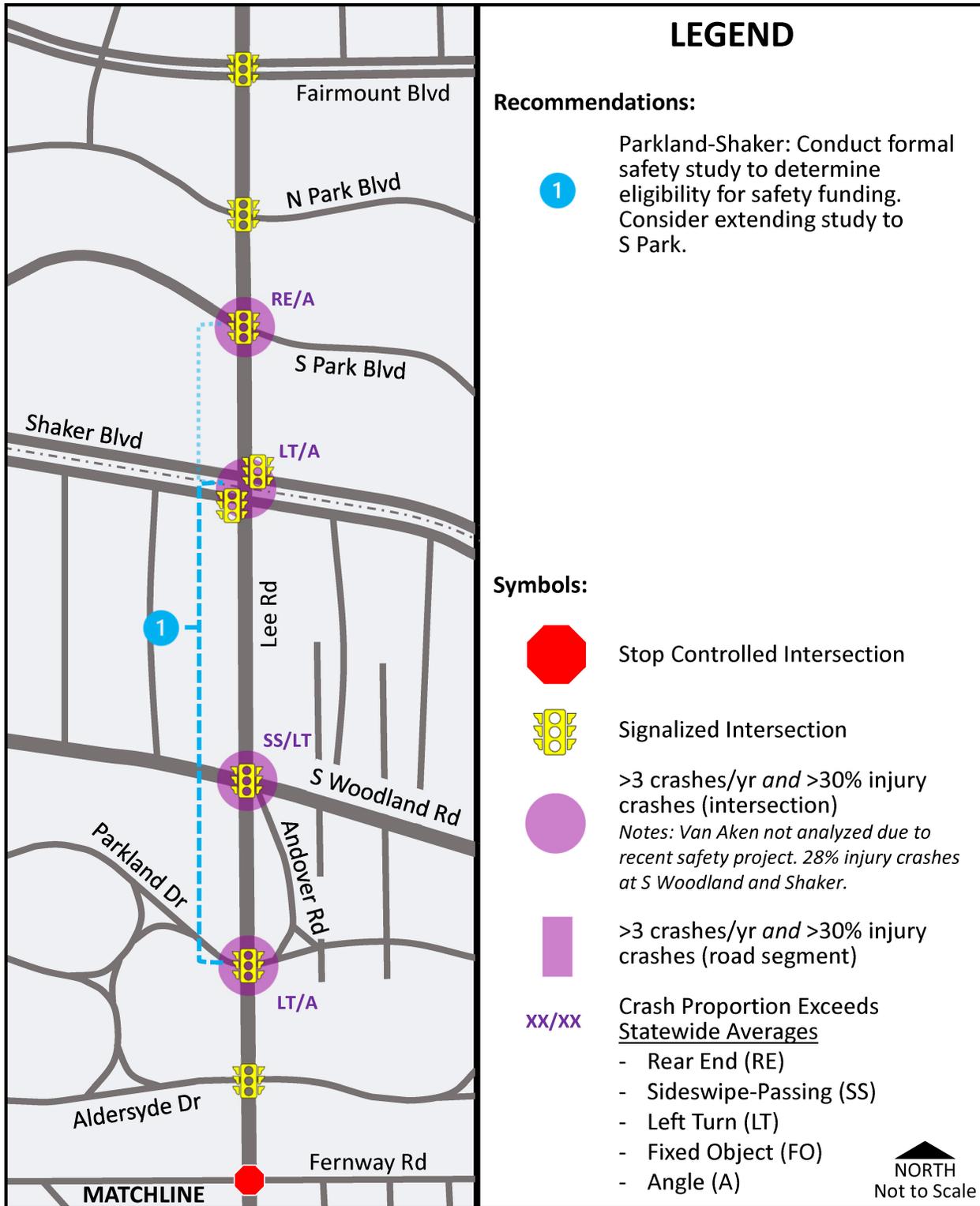
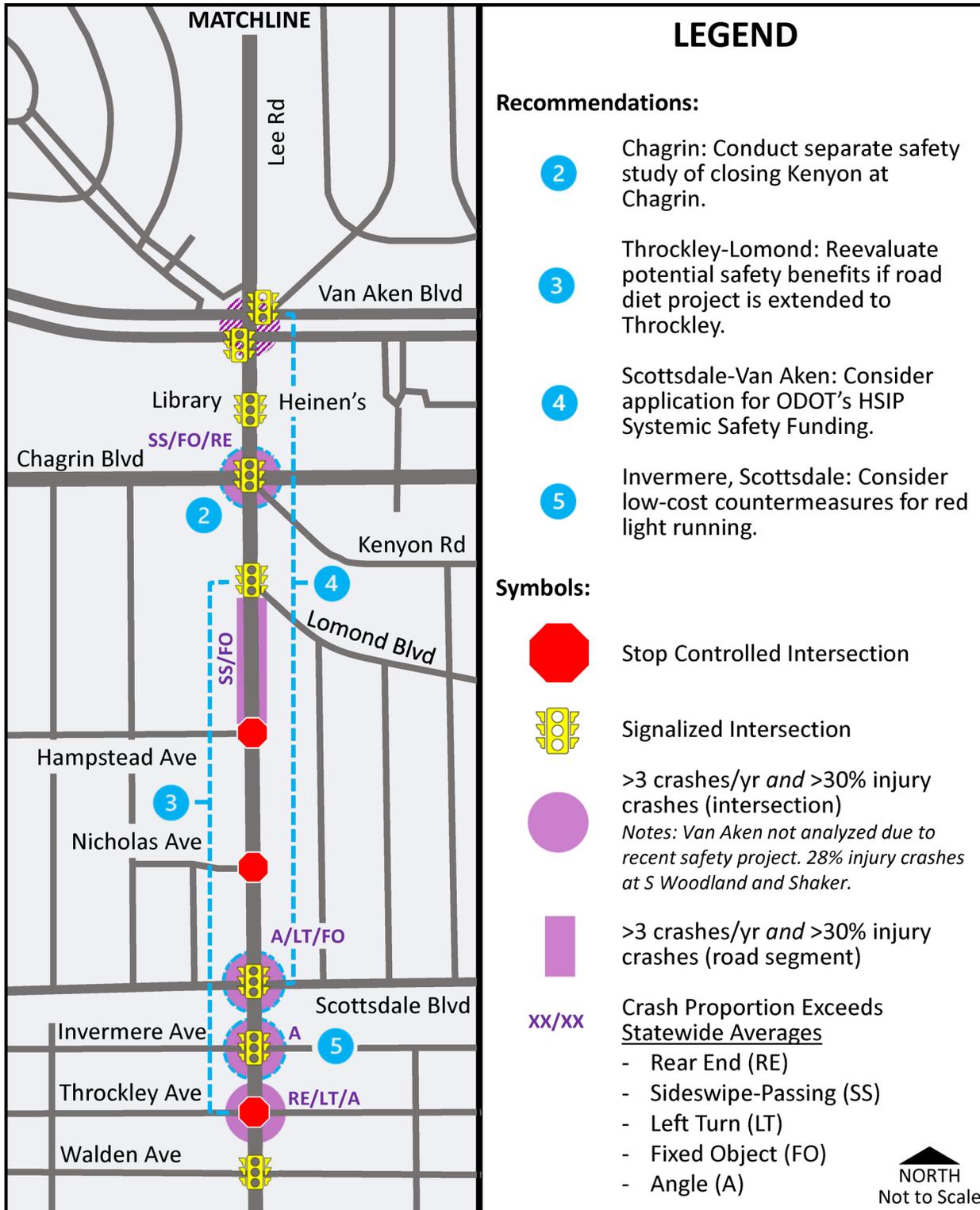


Figure 5: Recommendations



ATTACHMENTS

- Attachment A: Lee Road Improvement Plans
- Attachment B: SIP/HSIP Maps
- Attachment C: Lee Road Corridor Crash Data
- Attachment D: Van Aken Intersection Crash Data
- Attachment E: Intersection and Roadway Segment Crash Data

**ATTACHMENT A:
LEE ROAD IMPROVEMENT PLANS**

ATTACHMENT A: LEE ROAD IMPROVEMENT PLANS

CUY-LEE ROAD (CR-8) IMPROVEMENTS

CITY OF SHAKER HEIGHTS
CUYAHOGA COUNTY, OHIO

PROJECT DESCRIPTION

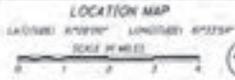
THIS PROJECT CONSISTS OF THE IMPROVING APPROXIMATELY 1.8 MILES OF LEE ROAD FROM THE INTERSECTION OF SCOTTSDALE BOULEVARD TO THE INTERSECTION OF SOUTH PARK BOULEVARD. INCLUDED WITH THIS PROJECT IS THE ADDITION OF TRAFFIC SIGNALS, CURB-PARKING REPAIR AS REQUIRED AND MAINTENANCE REPLACEMENT OF DETECTOR LOOPS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.00 AC

2018 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.



PORTION TO BE IMPROVED

APPROXIMATE HIGHWAY	_____
POSTING ROUTES	_____
STATE ROUTES	_____
COUNTY & TOWNSHIP ROADS	_____
OTHER ROADS	_____

DESIGN DESIGNATION

CURRENT AADT (VPM)	8,140
DESIGN YEAR AADT (VPM)	23,040
DESIGN HOUR 1 VOLUME (VPM)	2,700
DIRECTIONAL DISTRIBUTION	80%
PERCENT OF AADT (VPM)	4%
DESIGN SPEED	25MPH/25MPH
LEGAL SPEED	25MPH/25MPH
DESIGN FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL
NEE PROJECT	YES

INDEX OF SHEETS

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UNDERGROUND UTILITIES
CONTACT UTILITIES SERVICES
CALL 1-800-942-2784
BEFORE YOU DIG

CALL
1-800-942-2784
TOTAL FUND

OHIO UTILITIES PROTECTION SERVICE
MUST BE CALLED PROMPTLY
OIL & GAS PROBLEMS UNDERGROUND
PROTECTION SERVICE CALL 1-800-925-0889

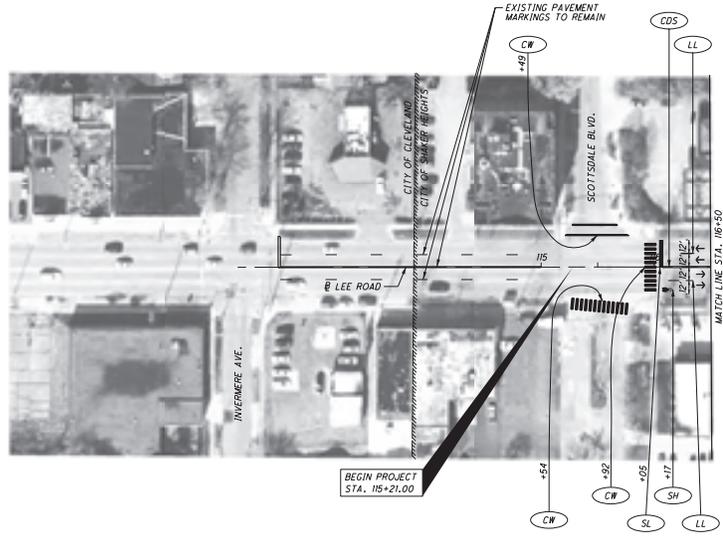
PLAN PREPARED BY

GFD GROUP
10000 W. 12th St., Suite 100
Cleveland, OH 44120
419.481.1234

ENGINEER'S SEAL	REGISTERED PROFESSIONAL ENGINEER	SUPPLEMENTAL SPECIFICATIONS
SIGNED: <u>AGCPT/HR</u>		
DATE: <u>MARCH 16, 2017</u>		

APPROVED: _____
DATE: _____
DIRECTOR OF PUBLIC WORKS
CITY OF SHAKER HEIGHTS

FILE NO. 103929
CONSTRUCTION PROJECT NO. N/A
CUY-LEE ROAD (CR-8) IMPROVEMENTS
LOCAL PROJECT NO. E170082



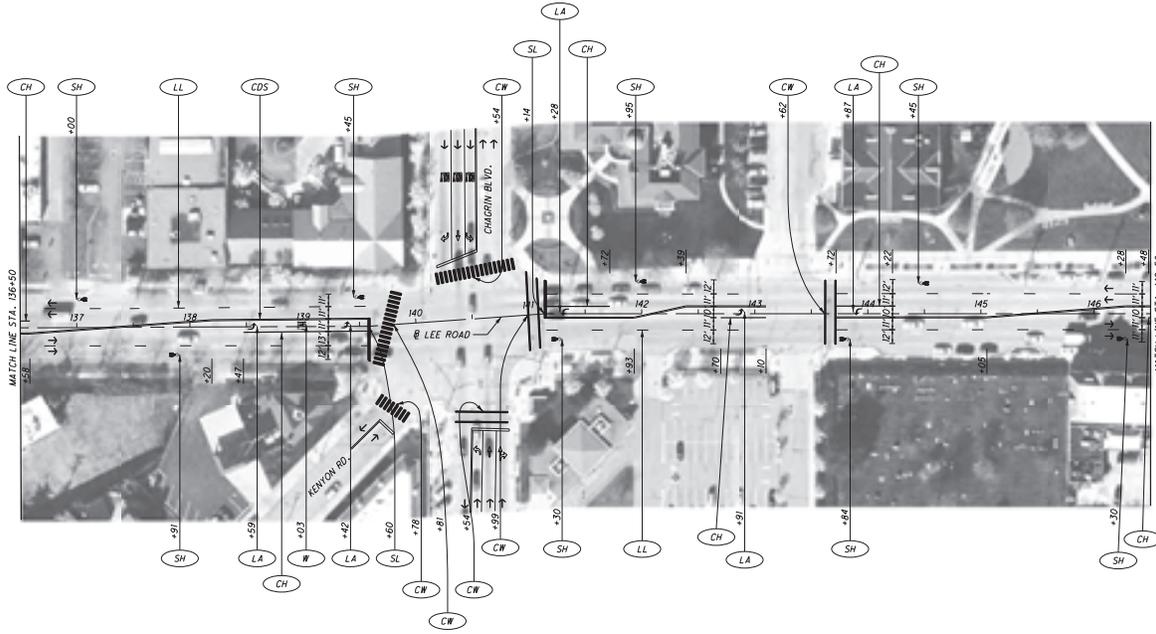
TRAFFIC CONTROL LEGEND

→ TRAFFIC FLOW	⊘----- EXISTING CANTILEVER SIGN SUPPORT TO REMAIN	LL LANE LINE, 4"	TY TRANSVERSE/DIAGONAL LINE, YELLOW	DW DOTTED LINE, 4" WHITE
◇ PROPOSED SIGN	(R-*) EXISTING SIGN TO BE REMOVED	CDS CENTER LINE, DOUBLE SOLID	TW TRANSVERSE/DIAGONAL LINE, WHITE	▭ PROPOSED LOOP DETECTOR
◇ EXISTING SIGN TO REMAIN	(S-*) PROPOSED SIGN	CSB CENTER LINE, SOLID/BROKEN	IY ISLAND MARKING, YELLOW	⋯ EXISTING LOOP DETECTOR
◇ EXISTING SIGN TO BE REMOVED AND REERECTED	(EW) EDGE LINE, 4" WHITE	CH CHANNELIZING LINE, 8"	IW ISLAND MARKING, WHITE	
◇ EXISTING SIGN TO BE REMOVED	(EY) EDGE LINE, 4" YELLOW	SL STOP LINE	SH SHARROW	
T SIGN SUPPORT	(CY) CROSSWALK LINE	LA LANE ARROW	W WORD ON PAVEMENT, 72"	

SCALE 1" = 40' OR HORIZONTAL SCALE IN FEET
CALCULATED BY: ANF
CHECKED BY: ANF
PAVEMENT MARKING PLAN
BEGIN TO STA. 116+50
CUY-LEE ROAD (CR-8) IMPROVEMENTS
32
56

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FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

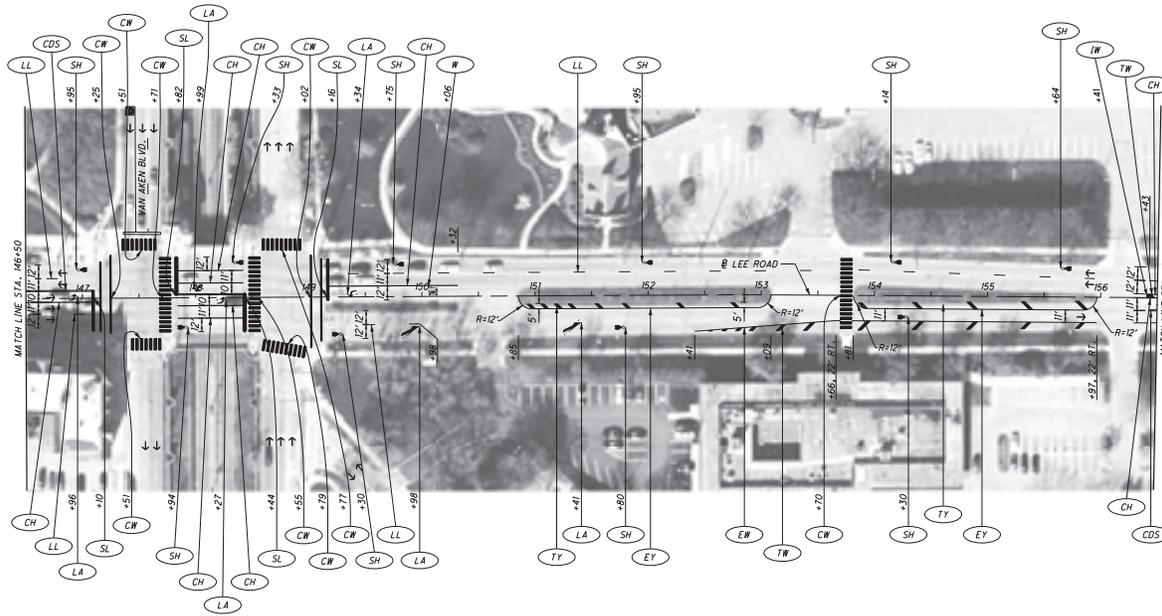


PAVEMENT MARKING PLAN
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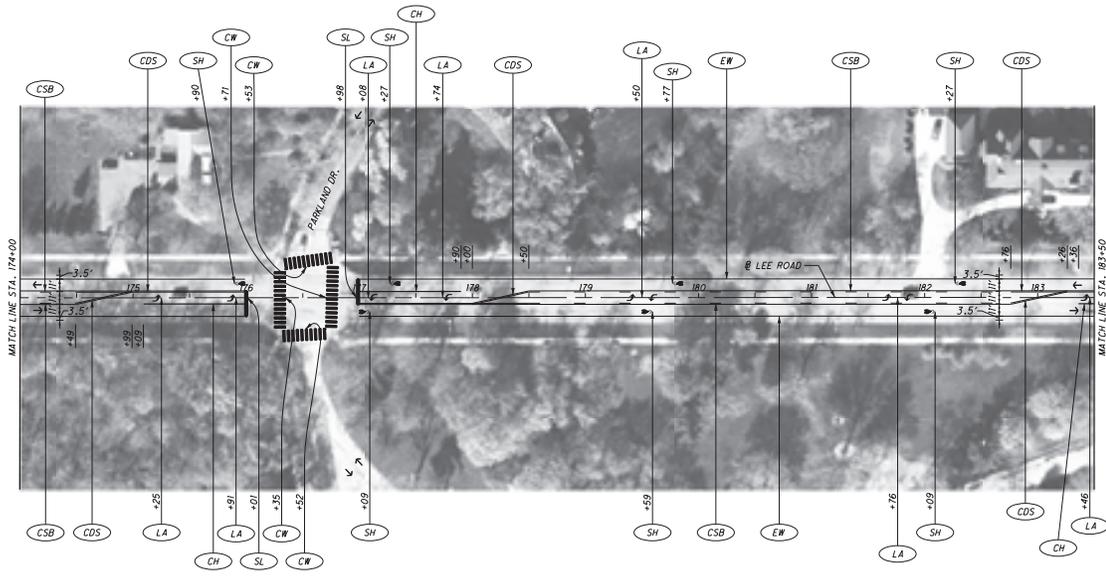


PAVEMENT MARKING PLAN
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CUY-LEE ROAD (CR-8)
IMPROVEMENTS

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FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

