



## Royal Oak Citizens Traffic Committee Meeting

Tuesday, July 23, 2024, 6:30 p.m.

City Hall Commission Chambers Room 121

203 South Troy Street

Royal Oak, MI 48067

Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the city clerk's office at 248-246-3050 at least two (2) business days prior to the meeting.

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	Pages
1. Call to Order	
2. Roll Call and Preamble	2
3. Approval of Minutes	3
4. Public Comment for Items not on the Agenda	
5. Unfinished Business	
a. Request for Left Turn Signals on Crooks Road	9
6. New Business	
a. Request to install a No Left Turn sign for the Hazelton Apartments driveway on Williams Street near mid-block pedestrian crossing	13
b. Request for No Parking sign on the east side of Virginia Avenue at E. University Avenue	17
c. Request to remove guardrail adjacent to 3111 N. Main Street	21
d. Request to review traffic concerns on Kayser Avenue at E. Sixth Street intersection by Grant Park	28
e. Request to install guardrail in public right-of-way on northbound Coolidge Highway adjacent to 2804 Coolidge apartment complex	70
7. Information Only Items	
a. Results of Previous Traffic Committee Recommendations	
b. Update on Morse Avenue and Harrison Avenue traffic counts	89
8. Adjournment	

### **Royal Oak Citizens Traffic Committee Preamble**

"The Traffic Committee consists of Royal Oak property owners appointed by the City Commission. We are volunteers and are not paid or elected. What we decide tonight is merely a recommendation to the City Commission. If you do not agree with the findings or decisions of this committee, you may go before the City Commission and petition and/or discuss your issue with them. At this meeting you will be given an opportunity to speak during your item on the agenda. However, at the City Commission meeting, you must be recognized during "public comment" on their agenda, not when the Traffic Committee resolutions are being voted upon. Otherwise, you will not be able to voice your concerns.

It is important to understand that professionals make preliminary recommendations to the Traffic Committee. They consist of civil and traffic engineers, outside consultants and public safety officials. You may have been informed that these professionals have denied your request or petition. This denial does not mean that this committee will vote that way; however, we are committed to discussing the issues at hand in a pragmatic and sensible manner. Our ultimate recommendation to the City Commission will be one that benefits our citizens and community as a whole."



## Minutes

### Royal Oak Citizens Traffic Committee Meeting

May 28, 2024, 6:30 p.m.  
City Hall Commission Chambers Room 121  
203 South Troy Street  
Royal Oak, MI 48067

Present: Carl Laubach  
Clyde Esbri  
Dan Godek  
Joe Labataille  
Sean Dunlop

Absent: Austin Schneider  
Thomas Allen

Staff Present: Holly Donoghue  
Jennifer Caudill

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#### 1. Call to Order

The meeting was called to order at 6:32 p.m.

#### 2. Roll Call and Preamble

#### 3. Approval of Minutes

Moved by: Carl Laubach  
Seconded by: Clyde Esbri

Motion to approve the previous meeting minutes.

Motion Adopted

#### 4. Public Comment for Items not on the Agenda

Chairperson Godek opened the floor for those to speak.

Mr. Alan Ashley, Vice President of Royal Oak Manor spoke. He requested a right turn only sign for vehicles exiting out of parking garage for a new development 222 E Sixth - the Hazelton. He also would like a 4-way stop at the intersection of Sixth and Williams due to increased pedestrian traffic. He asked for something to

be done regarding the street lighting on Williams, as the tree canopy blocks lighting on street.

**5. Rescheduled Items and Old Business**

**5.a Results of Previous Traffic Committee Recommendations**

The city engineer informed the committee of the city commission resolutions from the previous traffic committee recommendations.

**6. Agenda Items**

**6.a Request for 4-way stop at intersection of Woodlawn Avenue and Glendale Avenue**

The city engineer presented the staff analysis and recommendation for the request. Chairperson Godek opened the floor to those interested in speaking on this issue. No one came forward.

Moved by: Sean Dunlop

Seconded by: Joe Labataille

Motion to accept staff recommendation to replace the north/south yield signs on Glendale Avenue at Woodlawn Avenue with stop signs (R1-1).

Ayes (5): Carl Laubach, Clyde Esbri, Dan Godek, Joe Labataille, and Sean Dunlop

Motion Adopted (5 to 0)

**6.b Request for left turn signals on Crooks Road**

The city engineer presented the staff analysis and recommendation for the request. Chairperson Godek opened the floor to those interested in speaking on this issue.

Kathleen London of 5132 Thorncroft Court spoke regarding her request. Her son was in an accident when trying to turn east onto Normandy Road from southbound Crooks towards the student parking lot. A vehicle going northbound on Crooks ran the yellow light and hit her son's vehicle when he was making the turn. No one was critically injured but the trauma of that accident still lasts. She stated that more students are using non-motorized transportation, and vehicles are avoiding other north/south roads due to reduced lanes, so there is increased vehicle traffic on Crooks. She thinks these intersections deserve special consideration because they are within a school zone.

No one else came forward and Chairperson Godek closed public comment on this item.



Member Clyde Esbri spoke in favor of adding a left turn phase due to the unique situation around the high school and having young, less experienced drivers.

Members discussed extending southbound green signal time on Crooks for a few seconds, while all other legs are red, or possibly increase the all-red time at the intersection. This could be less costly and only requires a programming change.

The city engineer noted that adding a left turn signal would affect traffic progression through the corridor and could potentially lead to more traffic back-ups. Because the signals were not warranted based on the study results, she did not analyze progression impacts or prepare cost estimates.

Carl spoke in favor of staff recommendation, based on this being a typical intersection and this teaches new drivers typical behavior for an intersection.

Moved by: Clyde Esbri

Seconded by: Carl Laubach

Motion to table this item and have the city engineer gather more information on costs, and alternative programming/timing options for both intersections.

Motion Adopted

#### **6.c Request for No Parking on one side of E. Parent Avenue**

The city engineer presented the staff analysis and recommendation for the request. Chairperson Godek opened the floor to those interested in speaking on this issue.

Caitlin Hall of 1222 Longfellow spoke against allowing parking on the north side, and would prefer the parking to be on the south side where the existing ADA parking spaces are already located. She is in favor of a future proposal going to the Park & Recreation Advisory Board to install nose-in parking on the north side of Lawson Park/south side of E. Parent.

Chris Ott of 1305 Anne spoke asking to table this item until the Park & Recreation Advisory Board completes their review of parking around Lawson Park. He is in agreement with Caitlin of protecting the mature trees and not allowing parking on the north side of the roadway.

No one else came forward and Chairperson Godek closed public comment on this item.

Engineer Donoghue gave information regarding the future Park & Recreation Advisory Board meeting.

Members Clyde Esbri and Sean Dunlop spoke about tabling the parking discussion until after parks meeting.

Chairperson Godek asked the petitioner and resident who spoke for their opinion on the proposed nose-in parking. They were both in favor.

Moved by: Carl Laubach

Seconded by: Clyde Esbri

Motion to install 'Dead End' and 'No Parking' signs at the dead end of E. Parent Avenue, east of Longfellow Avenue.

Ayes (4): Carl Laubach, Clyde Esbri, Dan Godek, and Sean Dunlop

Nays (1): Joe Labataille

Motion Adopted (4 to 1)

Moved by: Carl Laubach

Seconded by: Sean Dunlop

Motion to install 'No Parking' signs on the north side of E. Parent Avenue if the Park & Recreation advisory board approves nose-in parking at Lawson park; if nose-in parking is not approved, install 'No Parking' signs on the north side of E. Parent Avenue.

Ayes (2): Carl Laubach, and Sean Dunlop

Nays (3): Clyde Esbri, Dan Godek, and Joe Labataille

Motion Failed (2 to 3)

Moved by: Clyde Esbri

Seconded by: Joe Labataille

Motion to table parking restriction recommendations for E. Parent Avenue until Park & Recreation Advisory Board reviews nose-in parking for Lawson Park.

Motion Adopted

#### **6.d Request for stop sign at alley off Normandy Road**

The city engineer presented the staff analysis and recommendation for the request. Chairperson Godek opened the floor to those interested in speaking on this issue.

Patrick McGee of 4524 Elmhurst spoke about site distance issues for cars exiting the alleyway onto Normandy, cannot see pedestrians due to fence and trees. The only crosswalk on Normandy to cross Woodward is on the south side of the roadway, so you have to walk past the alley egress.

No one else came forward and Chairperson Godek closed public comment on this item.

Members discussed if this is more of a code enforcement concern due to the fence adjacent to the alley near the sidewalk causing a site distance issue.

Moved by: Sean Dunlop  
Seconded by: Joe Labataille

Motion to accept the staff recommendation to deny the request for a Stop sign within the public alley at the intersection of Normandy Road and the public alley, located east of Woodward Avenue.

Motion Adopted

#### **6.e Review and Amendment to Traffic Committee Bylaws**

The city engineer presented the staff review and recommendations for updates to the by-laws. Chairperson Godek opened the floor to those interested in speaking on this issue. No one came forward.

Members discussed if the police traffic safety officer who attends meetings should be included as an ex-officio member to clarify that he is not a voting member of the committee. Members also discussed if there was a need or reason to have an alternate on the committee.

Moved by: Clyde Esbri  
Seconded by: Carl Laubach

Motion to accept the staff recommendation to amend the Royal Oak Traffic Committee Bylaws as outlined in the attached document, to add the police traffic safety representative as an ex-officio member, and to cancel the practice of appointing an alternate member to the committee.

Motion Adopted

#### **6.f Reschedule July meeting**

Members were agreeable to moving the July 2024 meeting to the following Tuesday, as no other present members had any conflicts with the new proposed date.

Moved by: Clyde Esbri  
Seconded by: Carl Laubach

Motion to move the July Citizens Traffic Committee meeting to Tuesday, July 30, 2024.

Motion Adopted

**7. Information Only Items**

**8. Adjournment**

The meeting was adjourned at 7:52 p.m.

Moved by: Joe Labataille

Seconded by: Carl Laubach

Motion to adjourn.

Motion Adopted

## Royal Oak Traffic Committee

### AGENDA ITEM

<b>Title</b>	<b>Request for Left Turn Signals on Crooks Road</b>
<b>SUBMITTING DEPARTMENT</b>	<b>Engineering</b>
<b>PRESENTER</b>	<b>Holly Donoghue, P.E.</b>
<b>MEETING DATE</b>	<b>July 23, 2024</b>

#### Requestor Concern:

At the May 28, 2024 traffic meeting, a request was reviewed from Kathleen London of 5132 Thorncroft Court requesting dedicated left turn signals at the intersections of:

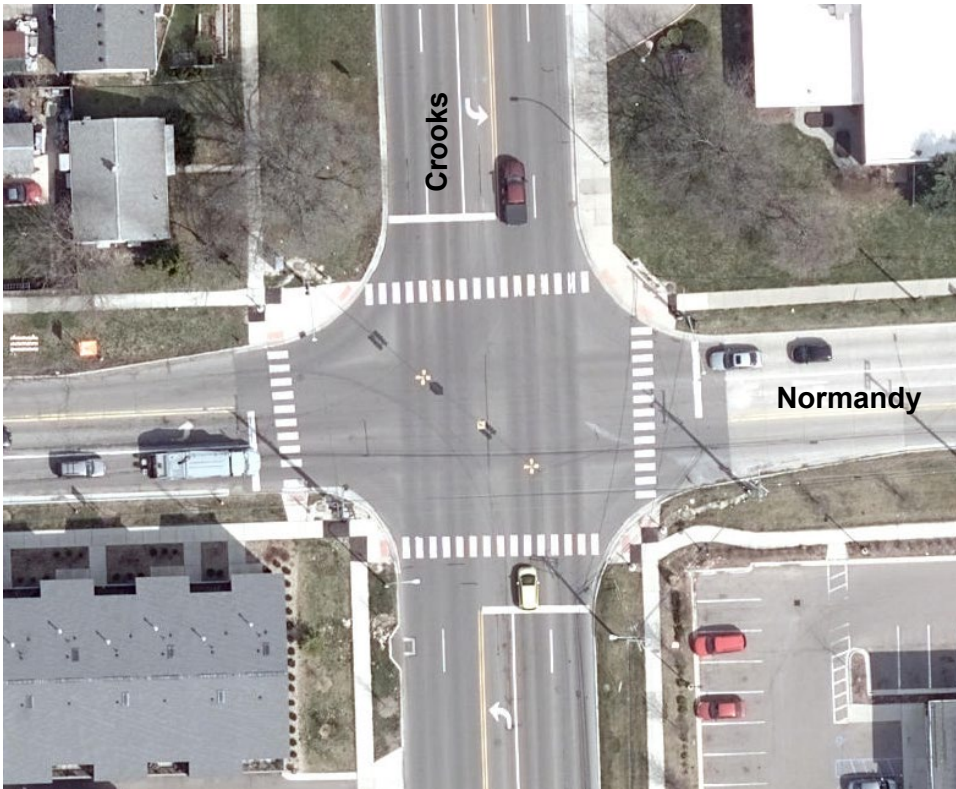
- Crooks Road at Lexington Boulevard
- Crooks Road at Normandy Road

Staff presented a warrant study performed by the Transportation Improvement Association (TIA) which showed that the warrants were not met for a dedicated left turn signal at either intersection. The committee considered installing left turn signals because these intersections are adjacent to Royal Oak High School, which has young drivers accessing the property each school day. The committee voted to table this item so the city engineer could gather information on costs, traffic impacts, and alternative programming/timing options for both intersections.