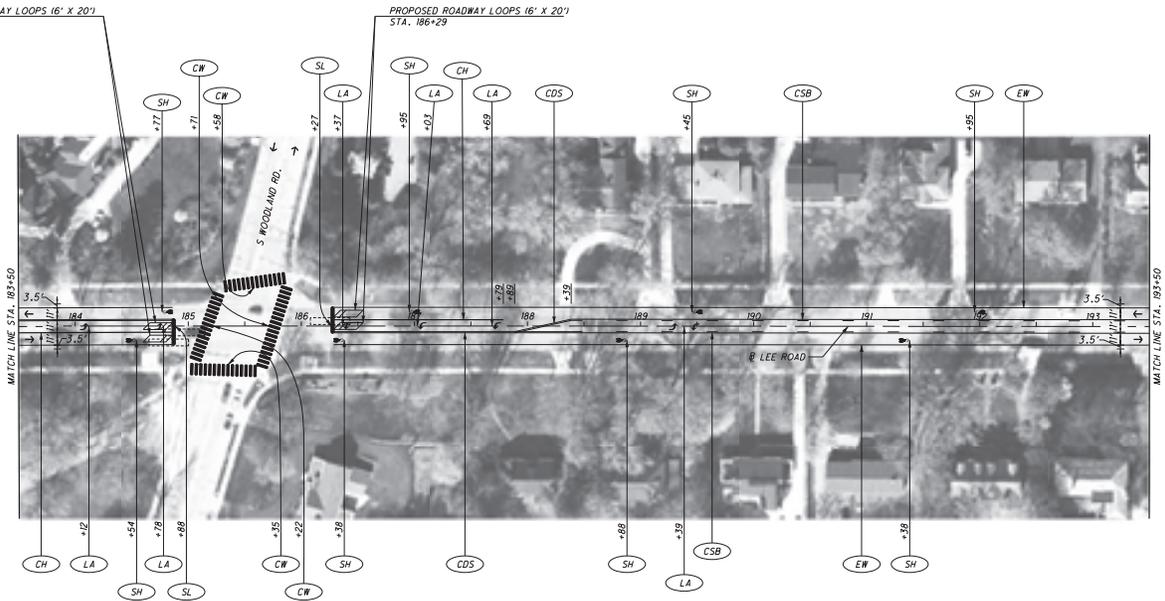


PAVEMENT MARKING PLAN
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CUY-LEE ROAD (CR-8)
IMPROVEMENTS

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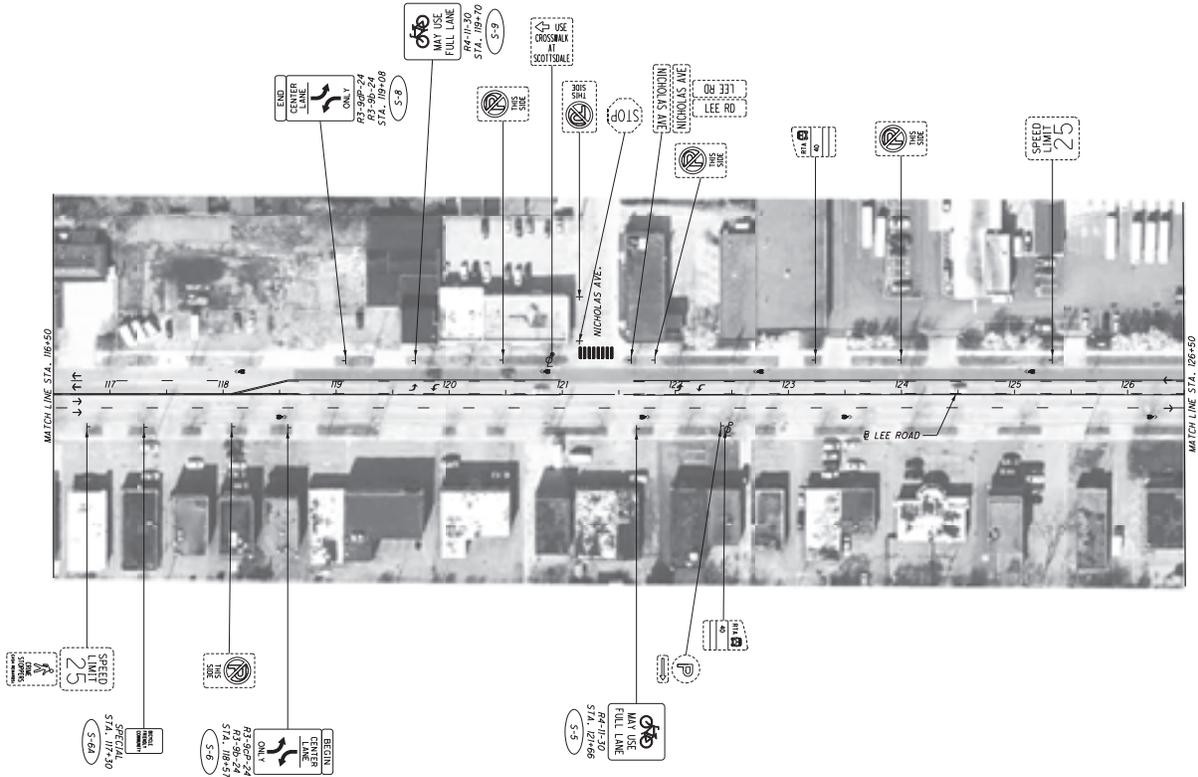
FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32



PAVEMENT MARKING PLAN
STA. 183+50 TO STA. 193+50

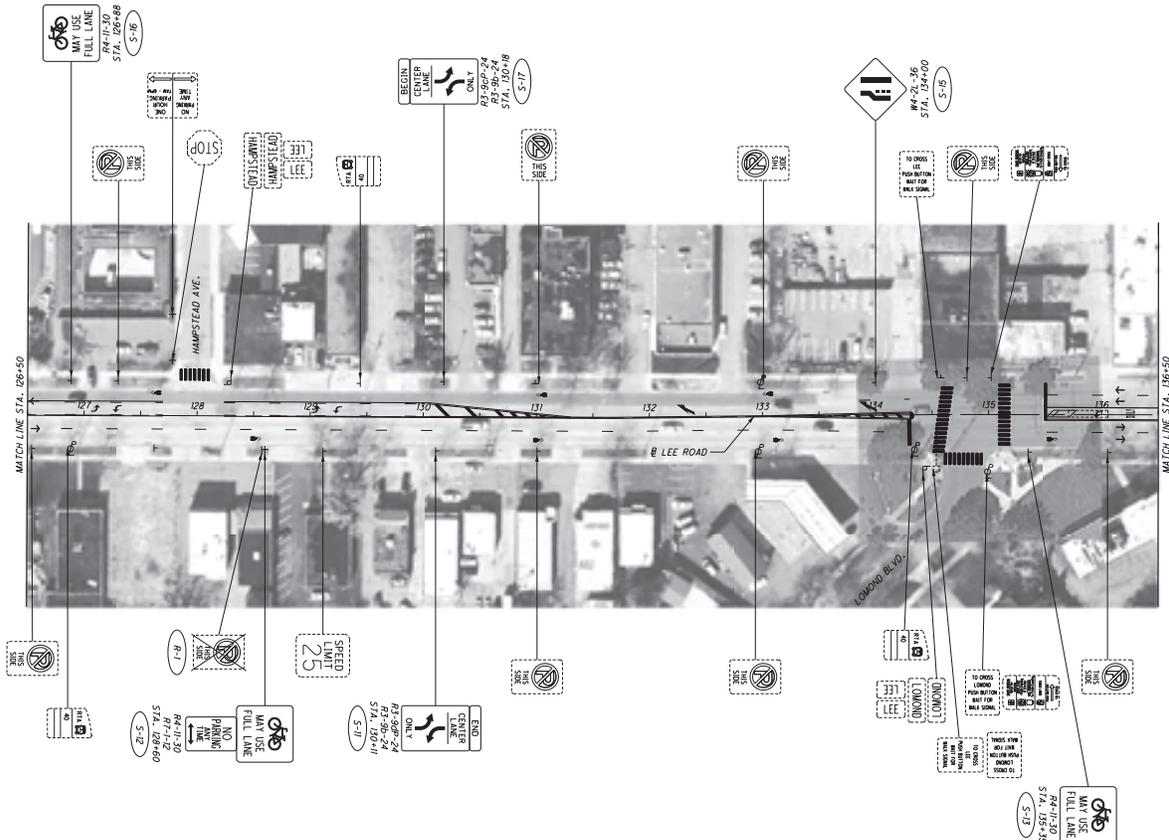
CUY-LEE ROAD (CR-8)
IMPROVEMENTS

40
56



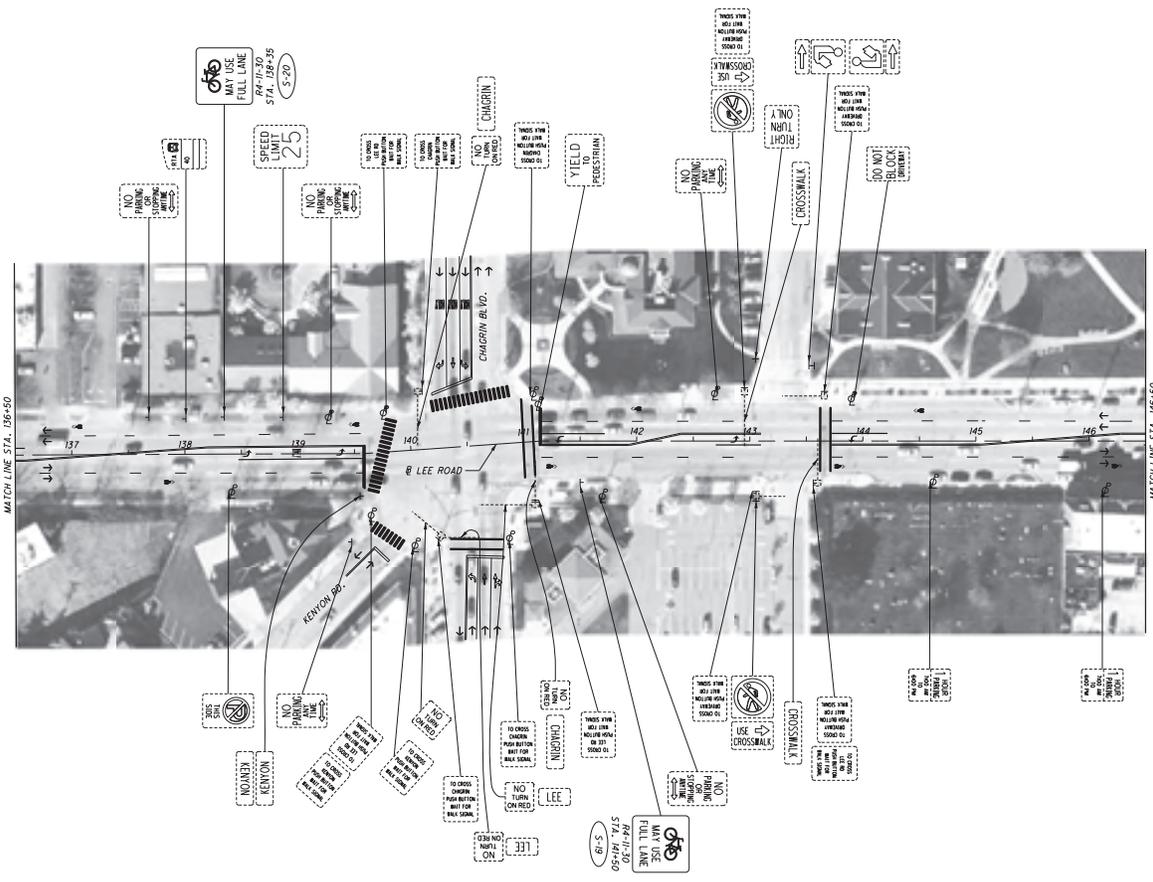
FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

45	56	CUY-LEE ROAD (CR-8) IMPROVEMENTS	SIGNING PLAN STA. 116+50 TO STA. 126+50
CALCULATED CHECKED AMF			



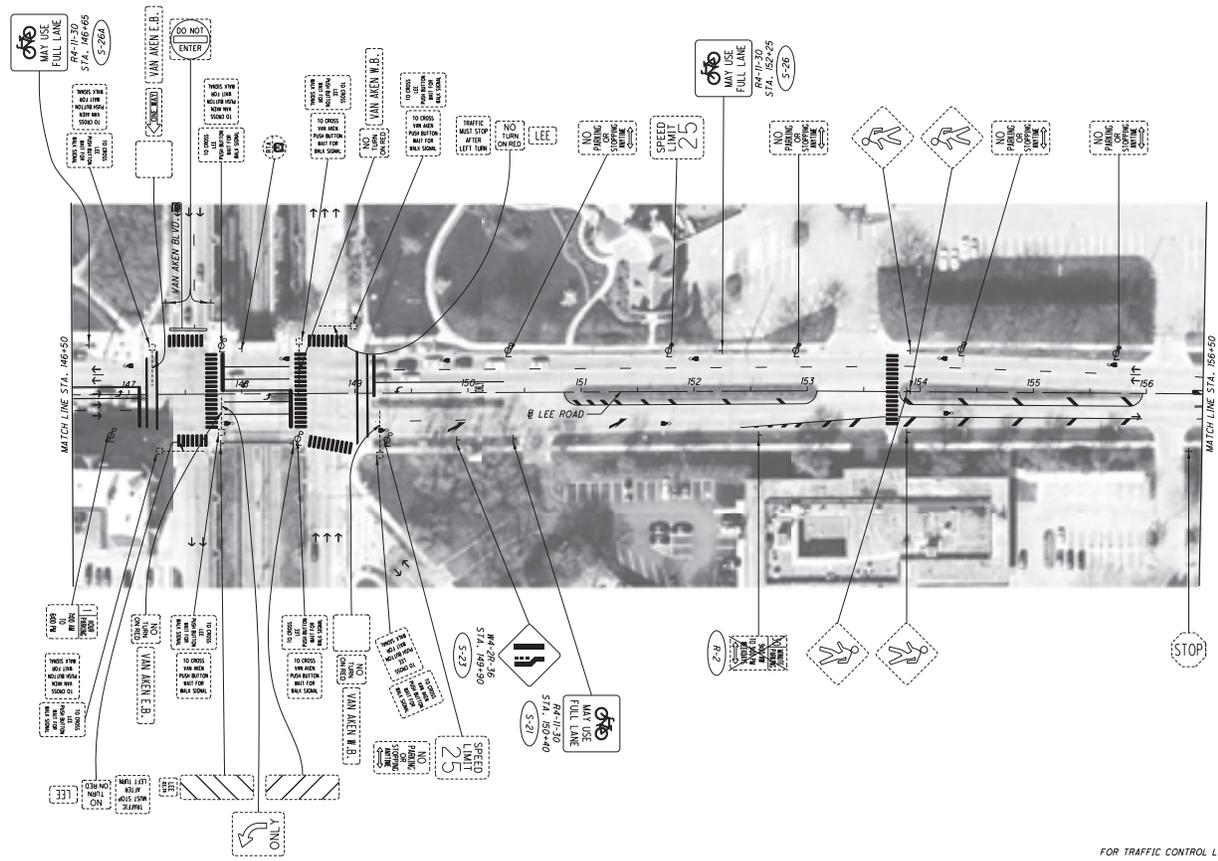
FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

46	56	CUY-LEE ROAD (CR-8) IMPROVEMENTS	SIGNING PLAN STA. 126+50 TO STA. 136+50
CALCULATED CHECKED AMF			



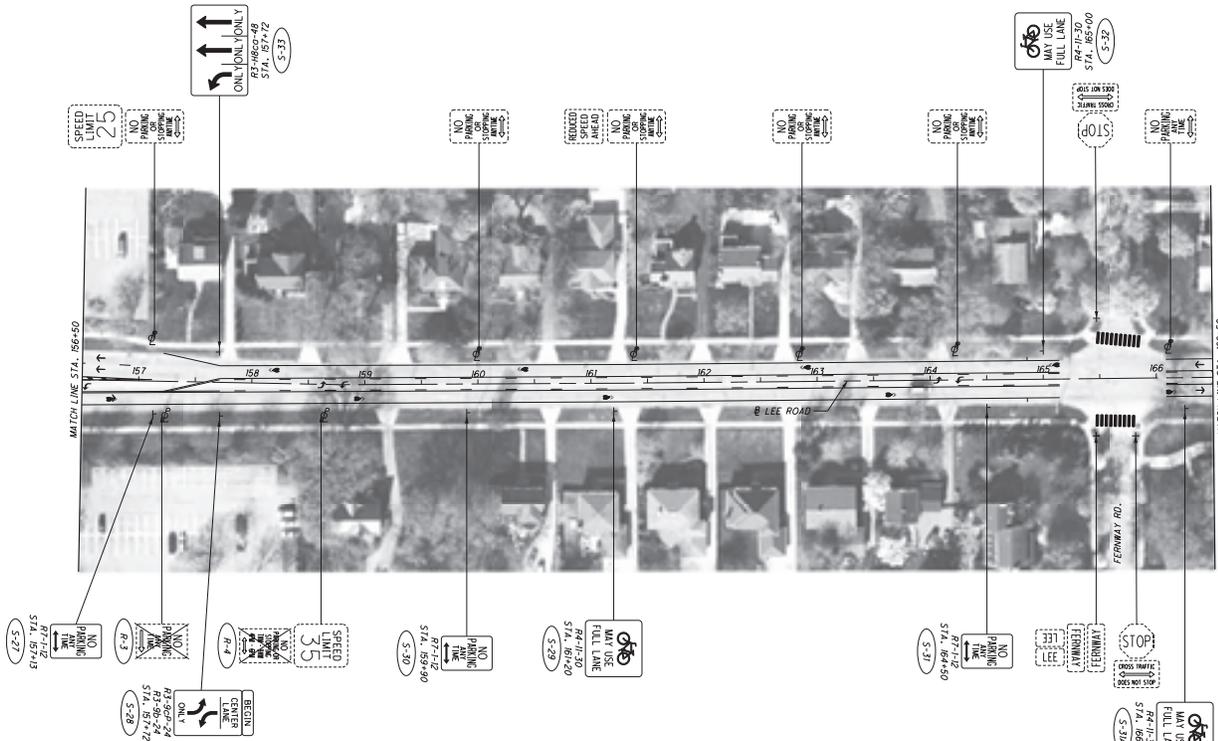
FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

CALCULATED CHECKED DATE BY	DATE BY	SCALE IN FEET	N
SIGNING PLAN			
CUY-LEE ROAD (CR-8)			
IMPROVEMENTS			
STA. 136+50 TO STA. 146+50			



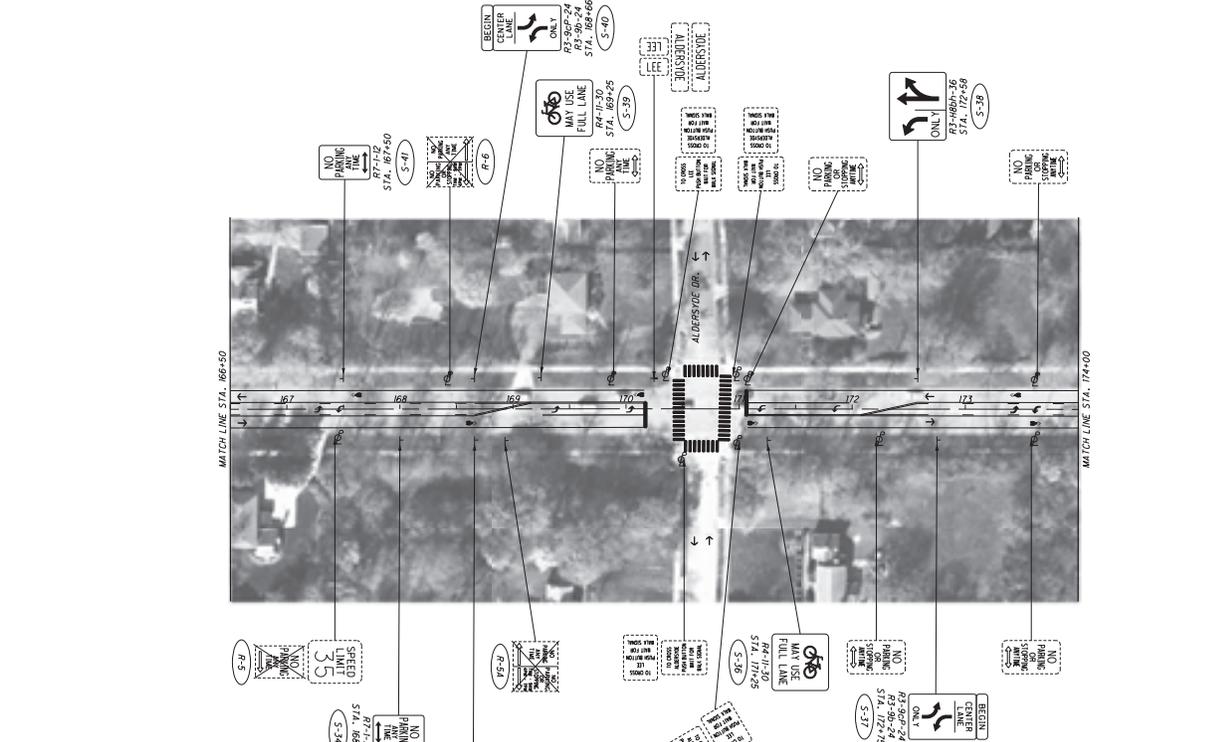
FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

CALCULATED CHECKED DATE BY	DATE BY	SCALE IN FEET	N
SIGNING PLAN			
CUY-LEE ROAD (CR-8)			
IMPROVEMENTS			
STA. 146+50 TO STA. 156+50			



FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

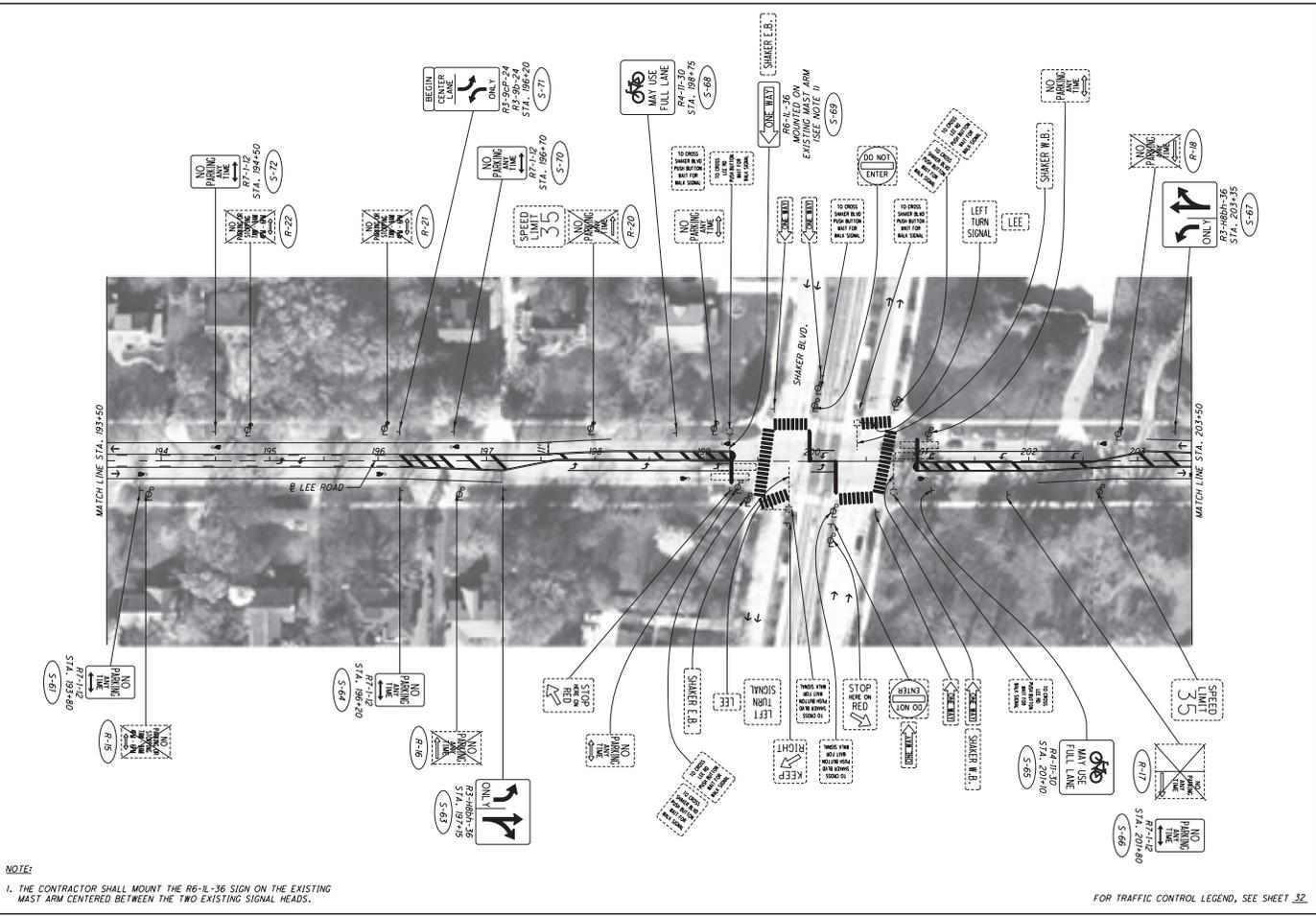
56	55	49	CR-8	SIGNING PLAN	CUY-LEE ROAD (CR-8)	STA. 156+50 TO STA. 166+50
IMPROVEMENTS						
CALCULATED BY: ANF CHECKED BY: ANF						



FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

56	55	49	CR-8	SIGNING PLAN	CUY-LEE ROAD (CR-8)	STA. 166+50 TO STA. 173+50
IMPROVEMENTS						
CALCULATED BY: ANF CHECKED BY: ANF						

03/20/2016 3:08:33 PM Design\Traffic\Sheets\2016\317P060.dgn 3/23/2017 3:52:28 PM afd\c

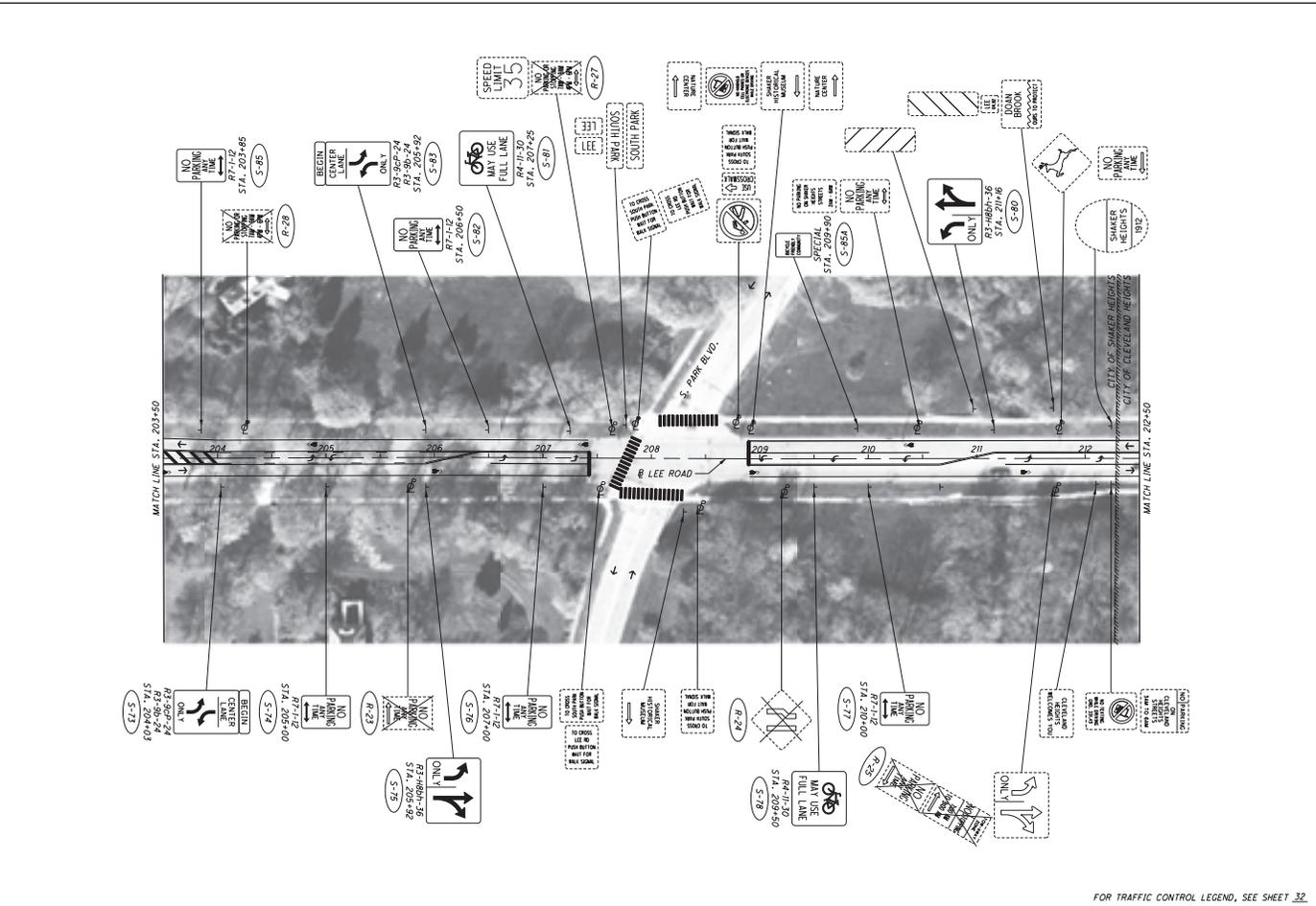


NOTE:
1. THE CONTRACTOR SHALL MOUNT THE R6-L-36 SIGN ON THE EXISTING MAST ARM CENTERED BETWEEN THE TWO EXISTING SIGNAL HEADS.

FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

CALCULATED		SCALE IN FEET
DATE	BY	
5/3	AMF	SIGNING PLAN CUY-LEE ROAD (CR-8) IMPROVEMENTS STA. 193+50 TO STA. 203+50
5/6	AMF	

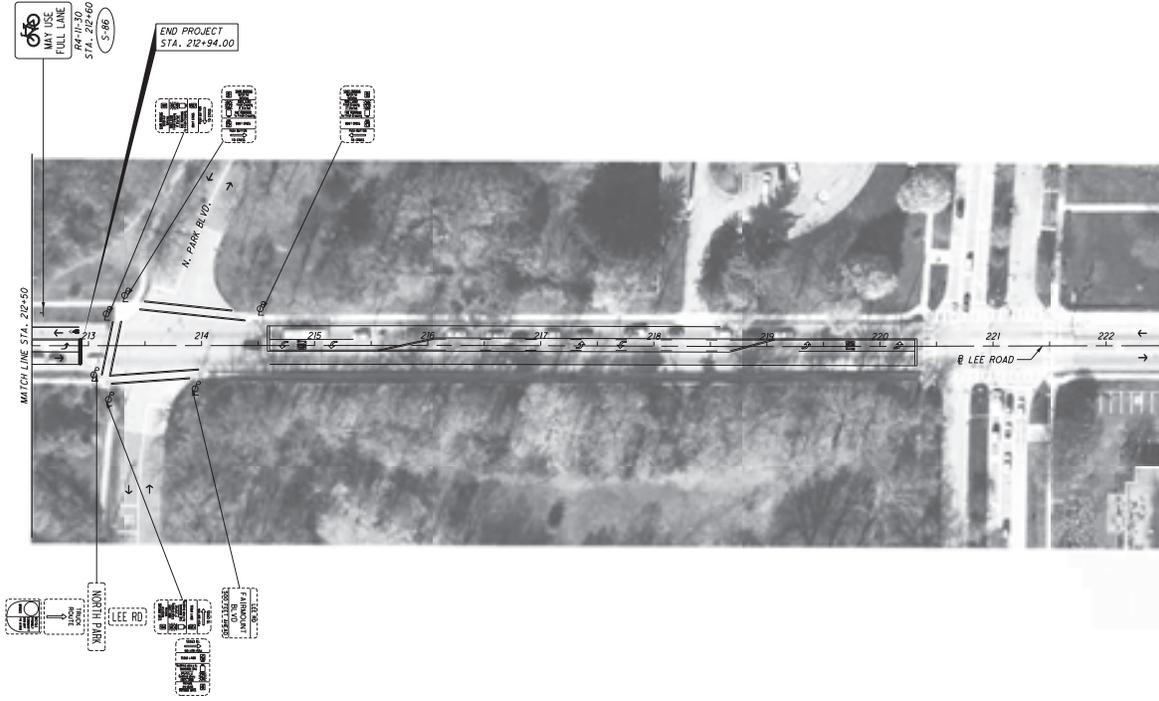
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FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

CALCULATED		SCALE IN FEET
DATE	BY	
5/3	AMF	SIGNING PLAN CUY-LEE ROAD (CR-8) IMPROVEMENTS STA. 203+50 TO STA. 212+50
5/6	AMF	

C:\2018_2019\311\01\Design\Traffic\Sheets\2018\311\061.dgn 1/23/2017 3:50:47 PM a16v4



FOR TRAFFIC CONTROL LEGEND, SEE SHEET 32

CUY-LEE ROAD (CR-8)
IMPROVEMENTS

SIGNING PLAN
STA. 212-50 TO END

CALCULATED CHECKED AWF	HORIZONTAL SCALE IN FEET

**ATTACHMENT B:
SIP/HSIP MAPS**

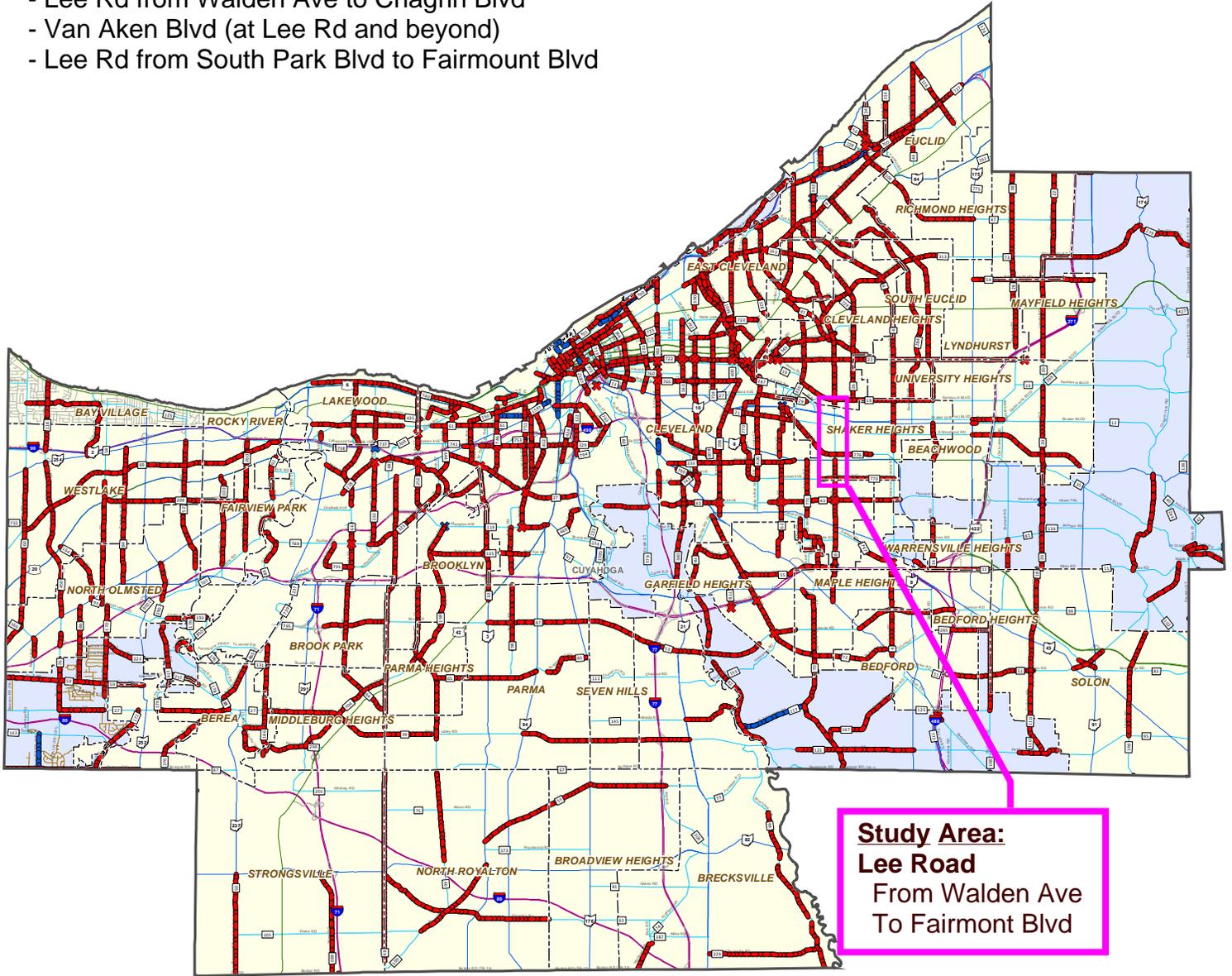
ATTACHMENT B: SIP/HSIP MAPS

SFY2015 Safety Integrated Project Maps - Local System

Cuyahoga County

High Priority Segments in Study Area:

- Lee Rd from Walden Ave to Chagrin Blvd
- Van Aken Blvd (at Lee Rd and beyond)
- Lee Rd from South Park Blvd to Fairmount Blvd



Study Area:
Lee Road
 From Walden Ave
 To Fairmount Blvd

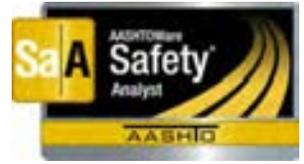
High Priority	— Other Routes
✘ Intersections/Interchanges	Roads by Type
— Segments	— Interstate Route
Low Cost Improvements	— United States Route
✘ Intersections/Interchanges	— State Route
— Segments	— County Road
	— Township Road

Date: 2/17/2016

0 1.75 3.5 7 10.5
 Miles

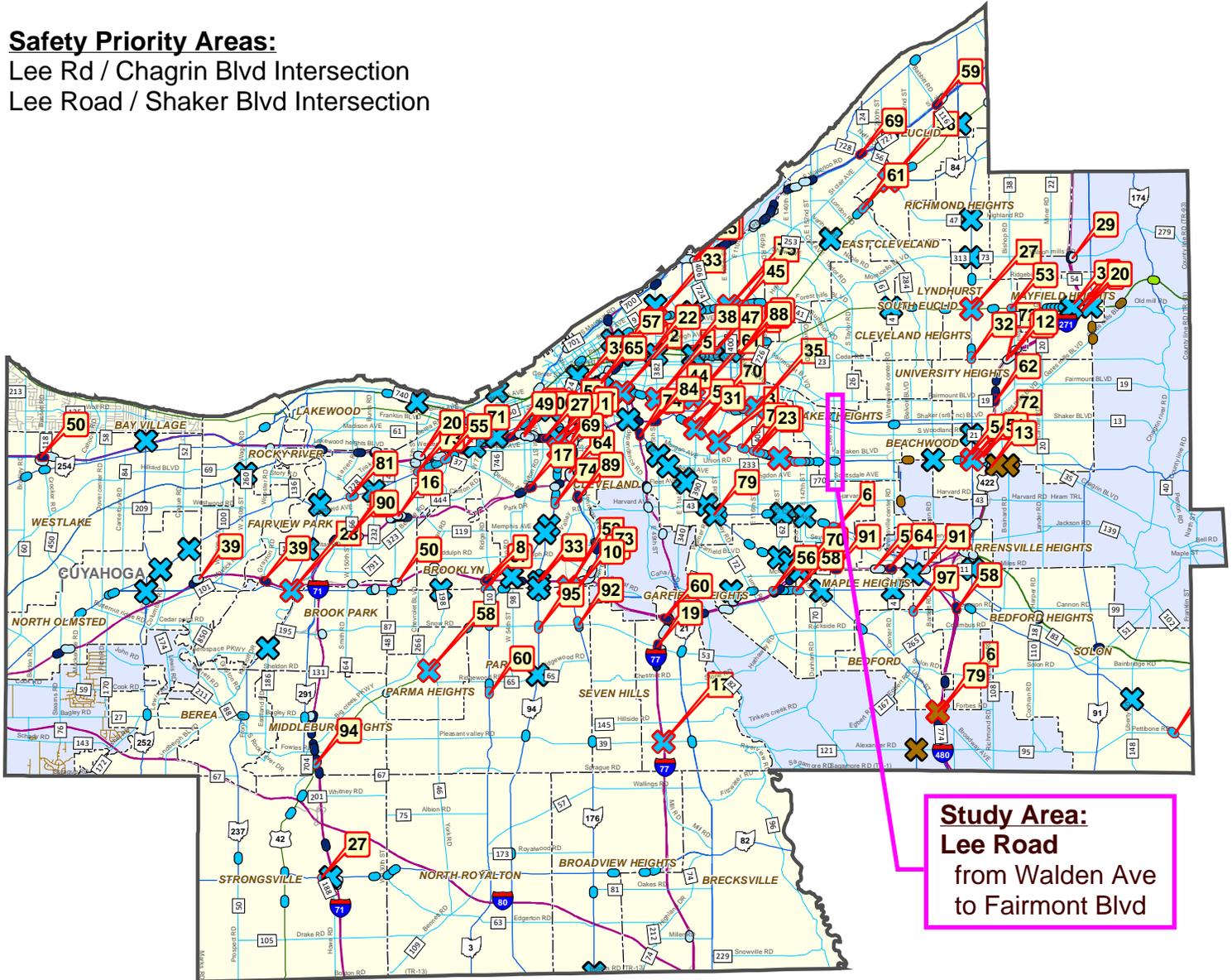
OHIO DEPARTMENT OF TRANSPORTATION
 Division of Planning
 Office of Program Management

2018 Highway Safety Improvement Program (HSIP) Priority Locations - Cuyahoga County



Safety Priority Areas:

- Lee Rd / Chagrin Blvd Intersection
- Lee Road / Shaker Blvd Intersection



Study Area:
Lee Road
from Walden Ave
to Fairmont Blvd

<p>City Boundary</p> <p>Roads by Type</p> <ul style="list-style-type: none"> Other Routes Interstate Route United States Route State Route County Road Township Road 	<p>Safety Priority Category</p> <ul style="list-style-type: none"> Rural Intersections Suburban Intersections Urban Intersections 	<p>Safety Priority Category</p> <ul style="list-style-type: none"> Rural Freeway Rural Non-Freeway Rural Ramp Suburban Non-Freeway Urban Freeway Urban Non-Freeway Urban Ramp
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Date: 9/14/2019

0 1.25 2.5 5 7.5
Miles

dot
Division of Planning
Program Management

**ATTACHMENT C:
LEE ROAD CORRIDOR CRASH DATA**

ATTACHMENT C: LEE ROAD CORRIDOR CRASH DATA

Lee Road: Walden Ave to Fairmount Blvd
Crash Summary Sheet

Fatalities	0
Serious Injuries	8
Other Injuries	187

Crash Severity	Crashes	%
(2) Serious Injury Suspected	8	1.93%
(3) Minor Injury Suspected	38	9.16%
(4) Injury Possible	87	20.96%
(5) PDO/No Injury	282	67.95%
Grand Total	415	100.00%

Day of Week	Crashes	%
(1) Sunday	41	9.88%
(2) Monday	62	14.94%
(3) Tuesday	61	14.70%
(4) Wednesday	58	13.98%
(5) Thursday	64	15.42%
(6) Friday	65	15.66%
(7) Saturday	64	15.42%
Grand Total	415	100.00%

Hour of Day	Crashes	%
0	9	2.17%
1	13	3.13%
2	3	0.72%
3	4	0.96%
4	3	0.72%
5	2	0.48%
6	4	0.96%
7	17	4.10%
8	18	4.34%
9	22	5.30%
10	17	4.10%
11	13	3.13%
12	34	8.19%
13	20	4.82%
14	23	5.54%
15	34	8.19%
16	49	11.81%
17	44	10.60%
18	29	6.99%
19	17	4.10%
20	15	3.61%
21	10	2.41%
22	4	0.96%
23	11	2.65%
Grand Total	415	100.00%

Crashes Per Year	138.33
Fatal and All Injury Crashes	133
Percent Injury	32.0%
Equivalent PDO Index Value	3.53

Year	Crashes	%
2018	144	34.70%
2019	158	38.07%
2020	113	27.23%
Grand Total	415	100.00%

Crash Type	Crashes	%
Rear End	180	43.4%
Left turn	71	17.1%
Sideswipe - Passing	61	14.7%
Angle	58	14.0%
Fixed Object	21	5.1%
Right Turn	5	1.2%
Pedestrian	5	1.2%
Sideswipe - Meeting	4	1.0%
Backing	4	1.0%
Pedalcycles	3	0.7%
Head on	1	0.2%
Train	1	0.2%
Parked Vehicle	1	0.2%
Grand Total	415	100.00%

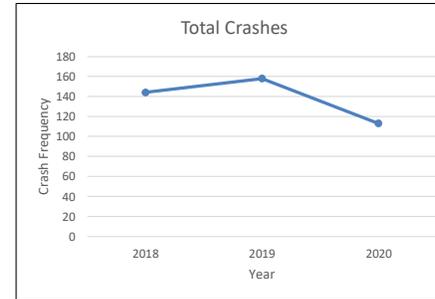
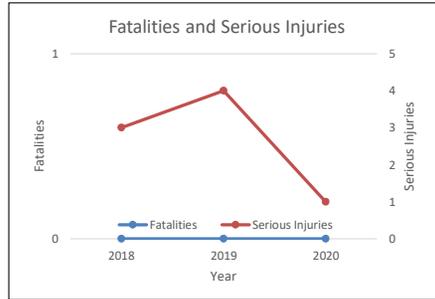
Month	Crashes	%
1	31	7.47%
2	24	5.78%
3	36	8.67%
4	24	5.78%
5	47	11.33%
6	32	7.71%
7	35	8.43%
8	47	11.33%
9	30	7.23%
10	44	10.60%
11	32	7.71%
12	33	7.95%
Grand Total	415	100.00%