#### Staff Analysis:

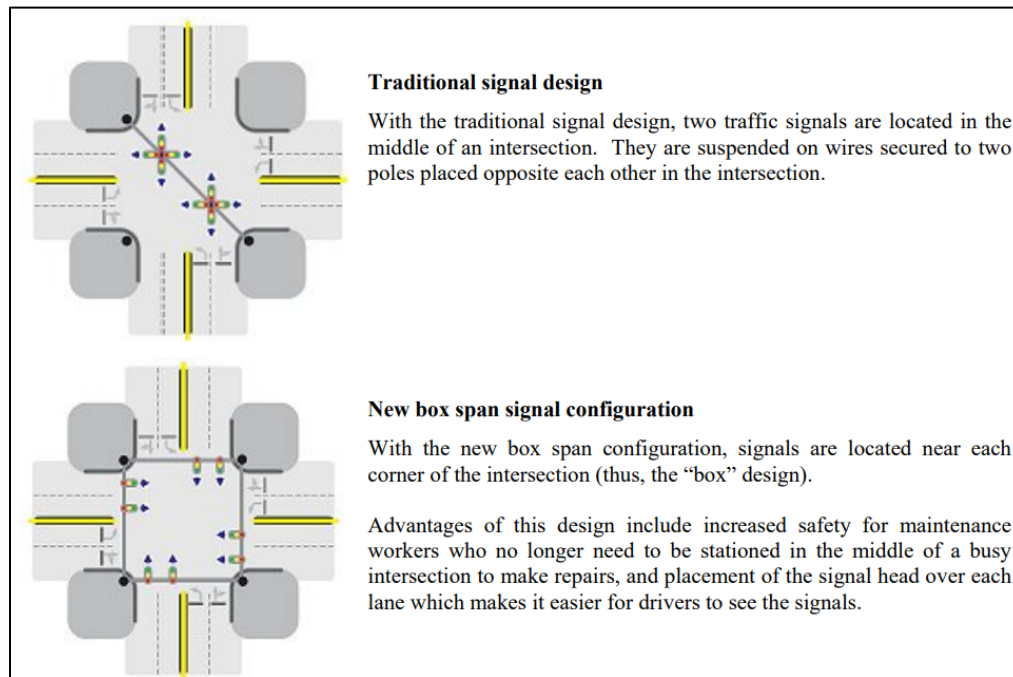
The Staff Traffic Committee has further reviewed this request and determined that:

1. Crooks Road is a 58-foot wide major road consisting of composite pavement with concrete curbing.
2. Lexington Boulevard is major road consisting of concrete pavement with 22-foot wide pavement on each side of the boulevard.
3. Normandy Road is a 37-foot wide major road consisting of composite pavement with concrete curbing west of Crooks, and concrete pavement east of Crooks.
4. Crooks/Lexington is a signalized intersection with no dedicated left turn signals in any direction. There is a dedicated left turn lane for southbound Crooks. Lexington does not have painted lane lines, but there is space for two lanes of traffic (left turns and right turns).
5. Crooks/Normandy is a signalized intersection with no dedicated left turn signals in any direction. There are dedicated left turn lanes in all directions.
6. An aerial view of the two intersections is provided below:



7.

8. The crash history for each intersection is as follows:
  - a. For Crooks/Lexington: Of the 13 reported crashes at the intersection (2021-2023), one was a southbound angle crash that could have potentially been avoided with installation of a left turn phase signal.
  - b. For Crooks/Normandy: Of the 29 reported crashes at the intersection (2021-2023), there were six crashes that were correctable with installation of a left turn phase signal (1 head-on left turn, 2 angle, 2 pedestrian involved, and 1 bike involved):
    - i. Two in the southbound direction
    - ii. Two in the eastbound direction
    - iii. Two in the westbound direction
9. The Transportation Improvement Association (TIA) performed a Left Turn Phase Warrant Study for each intersection using the Michigan Department of Transportation (MDOT) formulas. These reports are included in the attachments, and indicate that a dedicated left-turn signal is not warranted for either intersection in any direction.
10. Staff requested an opinion from its traffic consultant, Fleis and VandenBrink. Their professional opinion is that the dedicated left turn signals should not be installed. However, if the city wishes to move forward with left turn signals, they provided the following comments:
  - a. Both signals have a fair amount of capacity, and they did not think adding left turn time would significantly impact traffic backups.
  - b. Increasing the all-red time would not really help anything. It is typically 2-3 seconds (depends on speed of road), and the Normandy signals already have a 5-second delay.
  - c. Pedestrian and bicycle counts would not really factor into this decision. With left turn signals, there would be a “no walk” interval during a green left turn signal. Pedestrians and bicyclists could be crossing the road during a permissive left (blinking yellow).
  - d. If implemented, we would want to rerun the optimization study for Crooks Road (the city just optimized the timings along the corridor this year). This is estimated to cost \$3,000.
11. Staff presented this information to Carrier and Gable who provides traffic signal equipment and training services throughout Oakland County. Their professional opinion is that the dedicated left turn signals should not be installed. However, if the city wished to move forward with this effort, they provided the following comments:
  - a. The city upgraded these signals with camera detection systems and new cabinets in 2022-23, but signal heads are still on a span wire and are rather old. Note that “span wire intersections” include cables that run diagonally across the intersection. Current best practice is to install “box span intersections.” A snippet from an MDOT traffic signal guide helps explain the difference:



- b. Normandy and Crooks – because of the span wire configuration at Normandy and Crooks, installing the left turn signals is a little more complicated. There must be two signals for the thru-movement in each direction, and they must be located to the right of the left-turn signal. Staff prepared a layout of the traffic signal heads to see if they could be installed on the existing span wire and still meet the required spacing stipulated in the MMUTCD. The signal heads must be spaced a minimum of 8 feet laterally (in perpendicular direction) and must be between 40 feet and 120 feet from each stop bar. Because of the number of signal heads required, it was not possible to achieve both spacing constraints. Therefore, installation of dedicated left turn signals here must be done by replacing the intersection with a box span configuration. A detailed cost was not performed as this requires a more in-depth design with utility and foundation analysis. In general, upgrading a span-wire to a box-span configuration costs roughly \$250,000 to \$350,000.
- c. Lexington and Crooks – This intersection is simpler to upgrade. One additional traffic signal head and one left-turn signal will be required for southbound traffic. Carrier and Gable recommends installing a dual head to achieve this:



Additionally, vehicle detection pucks would need to be installed in the southbound left turn lane to optimize traffic flow. Estimated cost: \$24,000.

12. Note that funding is not allocated for this work, and so roadwork may need to be removed from the city's capital improvement plan in order to fund one or both of these intersections.
13. Staff relies on data and best practice to make recommendations. Considering the data presented in the left-turn warrant studies, staff maintains the same recommendation that left-turn signals should not be installed at these two intersections.

**Suggested Staff Recommendation: To deny the request for dedicated left-turn traffic signals at the intersections of Crooks/Normandy and Crooks/Lexington.**

Estimated cost: \$0



## Royal Oak Traffic Committee

### AGENDA ITEM

<b>Title</b>	<b>Request to install a no left turn sign for Hazelton Apartment driveway on Williams Street near mid-block pedestrian crossing</b>
<b>SUBMITTING DEPARTMENT</b>	<b>Engineering</b>
<b>PRESENTER</b>	<b>Holly Donoghue, P.E.</b>
<b>MEETING DATE</b>	<b>July 23, 2024</b>

#### Requestor Concern:

A request was received from Alan Ashley of 606 Williams Street to install a “no left turn” sign at the driveway out of the parking garage for the Hazelton Apartments development located at the corner of Williams Street and E. Sixth Street. He states this would be to protect Royal Oak Manor residents that cross Williams to get to the parking lot.

#### Staff Analysis:

The Staff Traffic Committee has reviewed this request and determined that:

1. Williams Street is a 37-foot wide major road consisting of composite pavement with concrete curb.
2. There are metered parking lanes on both sides of the road. There is a mid-block pedestrian crossing between Royal Oak Manor and the parking lot on the east side of Williams Street.
3. The three-year (2021-2023) accident report shows one accident at the corner of E. Sixth Street and Williams Street in which a vehicle traveling south on Williams struck a vehicle crossing the intersection going east on Sixth.
4. The Hazelton Apartments project is still under construction. The proposed driveway approach for the Hazelton Apartments parking garage is shown below. The existing pedestrian crosswalk across Williams is skewed, and the distance between exiting vehicles and the northern edge of the crosswalk varies between 27 and 36 feet laterally as shown below:



**From:** [noreply@civicplus.com](mailto:noreply@civicplus.com)  
**To:** [Engineering Division](#)  
**Subject:** Online Form Submittal: Traffic Committee Request  
**Date:** Monday, June 17, 2024 6:37:54 PM

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## Traffic Committee Request

**Please complete required fields and submit.**

Name	Alan R Ashley
Email Address	arashley1946@yahoo.com
Street Address	606 Williams ST. Apt 602
Phone Number	2489350466
Location of Concern	Williams Street between 6th and 7th streets
Type of Issue	Traffic or pedestrian signal
Detailed Description of Concern	As shown in the picture that I gave Holly, the entrance into and exit from the underground parking for the Hazelton Apartments across from Royal Oak Manor. The crosswalk from Royal Oak Manor and our parking lot on William Street.
Proposed Solution	As I stated in the last traffic committee meeting, I would like a stop sign and no left turn at the Hazelton Apartments at 6th and Williams. Also, a four way stop at 6th and Williams. The four way is because of the future increase in traffic. The no left turn is to protect Royal oak Manor resident that cross to get to their cars in our parking lot.
Media Upload	<i>Field not completed.</i>
Important	I have the reviewed the Traffic Committee's Frequently Asked Questions (FAQ) regarding traffic requests and concerns

(Section Break)

### Neighborhood Support

Analyzing traffic requests can take a significant amount of staff time, and we require neighborhood support for a particular issue before beginning review.

Please provide at least two neighbors' contact information, who are in agreement with your concerns or request. **They must be from separate households.** They will be notified if this item is brought to the

Traffic Committee.

Name	Carson Kruger
Address	606 S. Williams Street
Email	ck.cplpistol@gmail.com
Name	Michael Huggie
Address	606 S. Williams Street
Email	mheggie45@aol.com

Email not displaying correctly? [View it in your browser.](#)

## Royal Oak Traffic Committee

### AGENDA ITEM

<b>Title</b>	<b>Request for No Parking Sign on the east side of Virginia Avenue at E. University Avenue</b>
<b>SUBMITTING DEPARTMENT</b>	<b>Engineering</b>
<b>PRESENTER</b>	<b>Holly Donoghue, P.E.</b>
<b>MEETING DATE</b>	<b>July 23, 2024</b>

#### Requestor Concern:

A request was received from Cary Mergele of 230 Virginia Avenue to install a No Parking sign between her driveway and the corner of E. University Avenue. She states vehicles are constantly trying to park in the 25-feet between the edge of her driveway and the intersection, which is illegal and dangerous since it impedes sight distance for oncoming traffic.

#### Staff Analysis:

The Staff Traffic Committee has further reviewed this request and determined that:

1. Virginia Avenue is a 27-foot wide local road consisting of asphalt pavement with concrete curbing.
2. E. University Avenue is a 27-foot wide major road consisting of composite pavement with concrete curbing.
3. The three-year (2021-2023) accident report shows no crashes at the subject location.
4. Permit parking is allowed on the east side of Virginia Avenue north of E. University Avenue and no parking is allowed on the west side. There was previously a "no parking beyond sign" on the east side of the intersection, and it appears it was removed in 2021 and not replaced for unknown reasons. See existing signage below.





5. Per the Michigan Vehicle Code, parking is not allowed within 20 feet of a crosswalk, or if there is not a crosswalk, then within 15 feet of the intersection of property lines at an intersection of highways.
6. With this in mind, "no parking beyond" signage should be installed where shown below to prohibit parking within 15 feet of the intersection of E. University Avenue.

**Suggested Staff Recommendation: Install a "No Parking Beyond Sign" sign north of the driveway approach at 230 Virginia Avenue.**

Estimated cost: \$300

**From:** [noreply@civicplus.com](mailto:noreply@civicplus.com)  
**To:** [Engineering Division](#)  
**Subject:** Online Form Submittal: Traffic Committee Request  
**Date:** Wednesday, May 8, 2024 6:50:08 AM

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## Traffic Committee Request

### Traffic Request Form

**Please complete required fields and submit.**

Name	Cary Mergele
Email Address	cmergele@mergelelaw.com
Street Address	230 VIRGINIA AVE
Phone Number	5862308413
Location of Concern	East side of Virginia Avenue, south of E. University Avenue
Type of Issue	Parking
Detailed Description of Concern	<p>I live at the SE corner of Virginia and University, and I have two issues:</p> <p>1. Cars are constantly trying to park in the 25 feet between the edge of my driveway and the intersection of Virginia and University. It is dangerous and illegal, as oncoming cars cannot see the traffic when a vehicle is parked at the intersection. There are No Parking signs at other similarly-situated intersections to prevent such parking, and I respectfully request such a No Parking sign.</p> <p>2. Virginia Avenue north of E. University Avenue, on the east side, is already deemed Permit Parking Only, with appropriate signs. All of Virginia Avenue on the west side is deemed No Parking, with appropriate signs. I was informed by the prior homeowner that Virginia Avenue south of E. University Avenue, on the east side, was also deemed Permit Parking Only, but there are no signs. I respectfully request signage. Because our street is so close to downtown, non-residents are constantly parking in this very small stretch, in order to walk to downtown, and avoid parking garages.</p>
Proposed Solution	See above. I respectfully request a No Parking sign, at the SE intersection of Virginia and University. I also respectfully request a Permit Parking Only designation, and signage, on the east side of Virginia Avenue, south of University.
Media Upload	<i>Field not completed.</i>

I have the reviewed the Traffic Committee's Frequently Asked

## Important

Questions (FAQ) regarding traffic requests and concerns

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(Section Break)

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### Neighborhood Support

Analyzing traffic requests can take a significant amount of staff time, and we require neighborhood support for a particular issue before beginning review.

Please provide at least two neighbors' contact information, who are in agreement with your concerns or request. **They must be from separate households.** They will be notified if this item is brought to the Traffic Committee.

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Name	Whitney Marx
Address	312 E University Ave
Email	whitney.marx@marxmoda.com
Name	Laurie Thelan
Address	302 Virginia Ave
Email	lrotary@hotmail.com

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Email not displaying correctly? [View it in your browser.](#)



## Royal Oak Traffic Committee

### AGENDA ITEM

<b>Title</b>	<b>Request to remove guardrail adjacent to 3111 N. Main Street</b>
<b>SUBMITTING DEPARTMENT</b>	<b>Engineering</b>
<b>PRESENTER</b>	<b>Holly Donoghue, P.E.</b>
<b>MEETING DATE</b>	<b>July 23, 2024</b>

#### Requestor Concern:

A request was received from Kan Yob of 3111 N. Main Street to eliminate the guardrail in the public right-of-way adjacent to his driveway approach. He said when driving north it is extremely difficult to turn in the driveway without hitting the guardrail.

#### Staff Analysis:

The Staff Traffic Committee has further reviewed this request and determined that:

1. N. Main Street is a 40-foot wide minor arterial road consisting of composite pavement with concrete curbing.
2. The city installed a 4-to-3 lane conversion on N. Main Street between 12 Mile and 13 Mile in 2018. There are bike lanes and no parking is allowed on either side of the road. This change has created a larger gap between vehicular traffic and pedestrian traffic along N. Main Street.
3. A three-year accident history (2021-2023) was collected for this area of Main Street, and there were three accidents. None of them resulted in driving off the road.
4. It is not clear why the guardrail was installed at these locations, but it is assumed it was installed to protect obstructions such as trees and utility poles or pedestrians on the sidewalk.
5. According to the AASHTO Roadside Design Guide the following comments are applicable:
  - a. Guardrail should only be considered if the result of a car hitting the guardrail will be less severe than the car hitting the unshielded object.
  - b. A "clear zone" of 14 to 16 feet is ideal for N. Main Street (speed limit is less than 40 mph and average daily traffic > 6,000 vehicles per day) per Table 3-1 in the design guide.
  - c. In urban areas with road curbing, a recommended goal is to achieve at least 4 feet of lateral offset between the face of curb and possible obstructions. However, a minimum clearance of 1.5 feet between the face of curb and obstructions should be provided (Section 10.1.3.1).

- d. There are no objective criteria for determining if guardrail should be used to shield pedestrians and engineering judgement should be used. Crash history should be considered in determining the need for roadside treatment.
  - e. Guardrails too close to the traveled way can sometimes cause accidents or driver discomfort.
- 6. The existing face of the guardrail ranges from 0.8 to 1.3 feet from the face of curb which is less than the recommended minimum 1.5-foot separation. There is 4.5 feet between the face of curb and the existing edge of sidewalk, which equates to 13.5 feet between the vehicle lane and the sidewalk.
  - 7. There are no objects in the ROW the guardrail appears to be shielding.
  - 8. Considering the lack of accident history and items that require shielding, guardrail does not appear to be warranted here and can be removed. The remainder of the guardrail in this area should be studied for potential removal with the N. Main Street resurfacing project slated for 2028. DPS indicated that they can perform the removal work in-house and restore the disturbed area with topsoil and seed.



**Suggested Staff Recommendation: Remove approximately 30 feet of guardrail in front of 3111 N. Main Street.**

Estimated cost: \$1,500



## Transportation Improvement Association

### Main Street Guardrail

**#1**    **Location:** N MAIN (3.071) 16 feet Sof E LAWRENCE AVE    **Crash ID:** 2253547  
**Date:** 04/07/2021    **Day:** Wed    **Hour:** 5am    **Weather:** cloudy    **Roadway:** dry    **Light:** dark/ltd  
**Injy K:** 0    **Injy A:** 0    **Injy B:** 0    **Injy C:** 0    **Injy 0:** 0    **How:** single  
**CVT:** Royal Oak    **Area:** straight    **HBD:** N    **Drugs:** N    **Complaint #:** 210010613

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1		go straight	other non-fixed obj	none	none	none	unknown	car	ctrfront

**UD10:** [2253547](#)

**#2**    **Location:** W LAWRENCE (0.073) 74 feet Wof N MAIN ST    **Crash ID:** 2343275  
**Date:** 08/01/2021    **Day:** Sun    **Hour:** 3pm    **Weather:** clear    **Roadway:** dry    **Light:** day  
**Injy K:** 0    **Injy A:** 0    **Injy B:** 0    **Injy C:** 0    **Injy 0:** 1    **How:** back  
**CVT:** Royal Oak    **Area:** straight    **HBD:** N    **Drugs:** N    **Complaint #:** 210024472

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	E	backing	veh in transpt	none	none	none	imprp backing	truck/bus	ctrrear
2	W	nodriver parked	veh in transpt	none	none	none	none	car	lftrear

**UD10:** [2343275](#)

**#3**    **Location:** N MAIN (3.07) 20 feet Sof E LAWRENCE AVE    **Crash ID:** 2970817  
**Date:** 08/18/2023    **Day:** Fri    **Hour:** 3pm    **Weather:** clear    **Roadway:** dry    **Light:** day  
**Injy K:** 0    **Injy A:** 0    **Injy B:** 0    **Injy C:** 1    **Injy 0:** 1    **How:** rr-end  
**CVT:** Royal Oak    **Area:** straight    **HBD:** N    **Drugs:** N    **Complaint #:** 230029605

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	N	slow/stop on rd	veh in transpt	none	none	none	unable to stop	car	ctrfront
2	N	stop on road	veh in transpt	none	none	none	none	car	ctrrear

**UD10:** [2970817](#)

## Crash Type

Count	Type
0	uncoded
1	single
0	head-on
0	head-on/lt
0	angle
1	rr-end
0	rr-end/lt
0	rr-end/rt
0	ss-same
0	ss-opp
1	back
0	other
0	unknown
<b>Totals</b>	<b>3</b>

## Lighting Conditions

Count	Type
0	uncoded
2	day
0	dawn
0	dusk
1	dark/ltl
0	dark/unltd
0	other
0	unknown
<b>Totals</b>	<b>3</b>

## Weather Conditions

Count	Type
0	uncoded
2	clear
1	cloudy
0	fog
0	rain
0	snow
0	wind
0	sleet/hail
0	blowing snow
0	blowing sand
0	smoke
0	unknown
<b>Totals</b>	<b>3</b>

## Road Condition

Count	Type
0	uncoded
3	dry
0	wet
0	ice
0	snow
0	mud
0	slush
0	debris
0	water
0	sand
0	oily
0	other
0	unknown
<b>Totals</b>	<b>3</b>

## Crashes by Month

Count	Type
0	January
0	February
0	March
1	April
0	May
0	June
0	July
2	August
0	September
0	October
0	November
0	December
<b>Totals</b>	<b>3</b>

## Hazardous Action

Count	Type
2	none
0	speeding
0	spd too slow
0	failed to yield
0	disrgd traffic cntrl
0	wrong way
0	left of center
0	imprp passing
0	imprp lane use
0	imprp turn
0	imprp/no signal
1	imprp backing
1	unable to stop
0	other
1	unknown
0	reckls driving
0	carels driving
<b>Totals</b>	<b>5</b>

## Unit Type

Count	Type
0	Bicyclist
0	Engineer
5	Vehicle
0	Pedestrian
<b>Totals</b>	<b>5</b>

## Crashes by Year

Count	Type
2	2021
1	2023
<b>Totals</b>	<b>3</b>

## Crash Severity

	Fatal	A	B	C	No Injy	Total
Persons	0	0	0	1	0	1
Crashes	0	0	0	1	2	3

## Alcohol in Crashes

	Fatal	A	B	C	PDO	Total
Drinking	0	0	0	0	0	0
Not Drinking	0	0	0	1	2	3
Totals	0	0	0	1	2	3

## Crashes per Hour by Day

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
12a-1a	0	0	0	0	0	0	0	0
1a-2a	0	0	0	0	0	0	0	0
2a-3a	0	0	0	0	0	0	0	0
3a-4a	0	0	0	0	0	0	0	0
4a-5a	0	0	0	0	0	0	0	0
5a-6a	0	0	0	1	0	0	0	1
6a-7a	0	0	0	0	0	0	0	0
7a-8a	0	0	0	0	0	0	0	0
8a-9a	0	0	0	0	0	0	0	0
9a-10a	0	0	0	0	0	0	0	0
10a-11a	0	0	0	0	0	0	0	0
11a-12p	0	0	0	0	0	0	0	0
12p-1p	0	0	0	0	0	0	0	0
1p-2p	0	0	0	0	0	0	0	0
2p-3p	0	0	0	0	0	0	0	0
3p-4p	1	0	0	0	0	1	0	2
4p-5p	0	0	0	0	0	0	0	0
5p-6p	0	0	0	0	0	0	0	0
6p-7p	0	0	0	0	0	0	0	0
7p-8p	0	0	0	0	0	0	0	0
8p-9p	0	0	0	0	0	0	0	0
9p-10p	0	0	0	0	0	0	0	0
10p-11p	0	0	0	0	0	0	0	0
11p-12a	0	0	0	0	0	0	0	0
Totals	1	0	0	1	0	1	0	3

**From:** [noreply@civicplus.com](mailto:noreply@civicplus.com)  
**To:** [Engineering Division](#)  
**Subject:** Online Form Submittal: Traffic Committee Request  
**Date:** Monday, May 13, 2024 10:15:15 AM

---

## Traffic Committee Request

**Please complete required fields and submit.**

Name	Kob
Email Address	kob.yan0505@gmail.com
Street Address	3111 N main st
Phone Number	248-506-5484
Location of Concern	Front of my house - Guard Rail
Type of Issue	Other
Detailed Description of Concern	The guardrail keeps hitting my car when I turn into my home coming from the north
Proposed Solution	1. Eliminate guardrail all together
Media Upload	<i>Field not completed.</i>
Important	I have the reviewed the Traffic Committee's Frequently Asked Questions (FAQ) regarding traffic requests and concerns

(Section Break)

### Neighborhood Support

Analyzing traffic requests can take a significant amount of staff time, and we require neighborhood support for a particular issue before beginning review.

Please provide at least two neighbors' contact information, who are in agreement with your concerns or request. **They must be from separate households.** They will be notified if this item is brought to the Traffic Committee.

Name	John Dimmer
Address	3107 N Main st

Email	<code>gus.diemer@gmail.com</code>
Name	Jesse Peterson
Address	3115 N. Main st
Email	<code>jessie13@wowway.com</code>

Email not displaying correctly? [View it in your browser.](#)

## Royal Oak Traffic Committee

### AGENDA ITEM

<b>Title</b>	<b>Request to review speeding, safety and cut through issues on Kayser Avenue at E. Sixth Street intersection by Grant Park</b>
<b>SUBMITTING DEPARTMENT</b>	<b>Engineering</b>
<b>PRESENTER</b>	<b>Holly Donoghue, P.E.</b>
<b>MEETING DATE</b>	<b>July 23, 2024</b>

#### Requestor Concern:

A request was received from Jason Kassab of 712 Kayser, Matt Curtis of 716 Kayser, Edward Reedy of 719 Kayser, and Tammy Rossilli of 706 Kayser to review safety concerns at the intersection of Kayser Avenue and E. Sixth Street near Grant Park due to speeding and cut-thru traffic. They state that vehicles speed up the block and use Kayser as a cut-thru to get to Fourth Street or 11 Mile Road from Lincoln Avenue. When vehicles are parked around the intersection due to events or kids' games at Grant Park, it restricts the sight distance for vehicles travelling through the intersection in all directions. There are currently stop signs for east/west traffic but not for north/south. To reduce the speeding and cut-thru traffic and increase safety for pedestrians using the park and drivers at the intersection they would like to see a 4-way stop installed.

#### Staff Analysis:

The Staff Traffic Committee has further reviewed this request and determined that:

1. Kayser Avenue and E. Sixth Street are both 27-foot wide local roads consisting of composite pavement with concrete curbing.
2. Grant Park is located in the northeast corner of the intersection, and there is no parking allowed along the park frontage. Parking is not allowed on the south side of E. Sixth Street west of the intersection.
3. The three-year (2021-2023) accident report shows no crashes on Kayser between Fifth and Sixth Street and three crashes between Lincoln and Sixth Street, all related to traffic hitting parked vehicles.
4. The image below shows the study location and existing stop signs in the area.



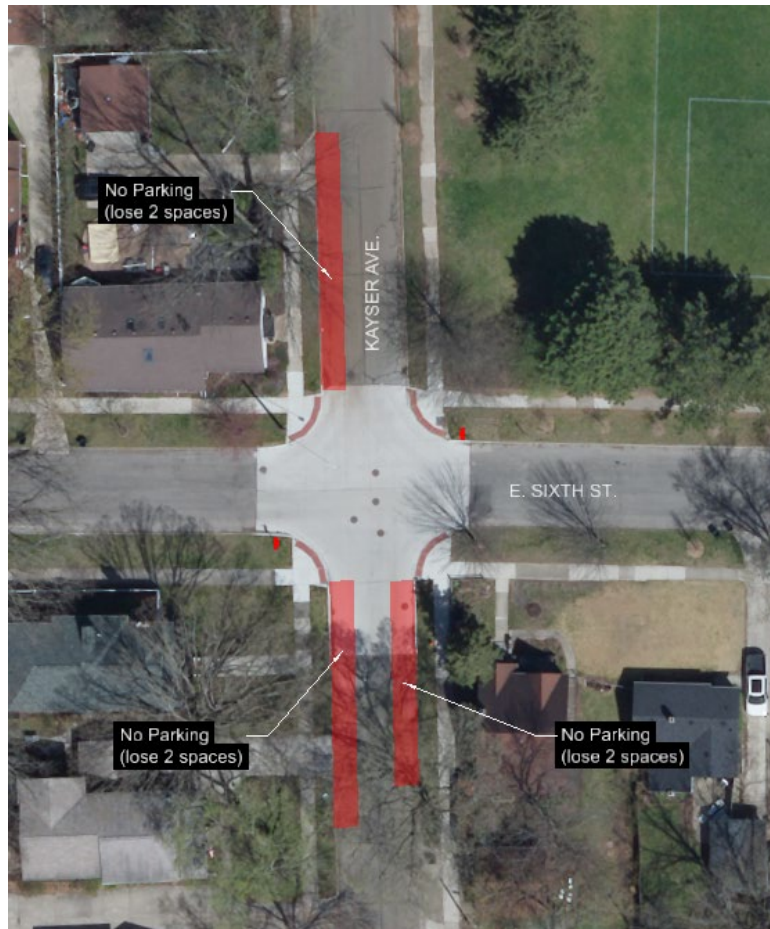


5. The city requested traffic measurements from the TIA for speed and traffic volume, which were measured from May 20-22, 2024:

Kayser Avenue	85th Percentile Speed (mph)	Vehicles Per Day
Lincoln Ave. to E. Sixth St.	26	390
E. Sixth St. to E. Fifth St.	24	495

6. The data does not indicate a speeding issue on either block. The volume of traffic is in the low range for a residential local street (0 to 600 vehicles per day).
7. The city concurs with the MMUTCD that the purpose of regulatory signs is to promote safe traffic and pedestrian movements and actions. The city also concurs with national studies that indicate inappropriately placed stop signs do not necessarily lessen speeding and have resulted in higher speeds.
8. The following MMUTCD criteria is used to determine if a multi-way stop application is warranted:
  - Five or more reported crashes in a 12-month period
  - Vehicular volume from the major street averages at least 300 vehicles per hour for any 8 hours
  - Vehicular, pedestrian, and bike volume from the minor approach averages 200 units per hour for the same 8 hours
  - High pedestrian volumes (exceeding 100 per hour)
  - Sight distance issues
9. The warrants for crash history and traffic volumes are not met. However, staff noticed that cars park very close to the intersection during busy times, and so there could be potential sight distance issues for eastbound and westbound cars that are stopped at the existing stop signs.

10. The recommended stopping sight distance required for a 25 mph street is 155 feet (MDOT Sight Distance Guidelines). An analysis of the current conditions indicates that the sight distance is inadequate for eastbound drivers (80 feet to the north and 69 feet to the south) and westbound drivers (79 feet to the south, view to the north is unobstructed).
11. With these findings, there are two options to improve safety at the intersection:
  - a. Install a 4-way stop.
  - b. Prohibit parking away from the intersection such that the available sight distance becomes 155 feet. This results in losing a total of six parking spaces around the intersection as shown below.