Lee Road: Walden Ave to Fairmount Blvd

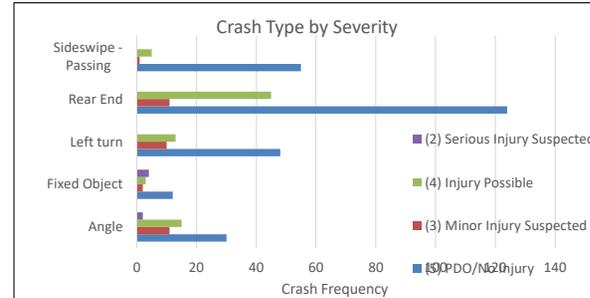
Crash Summary Sheet

Crashes Per Year	138.33	Percent Injury	32.0%	EPDO	3.53
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Year	Total Crashes	Fatalities	Serious Injuries
2018	144	0	3
2019	158	0	4
2020	113	0	1
Grand Total	415	0	8



Crash Type	Injury Level					Grand Total
	(2) Serious Inju	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Inj		
Rear End	0	11	45	124		180
Left turn	0	10	13	48		71
Sideswipe - Passing	0	1	5	55		61
Angle	2	11	15	30		58
Fixed Object	4	2	3	12		21
Right Turn	0	2	0	3		5
Pedestrian	2	1	1	1		5
Sideswipe - Meeting	0	0	1	3		4
Backing	0	0	1	3		4
Pedalcycles	0	0	2	1		3
Head on	0	0	1	0		1
Train	0	0	0	1		1
Parked Vehicle	0	0	0	1		1
Grand Total	8	38	87	282		415



Lee Road: Walden Ave to Fairmount Blvd

Crash Summary Sheet

Crashes Per Year	138.33	Percent Injury	32.0%	EPDO	3.53
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	293	0	6
Ice	2	0	0
Snow	9	0	0
Wet	104	0	2
Other / Unknown	7	0	0
Grand Total	415	0	8

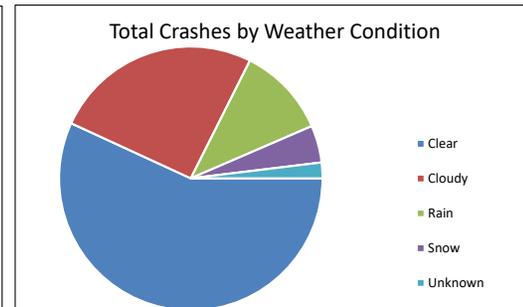
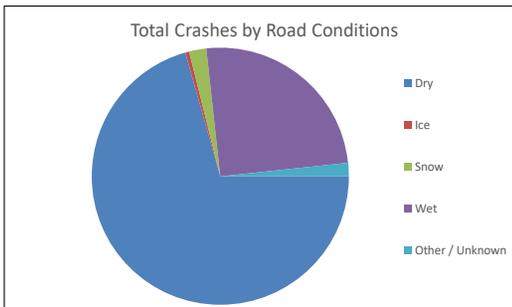
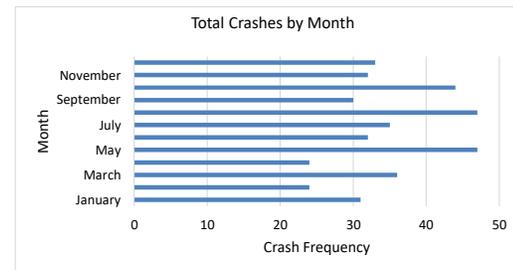
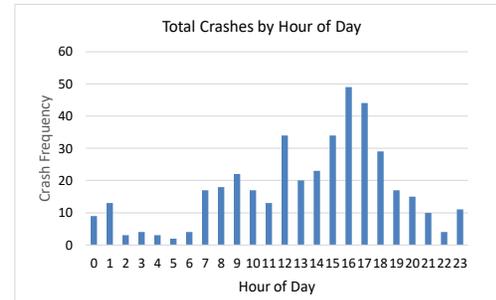
Weather	Total Crashes	Fatalities	Serious Injuries
Clear	236	0	5
Cloudy	106	0	2
Rain	46	0	1
Snow	19	0	0
Unknown	8	0	0
Grand Total	415	0	8

Crash Location	Total Crashes	Fatalities	Serious Injuries
5 Or More Point Intersection	125	0	2
Four-Way Intersection	205	0	3
Not An Intersection	81	0	3
T-Intersection	4	0	0
Grand Total	415	0	8

Hour of Day	Total Crashes
0	9
1	13
2	3
3	4
4	3
5	2
6	4
7	17
8	18
9	22
10	17
11	13
12	34
13	20
14	23
15	34
16	49
17	44
18	29
19	17
20	15
21	10
22	4
23	11
Grand Total	415

Month	Total Crashes
January	31
February	24
March	36
April	24
May	47
June	32
July	35
August	47
September	30
October	44
November	32
December	33
Grand Total	415

Day in Week	Total Crashes
(1) Sunday	41
(2) Monday	62
(3) Tuesday	61
(4) Wednesday	58
(5) Thursday	64
(6) Friday	65
(7) Saturday	64
Grand Total	415



Lee Road: Walden Ave to Fairmount Blvd

Select Authority: All

OHIO SHSP EMPHASIS AREAS (Fatalities)						
Target Group	2020	2020	2019	2019	2018	2018
	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	1		4		3	
Roadway Departure	1	100%	1	25%	2	67%
Intersection	0	0%	3	75%	2	67%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	1	25%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	1	25%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	2	50%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	113		158		144	
Roadway Departure	10	9%	8	5%	7	5%
Intersection	86	76%	130	82%	118	82%
Railroad Crossing	0	0%	1	1%	0	0%
Alcohol Related Involvement	2	2%	9	6%	6	4%
Restraints Not Used Driver/Occupants	14	12%	14	9%	5	3%
Speed Related Involvement	9	8%	18	11%	10	7%
Young Driver Involvement (15-25)	41	36%	58	37%	36	25%
Older Driver Involvement (65+)	24	21%	33	21%	27	19%
Distracted Drivers	3	3%	6	4%	6	4%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	1	1%	3	2%	1	1%
Bicycle Involvement	1	1%	0	0%	2	1%
Work Zone Related	4	4%	1	1%	1	1%
Drug Related Involvement	0	0%	1	1%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	53	47%	65	41%	62	43%

*2020 Data is Preliminary

Select Site Type	Seg/Urb; Multilane undivided
------------------	------------------------------

Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.27%
Serious Injury Suspected Crash	8	1.93%	2.30%
Minor Injury Suspected Crash	38	9.16%	9.93%
Injury Possible Crash	87	20.96%	15.64%
Property-Damage-Only	282	67.95%	71.86%
Total	415		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	0.02%	0.23%	0.02%	0.15%
Head On	0.24%	1.63%	0.24%	3.16%
Rear End	43.37%	39.17%	43.37%	40.14%
Backing	0.96%	2.59%	0.96%	0.74%
Sideswipe - Meeting	0.96%	0.87%	0.96%	0.82%
Sideswipe - Passing	14.70%	13.23%	14.70%	6.16%
Angle	13.98%	8.78%	13.98%	11.31%
Parked Vehicle	0.24%	2.49%	0.24%	1.33%
Pedestrian	1.20%	1.29%	1.20%	4.16%
Animal	0.00%	2.50%	0.00%	0.50%
Train	0.24%	0.01%	0.24%	0.02%
Pedalcycles	0.72%	0.90%	0.72%	2.64%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	5.06%	6.36%	5.06%	7.63%
Other Object	0.00%	0.23%	0.00%	0.10%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.17%	0.00%	0.45%
Other Non-Collision	0.00%	0.36%	0.00%	0.35%
Left Turn	17.11%	15.12%	17.11%	17.74%
Right Turn	1.20%	4.07%	1.20%	2.60%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	70.83%	72.92%	70.83%	72.42%
Dawn/Dusk	5.39%	4.03%	5.39%	3.86%
Dark - Lighted Roadway	21.81%	18.06%	21.81%	19.37%
Dark - Roadway Not Lighted	1.72%	3.30%	1.72%	2.92%
Dark - Unknown Roadway Lighting	0.25%	0.27%	0.25%	0.20%
Other / Unknown	0.00%	1.42%	0.00%	1.23%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	70.43%	70.89%	70.43%	72.46%
Wet	25.00%	22.57%	25.00%	22.49%
Snow	2.16%	4.22%	2.16%	3.13%
Ice	0.48%	1.29%	0.48%	1.06%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.03%	0.00%	0.04%
Water (Standing, Moving)	0.00%	0.03%	0.00%	0.04%
Slush	0.00%	0.20%	0.00%	0.17%
Other / Unknown	1.93%	0.77%	1.93%	0.61%

Lee Road: Walden Ave to Fairmount Blvd

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	415
Fatalities	0
Serious Injuries	8

Non-Intersection	
Crashes	81
Fatalities	0
Serious Injuries	3

Intersection	
Crashes	334
Fatalities	0
Serious Injuries	5

Roadway Departure	
Crashes	11
Fatalities	0
Serious Injuries	3

Other	
Crashes	70
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	310
Fatalities	0
Serious Injuries	3

Unsignalized	
Crashes	24
Fatalities	0
Serious Injuries	2

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Fixed Object	
Crashes	10
Fatalities	0
Serious Injuries	3
Rank 2	
Parked Vehicle	
Crashes	1
Fatalities	0
Serious Injuries	0
Rank 3	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	31
Fatalities	0
Serious Injuries	0
Rank 2	
Sideswipe - Passing	
Crashes	27
Fatalities	0
Serious Injuries	0
Rank 3	
Left Turn	
Crashes	3
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	141
Fatalities	0
Serious Injuries	0
Rank 2	
Left Turn	
Crashes	63
Fatalities	0
Serious Injuries	0
Rank 3	
Angle	
Crashes	49
Fatalities	0
Serious Injuries	1

Crash Types	
Rank 1	
Rear End	
Crashes	8
Fatalities	0
Serious Injuries	0
Rank 2	
Angle	
Crashes	6
Fatalities	0
Serious Injuries	0
Rank 3	
Left Turn	
Crashes	5
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

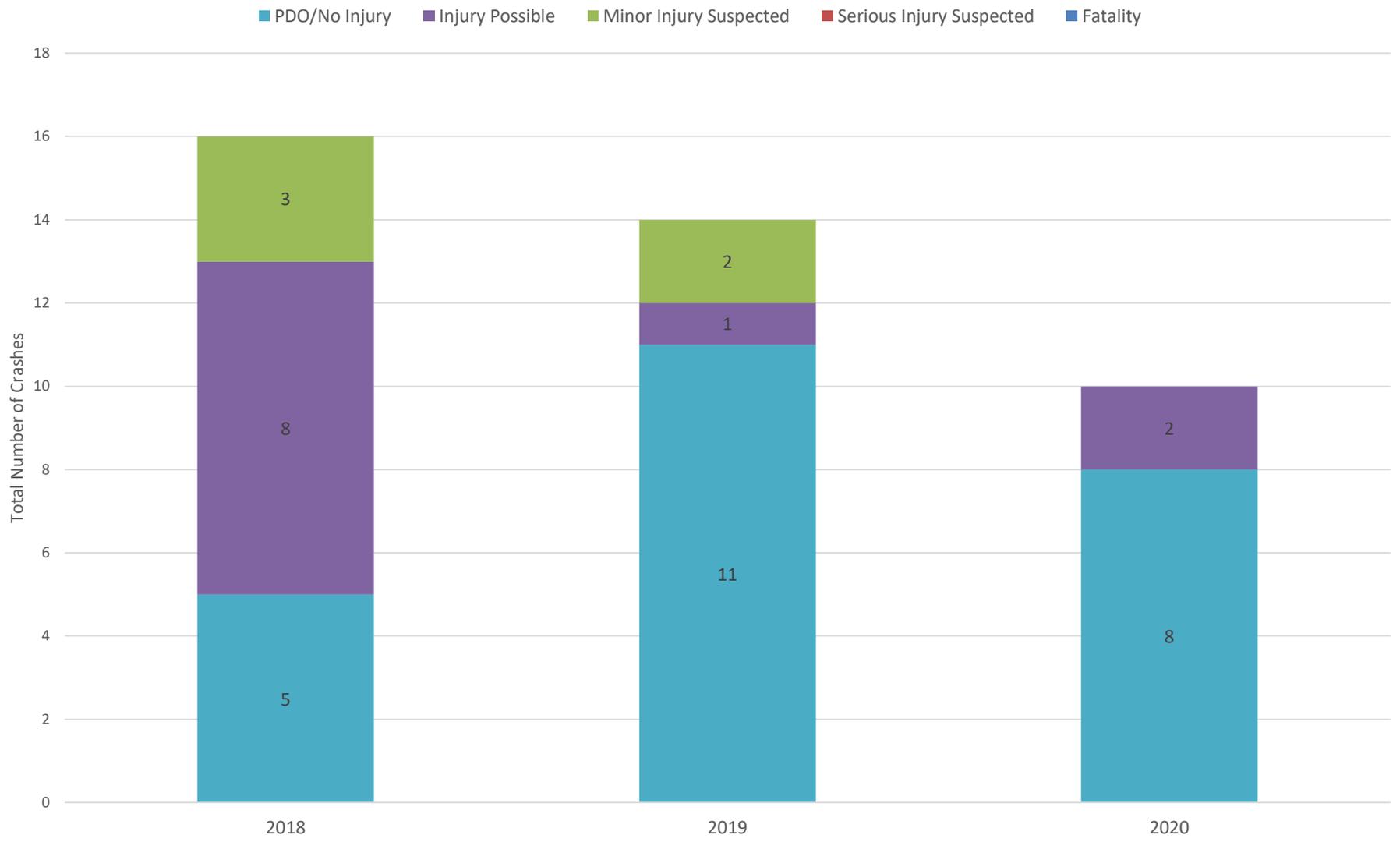
**ATTACHMENT D:
VAN AKEN INTERSECTION CRASH DATA**

ATTACHMENT D: VAN AKEN INTERSECTION CRASH DATA

Van Aken Crashes by Type (2018-2020)



Van Aken Crashes by Severity (2018-2020)



**ATTACHMENT E:
INTERSECTION AND ROADWAY SEGMENT CRASH DATA**

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

THROCKLEY AVENUE

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

Lee Rd / Throckley Ave
Crash Summary Sheet

Fatalities	0
Serious Injuries	1
Other Injuries	13

Crash Severity	Crashes	%
(2) Serious Injury Suspected	1	7.69%
(3) Minor Injury Suspected	1	7.69%
(4) Injury Possible	5	38.46%
(5) PDO/No Injury	6	46.15%
Grand Total	13	100.00%

Day of Week	Crashes	%
(1) Sunday	2	15.38%
(2) Monday	1	7.69%
(3) Tuesday	3	23.08%
(6) Friday	6	46.15%
(7) Saturday	1	7.69%
Grand Total	13	100.00%

Hour of Day	Crashes	%
1	1	7.69%
9	1	7.69%
11	1	7.69%
12	1	7.69%
13	1	7.69%
14	1	7.69%
16	1	7.69%
17	4	30.77%
19	2	15.38%
Grand Total	13	100.00%

Crashes Per Year	4.33
Fatal and All Injury Crashes	7
Percent Injury	53.8%
Equivalent PDO Index Value	7.26

Year	Crashes	%
2018	5	38.46%
2019	4	30.77%
2020	4	30.77%
Grand Total	13	100.00%

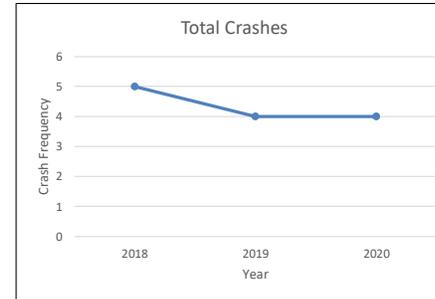
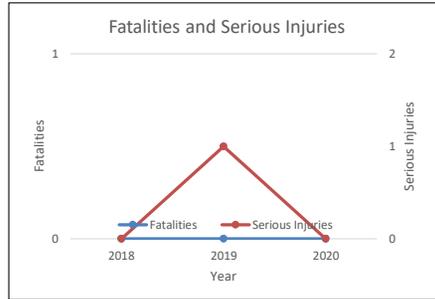
Crash Type	Crashes	%
Rear End	5	38.46%
Angle	3	23.08%
Left turn	3	23.08%
Sideswipe - Passing	1	7.69%
Pedestrian	1	7.69%
Grand Total	13	100.00%

Month	Crashes	%
1	1	7.69%
2	2	15.38%
3	1	7.69%
4	1	7.69%
6	2	15.38%
8	1	7.69%
9	1	7.69%
10	1	7.69%
11	2	15.38%
12	1	7.69%
Grand Total	13	100.00%

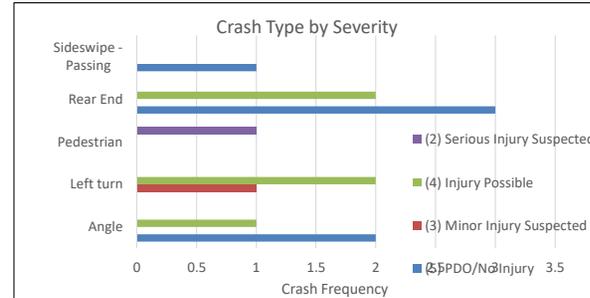
**Lee Rd / Throckley Ave
Crash Summary Sheet**

Crashes Per Year	4.33	Percent Injury	53.8%	EPDO	7.26
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Year	Total Crashes	Fatalities	Serious Injuries
2018	5	0	0
2019	4	0	1
2020	4	0	0
Grand Total	13	0	1



Crash Type	Injury Level					Grand Total
	(2) Serious Inju	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Inj		
Rear End	0	0	2	3	5	
Angle	0	0	1	2	3	
Left turn	0	1	2	0	3	
Sideswipe - Passing	0	0	0	1	1	
Pedestrian	1	0	0	0	1	
Grand Total	1	1	5	6	13	



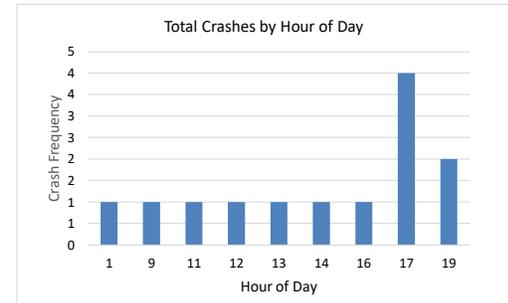
**Lee Rd / Throckley Ave
Crash Summary Sheet**

Crashes Per Year	4.33	Percent Injury	53.8%	EPDO	7.26
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	10	0	1
Ice	1	0	0
Wet	2	0	0
Grand Total	13	0	1

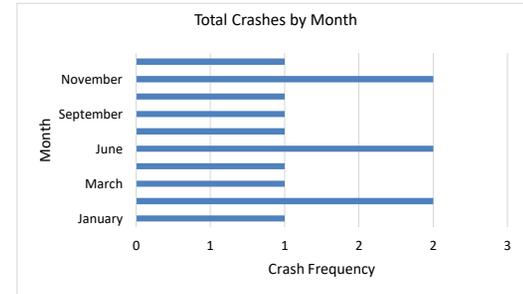
Hour of Day	Total Crashes
1	1
9	1
11	1
12	1
13	1
14	1
16	1
17	4
19	2
Grand Total	13

Month	Total Crashes
January	1
February	2
March	1
April	1
June	2
August	1
September	1
October	1
November	2
December	1
Grand Total	13

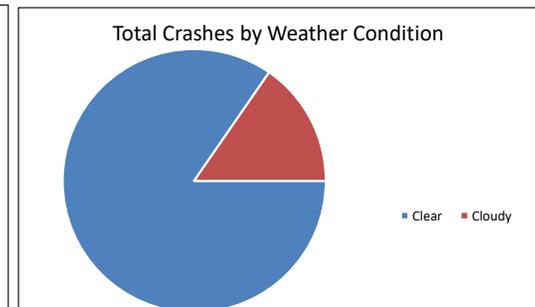
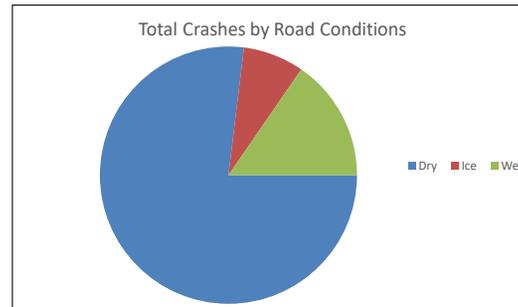


Weather	Total Crashes	Fatalities	Serious Injuries
Clear	11	0	1
Cloudy	2	0	0
Grand Total	13	0	1

Day in Week	Total Crashes
(1) Sunday	2
(2) Monday	1
(3) Tuesday	3
(6) Friday	6
(7) Saturday	1
Grand Total	13



Crash Location	Total Crashes	Fatalities	Serious Injuries
Four-Way Intersection	13	0	1
Grand Total	13	0	1



OHIO SHSP EMPHASIS AREAS (Fatalities)						
	2020	2020	2019	2019	2018	2018
Target Group	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	0		1		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	1	100%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	1	100%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	4		4		5	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	4	100%	4	100%	5	100%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	1	25%	2	40%
Young Driver Involvement (15-25)	0	0%	2	50%	2	40%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	1	25%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	2	50%	1	25%	2	40%

*2020 Data is Preliminary

Select Site Type	Int/Urb; 4-leg minor-rd STOP
------------------	------------------------------

Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.45%
Serious Injury Suspected Crash	1	7.69%	3.17%
Minor Injury Suspected Crash	1	7.69%	12.09%
Injury Possible Crash	5	38.46%	14.01%
Property-Damage-Only	6	46.15%	70.28%
Total	13		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	0.00%	0.22%	0.00%	0.13%
Head On	0.00%	1.47%	0.00%	2.39%
Rear End	38.46%	24.98%	38.46%	24.66%
Backing	0.00%	4.59%	0.00%	0.65%
Sideswipe - Meeting	0.00%	0.92%	0.00%	0.78%
Sideswipe - Passing	7.69%	9.44%	7.69%	4.52%
Angle	23.08%	20.89%	23.08%	31.28%
Parked Vehicle	0.00%	4.24%	0.00%	1.69%
Pedestrian	7.69%	1.11%	7.69%	3.45%
Animal	0.00%	3.68%	0.00%	0.44%
Train	0.00%	0.00%	0.00%	0.01%
Pedalcycles	0.00%	0.81%	0.00%	2.21%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	0.00%	9.48%	0.00%	8.42%
Other Object	0.00%	0.29%	0.00%	0.09%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.37%	0.00%	0.77%
Other Non-Collision	0.00%	0.45%	0.00%	0.34%
Left Turn	23.08%	13.46%	23.08%	15.77%
Right Turn	0.00%	3.60%	0.00%	2.40%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	61.54%	72.98%	61.54%	75.87%
Dawn/Dusk	0.00%	4.31%	0.00%	3.54%
Dark - Lighted Roadway	38.46%	13.64%	38.46%	12.71%
Dark - Roadway Not Lighted	0.00%	7.35%	0.00%	6.84%
Dark - Unknown Roadway Lighting	0.00%	0.34%	0.00%	0.26%
Other / Unknown	0.00%	1.38%	0.00%	0.78%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	71.43%	72.75%	71.43%	75.72%
Wet	14.29%	19.84%	14.29%	19.62%
Snow	0.00%	4.65%	0.00%	2.77%
Ice	7.14%	1.75%	7.14%	1.33%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.07%	0.00%	0.06%
Water (Standing, Moving)	0.00%	0.02%	0.00%	0.01%
Slush	0.00%	0.16%	0.00%	0.16%
Other / Unknown	7.14%	0.76%	7.14%	0.33%