12. Considering how popular this park is, eliminating these parking spaces will be a hardship for park users and cause additional congestion in other parts of the surrounding neighborhood. For this reason, staff recommends installing a 4-way stop at this intersection. When studying this location, staff noticed that the nearby intersection of Lawson Street and E. Sixth Street (a T-intersection) does not have a stop sign for northbound Lawson, and recommends installing one.

**Suggested Staff Recommendation: To install stop signs at Kayser Avenue and E. Sixth Street to create a 4-way stop intersection, and to install “all-way” plaques on all four stop signs; to install a stop sign for northbound Lawson Street traffic at E. Sixth Street.**

Estimated cost: \$700

There are no records to display for the search criteria you have specified.  
Please click the "HOME" button and change your search criteria.

[Crash History, Kayser Ave, E 5th St to E 6th St, 3-Year Plus 2021-2024](#)



## Transportation Improvement Association

### Crash History, Kayser Ave, E 6th St to Lincoln Ave, 3-Year+ 2021-2024

**#1**    **Location:** NB KAYSER (0.009) 48 feet Nof LINCOLN    **Crash ID:** 2385392  
**Date:** 09/21/2021    **Day:** Tue    **Hour:** 10a    **Weather:** cloudy    **Roadway:** dry    **Light:** day  
**Injy K:** 0    **Injy A:** 0    **Injy B:** 0    **Injy C:** 0    **Injy 0:** 1    **How:** ss-same  
**CVT:** Royal Oak    **Area:** straight    **HBD:** N    **Drugs:** N    **Complaint #:** 210030777

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	N	go straight	veh in transpt	none	none	none	imprp passing	car	rtside
2	N	nodriver parked	veh in transpt	none	none	none	none	truck/bus	lftside

**UD10:** [2385392](#)

**#2**    **Location:** KAYSER (0.008) 40 feet Nof E LINCOLN AVE    **Crash ID:** 2982651  
**Date:** 08/29/2023    **Day:** Tue    **Hour:** 4pm    **Weather:** clear    **Roadway:** dry    **Light:** day  
**Injy K:** 0    **Injy A:** 0    **Injy B:** 0    **Injy C:** 0    **Injy 0:** 0    **How:** back  
**CVT:** Royal Oak    **Area:** straight    **HBD:** N    **Drugs:** N    **Complaint #:** 230031100

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1		unknown	veh parked	none	none	none	unknown	car	none
2	N	nodriver parked	veh in transpt	none	none	none	none	car	ctrfront

**UD10:** [2982651](#)

**#3**    **Location:** KAYSER (0.068) 360 feet Nof E LINCOLN    **Crash ID:** 3010259  
**Date:** 10/02/2023    **Day:** Mon    **Hour:** 4pm    **Weather:** unknown    **Roadway:** unknown    **Light:** unknown  
**Injy K:** 0    **Injy A:** 0    **Injy B:** 0    **Injy C:** 0    **Injy 0:** 0    **How:** ss-same  
**CVT:** Royal Oak    **Area:** parking    **HBD:** N    **Drugs:** N    **Complaint #:** 230035044

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1		unknown	veh in transpt	none	none	none	unknown	car	none
2	E	nodriver parked	veh parked	none	none	none	none	car	lftside

**UD10:** [3010259](#)

## Crash Type

Count	Type
0	uncoded
0	single
0	head-on
0	head-on/lt
0	angle
0	rr-end
0	rr-end/lt
0	rr-end/rt
2	ss-same
0	ss-opp
1	back
0	other
0	unknown
<b>Totals</b>	<b>3</b>

## Lighting Conditions

Count	Type
0	uncoded
2	day
0	dawn
0	dusk
0	dark/ltl
0	dark/unltd
0	other
1	unknown
<b>Totals</b>	<b>3</b>

## Weather Conditions

Count	Type
0	uncoded
1	clear
1	cloudy
0	fog
0	rain
0	snow
0	wind
0	sleet/hail
0	blowing snow
0	blowing sand
0	smoke
1	unknown
<b>Totals</b>	<b>3</b>

## Road Condition

Count	Type
0	uncoded
2	dry
0	wet
0	ice
0	snow
0	mud
0	slush
0	debris
0	water
0	sand
0	oily
0	other
1	unknown
<b>Totals</b>	<b>3</b>

## Crashes by Month

Count	Type
0	January
0	February
0	March
0	April
0	May
0	June
0	July
1	August
1	September
1	October
0	November
0	December
<b>Totals</b>	<b>3</b>

## Hazardous Action

Count	Type
3	none
0	speeding
0	spd too slow
0	failed to yield
0	disrgd traffic cntrl
0	wrong way
0	left of center
1	imprp passing
0	imprp lane use
0	imprp turn
0	imprp/no signal
0	imprp backing
0	unable to stop
0	other
2	unknown
0	reckls driving
0	carels driving
<b>Totals</b>	<b>6</b>

## Unit Type

Count	Type
0	Bicyclist
0	Engineer
6	Vehicle
0	Pedestrian
<b>Totals</b>	<b>6</b>

## Crashes by Year

Count	Type
1	2021
2	2023
<b>Totals</b>	<b>3</b>



## Crash Severity

	Fatal	A	B	C	No Injy	Total
Persons	0	0	0	0	0	0
Crashes	0	0	0	0	3	3

## Alcohol in Crashes

	Fatal	A	B	C	PDO	Total
Drinking	0	0	0	0	0	0
Not Drinking	0	0	0	0	3	3
Totals	0	0	0	0	3	3

## Crashes per Hour by Day

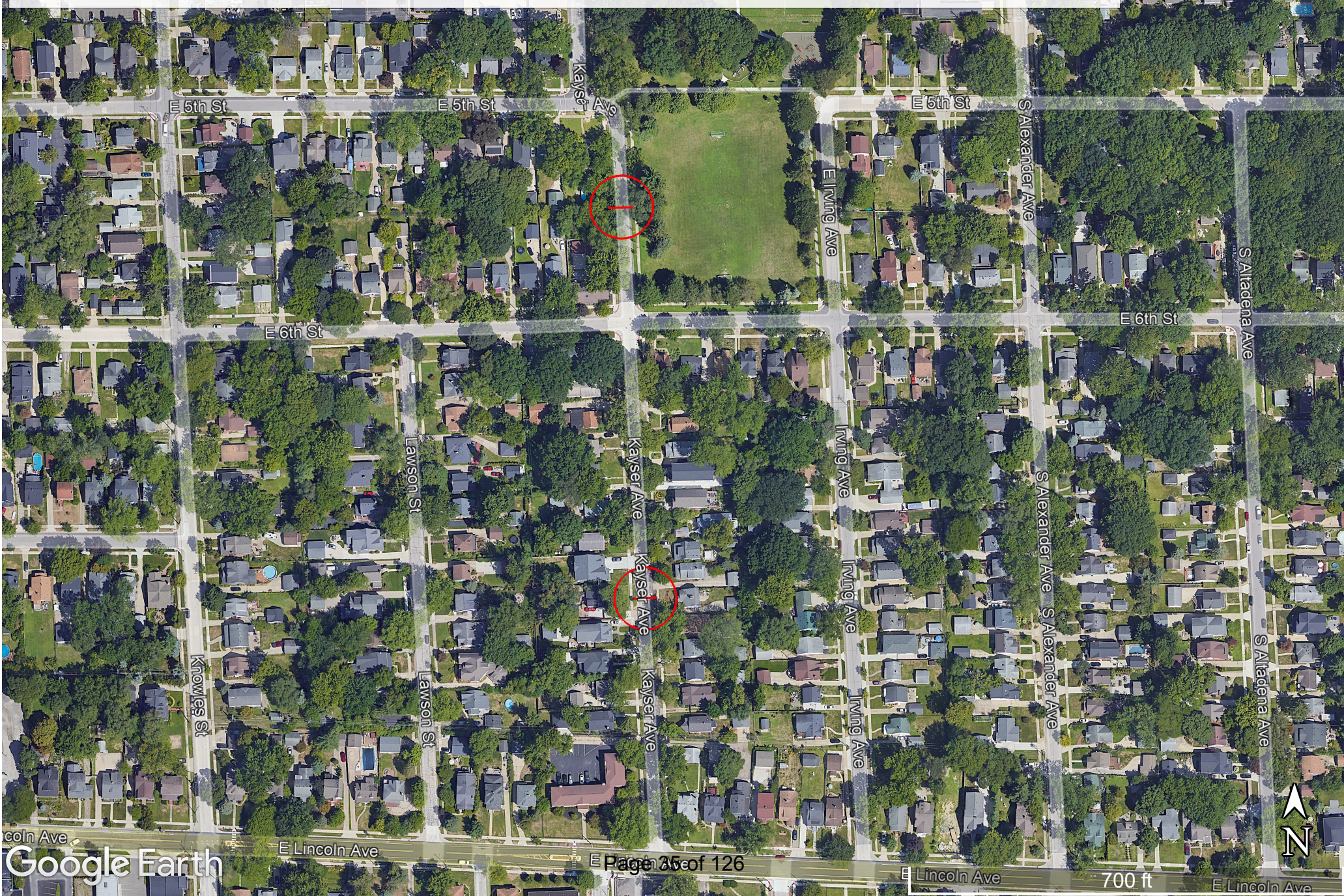
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
12a-1a	0	0	0	0	0	0	0	0
1a-2a	0	0	0	0	0	0	0	0
2a-3a	0	0	0	0	0	0	0	0
3a-4a	0	0	0	0	0	0	0	0
4a-5a	0	0	0	0	0	0	0	0
5a-6a	0	0	0	0	0	0	0	0
6a-7a	0	0	0	0	0	0	0	0
7a-8a	0	0	0	0	0	0	0	0
8a-9a	0	0	0	0	0	0	0	0
9a-10a	0	0	0	0	0	0	0	0
10a-11a	0	0	1	0	0	0	0	1
11a-12p	0	0	0	0	0	0	0	0
12p-1p	0	0	0	0	0	0	0	0
1p-2p	0	0	0	0	0	0	0	0
2p-3p	0	0	0	0	0	0	0	0
3p-4p	0	0	0	0	0	0	0	0
4p-5p	0	1	1	0	0	0	0	2
5p-6p	0	0	0	0	0	0	0	0
6p-7p	0	0	0	0	0	0	0	0
7p-8p	0	0	0	0	0	0	0	0
8p-9p	0	0	0	0	0	0	0	0
9p-10p	0	0	0	0	0	0	0	0
10p-11p	0	0	0	0	0	0	0	0
11p-12a	0	0	0	0	0	0	0	0
Totals	0	1	2	0	0	0	0	3



# Royal Oak - Kayser Ave, E Lincoln Ave to E 5th St, Count Locations Map

3-Day (72-Hour) Volume & Speed Counts (2-Locations):

1. Kayser Ave, btwn E 5th St & E 6th St
2. Kayser Ave, btwn E 6th St & E Lincoln Ave





# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2  
 Station ID:  
 Location 1: Kayser Ave btwn E 6th St and E 5th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: NB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/20/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	1	0	0	0	0	0	2	5	2	0	0	0	0	10
10:00	0	0	0	0	1	1	4	4	2	0	0	0	0	12
11:00	0	0	0	0	0	1	6	3	0	1	0	0	0	11
12:00 PM	0	0	0	0	0	0	3	7	6	1	0	0	0	17
1:00	0	0	0	0	0	2	2	4	0	0	0	0	0	8
2:00	0	0	0	0	1	4	6	2	1	2	0	0	0	16
3:00	0	0	0	1	2	1	4	4	0	0	1	0	0	13
4:00	0	0	0	1	2	2	3	5	1	1	0	0	0	15
5:00	0	0	0	5	2	4	6	4	2	2	0	0	0	25
6:00	0	0	1	3	5	4	3	5	0	0	0	0	0	21
7:00	0	0	0	0	3	5	2	4	3	0	0	0	0	17
8:00	0	0	0	0	0	0	3	0	1	0	0	0	0	4
9:00	1	0	0	0	1	1	1	2	0	0	0	0	0	6
10:00	0	0	0	0	0	0	0	0	2	0	0	0	0	2
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	1	10	17	25	45	49	20	7	1	0	0	177



# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2  
 Station ID:  
 Location 1: Kayser Ave btwn E 6th St and E 5th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: NB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/21/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	1	0	0	0	1
3:00	0	0	0	0	0	1	1	0	0	0	0	0	0	2
4:00	0	0	0	0	0	0	0	2	0	0	0	0	0	2
5:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00	0	0	0	1	1	0	2	2	2	0	0	0	0	8
7:00	0	0	0	0	0	2	3	6	4	0	0	0	0	15
8:00	0	0	0	0	0	7	3	2	2	0	0	0	0	14
9:00	0	0	0	0	2	3	7	7	3	0	0	0	0	22
10:00	0	0	0	1	0	3	3	0	1	0	0	0	0	8
11:00	0	0	0	1	2	2	3	2	0	0	0	0	0	10
12:00 PM	0	0	0	1	1	4	6	2	0	0	0	0	0	14
1:00	1	0	0	1	1	6	4	3	0	0	0	0	0	16
2:00	0	0	0	0	1	4	5	5	2	1	0	0	0	18
3:00	0	0	0	1	0	2	8	1	1	0	0	0	0	13
4:00	0	0	0	0	3	2	4	5	3	0	0	0	0	17
5:00	0	0	0	0	3	5	6	5	5	1	0	0	0	25
6:00	0	0	0	0	1	3	7	8	1	0	0	0	0	20
7:00	0	0	0	0	0	2	2	2	2	0	0	0	0	8
8:00	0	0	0	0	1	2	3	2	2	0	0	0	0	10
9:00	0	0	0	1	0	0	1	2	0	0	0	0	0	4
10:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:00	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	1	0	1	7	16	49	71	56	28	3	0	0	0	232

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2  
 Station ID:  
 Location 1: Kayser Ave btwn E 6th St and E 5th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: NB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/22/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	2
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
4:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00	0	0	0	0	1	3	2	1	2	0	0	0	0	9
7:00	0	0	0	0	3	4	8	3	3	3	0	0	0	24
8:00	0	0	0	0	2	0	4	8	0	0	0	0	0	14
9:00	0	1	0	0	3	6	1	4	1	0	0	0	0	16
10:00	0	0	0	1	0	2	4	2	1	0	0	0	0	10
11:00	0	0	0	0	1	1	4	2	0	0	0	0	0	8
12:00 PM	0	0	0	0	1	1	4	2	0	1	0	0	0	9
1:00	0	0	0	0	0	3	3	3	2	0	0	0	0	11
2:00	0	0	0	0	1	3	8	3	2	1	0	0	0	18
3:00	0	0	0	1	0	1	9	4	3	1	1	0	0	20
4:00	0	0	0	1	1	3	5	8	3	0	0	0	0	21
5:00	0	0	0	2	2	3	9	4	4	0	0	0	0	24
6:00	0	0	0	0	2	4	7	9	0	0	0	0	0	22
7:00	0	0	0	0	1	5	5	5	0	0	0	0	0	16
8:00	0	0	0	1	1	1	1	0	2	1	0	0	0	7
9:00	0	0	0	0	0	1	2	0	0	0	0	0	0	3
10:00	0	0	0	0	0	0	0	3	3	0	0	0	0	6
11:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	1	0	6	19	43	78	63	27	7	1	0	0	245