Lee Rd / Throckley Ave

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	13
Fatalities	0
Serious Injuries	1

Non-Intersection	
Crashes	0
Fatalities	0
Serious Injuries	0

Intersection	
Crashes	13
Fatalities	0
Serious Injuries	1

Roadway Departure	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Unsignalized	
Crashes	13
Fatalities	0
Serious Injuries	1

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	5
Fatalities	0
Serious Injuries	0
Rank 2	
Left Turn	
Crashes	3
Fatalities	0
Serious Injuries	0
Rank 3	
Angle	
Crashes	3
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

INVERMERE AVENUE

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

Lee Rd / Invermere Ave
Crash Summary Sheet

Fatalities	0
Serious Injuries	0
Other Injuries	11

Crash Severity	Crashes	%
(3) Minor Injury Suspected	1	5.26%
(4) Injury Possible	7	36.84%
(5) PDO/No Injury	11	57.89%
Grand Total	19	100.00%

Day of Week	Crashes	%
(1) Sunday	3	15.79%
(2) Monday	4	21.05%
(3) Tuesday	1	5.26%
(4) Wednesday	2	10.53%
(5) Thursday	3	15.79%
(6) Friday	3	15.79%
(7) Saturday	3	15.79%
Grand Total	19	100.00%

Hour of Day	Crashes	%
0	1	5.26%
1	1	5.26%
3	1	5.26%
5	1	5.26%
8	1	5.26%
11	1	5.26%
12	3	15.79%
14	2	10.53%
15	3	15.79%
16	2	10.53%
17	1	5.26%
18	1	5.26%
21	1	5.26%
Grand Total	19	100.00%

Crashes Per Year	6.33
Fatal and All Injury Crashes	8
Percent Injury	42.1%
Equivalent PDO Index Value	3.09

Year	Crashes	%
2018	8	42.11%
2019	7	36.84%
2020	4	21.05%
Grand Total	19	100.00%

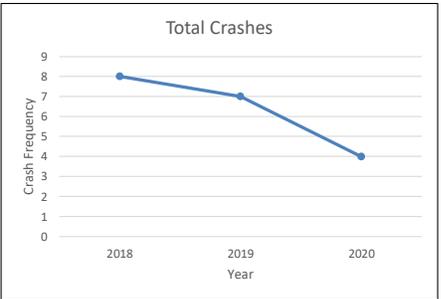
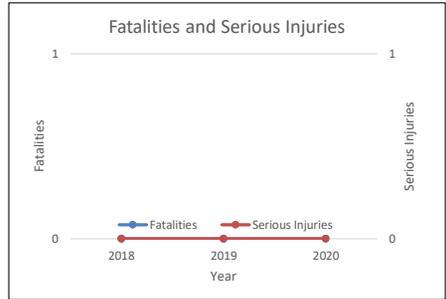
Crash Type	Crashes	%
Angle	8	42.11%
Rear End	7	36.84%
Left Turn	2	10.53%
Sideswipe - Passing	1	5.26%
Right turn	1	5.26%
Grand Total	19	100.00%

Month	Crashes	%
1	1	5.26%
3	3	15.79%
4	1	5.26%
5	1	5.26%
6	2	10.53%
7	3	15.79%
8	3	15.79%
9	2	10.53%
10	2	10.53%
12	1	5.26%
Grand Total	19	100.00%

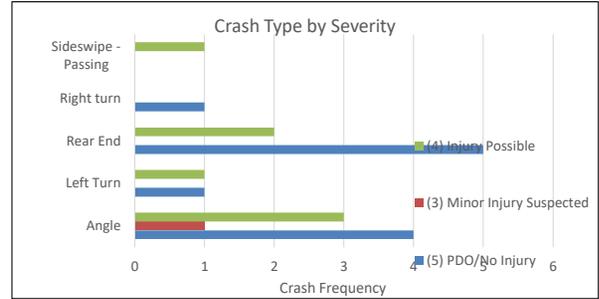
**Lee Rd / Invermere Ave
Crash Summary Sheet**

Crashes Per Year	6.33	Percent Injury	42.1%	EPDO	3.09
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Year	Total Crashes	Fatalities	Serious Injuries
2018	8	0	0
2019	7	0	0
2020	4	0	0
Grand Total	19	0	0



Crash Type	Injury Level			Grand Total
	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Inju	
Angle	1	3	4	8
Rear End	0	2	5	7
Left Turn	0	1	1	2
Sideswipe - Passing	0	1	0	1
Right turn	0	0	1	1
Grand Total	1	7	11	19



**Lee Rd / Invermere Ave
Crash Summary Sheet**

Crashes Per Year	6.33	Percent Injury	42.1%	EPDO	3.09
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	16	0	0
Wet	3	0	0
Grand Total	19	0	0

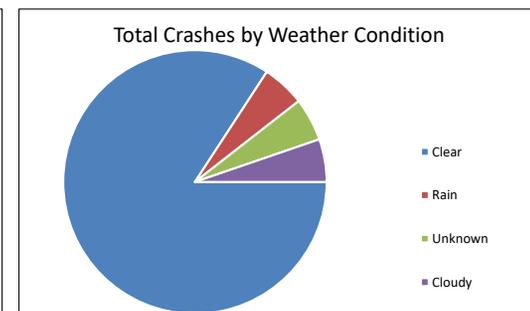
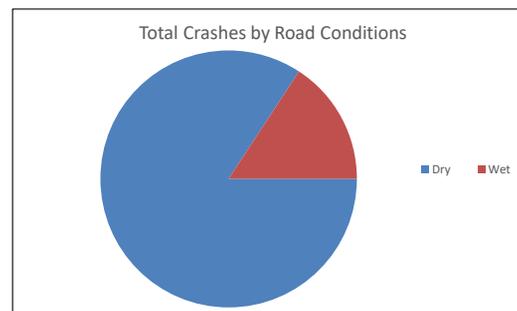
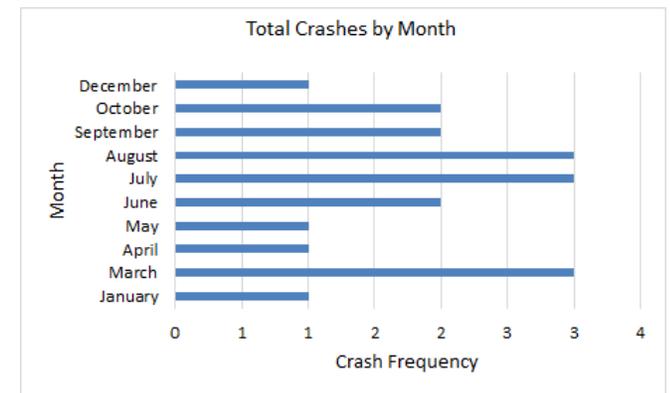
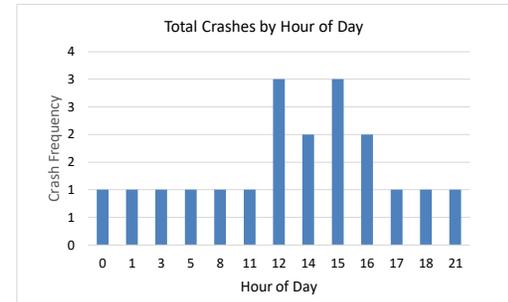
Weather	Total Crashes	Fatalities	Serious Injuries
Clear	16	0	0
Rain	1	0	0
Unknown	1	0	0
Cloudy	1	0	0
Grand Total	19	0	0

Crash Location	Total Crashes	Fatalities	Serious Injuries
Four-Way Intersection	19	0	0
Grand Total	19	0	0

Hour of Day	Total Crashes
0	1
1	1
3	1
5	1
8	1
11	1
12	3
14	2
15	3
16	2
17	1
18	1
21	1
Grand Total	19

Month	Total Crashes
January	1
March	3
April	1
May	1
June	2
July	3
August	3
September	2
October	2
December	1
Grand Total	19

Day in Week	Total Crashes
(1) Sunday	3
(2) Monday	4
(3) Tuesday	1
(4) Wednesday	2
(5) Thursday	3
(6) Friday	3
(7) Saturday	3
Grand Total	19



OHIO SHSP EMPHASIS AREAS (Fatalities)						
	2020	2020	2019	2019	2018	2018
Target Group	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	4		7		8	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	4	100%	7	100%	8	100%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	1	14%	0	0%
Speed Related Involvement	0	0%	1	14%	0	0%
Young Driver Involvement (15-25)	1	25%	3	43%	4	50%
Older Driver Involvement (65+)	1	25%	3	43%	1	13%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	1	25%	2	29%	4	50%

*2020 Data is Preliminary

Select Site Type	Int/Urb; 4-leg signalized
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Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.11%
Serious Injury Suspected Crash	0	0.00%	1.75%
Minor Injury Suspected Crash	1	5.26%	8.86%
Injury Possible Crash	7	36.84%	14.44%
Property-Damage-Only	11	57.89%	74.85%
Total	19		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	0.00%	0.13%	0.00%	0.08%
Head On	0.00%	1.64%	0.00%	3.21%
Rear End	36.84%	42.25%	36.84%	39.58%
Backing	0.00%	3.38%	0.00%	0.48%
Sideswipe - Meeting	0.00%	0.51%	0.00%	0.46%
Sideswipe - Passing	5.26%	10.81%	5.26%	4.16%
Angle	42.11%	12.86%	42.11%	19.42%
Parked Vehicle	0.00%	1.59%	0.00%	0.63%
Pedestrian	0.00%	1.26%	0.00%	4.50%
Animal	0.00%	0.66%	0.00%	0.13%
Train	0.00%	0.01%	0.00%	0.01%
Pedalcycles	0.00%	0.77%	0.00%	2.34%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	0.00%	3.82%	0.00%	3.67%
Other Object	0.00%	0.11%	0.00%	0.05%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.14%	0.00%	0.37%
Other Non-Collision	0.00%	0.25%	0.00%	0.24%
Left Turn	10.53%	15.07%	10.53%	18.05%
Right Turn	5.26%	4.74%	5.26%	2.62%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	73.68%	75.03%	73.68%	73.23%
Dawn/Dusk	0.00%	4.03%	0.00%	3.83%
Dark - Lighted Roadway	26.32%	17.00%	26.32%	18.94%
Dark - Roadway Not Lighted	0.00%	2.45%	0.00%	2.75%
Dark - Unknown Roadway Lighting	0.00%	0.25%	0.00%	0.20%
Other / Unknown	0.00%	1.24%	0.00%	1.05%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	80.00%	73.36%	80.00%	74.99%
Wet	15.00%	21.30%	15.00%	21.47%
Snow	0.00%	3.42%	0.00%	2.23%
Ice	0.00%	1.09%	0.00%	0.65%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.03%	0.00%	0.04%
Water (Standing, Moving)	0.00%	0.02%	0.00%	0.02%
Slush	0.00%	0.15%	0.00%	0.10%
Other / Unknown	5.00%	0.63%	5.00%	0.50%

Lee Rd / Invermere Ave

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	19
Fatalities	0
Serious Injuries	0

Non-Intersection	
Crashes	0
Fatalities	0
Serious Injuries	0

Intersection	
Crashes	19
Fatalities	0
Serious Injuries	0

Roadway Departure	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	19
Fatalities	0
Serious Injuries	0

Unsignalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Angle	
Crashes	8
Fatalities	0
Serious Injuries	0
Rank 2	
Rear End	
Crashes	7
Fatalities	0
Serious Injuries	0
Rank 3	
Left Turn	
Crashes	2
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

SCOTTSDALE BOULEVARD

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

Lee Rd / Scottsdale Blvd

Crash Summary Sheet

Fatalities	0
Serious Injuries	0
Other Injuries	9

Crash Severity	Crashes	%
(3) Minor Injury Suspected	3	15.00%
(4) Injury Possible	4	20.00%
(5) PDO/No Injury	13	65.00%
Grand Total	20	100.00%

Day of Week	Crashes	%
(1) Sunday	1	5.00%
(2) Monday	2	10.00%
(3) Tuesday	6	30.00%
(4) Wednesday	3	15.00%
(5) Thursday	3	15.00%
(6) Friday	3	15.00%
(7) Saturday	2	10.00%
Grand Total	20	100.00%

Hour of Day	Crashes	%
0	1	5.00%
2	1	5.00%
7	1	5.00%
9	2	10.00%
10	1	5.00%
11	1	5.00%
12	2	10.00%
13	2	10.00%
15	1	5.00%
16	3	15.00%
18	3	15.00%
19	1	5.00%
20	1	5.00%
Grand Total	20	100.00%

Crashes Per Year	6.67
Fatal and All Injury Crashes	7
Percent Injury	35.0%
Equivalent PDO Index Value	2.83

Year	Crashes	%
2018	9	45.00%
2019	4	20.00%
2020	7	35.00%
Grand Total	20	100.00%

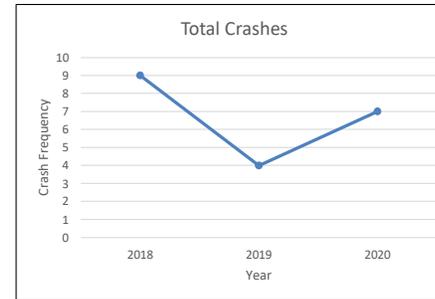
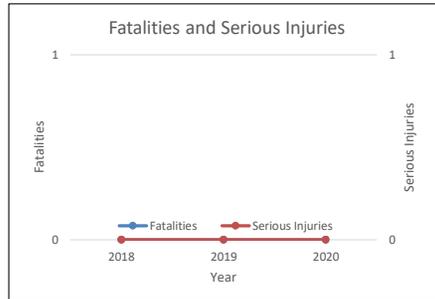
Crash Type	Crashes	%
Rear End	8	40.00%
Left Turn	4	20.00%
Angle	3	15.00%
Fixed Object	2	10.00%
Sideswipe - Passing	2	10.00%
Pedalcycles	1	5.00%
Grand Total	20	100.00%

Month	Crashes	%
5	4	20.00%
6	1	5.00%
7	3	15.00%
8	2	10.00%
9	2	10.00%
10	3	15.00%
11	2	10.00%
12	3	15.00%
Grand Total	20	100.00%

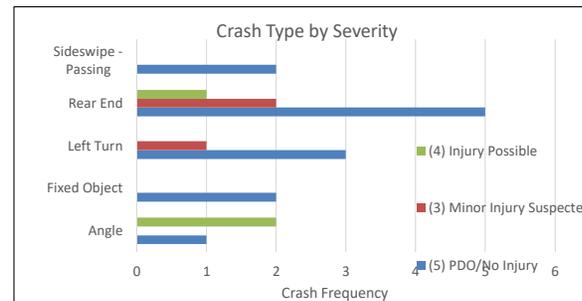
**Lee Rd / Scottsdale Blvd
Crash Summary Sheet**

Crashes Per Year	6.67	Percent Injury	35.0%	EPDO	2.83
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Year	Total Crashes	Fatalities	Serious Injuries
2018	9	0	0
2019	4	0	0
2020	7	0	0
Grand Total	20	0	0



Crash Type	Injury Level			Grand Total
	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Inj	
Rear End	2	1	5	8
Left Turn	1	0	3	4
Angle	0	2	1	3
Fixed Object	0	0	2	2
Sideswipe - Passing	0	0	2	2
Pedalcycles	0	1	0	1
Grand Total	3	4	13	20



**Lee Rd / Scottsdale Blvd
Crash Summary Sheet**

Crashes Per Year	6.67	Percent Injury	35.0%	EPDO	2.83
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	16	0	0
Wet	4	0	0
Grand Total	20	0	0

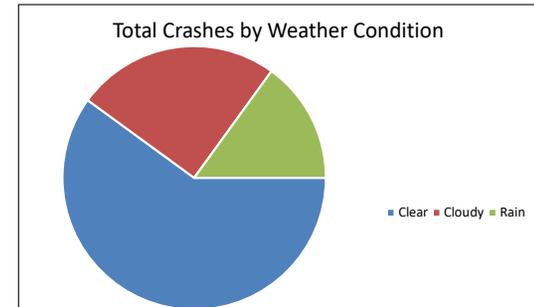
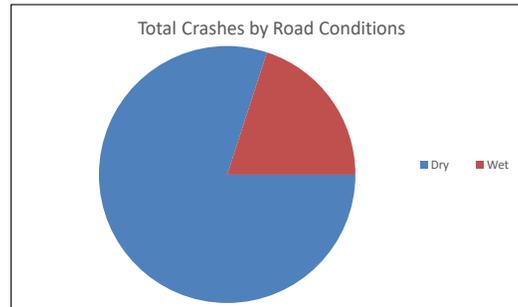
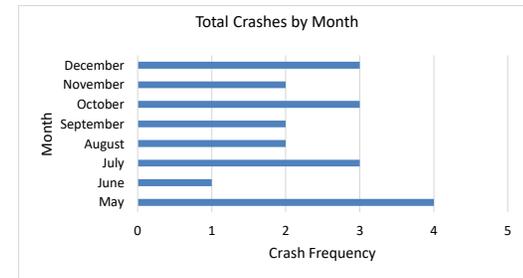
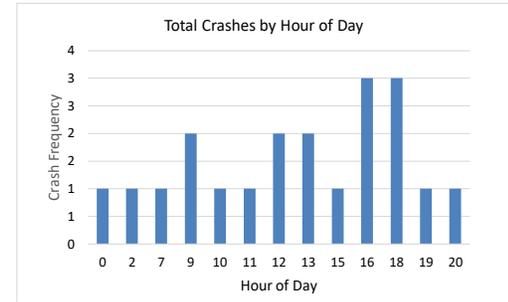
Weather	Total Crashes	Fatalities	Serious Injuries
Clear	12	0	0
Cloudy	5	0	0
Rain	3	0	0
Grand Total	20	0	0

Crash Location	Total Crashes	Fatalities	Serious Injuries
Four-Way Intersection	20	0	0
Grand Total	20	0	0

Hour of Day	Total Crashes
0	1
2	1
7	1
9	2
10	1
11	1
12	2
13	2
15	1
16	3
18	3
19	1
20	1
Grand Total	20

Month	Total Crashes
May	4
June	1
July	3
August	2
September	2
October	3
November	2
December	3
Grand Total	20

Day in Week	Total Crashes
(1) Sunday	1
(2) Monday	2
(3) Tuesday	6
(4) Wednesday	3
(5) Thursday	3
(6) Friday	3
(7) Saturday	2
Grand Total	20



Select Authority: All

OHIO SHSP EMPHASIS AREAS (Fatalities)						
Target Group	2020	2020	2019	2019	2018	2018
	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	7		4		9	
Roadway Departure	1	14%	0	0%	1	11%
Intersection	7	100%	4	100%	9	100%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	1	14%	0	0%	0	0%
Speed Related Involvement	0	0%	1	25%	3	33%
Young Driver Involvement (15-25)	2	29%	1	25%	2	22%
Older Driver Involvement (65+)	0	0%	0	0%	2	22%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	1	14%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	2	29%	1	25%	5	56%

*2020 Data is Preliminary

Select Site Type	Int/Urb; 4-leg signalized
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Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.11%
Serious Injury Suspected Crash	0	0.00%	1.75%
Minor Injury Suspected Crash	3	15.00%	8.86%
Injury Possible Crash	4	20.00%	14.44%
Property-Damage-Only	13	65.00%	74.85%
Total	20		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	0.00%	0.13%	0.00%	0.08%
Head On	0.00%	1.64%	0.00%	3.21%
Rear End	40.00%	42.25%	40.00%	39.58%
Backing	0.00%	3.38%	0.00%	0.48%
Sideswipe - Meeting	0.00%	0.51%	0.00%	0.46%
Sideswipe - Passing	10.00%	10.81%	10.00%	4.16%
Angle	15.00%	12.86%	15.00%	19.42%
Parked Vehicle	0.00%	1.59%	0.00%	0.63%
Pedestrian	0.00%	1.26%	0.00%	4.50%
Animal	0.00%	0.66%	0.00%	0.13%
Train	0.00%	0.01%	0.00%	0.01%
Pedalcycles	5.00%	0.77%	5.00%	2.34%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	10.00%	3.82%	10.00%	3.67%
Other Object	0.00%	0.11%	0.00%	0.05%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.14%	0.00%	0.37%
Other Non-Collision	0.00%	0.25%	0.00%	0.24%
Left Turn	20.00%	15.07%	20.00%	18.05%
Right Turn	0.00%	4.74%	0.00%	2.62%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	80.00%	75.03%	80.00%	73.23%
Dawn/Dusk	0.00%	4.03%	0.00%	3.83%
Dark - Lighted Roadway	20.00%	17.00%	20.00%	18.94%
Dark - Roadway Not Lighted	0.00%	2.45%	0.00%	2.75%
Dark - Unknown Roadway Lighting	0.00%	0.25%	0.00%	0.20%
Other / Unknown	0.00%	1.24%	0.00%	1.05%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	76.19%	73.36%	76.19%	74.99%
Wet	19.05%	21.30%	19.05%	21.47%
Snow	0.00%	3.42%	0.00%	2.23%
Ice	0.00%	1.09%	0.00%	0.65%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.03%	0.00%	0.04%
Water (Standing, Moving)	0.00%	0.02%	0.00%	0.02%
Slush	0.00%	0.15%	0.00%	0.10%
Other / Unknown	4.76%	0.63%	4.76%	0.50%

Lee Rd / Scottsdale Blvd

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	20
Fatalities	0
Serious Injuries	0

Non-Intersection	
Crashes	0
Fatalities	0
Serious Injuries	0

Intersection	
Crashes	20
Fatalities	0
Serious Injuries	0

Roadway Departure	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	20
Fatalities	0
Serious Injuries	0

Unsignalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	8
Fatalities	0
Serious Injuries	0
Rank 2	
Left Turn	
Crashes	4
Fatalities	0
Serious Injuries	0
Rank 3	
Angle	
Crashes	3
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

HAMPSTEAD AVENUE TO LOMOND BOULEVARD

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

Lee Rd: Hampstead Ave to Lomond Blvd

Crash Summary Sheet

Fatalities	0
Serious Injuries	1
Other Injuries	6

Crash Severity	Crashes	%
(2) Serious Injury Suspected	1	7.14%
(3) Minor Injury Suspected	1	7.14%
(4) Injury Possible	4	28.57%
(5) PDO/No Injury	8	57.14%
Grand Total	14	100.00%

Day of Week	Crashes	%
(1) Sunday	2	14.29%
(2) Monday	2	14.29%
(3) Tuesday	4	28.57%
(4) Wednesday	2	14.29%
(5) Thursday	1	7.14%
(6) Friday	1	7.14%
(7) Saturday	2	14.29%
Grand Total	14	100.00%

Hour of Day	Crashes	%
1	2	14.29%
3	1	7.14%
12	2	14.29%
13	2	14.29%
14	1	7.14%
16	2	14.29%
17	2	14.29%
22	2	14.29%
Grand Total	14	100.00%

Crashes Per Year	4.67
Fatal and All Injury Crashes	6
Percent Injury	42.9%
Equivalent PDO Index Value	6.46

Year	Crashes	%
2018	4	28.57%
2019	2	14.29%
2020	8	57.14%
Grand Total	14	100.00%

Crash Type	Crashes	%
Sideswipe - Passing	6	42.86%
Rear End	4	28.57%
Fixed Object	3	21.43%
Pedestrian	1	7.14%
Grand Total	14	100.00%

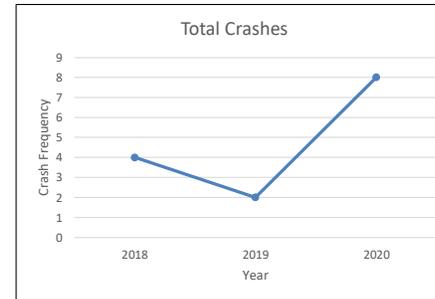
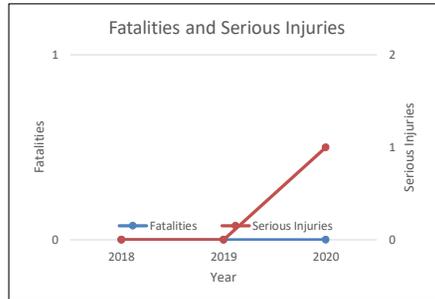
Month	Crashes	%
1	2	14.29%
2	1	7.14%
3	1	7.14%
4	1	7.14%
5	1	7.14%
7	1	7.14%
8	5	35.71%
10	2	14.29%
Grand Total	14	100.00%

Lee Rd: Hampstead Ave to Lomond Blvd

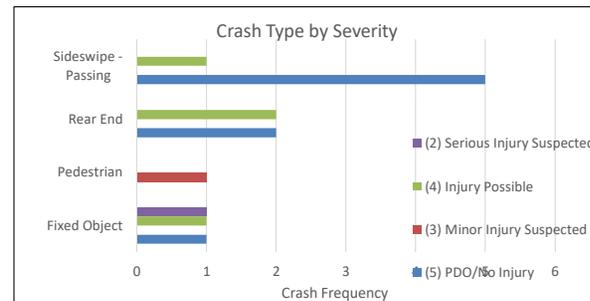
Crash Summary Sheet

Crashes Per Year	4.67	Percent Injury	42.9%	EPDO	6.46
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Year	Total Crashes	Fatalities	Serious Injuries
2018	4	0	0
2019	2	0	0
2020	8	0	1
Grand Total	14	0	1



Crash Type	Injury Level					Grand Total
	(2) Serious Inju	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Inj		
Sideswipe - Passing	0	0	1	5		6
Rear End	0	0	2	2		4
Fixed Object	1	0	1	1		3
Pedestrian	0	1	0	0		1
Grand Total	1	1	4	8		14



Lee Rd: Hampstead Ave to Lomond Blvd

Crash Summary Sheet

Crashes Per Year	4.67	Percent Injury	42.9%	EPDO	6.46
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	9	0	1
Wet	5	0	0
Grand Total	14	0	1

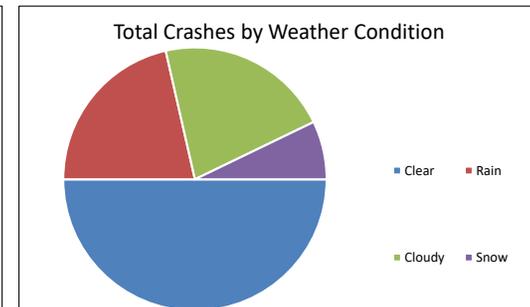
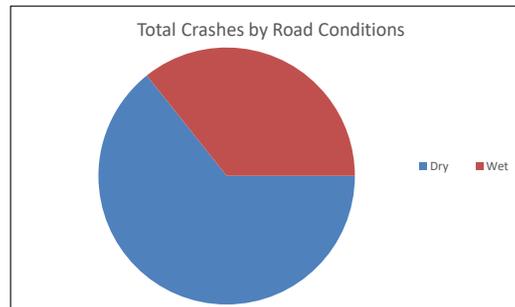
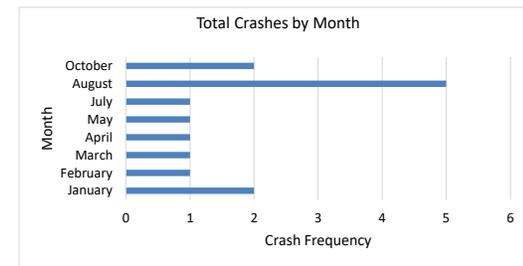
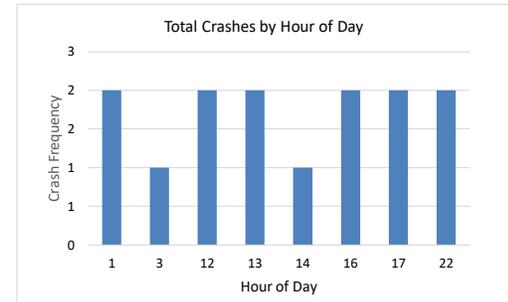
Hour of Day	Total Crashes
1	2
3	1
12	2
13	2
14	1
16	2
17	2
22	2
Grand Total	14

Month	Total Crashes
January	2
February	1
March	1
April	1
May	1
July	1
August	5
October	2
Grand Total	14

Weather	Total Crashes	Fatalities	Serious Injuries
Clear	7	0	1
Rain	3	0	0
Cloudy	3	0	0
Snow	1	0	0
Grand Total	14	0	1

Day in Week	Total Crashes
(1) Sunday	2
(2) Monday	2
(3) Tuesday	4
(4) Wednesday	2
(5) Thursday	1
(6) Friday	1
(7) Saturday	2
Grand Total	14

Crash Location	Total Crashes	Fatalities	Serious Injuries
Not An Intersection	14	0	1
Grand Total	14	0	1



OHIO SHSP EMPHASIS AREAS (Fatalities)						
	2020	2020	2019	2019	2018	2018
Target Group	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	1		0		0	
Roadway Departure	1	100%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	8		2		4	
Roadway Departure	3	38%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	1	50%	0	0%
Restraints Not Used Driver/Occupants	1	13%	0	0%	0	0%
Speed Related Involvement	2	25%	1	50%	0	0%
Young Driver Involvement (15-25)	2	25%	1	50%	1	25%
Older Driver Involvement (65+)	0	0%	1	50%	0	0%
Distracted Drivers	1	13%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	1	50%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	3	38%	0	0%	1	25%

*2020 Data is Preliminary

Select Site Type	Seg/Urb; Multilane undivided
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Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.27%
Serious Injury Suspected Crash	1	7.14%	2.30%
Minor Injury Suspected Crash	1	7.14%	9.93%
Injury Possible Crash	4	28.57%	15.64%
Property-Damage-Only	8	57.14%	71.86%
Total	14		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	0.00%	0.23%	0.00%	0.15%
Head On	0.00%	1.63%	0.00%	3.16%
Rear End	28.57%	39.17%	28.57%	40.14%
Backing	0.00%	2.59%	0.00%	0.74%
Sideswipe - Meeting	0.00%	0.87%	0.00%	0.82%
Sideswipe - Passing	42.86%	13.23%	42.86%	6.16%
Angle	0.00%	8.78%	0.00%	11.31%
Parked Vehicle	0.00%	2.49%	0.00%	1.33%
Pedestrian	7.14%	1.29%	7.14%	4.16%
Animal	0.00%	2.50%	0.00%	0.50%
Train	0.00%	0.01%	0.00%	0.02%
Pedalcycles	0.00%	0.90%	0.00%	2.64%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	21.43%	6.36%	21.43%	7.63%
Other Object	0.00%	0.23%	0.00%	0.10%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.17%	0.00%	0.45%
Other Non-Collision	0.00%	0.36%	0.00%	0.35%
Left Turn	0.00%	15.12%	0.00%	17.74%
Right Turn	0.00%	4.07%	0.00%	2.60%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	58.33%	72.92%	58.33%	72.42%
Dawn/Dusk	0.00%	4.03%	0.00%	3.86%
Dark - Lighted Roadway	41.67%	18.06%	41.67%	19.37%
Dark - Roadway Not Lighted	0.00%	3.30%	0.00%	2.92%
Dark - Unknown Roadway Lighting	0.00%	0.27%	0.00%	0.20%
Other / Unknown	0.00%	1.42%	0.00%	1.23%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	60.00%	70.89%	60.00%	72.46%
Wet	33.33%	22.57%	33.33%	22.49%
Snow	0.00%	4.22%	0.00%	3.13%
Ice	0.00%	1.29%	0.00%	1.06%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.03%	0.00%	0.04%
Water (Standing, Moving)	0.00%	0.03%	0.00%	0.04%
Slush	0.00%	0.20%	0.00%	0.17%
Other / Unknown	6.67%	0.77%	6.67%	0.61%

Lee Rd: Hampstead Ave to Lomond Blvd

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	14
Fatalities	0
Serious Injuries	1

Non-Intersection	
Crashes	14
Fatalities	0
Serious Injuries	1

Intersection	
Crashes	0
Fatalities	0
Serious Injuries	0

Roadway Departure	
Crashes	3
Fatalities	0
Serious Injuries	1

Other	
Crashes	11
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Unsignalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Fixed Object	
Crashes	3
Fatalities	0
Serious Injuries	1
Rank 2	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Sideswipe - Passing	
Crashes	6
Fatalities	0
Serious Injuries	0
Rank 2	
Rear End	
Crashes	4
Fatalities	0
Serious Injuries	0
Rank 3	
Pedestrian	
Crashes	1
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

CHAGRIN BOULEVARD

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

Lee Rd / Chagrin Blvd Crash Summary Sheet

Fatalities	0
Serious Injuries	2
Other Injuries	28

Crash Severity	Crashes	%
(2) Serious Injury Suspected	2	3.57%
(3) Minor Injury Suspected	7	12.50%
(4) Injury Possible	15	26.79%
(5) PDO/No Injury	32	57.14%
Grand Total	56	100.00%

Day of Week	Crashes	%
(1) Sunday	4	7.14%
(2) Monday	6	10.71%
(3) Tuesday	10	17.86%
(4) Wednesday	11	19.64%
(5) Thursday	7	12.50%
(6) Friday	4	7.14%
(7) Saturday	14	25.00%
Grand Total	56	100.00%

Hour of Day	Crashes	%
0	3	5.36%
1	3	5.36%
2	1	1.79%
7	3	5.36%
8	2	3.57%
9	2	3.57%
10	2	3.57%
12	4	7.14%
13	3	5.36%
14	1	1.79%
15	6	10.71%
16	4	7.14%
17	6	10.71%
18	3	5.36%
20	5	8.93%
21	3	5.36%
22	1	1.79%
23	4	7.14%
Grand Total	56	100.00%

Crashes Per Year	18.67
Fatal and All Injury Crashes	24
Percent Injury	42.9%
Equivalent PDO Index Value	4.85

Year	Crashes	%
2018	20	35.71%
2019	21	37.50%
2020	15	26.79%
Grand Total	56	100.00%

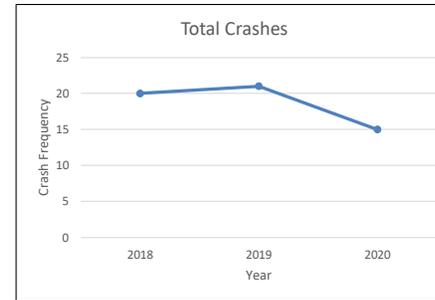
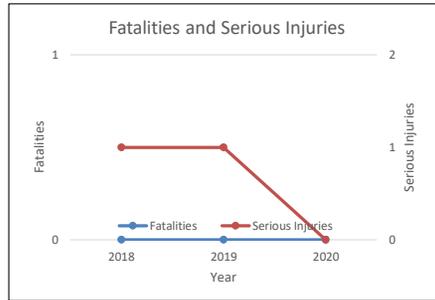
Crash Type	Crashes	%
Rear End	26	46.43%
Sideswipe - Passing	13	23.21%
Angle	5	8.93%
Fixed Object	4	7.14%
Left turn	3	5.36%
Backing	2	3.57%
Sideswipe - Meeting	1	1.79%
Right Turn	1	1.79%
Pedestrian	1	1.79%
Grand Total	56	100.00%

Month	Crashes	%
1	6	10.71%
2	2	3.57%
3	7	12.50%
4	3	5.36%
5	6	10.71%
6	3	5.36%
7	5	8.93%
8	4	7.14%
9	3	5.36%
10	8	14.29%
11	6	10.71%
12	3	5.36%
Grand Total	56	100.00%

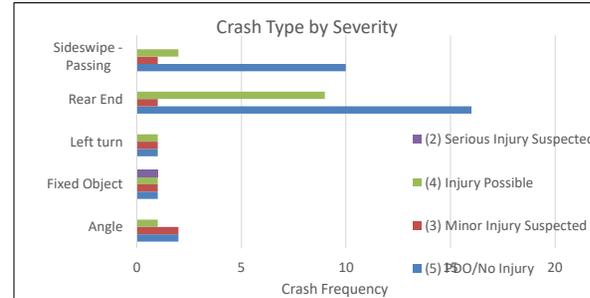
**Lee Rd / Chagrin Blvd
Crash Summary Sheet**

Crashes Per Year	18.67	Percent Injury	42.9%	EPDO	4.85
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Year	Total Crashes	Fatalities	Serious Injuries
2018	20	0	1
2019	21	0	1
2020	15	0	0
Grand Total	56	0	2



Total Crashes	Injury Level					Grand Total
Crash Type	(2) Serious Inju	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Injt		
Rear End	0	1	9	16		26
Sideswipe - Passing	0	1	2	10		13
Angle	0	2	1	2		5
Fixed Object	1	1	1	1		4
Left turn	0	1	1	1		3
Backing	0	0	1	1		2
Sideswipe - Meeting	0	0	0	1		1
Right Turn	0	1	0	0		1
Pedestrian	1	0	0	0		1
Grand Total	2	7	15	32		56



**Lee Rd / Chagrin Blvd
Crash Summary Sheet**

Crashes Per Year	18.67	Percent Injury	42.9%	EPDO	4.85
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	38	0	1
Snow	1	0	0
Wet	17	0	1
Grand Total	56	0	2

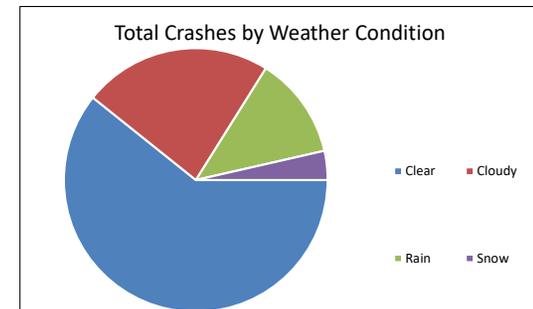
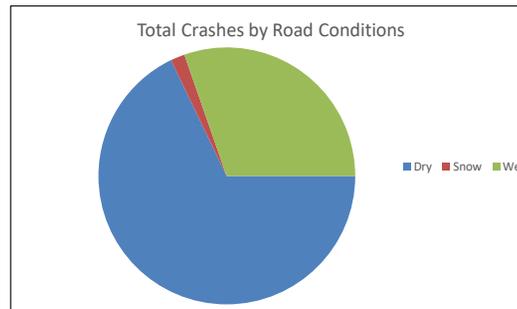
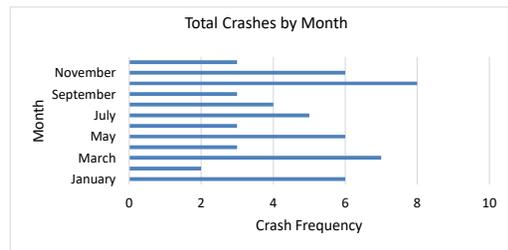
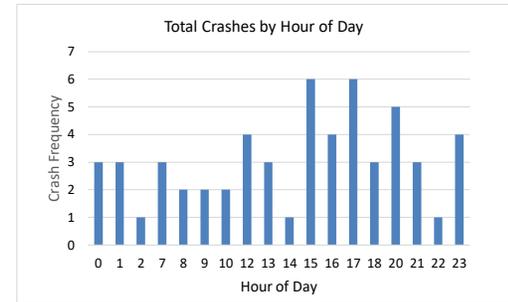
Weather	Total Crashes	Fatalities	Serious Injuries
Clear	34	0	1
Cloudy	13	0	0
Rain	7	0	1
Snow	2	0	0
Grand Total	56	0	2

Crash Location	Total Crashes	Fatalities	Serious Injuries
5 Or More Point Intersection	56	0	2
Grand Total	56	0	2

Hour of Day	Total Crashes
0	3
1	3
2	1
3	3
4	2
5	2
6	2
7	2
8	4
9	3
10	3
11	1
12	6
13	4
14	6
15	4
16	6
17	3
18	5
19	3
20	3
21	1
22	4
23	4
Grand Total	56

Month	Total Crashes
January	6
February	2
March	7
April	3
May	6
June	3
July	5
August	4
September	3
October	8
November	6
December	3
Grand Total	56

Day in Week	Total Crashes
(1) Sunday	4
(2) Monday	6
(3) Tuesday	10
(4) Wednesday	11
(5) Thursday	7
(6) Friday	4
(7) Saturday	14
Grand Total	56



OHIO SHSP EMPHASIS AREAS (Fatalities)						
	2020	2020	2019	2019	2018	2018
Target Group	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	0		1		1	
Roadway Departure	0	0%	0	0%	1	100%
Intersection	0	0%	1	100%	1	100%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	1	100%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	15		21		20	
Roadway Departure	2	13%	1	5%	2	10%
Intersection	15	100%	21	100%	20	100%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	1	7%	4	19%	4	20%
Restraints Not Used Driver/Occupants	2	13%	6	29%	1	5%
Speed Related Involvement	3	20%	2	10%	0	0%
Young Driver Involvement (15-25)	8	53%	3	14%	4	20%
Older Driver Involvement (65+)	4	27%	4	19%	5	25%
Distracted Drivers	0	0%	1	5%	1	5%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	1	5%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	1	5%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	7	47%	11	52%	8	40%

*2020 Data is Preliminary

Select Site Type	Int/Urb; Greater than 4 Legs
------------------	------------------------------

Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.15%
Serious Injury Suspected Crash	2	3.57%	1.82%
Minor Injury Suspected Crash	7	12.50%	8.88%
Injury Possible Crash	15	26.79%	14.21%
Property-Damage-Only	32	57.14%	74.94%
Total	56		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	-0.01%	0.19%	-0.01%	0.09%
Head On	0.00%	1.79%	0.00%	3.86%
Rear End	46.43%	42.09%	46.43%	40.12%
Backing	3.57%	3.03%	3.57%	0.51%
Sideswipe - Meeting	1.79%	0.53%	1.79%	0.58%
Sideswipe - Passing	23.21%	11.68%	23.21%	4.88%
Angle	8.93%	12.08%	8.93%	17.95%
Parked Vehicle	0.00%	1.26%	0.00%	0.51%
Pedestrian	1.79%	1.06%	1.79%	3.90%
Animal	0.00%	0.72%	0.00%	0.11%
Train	0.00%	0.01%	0.00%	0.00%
Pedalcycles	0.00%	0.70%	0.00%	2.38%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	7.14%	4.53%	7.14%	4.62%
Other Object	0.00%	0.09%	0.00%	0.04%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.14%	0.00%	0.29%
Other Non-Collision	0.00%	0.34%	0.00%	0.51%
Left Turn	5.36%	14.50%	5.36%	17.34%
Right Turn	1.79%	5.26%	1.79%	2.31%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	57.14%	74.10%	57.14%	72.70%
Dawn/Dusk	7.14%	4.19%	7.14%	3.90%
Dark - Lighted Roadway	33.93%	18.00%	33.93%	19.50%
Dark - Roadway Not Lighted	1.79%	2.11%	1.79%	2.28%
Dark - Unknown Roadway Lighting	0.00%	0.18%	0.00%	0.29%
Other / Unknown	0.00%	1.42%	0.00%	1.33%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	66.67%	72.48%	66.67%	72.81%
Wet	29.82%	21.45%	29.82%	22.68%
Snow	1.75%	3.58%	1.75%	2.56%
Ice	0.00%	1.61%	0.00%	1.30%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.01%	0.00%	0.00%
Water (Standing, Moving)	0.00%	0.01%	0.00%	0.00%
Slush	0.00%	0.23%	0.00%	0.14%
Other / Unknown	1.76%	0.63%	1.76%	0.51%

Lee Rd / Chagrin Blvd

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	56
Fatalities	0
Serious Injuries	2

Non-Intersection	
Crashes	0
Fatalities	0
Serious Injuries	0

Intersection	
Crashes	56
Fatalities	0
Serious Injuries	2

Roadway Departure	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	56
Fatalities	0
Serious Injuries	2

Unsignalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	26
Fatalities	0
Serious Injuries	0
Rank 2	
Sideswipe - Passing	
Crashes	13
Fatalities	0
Serious Injuries	0
Rank 3	
Angle	
Crashes	5
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

PARKLAND DRIVE

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

Lee Rd / Parkland Dr
Crash Summary Sheet

Fatalities	0
Serious Injuries	0
Other Injuries	10

Crash Severity	Crashes	%
(3) Minor Injury Suspected	1	7.14%
(4) Injury Possible	6	42.86%
(5) PDO/No Injury	7	50.00%
Grand Total	14	100.00%

Day of Week	Crashes	%
(1) Sunday	1	7.14%
(2) Monday	5	35.71%
(4) Wednesday	1	7.14%
(5) Thursday	1	7.14%
(6) Friday	2	14.29%
(7) Saturday	4	28.57%
Grand Total	14	100.00%

Hour of Day	Crashes	%
7	2	14.29%
8	1	7.14%
10	1	7.14%
11	1	7.14%
12	2	14.29%
13	1	7.14%
15	1	7.14%
16	2	14.29%
18	1	7.14%
20	1	7.14%
23	1	7.14%
Grand Total	14	100.00%

Crashes Per Year	4.67
Fatal and All Injury Crashes	7
Percent Injury	50.0%
Equivalent PDO Index Value	3.49

Year	Crashes	%
2018	5	35.71%
2019	7	50.00%
2020	2	14.29%
Grand Total	14	100.00%

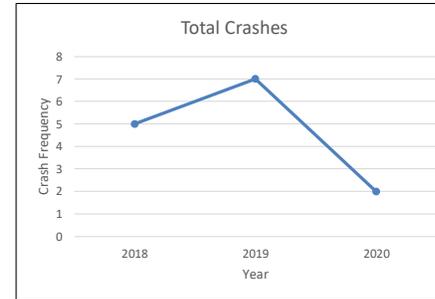
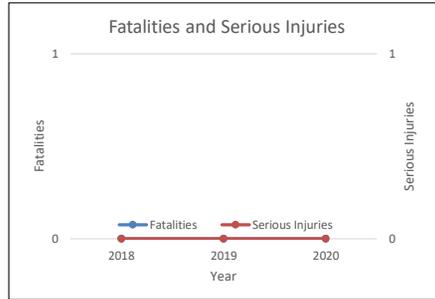
Crash Type	Crashes	%
Left Turn	7	50.00%
Rear End	4	28.57%
Angle	2	14.29%
Sideswipe - Passing	1	7.14%
Grand Total	14	100.00%

Month	Crashes	%
1	1	7.14%
3	1	7.14%
6	2	14.29%
7	2	14.29%
8	4	28.57%
9	1	7.14%
10	3	21.43%
Grand Total	14	100.00%

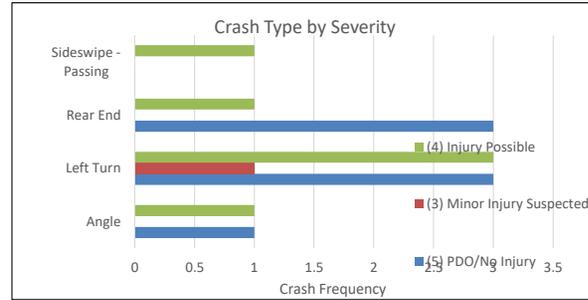
**Lee Rd / Parkland Dr
Crash Summary Sheet**

Crashes Per Year **4.67** Percent Injury **50.0%** EPDO **3.49**

Year	Total Crashes	Fatalities	Serious Injuries
2018	5	0	0
2019	7	0	0
2020	2	0	0
Grand Total	14	0	0



Crash Type	Injury Level			Grand Total
	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Inj	
Left Turn	1	3	3	7
Rear End	0	1	3	4
Angle	0	1	1	2
Sideswipe - Passing	0	1	0	1
Grand Total	1	6	7	14



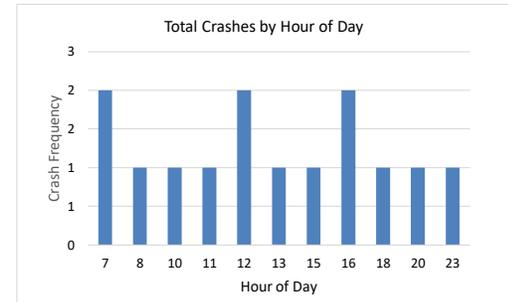
**Lee Rd / Parkland Dr
Crash Summary Sheet**

Crashes Per Year	4.67	Percent Injury	50.0%	EPDO	3.49
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	10	0	0
Wet	4	0	0
Grand Total	14	0	0

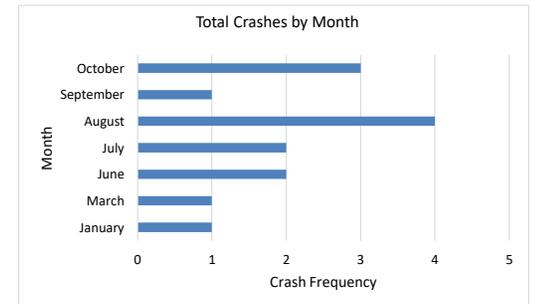
Hour of Day	Total Crashes
7	2
8	1
10	1
11	1
12	2
13	1
15	1
16	2
18	1
20	1
23	1
Grand Total	14

Month	Total Crashes
January	1
March	1
June	2
July	2
August	4
September	1
October	3
Grand Total	14

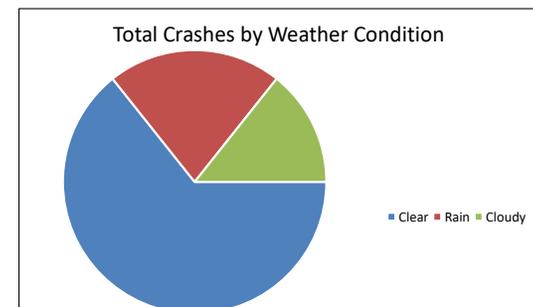
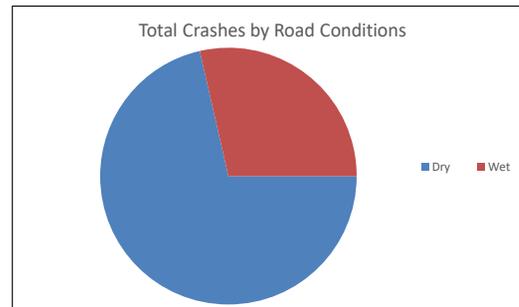


Weather	Total Crashes	Fatalities	Serious Injuries
Clear	9	0	0
Rain	3	0	0
Cloudy	2	0	0
Grand Total	14	0	0

Day in Week	Total Crashes
(1) Sunday	1
(2) Monday	5
(4) Wednesday	1
(5) Thursday	1
(6) Friday	2
(7) Saturday	4
Grand Total	14



Crash Location	Total Crashes	Fatalities	Serious Injuries
Four-Way Intersection	14	0	0
Grand Total	14	0	0



OHIO SHSP EMPHASIS AREAS (Fatalities)						
	2020	2020	2019	2019	2018	2018
Target Group	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	2		7		5	
Roadway Departure	0	0%	0	0%	1	20%
Intersection	2	100%	7	100%	5	100%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	1	14%	0	0%
Speed Related Involvement	0	0%	1	14%	0	0%
Young Driver Involvement (15-25)	1	50%	4	57%	1	20%
Older Driver Involvement (65+)	1	50%	1	14%	1	20%
Distracted Drivers	0	0%	1	14%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	2	100%	2	29%	0	0%

*2020 Data is Preliminary

Select Site Type	Int/Urb; 4-leg signalized
------------------	---------------------------

Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.11%
Serious Injury Suspected Crash	0	0.00%	1.75%
Minor Injury Suspected Crash	1	7.14%	8.86%
Injury Possible Crash	6	42.86%	14.44%
Property-Damage-Only	7	50.00%	74.85%
Total	14		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	0.00%	0.13%	0.00%	0.08%
Head On	0.00%	1.64%	0.00%	3.21%
Rear End	28.57%	42.25%	28.57%	39.58%
Backing	0.00%	3.38%	0.00%	0.48%
Sideswipe - Meeting	0.00%	0.51%	0.00%	0.46%
Sideswipe - Passing	7.14%	10.81%	7.14%	4.16%
Angle	14.29%	12.86%	14.29%	19.42%
Parked Vehicle	0.00%	1.59%	0.00%	0.63%
Pedestrian	0.00%	1.26%	0.00%	4.50%
Animal	0.00%	0.66%	0.00%	0.13%
Train	0.00%	0.01%	0.00%	0.01%
Pedalcycles	0.00%	0.77%	0.00%	2.34%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	0.00%	3.82%	0.00%	3.67%
Other Object	0.00%	0.11%	0.00%	0.05%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.14%	0.00%	0.37%
Other Non-Collision	0.00%	0.25%	0.00%	0.24%
Left Turn	50.00%	15.07%	50.00%	18.05%
Right Turn	0.00%	4.74%	0.00%	2.62%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	92.86%	75.03%	92.86%	73.23%
Dawn/Dusk	0.00%	4.03%	0.00%	3.83%
Dark - Lighted Roadway	7.14%	17.00%	7.14%	18.94%
Dark - Roadway Not Lighted	0.00%	2.45%	0.00%	2.75%
Dark - Unknown Roadway Lighting	0.00%	0.25%	0.00%	0.20%
Other / Unknown	0.00%	1.24%	0.00%	1.05%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	66.67%	73.36%	66.67%	74.99%
Wet	26.67%	21.30%	26.67%	21.47%
Snow	0.00%	3.42%	0.00%	2.23%
Ice	0.00%	1.09%	0.00%	0.65%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.03%	0.00%	0.04%
Water (Standing, Moving)	0.00%	0.02%	0.00%	0.02%
Slush	0.00%	0.15%	0.00%	0.10%
Other / Unknown	6.66%	0.63%	6.66%	0.50%

Lee Rd / Parkland Dr

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	14
Fatalities	0
Serious Injuries	0

Non-Intersection	
Crashes	0
Fatalities	0
Serious Injuries	0

Intersection	
Crashes	14
Fatalities	0
Serious Injuries	0

Roadway Departure	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	14
Fatalities	0
Serious Injuries	0

Unsignalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Left Turn	
Crashes	7
Fatalities	0
Serious Injuries	0
Rank 2	
Rear End	
Crashes	4
Fatalities	0
Serious Injuries	0
Rank 3	
Angle	
Crashes	2
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

SOUTH WOODLAND ROAD

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

Lee Rd / S Woodland Rd
Crash Summary Sheet

Fatalities	0
Serious Injuries	0
Other Injuries	15

Crash Severity	Crashes	%
(3) Minor Injury Suspected	4	13.79%
(4) Injury Possible	4	13.79%
(5) PDO/No Injury	21	72.41%
Grand Total	29	100.00%

Day of Week	Crashes	%
(1) Sunday	4	13.79%
(2) Monday	3	10.34%
(3) Tuesday	4	13.79%
(4) Wednesday	4	13.79%
(5) Thursday	4	13.79%
(6) Friday	8	27.59%
(7) Saturday	2	6.90%
Grand Total	29	100.00%

Hour of Day	Crashes	%
6	1	3.45%
7	2	6.90%
8	2	6.90%
9	2	6.90%
10	1	3.45%
11	2	6.90%
12	2	6.90%
14	4	13.79%
15	2	6.90%
16	2	6.90%
17	4	13.79%
18	1	3.45%
19	1	3.45%
20	1	3.45%
22	1	3.45%
23	1	3.45%
Grand Total	29	100.00%

Crashes Per Year	9.67
Fatal and All Injury Crashes	8
Percent Injury	27.6%
Equivalent PDO Index Value	2.46

Year	Crashes	%
2018	11	37.93%
2019	9	31.03%
2020	9	31.03%
Grand Total	29	100.00%

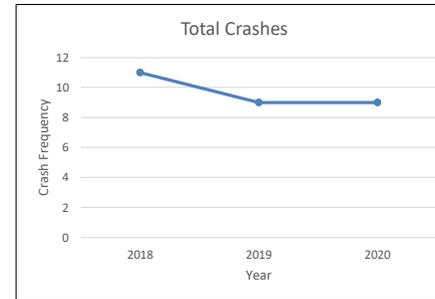
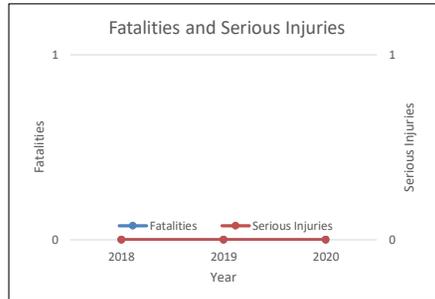
Crash Type	Crashes	%
Left Turn	16	55.17%
Rear End	5	17.24%
Sideswipe - Passing	4	13.79%
Angle	2	6.90%
Sideswipe - Meeting	1	3.45%
Fixed Object	1	3.45%
Grand Total	29	100.00%

Month	Crashes	%
1	2	6.90%
2	2	6.90%
3	2	6.90%
4	2	6.90%
5	2	6.90%
6	5	17.24%
7	1	3.45%
9	2	6.90%
10	4	13.79%
11	3	10.34%
12	4	13.79%
Grand Total	29	100.00%

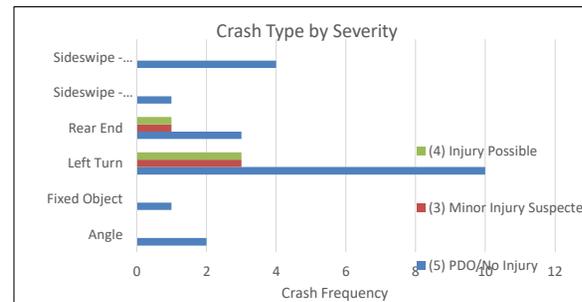
**Lee Rd / S Woodland Rd
Crash Summary Sheet**

Crashes Per Year 9.67 Percent Injury 27.6% EPDO 2.46

Year	Total Crashes	Fatalities	Serious Injuries
2018	11	0	0
2019	9	0	0
2020	9	0	0
Grand Total	29	0	0



Crash Type	Injury Level			Grand Total
	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Inj	
Left Turn	3	3	10	16
Rear End	1	1	3	5
Sideswipe - Passing	0	0	4	4
Angle	0	0	2	2
Sideswipe - Meeting	0	0	1	1
Fixed Object	0	0	1	1
Grand Total	4	4	21	29



**Lee Rd / S Woodland Rd
Crash Summary Sheet**

Crashes Per Year	9.67	Percent Injury	27.6%	EPDO	2.46
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	20	0	0
Snow	2	0	0
Wet	7	0	0
Grand Total	29	0	0

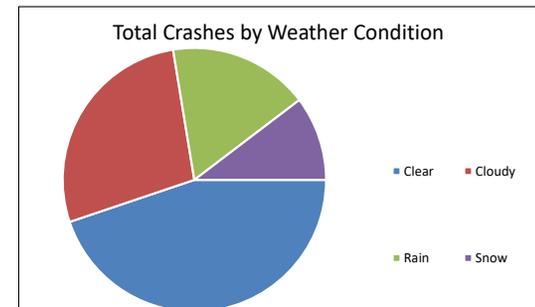
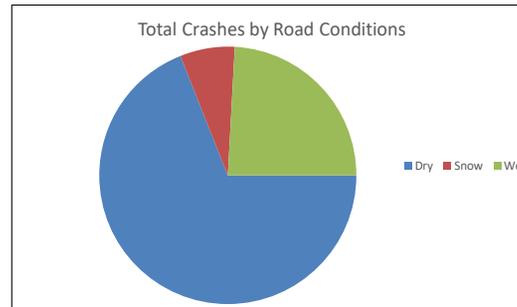
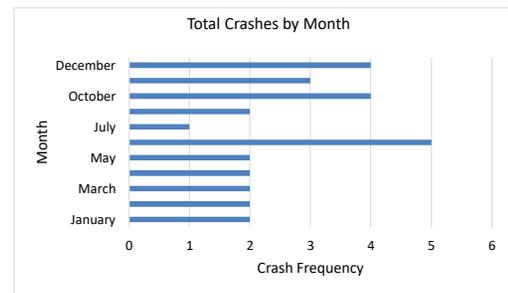
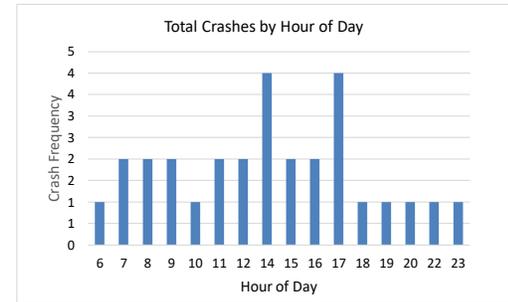
Weather	Total Crashes	Fatalities	Serious Injuries
Clear	13	0	0
Cloudy	8	0	0
Rain	5	0	0
Snow	3	0	0
Grand Total	29	0	0

Crash Location	Total Crashes	Fatalities	Serious Injuries
5 Or More Point Intersection	28	0	0
Four-Way Intersection	1	0	0
Grand Total	29	0	0

Hour of Day	Total Crashes
6	1
7	2
8	2
9	2
10	1
11	2
12	2
14	4
15	2
16	2
17	4
18	1
19	1
20	1
22	1
23	1
Grand Total	29

Month	Total Crashes
January	2
February	2
March	2
April	2
May	2
June	5
July	1
September	2
October	4
November	3
December	4
Grand Total	29

Day in Week	Total Crashes
(1) Sunday	4
(2) Monday	3
(3) Tuesday	4
(4) Wednesday	4
(5) Thursday	4
(6) Friday	8
(7) Saturday	2
Grand Total	29



OHIO SHSP EMPHASIS AREAS (Fatalities)						
	2020	2020	2019	2019	2018	2018
Target Group	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	9		9		11	
Roadway Departure	1	11%	0	0%	0	0%
Intersection	9	100%	9	100%	11	100%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	1	11%	0	0%	2	18%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	2	22%	3	33%	6	55%
Older Driver Involvement (65+)	1	11%	1	11%	1	9%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	3	33%	1	11%	1	9%

*2020 Data is Preliminary

Select Site Type	Int/Urb; Greater than 4 Legs
------------------	------------------------------

Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.15%
Serious Injury Suspected Crash	0	0.00%	1.82%
Minor Injury Suspected Crash	4	13.79%	8.88%
Injury Possible Crash	4	13.79%	14.21%
Property-Damage-Only	21	72.41%	74.94%
Total	29		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	0.00%	0.19%	0.00%	0.09%
Head On	0.00%	1.79%	0.00%	3.86%
Rear End	17.24%	42.09%	17.24%	40.12%
Backing	0.00%	3.03%	0.00%	0.51%
Sideswipe - Meeting	3.45%	0.53%	3.45%	0.58%
Sideswipe - Passing	13.79%	11.68%	13.79%	4.88%
Angle	6.90%	12.08%	6.90%	17.95%
Parked Vehicle	0.00%	1.26%	0.00%	0.51%
Pedestrian	0.00%	1.06%	0.00%	3.90%
Animal	0.00%	0.72%	0.00%	0.11%
Train	0.00%	0.01%	0.00%	0.00%
Pedalcycles	0.00%	0.70%	0.00%	2.38%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	3.45%	4.53%	3.45%	4.62%
Other Object	0.00%	0.09%	0.00%	0.04%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.14%	0.00%	0.29%
Other Non-Collision	0.00%	0.34%	0.00%	0.51%
Left Turn	55.17%	14.50%	55.17%	17.34%
Right Turn	0.00%	5.26%	0.00%	2.31%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	79.31%	74.10%	79.31%	72.70%
Dawn/Dusk	3.45%	4.19%	3.45%	3.90%
Dark - Lighted Roadway	17.24%	18.00%	17.24%	19.50%
Dark - Roadway Not Lighted	0.00%	2.11%	0.00%	2.28%
Dark - Unknown Roadway Lighting	0.00%	0.18%	0.00%	0.29%
Other / Unknown	0.00%	1.42%	0.00%	1.33%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	66.67%	72.48%	66.67%	72.81%
Wet	23.33%	21.45%	23.33%	22.68%
Snow	6.67%	3.58%	6.67%	2.56%
Ice	0.00%	1.61%	0.00%	1.30%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.01%	0.00%	0.00%
Water (Standing, Moving)	0.00%	0.01%	0.00%	0.00%
Slush	0.00%	0.23%	0.00%	0.14%
Other / Unknown	3.33%	0.63%	3.33%	0.51%

Lee Rd / S Woodland Rd

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	29
Fatalities	0
Serious Injuries	0

Non-Intersection	
Crashes	0
Fatalities	0
Serious Injuries	0

Intersection	
Crashes	29
Fatalities	0
Serious Injuries	0

Roadway Departure	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	29
Fatalities	0
Serious Injuries	0

Unsignalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Left Turn	
Crashes	16
Fatalities	0
Serious Injuries	0
Rank 2	
Rear End	
Crashes	5
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	4
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

SHAKER BOULEVARD

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

Lee Rd / Shaker Blvd
Crash Summary Sheet

Fatalities	0
Serious Injuries	0
Other Injuries	15

Crash Severity	Crashes	%
(3) Minor Injury Suspected	6	15.00%
(4) Injury Possible	5	12.50%
(5) PDO/No Injury	29	72.50%
Grand Total	40	100.00%

Day of Week	Crashes	%
(1) Sunday	3	7.50%
(2) Monday	9	22.50%
(3) Tuesday	5	12.50%
(4) Wednesday	5	12.50%
(5) Thursday	9	22.50%
(6) Friday	8	20.00%
(7) Saturday	1	2.50%
Grand Total	40	100.00%

Hour of Day	Crashes	%
0	1	2.50%
2	1	2.50%
7	2	5.00%
8	2	5.00%
9	3	7.50%
10	5	12.50%
11	2	5.00%
12	3	7.50%
13	3	7.50%
14	3	7.50%
15	3	7.50%
16	5	12.50%
17	3	7.50%
18	3	7.50%
20	1	2.50%
Grand Total	40	100.00%

Crashes Per Year	13.33
Fatal and All Injury Crashes	11
Percent Injury	27.5%
Equivalent PDO Index Value	2.46