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2

Station ID:

Location 1: Kayser Ave btwn E 6th St and E 5th St

Location 2: Royal Oak

Location 3:

Location 4:

Direction: NB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

5/23/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	1	0	2	2	0	0	0	0	5
7:00	0	0	0	0	0	2	4	9	2	2	0	0	0	19
8:00	0	0	0	0	2	0	4	2	2	0	1	0	0	11
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	0	0	0	0	2	3	10	13	6	2	1	0	0	37
Grand Total	3	1	2	23	54	120	204	181	81	19	3	0	0	691

Stats

Percentile

15th

50th

85th

95th

Speed

16

20

24

26

Mean Speed (Average)

19.9

10 MPH Pace Speed

15-24

Number in Pace

531

Percent in Pace

76.8%

Number > 24 MPH

103

Percent > 24 MPH

14.9%

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2  
 Station ID:  
 Location 1: Kayser Ave btwn E 6th St and E 5th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: SB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/20/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	0	0	0	0	3	2	1	3	5	0	0	0	14
10:00	0	0	0	0	0	1	3	4	2	1	0	0	0	11
11:00	0	0	0	0	1	0	1	5	4	0	0	0	0	11
12:00 PM	0	0	0	0	0	3	1	4	5	1	1	0	0	15
1:00	0	0	0	0	1	3	2	4	3	1	0	0	0	14
2:00	0	0	0	0	1	6	8	3	2	1	0	0	0	21
3:00	0	0	1	0	4	3	8	4	2	1	0	0	0	23
4:00	0	0	0	0	2	2	6	8	3	1	0	1	0	23
5:00	0	1	1	1	4	5	8	8	1	0	0	0	0	29
6:00	0	0	2	2	5	5	8	4	0	0	0	0	0	26
7:00	0	0	1	4	4	6	6	2	3	1	0	0	0	27
8:00	0	0	0	0	1	2	2	2	2	0	0	0	0	9
9:00	0	0	0	0	1	3	1	1	0	1	0	0	0	7
10:00	0	0	0	1	1	1	0	1	0	0	0	0	0	4
11:00	0	0	0	0	1	0	1	0	0	0	0	0	0	2
Total	0	1	5	8	26	43	57	51	30	13	1	1	0	236

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2  
 Station ID:  
 Location 1: Kayser Ave btwn E 6th St and E 5th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: SB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/21/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	3	0	2	1	0	0	0	6
7:00	0	0	0	0	1	1	1	3	1	1	0	0	0	8
8:00	0	0	0	0	0	4	0	2	4	1	0	0	0	11
9:00	0	0	0	0	0	1	2	4	0	1	0	0	0	8
10:00	0	0	0	0	1	1	0	2	3	0	0	0	0	7
11:00	0	0	0	0	0	3	1	2	2	1	0	0	0	9
12:00 PM	0	0	0	1	1	4	5	3	2	1	0	0	0	17
1:00	0	0	0	0	0	1	2	4	1	1	0	0	0	9
2:00	0	0	0	0	3	2	3	8	3	1	1	0	0	21
3:00	0	0	0	1	1	2	7	7	4	1	0	0	0	23
4:00	0	0	0	0	0	3	3	7	5	0	0	0	0	18
5:00	0	0	0	3	1	8	7	10	2	2	0	0	0	33
6:00	0	0	0	0	0	2	7	12	1	2	0	0	1	25
7:00	0	0	0	1	0	4	6	4	3	0	0	0	0	18
8:00	0	0	0	1	1	3	3	7	3	1	0	0	0	19
9:00	0	0	0	0	1	0	2	5	1	1	0	0	0	10
10:00	0	0	0	0	0	1	0	1	0	0	0	0	0	2
11:00	0	0	0	0	0	2	0	0	2	0	0	0	0	4
Total	0	0	0	8	10	42	53	82	39	15	1	0	1	251

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2  
 Station ID:  
 Location 1: Kayser Ave btwn E 6th St and E 5th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: SB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/22/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00	0	0	0	0	0	0	0	1	1	1	0	0	0	3
7:00	0	1	1	0	2	0	4	4	1	1	0	0	0	14
8:00	0	0	0	0	3	4	6	5	2	0	1	0	0	21
9:00	0	0	0	1	1	1	0	3	1	0	0	0	0	7
10:00	0	0	0	0	1	1	2	2	0	0	0	0	0	6
11:00	0	0	0	0	0	2	3	6	1	0	0	0	0	12
12:00 PM	0	0	0	0	1	4	4	7	3	1	0	0	0	20
1:00	0	0	0	0	1	2	6	2	3	0	0	0	0	14
2:00	0	0	0	0	2	3	5	4	4	0	1	0	0	19
3:00	0	0	0	0	2	4	4	6	3	2	1	0	0	22
4:00	0	0	0	0	1	4	7	9	2	1	0	0	0	24
5:00	0	0	0	0	1	4	10	11	5	0	0	0	0	31
6:00	0	0	0	0	2	2	6	9	3	1	0	0	0	23
7:00	0	0	1	1	1	5	6	4	1	0	0	1	0	20
8:00	0	0	0	1	2	1	6	4	3	3	0	0	0	20
9:00	0	0	0	0	0	1	1	4	2	0	0	0	0	8
10:00	0	0	0	0	1	0	2	2	2	1	0	0	0	8
11:00	0	0	0	0	0	0	0	0	1	1	0	0	0	2
Total	0	1	3	3	21	39	72	84	39	12	3	1	0	278

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2

Station ID:

Location 1: Kayser Ave btwn E 6th St and E 5th St

Location 2: Royal Oak

Location 3:

Location 4:

Direction: SB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

5/23/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	1	0	0	1	0	0	0	2
7:00	0	0	0	0	0	1	2	2	2	0	0	1	0	8
8:00	0	0	1	1	0	2	2	5	3	1	1	0	0	16
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	0	0	1	1	0	3	5	8	5	2	1	1	0	27
Grand Total	0	2	9	20	57	127	187	225	113	42	6	3	1	792

Stats

Percentile

15th

50th

85th

95th

Speed

16

21

25

27

Mean Speed (Average)

20.6

10 MPH Pace Speed

15-24

Number in Pace

575

Percent in Pace

72.6%

Number > 24 MPH

165

Percent > 24 MPH

20.8%

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2  
 Station ID:  
 Location 1: Kayser Ave btwn E 6th St and E 5th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: Combined

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/20/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	1	0	0	0	0	3	4	6	5	5	0	0	0	24
10:00	0	0	0	0	1	2	7	8	4	1	0	0	0	23
11:00	0	0	0	0	1	1	7	8	4	1	0	0	0	22
12:00 PM	0	0	0	0	0	3	4	11	11	2	1	0	0	32
1:00	0	0	0	0	1	5	4	8	3	1	0	0	0	22
2:00	0	0	0	0	2	10	14	5	3	3	0	0	0	37
3:00	0	0	1	1	6	4	12	8	2	1	1	0	0	36
4:00	0	0	0	1	4	4	9	13	4	2	0	1	0	38
5:00	0	1	1	6	6	9	14	12	3	2	0	0	0	54
6:00	0	0	3	5	10	9	11	9	0	0	0	0	0	47
7:00	0	0	1	4	7	11	8	6	6	1	0	0	0	44
8:00	0	0	0	0	1	2	5	2	3	0	0	0	0	13
9:00	1	0	0	0	2	4	2	3	0	1	0	0	0	13
10:00	0	0	0	1	1	1	0	1	2	0	0	0	0	6
11:00	0	0	0	0	1	0	1	0	0	0	0	0	0	2
Total	2	1	6	18	43	68	102	100	50	20	2	1	0	413



# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2  
 Station ID:  
 Location 1: Kayser Ave btwn E 6th St and E 5th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: Combined

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/21/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
2:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
3:00	0	0	0	0	0	1	1	1	0	0	0	0	0	3
4:00	0	0	0	0	0	0	0	2	0	0	0	0	0	2
5:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00	0	0	0	1	1	0	5	2	4	1	0	0	0	14
7:00	0	0	0	0	1	3	4	9	5	1	0	0	0	23
8:00	0	0	0	0	0	11	3	4	6	1	0	0	0	25
9:00	0	0	0	0	2	4	9	11	3	1	0	0	0	30
10:00	0	0	0	1	1	4	3	2	4	0	0	0	0	15
11:00	0	0	0	1	2	5	4	4	2	1	0	0	0	19
12:00 PM	0	0	0	2	2	8	11	5	2	1	0	0	0	31
1:00	1	0	0	1	1	7	6	7	1	1	0	0	0	25
2:00	0	0	0	0	4	6	8	13	5	2	1	0	0	39
3:00	0	0	0	2	1	4	15	8	5	1	0	0	0	36
4:00	0	0	0	0	3	5	7	12	8	0	0	0	0	35
5:00	0	0	0	3	4	13	13	15	7	3	0	0	0	58
6:00	0	0	0	0	1	5	14	20	2	2	0	0	1	45
7:00	0	0	0	1	0	6	8	6	5	0	0	0	0	26
8:00	0	0	0	1	2	5	6	9	5	1	0	0	0	29
9:00	0	0	0	1	1	0	3	7	1	1	0	0	0	14
10:00	0	0	0	0	0	1	1	1	0	0	0	0	0	3
11:00	0	0	0	0	0	2	2	0	2	0	0	0	0	6
Total	1	0	1	15	26	91	124	138	67	18	1	0	1	483

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2  
 Station ID:  
 Location 1: Kayser Ave btwn E 6th St and E 5th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: Combined

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/22/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	1	1	0	1	0	0	0	0	3
1:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
4:00	0	0	0	0	0	0	0	2	0	0	0	0	0	2
5:00	0	0	0	0	0	2	0	0	0	0	0	0	0	2
6:00	0	0	0	0	1	3	2	2	3	1	0	0	0	12
7:00	0	1	1	0	5	4	12	7	4	4	0	0	0	38
8:00	0	0	0	0	5	4	10	13	2	0	1	0	0	35
9:00	0	1	0	1	4	7	1	7	2	0	0	0	0	23
10:00	0	0	0	1	1	3	6	4	1	0	0	0	0	16
11:00	0	0	0	0	1	3	7	8	1	0	0	0	0	20
12:00 PM	0	0	0	0	2	5	8	9	3	2	0	0	0	29
1:00	0	0	0	0	1	5	9	5	5	0	0	0	0	25
2:00	0	0	0	0	3	6	13	7	6	1	1	0	0	37
3:00	0	0	0	1	2	5	13	10	6	3	2	0	0	42
4:00	0	0	0	1	2	7	12	17	5	1	0	0	0	45
5:00	0	0	0	2	3	7	19	15	9	0	0	0	0	55
6:00	0	0	0	0	4	6	13	18	3	1	0	0	0	45
7:00	0	0	1	1	2	10	11	9	1	0	0	1	0	36
8:00	0	0	0	2	3	2	7	4	5	4	0	0	0	27
9:00	0	0	0	0	0	2	3	4	2	0	0	0	0	11
10:00	0	0	0	0	1	0	2	5	5	1	0	0	0	14
11:00	0	0	0	0	0	0	0	1	1	1	0	0	0	3
Total	0	2	3	9	40	82	150	147	66	19	4	1	0	523

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2

Station ID:

Location 1: Kayser Ave btwn E 6th St and E 5th St

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

5/23/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	1	1	2	2	1	0	0	0	7
7:00	0	0	0	0	0	3	6	11	4	2	0	1	0	27
8:00	0	0	1	1	2	2	6	7	5	1	2	0	0	27
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	0	0	1	1	2	6	15	21	11	4	2	1	0	64
Grand Total	3	3	11	43	111	247	391	406	194	61	9	3	1	1483

Stats

Percentile

15th

50th

85th

95th

Speed

16

20

24

27

Mean Speed (Average)

20.3

10 MPH Pace Speed

15-24

Number in Pace

1106

Percent in Pace

74.6%

Number > 24 MPH

268

Percent > 24 MPH

18.1%

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K2

Station ID:

Location 1: Kayser Ave btwn E 6th St and E 5th St

Location 2: Royal Oak

Location 3:

Location 4:

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

5/20/2024	5/20/2024		5/21/2024		5/22/2024		5/23/2024		5/24/2024		Weekday Average		5/25/2024		5/26/2024	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	0	0	2	1	0	0	*	*	1	0	*	*	*	*
1:00	*	*	1	1	0	1	1	0	*	*	1	1	*	*	*	*
2:00	*	*	1	1	0	0	1	0	*	*	1	0	*	*	*	*
3:00	*	*	2	1	2	0	0	0	*	*	1	0	*	*	*	*
4:00	*	*	2	0	1	1	0	1	*	*	1	1	*	*	*	*
5:00	*	*	1	0	1	1	0	0	*	*	1	0	*	*	*	*
6:00	*	*	8	6	9	3	5	2	*	*	7	4	*	*	*	*
7:00	*	*	15	8	24	14	19	8	*	*	19	10	*	*	*	*
8:00	*	*	14	11	14	21	11	16	*	*	13	16	*	*	*	*
9:00	10	14	22	8	16	7	*	*	*	*	16	10	*	*	*	*
10:00	12	11	8	7	10	6	*	*	*	*	10	8	*	*	*	*
11:00	11	11	10	9	8	12	*	*	*	*	10	11	*	*	*	*
12:00 PM	17	15	14	17	9	20	*	*	*	*	13	17	*	*	*	*
1:00	8	14	16	9	11	14	*	*	*	*	12	12	*	*	*	*
2:00	16	21	18	21	18	19	*	*	*	*	17	20	*	*	*	*
3:00	13	23	13	23	20	22	*	*	*	*	15	23	*	*	*	*
4:00	15	23	17	18	21	24	*	*	*	*	18	22	*	*	*	*
5:00	25	29	25	33	24	31	*	*	*	*	25	31	*	*	*	*
6:00	21	26	20	25	22	23	*	*	*	*	21	25	*	*	*	*
7:00	17	27	8	18	16	20	*	*	*	*	14	22	*	*	*	*
8:00	4	9	10	19	7	20	*	*	*	*	7	16	*	*	*	*
9:00	6	7	4	10	3	8	*	*	*	*	4	8	*	*	*	*
10:00	2	4	1	2	6	8	*	*	*	*	3	5	*	*	*	*
11:00	0	2	2	4	1	2	*	*	*	*	1	3	*	*	*	*
Total	177	236	232	251	245	278	37	27	0	0	231	265	0	0	0	0
Day	413		483		523		64		0		496		0		0	
AM Peak	10:00	9:00	9:00	8:00	7:00	8:00	7:00	8:00			7:00	8:00				
Volume	12	14	22	11	24	21	19	16			19	16				
PM Peak	5:00	5:00	5:00	5:00	5:00	5:00					5:00	5:00				
Volume	25	29	25	33	24	31					25	31				
Comb Total	413		483		523		64		0		496		0		0	
ADT	ADT: 495		AADT: 495													