Year	Crashes	%
2018	9	22.50%
2019	22	55.00%
2020	9	22.50%
Grand Total	40	100.00%

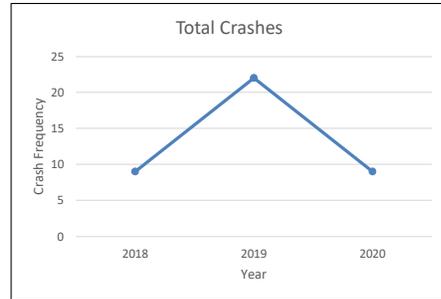
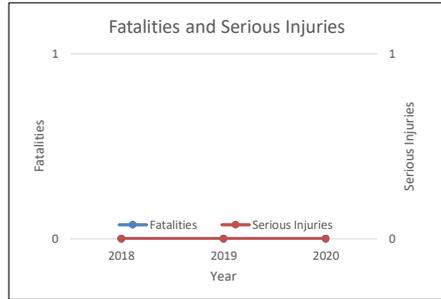
Crash Type	Crashes	%
Left Turn	14	35.00%
Rear End	13	32.50%
Angle	6	15.00%
Sideswipe - Passing	4	10.00%
Fixed Object	1	2.50%
Train	1	2.50%
Pedalcycles	1	2.50%
Grand Total	40	100.00%

Month	Crashes	%
1	1	2.50%
2	5	12.50%
3	3	7.50%
4	2	5.00%
5	5	12.50%
6	6	15.00%
7	6	15.00%
8	2	5.00%
9	1	2.50%
10	3	7.50%
11	3	7.50%
12	3	7.50%
Grand Total	40	100.00%

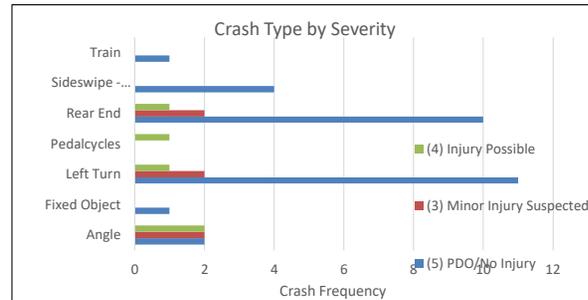
**Lee Rd / Shaker Blvd
Crash Summary Sheet**

Crashes Per Year	13.33	Percent Injury	27.5%	EPDO	2.46
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Year	Total Crashes	Fatalities	Serious Injuries
2018	9	0	0
2019	22	0	0
2020	9	0	0
Grand Total	40	0	0



Crash Type	Injury Level			Grand Total
	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Inj	
Left Turn	2	1	11	14
Rear End	2	1	10	13
Angle	2	2	2	6
Sideswipe - Passing	0	0	4	4
Fixed Object	0	0	1	1
Train	0	0	1	1
Pedalcycles	0	1	0	1
Grand Total	6	5	29	40



**Lee Rd / Shaker Blvd
Crash Summary Sheet**

Crashes Per Year	13.33	Percent Injury	27.5%	EPDO	2.46
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	28	0	0
Snow	1	0	0
Wet	9	0	0
Other / Unknown	2	0	0
Grand Total	40	0	0

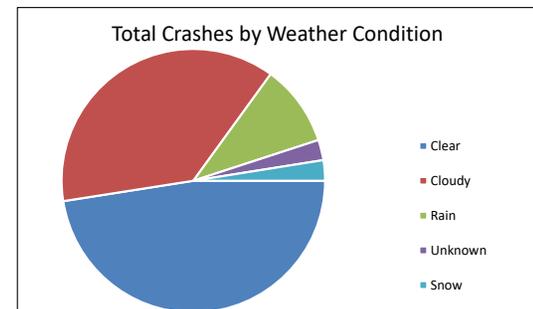
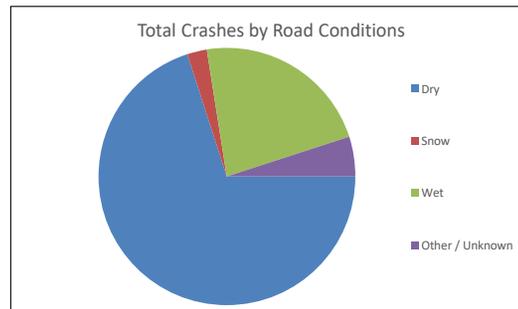
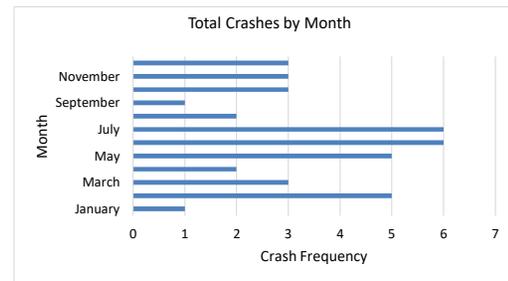
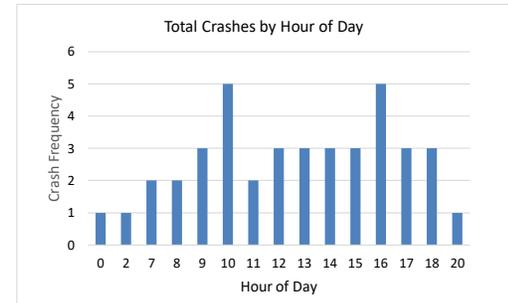
Weather	Total Crashes	Fatalities	Serious Injuries
Clear	19	0	0
Cloudy	15	0	0
Rain	4	0	0
Unknown	1	0	0
Snow	1	0	0
Grand Total	40	0	0

Crash Location	Total Crashes	Fatalities	Serious Injuries
Four-Way Intersection	40	0	0
Grand Total	40	0	0

Hour of Day	Total Crashes
0	1
2	1
7	2
8	2
9	3
10	5
11	2
12	3
13	3
14	3
15	3
16	5
17	3
18	3
20	1
Grand Total	40

Month	Total Crashes
January	1
February	5
March	3
April	2
May	5
June	6
July	6
August	2
September	1
October	3
November	3
December	3
Grand Total	40

Day in Week	Total Crashes
(1) Sunday	3
(2) Monday	9
(3) Tuesday	5
(4) Wednesday	5
(5) Thursday	9
(6) Friday	8
(7) Saturday	1
Grand Total	40



Select Authority: All

OHIO SHSP EMPHASIS AREAS (Fatalities)						
Target Group	2020	2020	2019	2019	2018	2018
	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	9		22		9	
Roadway Departure	0	0%	1	5%	1	11%
Intersection	9	100%	22	100%	9	100%
Railroad Crossing	0	0%	1	5%	0	0%
Alcohol Related Involvement	0	0%	1	5%	0	0%
Restraints Not Used Driver/Occupants	1	11%	3	14%	1	11%
Speed Related Involvement	0	0%	1	5%	0	0%
Young Driver Involvement (15-25)	5	56%	12	55%	2	22%
Older Driver Involvement (65+)	3	33%	5	23%	3	33%
Distracted Drivers	0	0%	1	5%	2	22%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	1	11%
Work Zone Related	0	0%	1	5%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	3	33%	7	32%	3	33%

*2020 Data is Preliminary

Select Site Type	Int/Urb; 4-leg signalized
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Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.11%
Serious Injury Suspected Crash	0	0.00%	1.75%
Minor Injury Suspected Crash	6	15.00%	8.86%
Injury Possible Crash	5	12.50%	14.44%
Property-Damage-Only	29	72.50%	74.85%
Total	40		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	0.00%	0.13%	0.00%	0.08%
Head On	0.00%	1.64%	0.00%	3.21%
Rear End	32.50%	42.25%	32.50%	39.58%
Backing	0.00%	3.38%	0.00%	0.48%
Sideswipe - Meeting	0.00%	0.51%	0.00%	0.46%
Sideswipe - Passing	10.00%	10.81%	10.00%	4.16%
Angle	15.00%	12.86%	15.00%	19.42%
Parked Vehicle	0.00%	1.59%	0.00%	0.63%
Pedestrian	0.00%	1.26%	0.00%	4.50%
Animal	0.00%	0.66%	0.00%	0.13%
Train	2.50%	0.01%	2.50%	0.01%
Pedalcycles	2.50%	0.77%	2.50%	2.34%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	2.50%	3.82%	2.50%	3.67%
Other Object	0.00%	0.11%	0.00%	0.05%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.14%	0.00%	0.37%
Other Non-Collision	0.00%	0.25%	0.00%	0.24%
Left Turn	35.00%	15.07%	35.00%	18.05%
Right Turn	0.00%	4.74%	0.00%	2.62%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	84.62%	75.03%	84.62%	73.23%
Dawn/Dusk	2.56%	4.03%	2.56%	3.83%
Dark - Lighted Roadway	10.26%	17.00%	10.26%	18.94%
Dark - Roadway Not Lighted	0.00%	2.45%	0.00%	2.75%
Dark - Unknown Roadway Lighting	2.56%	0.25%	2.56%	0.20%
Other / Unknown	0.00%	1.24%	0.00%	1.05%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	68.29%	73.36%	68.29%	74.99%
Wet	21.95%	21.30%	21.95%	21.47%
Snow	2.44%	3.42%	2.44%	2.23%
Ice	0.00%	1.09%	0.00%	0.65%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.03%	0.00%	0.04%
Water (Standing, Moving)	0.00%	0.02%	0.00%	0.02%
Slush	0.00%	0.15%	0.00%	0.10%
Other / Unknown	7.32%	0.63%	7.32%	0.50%

Lee Rd / Shaker Blvd

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	40
Fatalities	0
Serious Injuries	0

Non-Intersection	
Crashes	0
Fatalities	0
Serious Injuries	0

Intersection	
Crashes	40
Fatalities	0
Serious Injuries	0

Roadway Departure	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	40
Fatalities	0
Serious Injuries	0

Unsignalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Left Turn	
Crashes	14
Fatalities	0
Serious Injuries	0
Rank 2	
Rear End	
Crashes	13
Fatalities	0
Serious Injuries	0
Rank 3	
Angle	
Crashes	6
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

SOUTH PARK BOULEVARD

ATTACHMENT E: INTERSECTION AND ROADWAY SEGMENT CRASH DATA

Lee Rd / South Park Blvd

Crash Summary Sheet

Fatalities	0
Serious Injuries	0
Other Injuries	8

Crash Severity	Crashes	%
(3) Minor Injury Suspected	2	16.67%
(4) Injury Possible	3	25.00%
(5) PDO/No Injury	7	58.33%
Grand Total	12	100.00%

Day of Week	Crashes	%
(2) Monday	2	16.67%
(3) Tuesday	3	25.00%
(5) Thursday	4	33.33%
(6) Friday	1	8.33%
(7) Saturday	2	16.67%
Grand Total	12	100.00%

Hour of Day	Crashes	%
7	1	8.33%
8	1	8.33%
9	3	25.00%
10	1	8.33%
15	2	16.67%
16	2	16.67%
18	2	16.67%
Grand Total	12	100.00%

Crashes Per Year	4.00
Fatal and All Injury Crashes	5
Percent Injury	41.7%
Equivalent PDO Index Value	3.17

Year	Crashes	%
2018	3	25.00%
2019	5	41.67%
2020	4	33.33%
Grand Total	12	100.00%

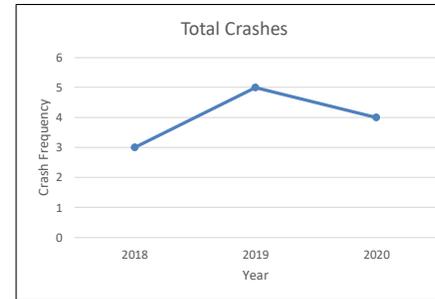
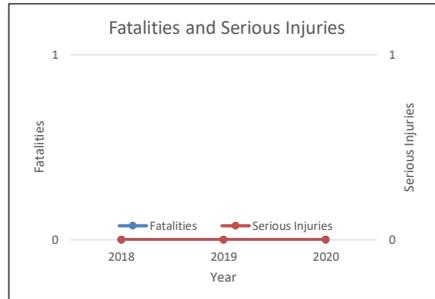
Crash Type	Crashes	%
Rear End	8	66.67%
Angle	3	25.00%
Left Turn	1	8.33%
Grand Total	12	100.00%

Month	Crashes	%
1	2	16.67%
2	1	8.33%
3	2	16.67%
5	1	8.33%
8	2	16.67%
10	1	8.33%
11	2	16.67%
12	1	8.33%
Grand Total	12	100.00%

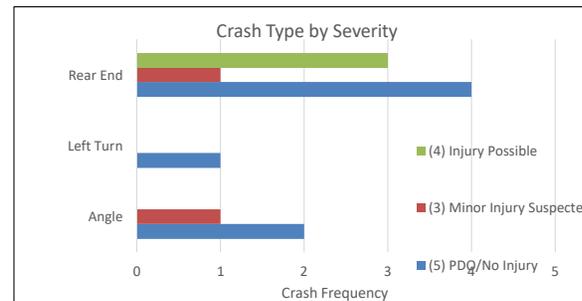
**Lee Rd / South Park Blvd
Crash Summary Sheet**

Crashes Per Year	4.00	Percent Injury	41.7%	EPDO	3.17
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Year	Total Crashes	Fatalities	Serious Injuries
2018	3	0	0
2019	5	0	0
2020	4	0	0
Grand Total	12	0	0



Total Crashes	Injury Level			Grand Total
Crash Type	(3) Minor Injury	(4) Injury Possit	(5) PDO/No Inj	
Rear End	1	3	4	8
Angle	1	0	2	3
Left Turn	0	0	1	1
Grand Total	2	3	7	12



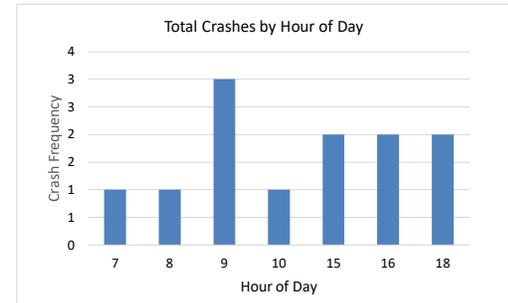
**Lee Rd / South Park Blvd
Crash Summary Sheet**

Crashes Per Year	4.00	Percent Injury	41.7%	EPDO	3.17
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Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	7	0	0
Snow	2	0	0
Wet	2	0	0
Other / Unknown	1	0	0
Grand Total	12	0	0

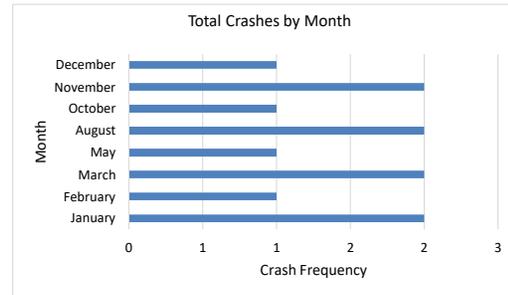
Hour of Day	Total Crashes
7	1
8	1
9	3
10	1
15	2
16	2
18	2
Grand Total	12

Month	Total Crashes
January	2
February	1
March	2
May	1
August	2
October	1
November	2
December	1
Grand Total	12

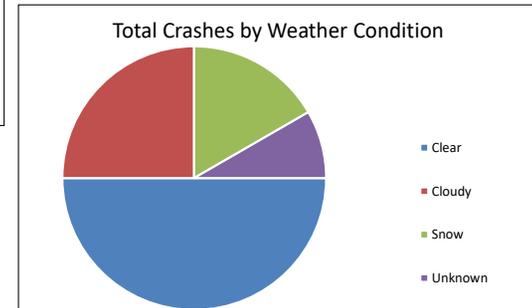
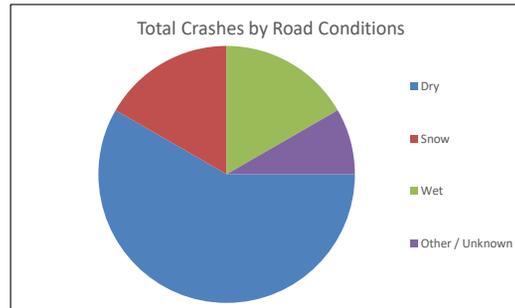


Weather	Total Crashes	Fatalities	Serious Injuries
Clear	6	0	0
Cloudy	3	0	0
Snow	2	0	0
Unknown	1	0	0
Grand Total	12	0	0

Day in Week	Total Crashes
(2) Monday	2
(3) Tuesday	3
(5) Thursday	4
(6) Friday	1
(7) Saturday	2
Grand Total	12



Crash Location	Total Crashes	Fatalities	Serious Injuries
Four-Way Intersection	12	0	0
Grand Total	12	0	0



OHIO SHSP EMPHASIS AREAS (Fatalities)						
	2020	2020	2019	2019	2018	2018
Target Group	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
Total Fatalities by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Serious Injuries)**

	2020	2020	2019	2019	2018	2018
Target Group	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries	Serious Injuries	% of Total Serious Injuries
Total Serious Injuries by Year	0		0		0	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	0	0%	0	0%	0	0%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	0	0%	0	0%	0	0%
Speed Related Involvement	0	0%	0	0%	0	0%
Young Driver Involvement (15-25)	0	0%	0	0%	0	0%
Older Driver Involvement (65+)	0	0%	0	0%	0	0%
Distracted Drivers	0	0%	0	0%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	0	0%	0	0%	0	0%

*2020 Data is Preliminary

**OHIO SHSP
EMPHASIS AREAS (Total Crashes)**

	2020	2020	2019	2019	2018	2018
Target Group	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes
Total Crashes by Year	4		5		3	
Roadway Departure	0	0%	0	0%	0	0%
Intersection	4	100%	5	100%	3	100%
Railroad Crossing	0	0%	0	0%	0	0%
Alcohol Related Involvement	0	0%	0	0%	0	0%
Restraints Not Used Driver/Occupants	1	25%	1	20%	0	0%
Speed Related Involvement	0	0%	1	20%	0	0%
Young Driver Involvement (15-25)	1	25%	4	80%	0	0%
Older Driver Involvement (65+)	1	25%	0	0%	0	0%
Distracted Drivers	0	0%	1	20%	0	0%
Motorcycle Driver/Passenger	0	0%	0	0%	0	0%
Pedestrian Involvement	0	0%	0	0%	0	0%
Bicycle Involvement	0	0%	0	0%	0	0%
Work Zone Related	0	0%	0	0%	0	0%
Drug Related Involvement	0	0%	0	0%	0	0%
Marijuana Involvement	0	0%	0	0%	0	0%
Rear End	3	75%	3	60%	2	67%

*2020 Data is Preliminary

Select Site Type	Int/Urb; 4-leg signalized
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Crash Severity	Site Average		Statewide Average
	Total (2018-2020)	Total (%)	Total (%)
Fatal Crash	0	0.00%	0.11%
Serious Injury Suspected Crash	0	0.00%	1.75%
Minor Injury Suspected Crash	2	16.67%	8.86%
Injury Possible Crash	3	25.00%	14.44%
Property-Damage-Only	7	58.33%	74.85%
Total	12		

Crashes by Crash Type				
Crash Type	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Unknown	0.00%	0.13%	0.00%	0.08%
Head On	0.00%	1.64%	0.00%	3.21%
Rear End	66.67%	42.25%	66.67%	39.58%
Backing	0.00%	3.38%	0.00%	0.48%
Sideswipe - Meeting	0.00%	0.51%	0.00%	0.46%
Sideswipe - Passing	0.00%	10.81%	0.00%	4.16%
Angle	25.00%	12.86%	25.00%	19.42%
Parked Vehicle	0.00%	1.59%	0.00%	0.63%
Pedestrian	0.00%	1.26%	0.00%	4.50%
Animal	0.00%	0.66%	0.00%	0.13%
Train	0.00%	0.01%	0.00%	0.01%
Pedalcycles	0.00%	0.77%	0.00%	2.34%
Other Non-Vehicle	0.00%	0.00%	0.00%	0.00%
Fixed Object	0.00%	3.82%	0.00%	3.67%
Other Object	0.00%	0.11%	0.00%	0.05%
Falling From Or In Vehicle	0.00%	0.00%	0.00%	0.00%
Overturning	0.00%	0.14%	0.00%	0.37%
Other Non-Collision	0.00%	0.25%	0.00%	0.24%
Left Turn	8.33%	15.07%	8.33%	18.05%
Right Turn	0.00%	4.74%	0.00%	2.62%

Crashes by Light Conditions				
Light Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Daylight	75.00%	75.03%	75.00%	73.23%
Dawn/Dusk	8.33%	4.03%	8.33%	3.83%
Dark - Lighted Roadway	16.67%	17.00%	16.67%	18.94%
Dark - Roadway Not Lighted	0.00%	2.45%	0.00%	2.75%
Dark - Unknown Roadway Lighting	0.00%	0.25%	0.00%	0.20%
Other / Unknown	0.00%	1.24%	0.00%	1.05%

Crashes by Road Conditions				
Road Conditions	Total (%)		Fatal & All Injury (%)	
	Site Average	Statewide Average	Site Average	Statewide Average
Dry	53.85%	73.36%	53.85%	74.99%
Wet	15.38%	21.30%	15.38%	21.47%
Snow	15.38%	3.42%	15.38%	2.23%
Ice	0.00%	1.09%	0.00%	0.65%
Sand, Mud, Dirt, Oil, Gravel	0.00%	0.03%	0.00%	0.04%
Water (Standing, Moving)	0.00%	0.02%	0.00%	0.02%
Slush	0.00%	0.15%	0.00%	0.10%
Other / Unknown	15.39%	0.63%	15.39%	0.50%

Lee Rd / South Park Blvd

Begin Year	2018	End Year	2020	(Available Years: 2018-2020)
Select Authority:	All			

Total Crashes	
Crashes	12
Fatalities	0
Serious Injuries	0

Non-Intersection	
Crashes	0
Fatalities	0
Serious Injuries	0

Intersection	
Crashes	12
Fatalities	0
Serious Injuries	0

Roadway Departure	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Signalized	
Crashes	12
Fatalities	0
Serious Injuries	0

Unsignalized	
Crashes	0
Fatalities	0
Serious Injuries	0

Other	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	8
Fatalities	0
Serious Injuries	0
Rank 2	
Angle	
Crashes	3
Fatalities	0
Serious Injuries	0
Rank 3	
Left Turn	
Crashes	1
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0

Crash Types	
Rank 1	
Rear End	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 2	
Fixed Object	
Crashes	0
Fatalities	0
Serious Injuries	0
Rank 3	
Sideswipe - Passing	
Crashes	0
Fatalities	0
Serious Injuries	0