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1  
 Station ID:  
 Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: NB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/20/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	0	0	0	0	0	2	1	4	0	0	0	0	7
10:00	0	0	1	0	1	3	2	3	2	1	0	0	0	13
11:00	0	0	0	0	0	0	1	2	1	0	1	0	0	5
12:00 PM	0	0	0	0	1	2	2	3	4	6	0	0	0	18
1:00	0	0	1	1	2	2	4	2	0	1	0	1	0	14
2:00	0	2	4	2	0	4	2	1	0	0	2	0	0	17
3:00	0	0	1	0	2	2	4	2	1	0	0	0	0	12
4:00	0	0	0	0	0	2	4	1	4	1	0	0	0	12
5:00	0	0	0	2	3	3	3	1	3	2	0	0	0	17
6:00	0	0	0	1	4	3	9	5	1	1	1	0	0	25
7:00	0	0	0	0	2	1	2	1	2	2	0	0	0	10
8:00	0	0	0	0	0	1	2	2	0	1	0	0	0	6
9:00	0	0	0	0	1	0	0	1	1	2	0	0	0	5
10:00	0	0	0	0	0	0	0	0	2	0	0	0	0	2
11:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	2	7	6	16	23	38	25	25	17	4	1	0	164

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1  
 Station ID:  
 Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: NB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/21/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
4:00	0	0	0	0	0	0	1	0	0	1	0	0	0	2
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	1	1	0	1	3	1	0	0	0	0	7
7:00	0	1	0	0	1	1	1	2	3	0	1	0	0	10
8:00	0	0	0	0	3	1	0	2	0	2	0	0	0	8
9:00	0	0	0	2	2	2	2	3	2	2	0	0	0	17
10:00	0	0	1	0	0	1	1	2	1	1	0	0	0	7
11:00	0	0	0	0	1	0	3	2	2	0	0	0	0	8
12:00 PM	0	0	0	0	0	3	3	1	1	3	0	0	0	11
1:00	0	0	0	0	1	2	3	4	2	3	0	0	0	15
2:00	1	1	2	0	0	1	2	7	2	3	0	0	0	19
3:00	0	0	0	0	1	3	3	3	0	1	0	0	0	11
4:00	0	0	0	0	2	3	4	5	1	3	0	0	0	18
5:00	0	0	0	2	2	4	1	7	5	1	1	0	0	23
6:00	0	0	0	1	0	2	6	4	3	1	0	0	0	17
7:00	0	0	1	0	1	3	4	1	0	1	0	0	0	11
8:00	0	0	0	1	0	1	3	3	1	0	1	0	0	10
9:00	0	0	0	0	0	0	1	1	0	0	0	0	0	2
10:00	0	0	0	0	0	1	0	1	0	0	0	0	0	2
11:00	0	0	0	0	0	0	0	1	1	0	0	0	0	2
Total	1	2	4	9	15	28	39	51	26	22	5	0	0	202

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1  
 Station ID:  
 Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: NB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/22/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	1	0	1	3	1	0	0	0	0	0	6
7:00	0	2	0	1	1	1	2	5	2	1	1	1	0	17
8:00	0	0	0	1	0	2	2	5	0	0	0	0	0	10
9:00	0	1	0	0	0	0	0	2	2	1	0	0	0	6
10:00	0	0	0	1	0	0	1	1	2	0	0	0	0	5
11:00	0	0	0	0	0	1	0	2	1	0	1	0	0	5
12:00 PM	0	0	0	0	0	0	2	2	2	0	1	0	0	7
1:00	0	0	1	0	2	0	1	0	2	0	1	1	0	8
2:00	0	0	0	1	0	2	3	7	2	3	0	0	0	18
3:00	0	2	2	1	0	1	3	5	1	1	3	0	0	19
4:00	0	0	0	2	0	2	2	4	2	0	0	0	0	14
5:00	0	0	0	1	0	3	5	5	2	3	0	0	0	19
6:00	0	0	1	1	1	1	2	4	8	0	0	0	0	18
7:00	0	0	1	1	0	5	1	2	2	0	0	0	0	12
8:00	0	0	0	3	1	1	2	2	1	0	0	0	0	10
9:00	0	0	0	0	0	0	3	0	0	0	0	0	0	3
10:00	0	0	0	0	0	1	0	3	2	1	0	0	0	7
11:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	5	5	14	5	21	34	49	34	12	7	2	0	188



# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1

Station ID:

Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St

Location 2: Royal Oak

Location 3:

Location 4:

Direction: NB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

5/23/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	1	0	1	0	0	1	0	0	0	0	3
7:00	0	0	0	0	5	2	2	4	3	1	0	0	0	17
8:00	0	0	1	0	0	0	1	2	2	0	0	1	0	7
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	0	0	1	1	5	3	4	6	6	1	0	1	0	28
Grand Total	1	9	17	30	41	75	115	131	91	52	16	4	0	582

Stats

Percentile	15th	50th	85th	95th
Speed	14	21	26	29
Mean Speed (Average)	20.5			
10 MPH Pace Speed	17-26			
Number in Pace	361			
Percent in Pace	62.0%			
Number > 24 MPH	163			
Percent > 24 MPH	28.0%			

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1  
 Station ID:  
 Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: SB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/20/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	0	0	1	1	0	1	2	4	3	0	0	0	12
10:00	0	0	2	1	0	1	2	1	3	0	0	0	0	10
11:00	0	0	0	1	1	2	2	3	3	0	0	0	0	12
12:00 PM	0	0	0	0	0	1	3	3	2	6	0	0	0	15
1:00	0	0	0	2	0	3	1	2	2	0	0	0	0	10
2:00	0	0	3	0	0	2	5	2	1	1	0	0	0	14
3:00	0	1	1	2	2	2	1	0	2	0	2	0	0	13
4:00	0	0	1	1	0	2	5	4	3	0	0	0	0	16
5:00	0	0	0	0	1	5	7	6	2	1	0	0	0	22
6:00	0	0	0	0	1	0	4	4	1	0	1	0	0	11
7:00	0	0	0	0	3	0	4	5	3	2	0	0	0	17
8:00	0	0	0	0	1	2	2	1	0	0	0	0	0	6
9:00	0	0	0	0	1	2	2	0	0	1	0	0	0	6
10:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11:00	0	0	0	0	1	0	0	0	1	0	0	0	0	2
Total	0	1	7	8	12	23	39	33	27	14	3	0	0	167

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1  
 Station ID:  
 Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: SB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/21/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
3:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
4:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00	0	0	0	0	0	0	2	0	0	0	0	0	0	2
6:00	0	0	0	0	1	0	0	1	3	0	0	0	0	5
7:00	0	0	0	1	0	1	1	2	1	0	0	0	0	6
8:00	0	0	1	0	0	0	1	3	2	1	0	0	0	8
9:00	0	0	1	1	0	2	1	1	1	0	0	0	0	8
10:00	0	0	0	1	0	2	2	1	2	0	0	0	0	8
11:00	0	0	0	0	0	2	2	0	1	2	0	0	0	7
12:00 PM	0	0	0	2	0	2	3	3	3	1	0	0	0	14
1:00	0	0	0	1	1	1	3	3	1	0	0	0	0	10
2:00	0	0	2	1	0	2	1	8	4	0	0	0	0	18
3:00	0	1	0	2	1	2	3	7	2	0	0	0	0	18
4:00	0	0	0	2	1	2	6	1	2	1	0	0	0	15
5:00	0	0	0	1	4	4	3	5	4	2	0	0	0	23
6:00	0	0	0	0	2	2	7	3	3	1	0	0	0	18
7:00	0	0	0	0	4	2	2	3	1	2	0	0	0	14
8:00	0	0	1	0	2	0	7	3	3	1	0	0	0	17
9:00	0	0	0	0	0	0	0	1	0	1	0	0	0	2
10:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	1	5	12	17	25	45	47	33	14	0	0	0	199

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1  
 Station ID:  
 Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: SB

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/22/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00	0	0	1	0	1	0	1	0	0	0	0	0	0	3
6:00	0	0	0	1	0	0	0	1	2	0	0	0	0	4
7:00	0	1	0	0	1	4	3	2	1	1	0	0	0	13
8:00	0	0	2	0	2	1	2	2	1	1	0	0	0	11
9:00	0	0	0	0	0	2	0	2	2	0	0	0	0	6
10:00	0	0	3	1	0	1	2	2	0	0	0	0	0	9
11:00	0	0	0	0	0	1	3	4	1	0	0	0	0	9
12:00 PM	0	0	0	0	0	0	3	3	2	1	0	0	0	9
1:00	0	0	1	1	1	1	4	1	3	0	0	0	0	12
2:00	0	0	1	0	0	1	3	3	1	3	0	0	0	12
3:00	0	0	0	1	0	0	3	5	4	2	0	0	0	15
4:00	0	0	0	1	2	1	3	3	6	1	0	0	0	17
5:00	1	0	1	0	2	2	2	8	2	2	0	0	0	20
6:00	0	0	0	1	1	0	2	3	5	1	0	0	0	13
7:00	0	0	0	0	0	2	5	5	0	0	0	0	1	13
8:00	0	0	0	1	2	1	1	4	2	1	0	0	0	12
9:00	0	0	0	0	0	1	3	1	2	1	0	0	0	8
10:00	0	0	0	0	0	1	0	0	2	0	0	0	0	3
11:00	0	0	0	0	0	1	0	0	0	1	0	0	0	2
Total	1	1	9	7	12	21	40	50	36	15	0	0	1	193

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1

Station ID:

Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St

Location 2: Royal Oak

Location 3:

Location 4:

Direction: SB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

5/23/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00	0	0	0	0	0	0	2	1	0	0	1	0	0	4
7:00	1	0	1	1	2	1	1	1	2	0	1	0	0	11
8:00	0	0	0	0	1	1	2	3	3	0	1	0	0	11
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	1	0	1	1	3	2	6	6	6	0	0	3	0	29
Grand Total	2	3	22	28	44	71	130	136	102	43	3	3	1	588

Stats

Percentile	15th	50th	85th	95th
Speed	14	21	25	28
Mean Speed (Average)	20.3			
10 MPH Pace Speed	17-26			
Number in Pace	391			
Percent in Pace	66.5%			
Number > 24 MPH	152			
Percent > 24 MPH	25.9%			

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1  
 Station ID:  
 Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: Combined

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/20/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	0	0	1	1	0	3	3	8	3	0	0	0	19
10:00	0	0	3	1	1	4	4	4	5	1	0	0	0	23
11:00	0	0	0	1	1	2	3	5	4	0	1	0	0	17
12:00 PM	0	0	0	0	1	3	5	6	6	12	0	0	0	33
1:00	0	0	1	3	2	5	5	4	2	1	0	1	0	24
2:00	0	2	7	2	0	6	7	3	1	1	2	0	0	31
3:00	0	1	2	2	4	4	5	2	3	0	2	0	0	25
4:00	0	0	1	1	0	4	9	5	7	1	0	0	0	28
5:00	0	0	0	2	4	8	10	7	5	3	0	0	0	39
6:00	0	0	0	1	5	3	13	9	2	1	2	0	0	36
7:00	0	0	0	0	5	1	6	6	5	4	0	0	0	27
8:00	0	0	0	0	1	3	4	3	0	1	0	0	0	12
9:00	0	0	0	0	2	2	2	1	1	3	0	0	0	11
10:00	0	0	0	0	0	1	0	0	2	0	0	0	0	3
11:00	0	0	0	0	1	0	1	0	1	0	0	0	0	3
Total	0	3	14	14	28	46	77	58	52	31	7	1	0	331

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1  
 Station ID:  
 Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: Combined

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/21/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	1	0	0	0	0	1	0	0	0	0	2
2:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
3:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
4:00	0	0	0	0	0	1	1	0	0	1	0	0	0	3
5:00	0	0	0	0	0	0	2	0	0	0	0	0	0	2
6:00	0	0	0	1	2	0	1	4	4	0	0	0	0	12
7:00	0	1	0	1	1	2	2	4	4	0	1	0	0	16
8:00	0	0	1	0	3	1	1	5	2	3	0	0	0	16
9:00	0	0	1	3	2	4	3	3	4	3	2	0	0	25
10:00	0	0	1	1	0	3	3	3	3	1	0	0	0	15
11:00	0	0	0	0	1	2	5	2	3	2	0	0	0	15
12:00 PM	0	0	0	2	0	5	6	4	4	4	0	0	0	25
1:00	0	0	0	1	2	3	6	7	3	3	0	0	0	25
2:00	1	1	4	1	0	3	3	15	6	3	0	0	0	37
3:00	0	1	0	2	2	5	6	10	2	1	0	0	0	29
4:00	0	0	0	2	3	5	10	6	3	4	0	0	0	33
5:00	0	0	0	3	6	8	4	12	9	3	1	0	0	46
6:00	0	0	0	1	2	4	13	7	6	2	0	0	0	35
7:00	0	0	1	0	5	5	6	4	1	3	0	0	0	25
8:00	0	0	1	1	2	1	10	6	4	1	1	0	0	27
9:00	0	0	0	0	0	0	1	2	0	1	0	0	0	4
10:00	0	0	0	0	0	1	1	1	0	0	0	0	0	3
11:00	0	0	0	0	0	0	0	2	1	0	0	0	0	3
Total	1	3	9	21	32	53	84	98	59	36	5	0	0	401



# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1  
 Station ID:  
 Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St  
 Location 2: Royal Oak  
 Location 3:  
 Location 4:  
 Direction: Combined

Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Latitude: 0.000000  
 Longitude: 0.000000

5/22/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	2
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:00	0	0	0	0	0	1	1	0	0	0	0	0	0	2
5:00	0	0	1	0	1	0	1	0	0	0	0	0	0	3
6:00	0	0	0	2	0	1	3	2	2	0	0	0	0	10
7:00	0	3	0	1	2	5	5	7	3	2	1	1	0	30
8:00	0	0	2	1	2	3	4	7	1	1	0	0	0	21
9:00	0	1	0	0	0	2	0	4	1	0	0	0	0	12
10:00	0	0	3	2	0	1	3	3	2	0	0	0	0	14
11:00	0	0	0	0	0	2	3	6	2	0	1	0	0	14
12:00 PM	0	0	0	0	0	0	5	5	4	1	1	0	0	16
1:00	0	0	2	1	3	1	5	1	5	0	1	1	0	20
2:00	0	0	1	1	0	3	6	10	3	6	0	0	0	30
3:00	0	2	2	2	0	1	6	10	5	3	3	0	0	34
4:00	0	0	0	3	2	3	5	5	10	3	0	0	0	31
5:00	1	0	1	1	2	5	7	13	4	5	0	0	0	39
6:00	0	0	1	2	2	1	4	7	13	1	0	0	0	31
7:00	0	0	1	1	0	7	6	7	2	0	0	0	1	25
8:00	0	0	0	4	3	2	3	6	3	1	0	0	0	22
9:00	0	0	0	0	0	1	6	1	2	1	0	0	0	11
10:00	0	0	0	0	0	2	0	3	4	1	0	0	0	10
11:00	0	0	0	0	0	1	0	1	0	1	0	0	0	3
Total	1	6	14	21	17	42	74	99	70	27	7	2	1	381

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1

Station ID:

Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

5/23/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00	0	0	0	1	0	1	2	1	1	0	0	1	0	7
7:00	1	0	1	1	7	3	3	5	5	1	0	1	0	28
8:00	0	0	1	0	1	1	3	5	5	0	0	2	0	18
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	1	0	2	2	8	5	10	12	12	1	0	4	0	57
Grand Total	3	12	39	58	85	146	245	267	193	95	19	7	1	1170

Stats

Percentile	15th	50th	85th	95th
Speed	14	21	26	29
Mean Speed (Average)	20.4			
10 MPH Pace Speed	17-26			
Number in Pace	752			
Percent in Pace	64.3%			
Number > 24 MPH	315			
Percent > 24 MPH	26.9%			

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: K1

Station ID:

Location 1: Kayser Ave btwn E Lincoln Ave and E 6th St

Location 2: Royal Oak

Location 3:

Location 4:

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

5/20/2024	5/20/2024		5/21/2024		5/22/2024		5/23/2024		5/24/2024		Weekday Average		5/25/2024		5/26/2024	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	0	0	1	1	0	0	*	*	0	0	*	*	*	*
1:00	*	*	1	1	0	0	1	1	*	*	1	1	*	*	*	*
2:00	*	*	0	1	0	0	0	0	*	*	0	0	*	*	*	*
3:00	*	*	1	1	1	0	0	0	*	*	1	0	*	*	*	*
4:00	*	*	2	1	1	1	0	1	*	*	1	1	*	*	*	*
5:00	*	*	0	2	0	3	0	1	*	*	0	2	*	*	*	*
6:00	*	*	7	5	6	4	3	4	*	*	5	4	*	*	*	*
7:00	*	*	10	6	17	13	17	11	*	*	15	10	*	*	*	*
8:00	*	*	8	8	10	11	7	11	*	*	8	10	*	*	*	*
9:00	7	12	17	8	6	6	*	*	*	*	10	9	*	*	*	*
10:00	13	10	7	8	5	9	*	*	*	*	8	9	*	*	*	*
11:00	5	12	8	7	5	9	*	*	*	*	6	9	*	*	*	*
12:00 PM	18	15	11	14	7	9	*	*	*	*	12	13	*	*	*	*
1:00	14	10	15	10	8	12	*	*	*	*	12	11	*	*	*	*
2:00	17	14	19	18	18	12	*	*	*	*	18	15	*	*	*	*
3:00	12	13	11	18	19	15	*	*	*	*	14	15	*	*	*	*
4:00	12	16	18	15	14	17	*	*	*	*	15	16	*	*	*	*
5:00	17	22	23	23	19	20	*	*	*	*	20	22	*	*	*	*
6:00	25	11	17	18	18	13	*	*	*	*	20	14	*	*	*	*
7:00	10	17	11	14	12	13	*	*	*	*	11	15	*	*	*	*
8:00	6	6	10	17	10	12	*	*	*	*	9	12	*	*	*	*
9:00	5	6	2	2	3	8	*	*	*	*	3	5	*	*	*	*
10:00	2	1	2	1	7	3	*	*	*	*	4	2	*	*	*	*
11:00	1	2	2	1	1	2	*	*	*	*	1	2	*	*	*	*
Total	164	167	202	199	188	193	28	29	0	0	194	197	0	0	0	0
Day	331		401		381		57		0		391		0		0	
AM Peak	10:00	9:00	9:00	8:00	7:00	7:00	7:00	7:00			7:00	7:00				
Volume	13	12	17	8	17	13	17	11			15	10				
PM Peak	6:00	5:00	5:00	5:00	3:00	5:00					5:00	5:00				
Volume	25	22	23	23	19	20					20	22				
Comb Total	331		401		381		57		0		391		0		0	
ADT	ADT: 390		AADT: 390													

**From:** [noreply@civicplus.com](mailto:noreply@civicplus.com)  
**To:** [Engineering Division](#)  
**Subject:** Online Form Submittal: Traffic Committee Request  
**Date:** Wednesday, May 15, 2024 7:33:40 PM

---

## Traffic Committee Request

**Please complete required fields and submit.**

Name	Tammy Rossilli
Email Address	tammyrossilli@gmail.com
Street Address	706 Kayser Ave
Phone Number	2482177834
Location of Concern	Kayser Ave and Fifth St
Type of Issue	Safety
Detailed Description of Concern	The speeding and cut through traffic needs to be reduced for the safety of our kids and the kids at the park as well as the danger I feel not knowing if the cars traveling east and west know that this is not a 4 way stop and the cars headed north and south do not need to stop.
Proposed Solution	A 4 way stop sign at the corner of Kayser and Sixth street.
Media Upload	<i>Field not completed.</i>
Important	I have the reviewed the Traffic Committee's Frequently Asked Questions (FAQ) regarding traffic requests and concerns

(Section Break)

### Neighborhood Support

Analyzing traffic requests can take a significant amount of staff time, and we require neighborhood support for a particular issue before beginning review.

Please provide at least two neighbors' contact information, who are in agreement with your concerns or request. **They must be from separate households.** They will be notified if this item is brought to the Traffic Committee.

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Name	Jason Kassab
------	--------------

---

Address	712 Kayser Ave
Email	kassabjay@gmail.com
Name	Matt Curtis
Address	716 Kayser Ave
Email	mattdcurtis@gmail.com

Email not displaying correctly? [View it in your browser.](#)

**From:** [noreply@civicplus.com](mailto:noreply@civicplus.com)  
**To:** [Engineering Division](#)  
**Subject:** Online Form Submittal: Traffic Committee Request  
**Date:** Tuesday, May 14, 2024 10:24:15 AM

---

## Traffic Committee Request

**Please complete required fields and submit.**

Name	Jason Kassab
Email Address	kassabjay@gmail.com
Street Address	712 Kayser Ave
Phone Number	5867093248
Location of Concern	Corner of Sixth and Kayser Ave
Type of Issue	Traffic or pedestrian signal
Detailed Description of Concern	<p>The corner of Kayser and Sixth is a 2 way stop if traveling East and West...it's a dangerous intersection. People use our street so much because it runs almost straight from Lincoln to 11 mile and at the end of our street is a Liquor Store, so they leave there and fly up our street to get to 4th or 11 Mile. There is also a park at the corner of Sixth and Kayser, Grant Park. It's too dangerous to have cars driving like this near that park with no need to stop if traveling North and South. There have been many times that the street has cars parked for games at the park so the cars traveling east and west cannot see the cars going north and south and do not have a stop sign. Our street is used as a cut through and cars speed quite a bit up and down our street and we have young kids who live on our block. The type of issue this causes is a safety concern due to the sight distance when cars are parked on the street when there is a game at the park as well as the speeding concerns while kids are playing outside on our street.</p>
Proposed Solution	<p>To reduce the speeding and safety of the intersection and to slow down the cut through traffic I would like to see this intersection become a 4 way stop instead of a 2 way stop. This will slow cut through drivers speeding down, will protect cars at the intersection and keep our kids living on our street or playing at the park safe from cars that gain speed without having to stop or slow down at this intersection.</p>
Media Upload	<i>Field not completed.</i>
Important	<p>I have the reviewed the Traffic Committee's Frequently Asked Questions (FAQ) regarding traffic requests and concerns</p>

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(Section Break)

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### Neighborhood Support

Analyzing traffic requests can take a significant amount of staff time, and we require neighborhood support for a particular issue before beginning review.

Please provide at least two neighbors' contact information, who are in agreement with your concerns or request. **They must be from separate households.** They will be notified if this item is brought to the Traffic Committee.

---

Name	Tammy Rosselli
Address	706 Kayser Ave
Email	tammyrosselli@gmail.com

---

Name	Matt Curtis
Address	716 Kayser Ave
Email	mattdcurtis@gmail.com

---

Email not displaying correctly? [View it in your browser.](#)



**From:** [noreply@civicplus.com](mailto:noreply@civicplus.com)  
**To:** [Engineering Division](#)  
**Subject:** Online Form Submittal: Traffic Committee Request  
**Date:** Wednesday, May 15, 2024 8:53:33 PM

---

## Traffic Committee Request

**Please complete required fields and submit.**

Name	Edward Reedy
Email Address	reedyt7@gmail.com
Street Address	719 Kayser Ave
Phone Number	248-556-6142
Location of Concern	Corner of Kayser Ave and E. Sixth Street
Type of Issue	Cut-thru traffic
Detailed Description of Concern	Grant Park is located at the Corner of Kayser Ave and E. Sixth Street. There is a lot of cut-thru traffic on Kayser and also a lot of pedestrians and kids that are on this street. In addition Grant Park has soccer games almost every night during soccer season. The cut-thru traffic can be dangerous for kids who are leaving there cars to get to the park as well as the spectators that go to watch the games. Since drivers don't need to stop until they get all the way past Grant park they are speeding all the way through to almost 4th street. Neighbors have put out signs to slow down but this has had little to no affect.
Proposed Solution	A Stop sign at North and South bound Kayser would help make this a street safer for the residents as well as the kids and parents who come to enjoy a soccer game. I have read the Traffic Committee's FAQ about Stop signs. There is a house on this corner that comes almost all the way to the sidewalk causing "Sight distance issues" for drivers coming South on Kayser and there is "Excessive Traffic" on this street due to the ease of cutting through the neighborhood from Lincoln to 11 mile.
Media Upload	<i>Field not completed.</i>
Important	I have the reviewed the Traffic Committee's Frequently Asked Questions (FAQ) regarding traffic requests and concerns

(Section Break)

### Neighborhood Support

Analyzing traffic requests can take a significant amount of staff time,

and we require neighborhood support for a particular issue before beginning review.

Please provide at least two neighbors' contact information, who are in agreement with your concerns or request. **They must be from separate households.** They will be notified if this item is brought to the Traffic Committee.

Name	Jason Kassab
Address	712 Kayser Ave
Email	Kassabjay@gmail.com
Name	Melanie Humphrey
Address	720 Kayser Ave
Email	Gnnmel@gmail.com

Email not displaying correctly? [View it in your browser.](#)

**From:** [noreply@civicplus.com](mailto:noreply@civicplus.com)  
**To:** [Engineering Division](#)  
**Subject:** Online Form Submittal: Traffic Committee Request  
**Date:** Tuesday, May 14, 2024 6:39:07 PM

---

## Traffic Committee Request

**Please complete required fields and submit.**

Name	Matt
Email Address	Curtis
Street Address	716 Kayser Ave
Phone Number	2485094646
Location of Concern	Kayser Avenue and E. 6th Street
Type of Issue	Cut-thru traffic
Detailed Description of Concern	People use Kayser Ave as a cut thru during rush hour, speeding recklessly down the Kayser Ave (I bought a radar gun and regularly clock vehicles at 30-45 mph). Other drivers speed down Kayser Ave the output the day. This is a massive safety risk for children who live and play on Kayser Ave. It's also an extreme safety risk with the children playing at Grant Park and those children and adults who use the Grant Park soccer field. The RO police have placed a speed cameras on Kayser Ave and all it does is slow down traffic while it's in place. Afterward, drivers continue speeding.
Proposed Solution	Add Stop signs for north and south bound traffic or raised intersection at intersection of Kayser Avenue and E. 6th Street to slow down north and south bound traffic. This would slow down traffic, and protect children who live on not only on Kayser Ave, but also children using Grant Park.
Media Upload	<i>Field not completed.</i>
Important	I have reviewed the Traffic Committee's Frequently Asked Questions (FAQ) regarding traffic requests and concerns

(Section Break)

### Neighborhood Support

Analyzing traffic requests can take a significant amount of staff time, and we require neighborhood support for a particular issue before beginning review.

Please provide at least two neighbors' contact information, who are in agreement with your concerns or request. **They must be from separate households.** They will be notified if this item is brought to the Traffic Committee.

Name	Jason Kassab
Address	712 Kayser Ave
Email	kassabjay@gmail.com
Name	Tammy Roselli
Address	706 Kayser Ave
Email	Tammy roselli@gmail.com

Email not displaying correctly? [View it in your browser.](#)

## Royal Oak Traffic Committee

### AGENDA ITEM

<b>Title</b>	<b>Request to install guardrail in public right-of-way on northbound Coolidge Highway adjacent to 2804 Coolidge apartment complex</b>
<b>SUBMITTING DEPARTMENT</b>	<b>Engineering</b>
<b>PRESENTER</b>	<b>Holly Donoghue, P.E.</b>
<b>MEETING DATE</b>	<b>July 23, 2024</b>

#### Requestor Concern:

A request was received from Ari Zartarian, owner of the apartment building located at 2804 Coolidge Highway, to install a guardrail in the public right-of-way between the road and their building. He states within the last 24 months, three vehicles have crashed into the building that were heading northbound on Coolidge, damaging the building and displacing residents for months. For varying reasons, the drivers are not properly veering left at the curve north of the cemetery and he would like a barrier installed to protect his residents, who are very concerned for their safety after these multiple incidents.

#### Staff Analysis:

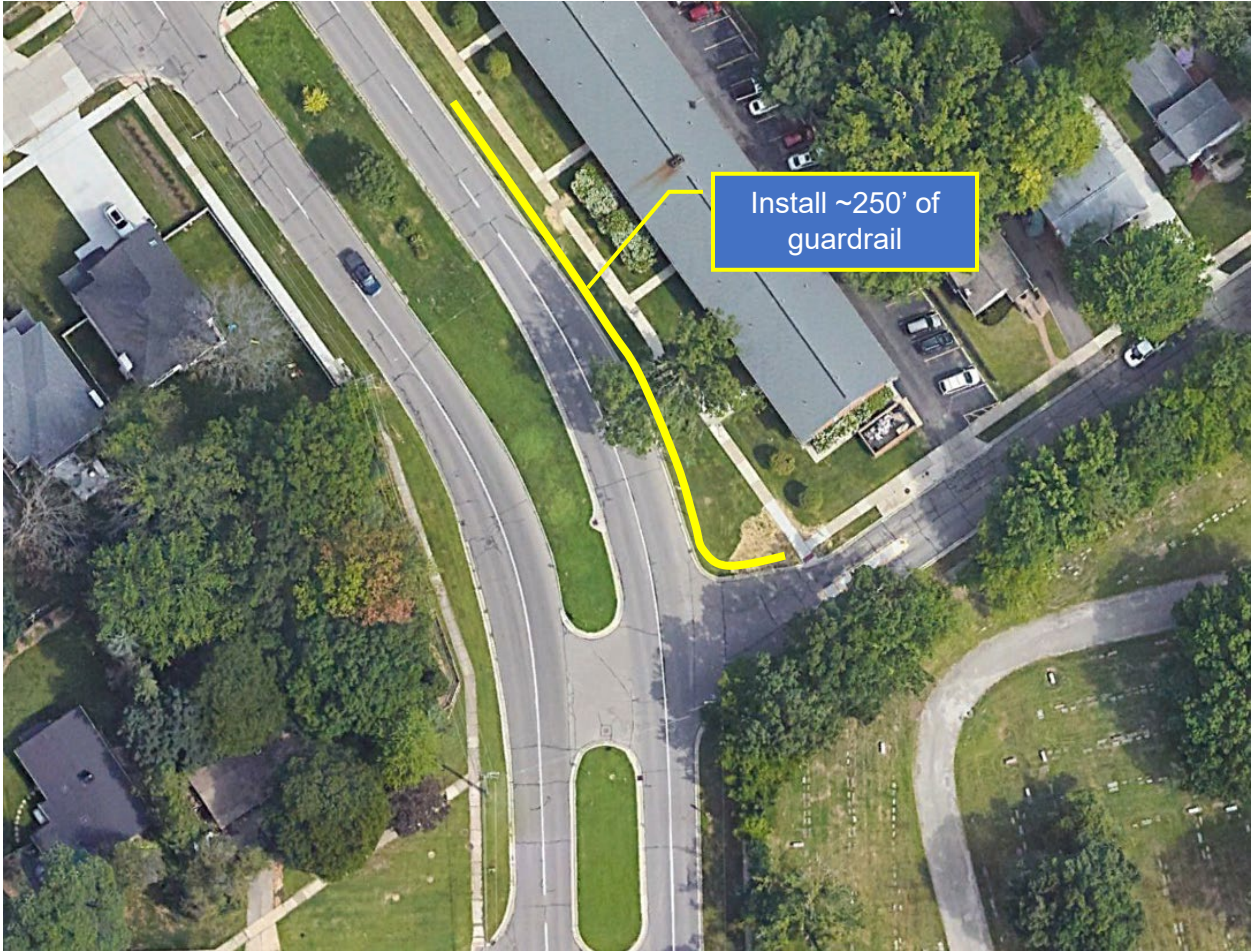
The Staff Traffic Committee has further reviewed this request and determined that:

1. Coolidge Highway between Trafford Road and Warick Road is a major road consisting of composite pavement with concrete curbing. The road is a divided highway with two lanes in each direction, and each road segment has widths ranging from 26 to 32 feet wide.
2. The three-year+ (2021-current date) accident report shows six crashes in the area. Four of them were related to crashes at the Warick intersection north of the curve. One accident involved a driver under the influence not properly turning at the curve and striking the apartment building as described by the requestor (July 2022). An accident from this year showed another instance of a vehicle failing to turn at the curve and striking the building. The report stated the driver did not appear under the influence or distracted. The ten-year accident report showed additional instances of cars not turning properly hitting signs and the utility pole located along the curve.
3. SEMCOG's traffic volume map showed approximately 7,700 vehicles per day driving northbound on Coolidge in September 2023.
4. According to the AASHTO Roadside Design Guide the following comments are applicable:
  - a. Guardrail should only be considered if the result of a car hitting the guardrail will be less severe than the car hitting the unshielded object.
  - b. Table 3-1 in the guidance document notes that a clear zone of 14 to 16 feet is ideal for Coolidge Highway (speed limit is less than 40 mph and average daily traffic > 6,000 vehicles per day).

- c. In urban areas with road curbing, a recommended goal is to achieve at least 6 feet of lateral offset between the face of curb and possible obstructions at horizontal curves. (Section 10.1.3.1).

Guardrails too close to the traveled way can sometimes cause accidents or driver discomfort.

- d. The apartment building is approximately 40 feet away from the road, and an existing tree is approximately 20 feet away from the road. There is also a utility pole that is approximately 5 feet away from the curb.
5. Considering crash history, staff recommends installation of guardrail along the curve. One additional set of chevron signage is also recommended as shown below.



6. The cost of this work is estimated to be \$45,000. The city has some unused budget for a 2024 project and will be able to fund this work without a budget amendment. If approved, staff will attempt to have the guardrail installed this construction season.





7. The curve warning sign shown below is approximately 320 feet south of the road curve. According to the Michigan Manual of Uniform Traffic Control Devices, the sign should be located within 100 feet of the start of the curve for this situation.



**Suggested Staff Recommendation:** To install approximately 250 feet of guardrail a minimum of three feet from the curb along the east side of Coolidge just north of Trafford Road, to relocate the existing W1-1 curve warning signs to be within 100 feet of the start of the curve for both northbound and southbound Coolidge traffic, and to install two additional chevron signs on the east side of Coolidge Highway within the road curvature area.

Estimated cost: \$45,000



## Transportation Improvement Association

### Coolidge Highway - Trafford to Warwick

**#1 Location:** WARICK (0.149) 0 feet NEof COOLIDGE HWY **Crash ID:** 2331883  
**Date:** 07/17/2021 **Day:** Sat **Hour:** 2pm **Weather:** clear **Roadway:** dry **Light:** day  
**Injy K:** 0 **Injy A:** 0 **Injy B:** 0 **Injy C:** 0 **Injy 0:** 3 **How:** angle  
**CVT:** Royal Oak **Area:** w/i intersection **HBD:** N **Drugs:** N **Complaint #:** 210022481

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	E	start on rdwy	veh in transpt	none	none	none	failed to yield	car	rtside
2	N	go straight	veh in transpt	none	none	none	none	car	ctrfront

UD10: [2331883](#)

**#2 Location:** NB COOLIDGE (4.598) 0 feet Xof WARICK RD **Crash ID:** 2344054  
**Date:** 08/03/2021 **Day:** Tue **Hour:** 5pm **Weather:** cloudy **Roadway:** dry **Light:** day  
**Injy K:** 0 **Injy A:** 0 **Injy B:** 0 **Injy C:** 0 **Injy 0:** 2 **How:** angle  
**CVT:** Royal Oak **Area:** w/i intersection **HBD:** N **Drugs:** N **Complaint #:** 210024727

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	E	go straight	veh in transpt	none	none	none	failed to yield	car	rtrear
2	N	go straight	veh in transpt	none	none	none	none	car	ctrfront

UD10: [2344054](#)

**#3 Location:** COOLIDGE (4.536) 26 feet Nof TRAFFORD RD **Crash ID:** 2648881  
**Date:** 07/24/2022 **Day:** Sun **Hour:** 3pm **Weather:** clear **Roadway:** dry **Light:** day  
**Injy K:** 0 **Injy A:** 0 **Injy B:** 0 **Injy C:** 1 **Injy 0:** 1 **How:** single  
**CVT:** Royal Oak **Area:** curved **HBD:** Y **Drugs:** N **Complaint #:** 220026044

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	N	none	other pole	none	none	none	other	car	ctrfront

UD10: [2648881](#)

**#4 Location:** COOLIDGE (0.581) 0 feet Xof WARICK RD **Crash ID:** 2757746  
**Date:** 11/23/2022 **Day:** Wed **Hour:** 4pm **Weather:** clear **Roadway:** dry **Light:** dawn  
**Injy K:** 0 **Injy A:** 0 **Injy B:** 0 **Injy C:** 1 **Injy 0:** 1 **How:** angle  
**CVT:** Royal Oak **Area:** w/i intersection **HBD:** N **Drugs:** N **Complaint #:** 220042073

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	E	go straight	veh in transpt	none	none	none	failed to yield	car	ctrfront
2	S	go straight	veh in transpt	none	none	none	none	car	ctrfront

UD10: [2757746](#)





**#5**    **Location:** NB COOLIDGE (4.598) 0 feet Xof WARICK RD    **Crash ID:** 2862625

**Date:** 03/30/2023    **Day:** Thu    **Hour:** 5pm    **Weather:** clear    **Roadway:** dry    **Light:** day

**Injy K:** 0    **Injy A:** 0    **Injy B:** 0    **Injy C:** 0    **Injy 0:** 2    **How:** angle

**CVT:** Royal Oak    **Area:** w/i intersection    **HBD:** N    **Drugs:** N    **Complaint #:** 230011052

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	E	start on rdwy	veh in transpt	none	none	none	failed to yield	car	ctrfront
2	N	go straight	veh in transpt	none	none	none	none	car	lftrear

**UD10:** [2862625](#)

---

## Crash Type

Count	Type
0	uncoded
1	single
0	head-on
0	head-on/lt
4	angle
0	rr-end
0	rr-end/lt
0	rr-end/rt
0	ss-same
0	ss-opp
0	back
0	other
0	unknown
<b>Totals</b>	<b>5</b>

## Lighting Conditions

Count	Type
0	uncoded
4	day
1	dawn
0	dusk
0	dark/ltd
0	dark/unltd
0	other
0	unknown
<b>Totals</b>	<b>5</b>

## Weather Conditions

Count	Type
0	uncoded
4	clear
1	cloudy
0	fog
0	rain
0	snow
0	wind
0	sleet/hail
0	blowing snow
0	blowing sand
0	smoke
0	unknown
<b>Totals</b>	<b>5</b>

## Road Condition

Count	Type
0	uncoded
5	dry
0	wet
0	ice
0	snow
0	mud
0	slush
0	debris
0	water
0	sand
0	oily
0	other
0	unknown
<b>Totals</b>	<b>5</b>

## Crashes by Month

Count	Type
0	January
0	February
1	March
0	April
0	May
0	June
2	July
1	August
0	September
0	October
1	November
0	December
<b>Totals</b>	<b>5</b>

## Hazardous Action

Count	Type
4	none
0	speeding
0	spd too slow
4	failed to yield
0	disrgd traffic cntrl
0	wrong way
0	left of center
0	imprp passing
0	imprp lane use
0	imprp turn
0	imprp/no signal
0	imprp backing
0	unable to stop
1	other
0	unknown
0	reckls driving
0	carels driving
<b>Totals</b>	<b>9</b>

## Unit Type

Count	Type
0	Bicyclist
0	Engineer
9	Vehicle
0	Pedestrian
<b>Totals</b>	<b>9</b>

## Crashes by Year

Count	Type
2	2021
2	2022
1	2023
<b>Totals</b>	<b>5</b>

## Crash Severity

	Fatal	A	B	C	No Injy	Total
Persons	0	0	0	2	0	2
Crashes	0	0	0	2	3	5

## Alcohol in Crashes

	Fatal	A	B	C	PDO	Total
Drinking	0	0	0	1	0	1
Not Drinking	0	0	0	1	3	4
Totals	0	0	0	2	3	5

## Crashes per Hour by Day

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
12a-1a	0	0	0	0	0	0	0	0
1a-2a	0	0	0	0	0	0	0	0
2a-3a	0	0	0	0	0	0	0	0
3a-4a	0	0	0	0	0	0	0	0
4a-5a	0	0	0	0	0	0	0	0
5a-6a	0	0	0	0	0	0	0	0
6a-7a	0	0	0	0	0	0	0	0
7a-8a	0	0	0	0	0	0	0	0
8a-9a	0	0	0	0	0	0	0	0
9a-10a	0	0	0	0	0	0	0	0
10a-11a	0	0	0	0	0	0	0	0
11a-12p	0	0	0	0	0	0	0	0
12p-1p	0	0	0	0	0	0	0	0
1p-2p	0	0	0	0	0	0	0	0
2p-3p	0	0	0	0	0	0	1	1
3p-4p	1	0	0	0	0	0	0	1
4p-5p	0	0	0	1	0	0	0	1
5p-6p	0	0	1	0	1	0	0	2
6p-7p	0	0	0	0	0	0	0	0
7p-8p	0	0	0	0	0	0	0	0
8p-9p	0	0	0	0	0	0	0	0
9p-10p	0	0	0	0	0	0	0	0
10p-11p	0	0	0	0	0	0	0	0
11p-12a	0	0	0	0	0	0	0	0
Totals	1	0	1	1	1	0	1	5

Authority: 1949 PA 300, Sec.257-622  
Compliance: Required MSP UD-10E  
Penalty: \$100 and/or 90 days (Rev 11/2020)

External # 1287343  
Crash ID 2648881

Page 01 of 03  
File Class C3146

Incident # 220026044

Reviewer DESANO (00408)

# STATE OF MICHIGAN TRAFFIC CRASH REPORT

ORI MI 6371400	Department Name Royal Oak Police Department			Crash Date 07/24/2022			Crash Time 15:10	No. of Units 01	Crash Type Single Motor Vehicle	Special Circumstances <input checked="" type="radio"/> None <input type="radio"/> Fleeing Police	<input type="radio"/> Hit and Run <input type="radio"/> Unknown	<input type="radio"/> School Bus <input type="radio"/> Animal	Special Checks <input type="radio"/> Fatal	<input type="radio"/> Non-Traffic Area	<input type="radio"/> ORV/Snowmobile
County 63 - Oakland	Traffic Control None	Relation to Roadway Outside of Shoulder/Curb		Weather Clear		Area NON-FRWY Curved Roadway									
City/Twp 90 - Royal Oak	Contributing Circumstances 1st None		2nd		Light Daylight	Road Surface Condition Dry		Total Lanes 02	Speed Limit 35	Posted Yes					
Work Zone (if applicable) Type Workers Present Activity Location															

Prefix	Primary Road Name COOLIDGE	Road Type HWY	Suffix	Divided Roadway	
Distance / Direction 50 Feet S		Trafficway Divided Hwy wo/Barrier			
Prefix	Intersecting Road Name WARICK	Road Type RD	Suffix	Divided Roadway	

Unit Number 01	Unit Known Yes	State MI	Driver License Number #####	Date of Birth (Age) ###/##/#### (52)	License Type <input checked="" type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped	Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation	Sex F	Race W	Total Occupants 02	Hazardous Action Other
Unit Type MV	Driver Information ##### BERKLEY, MI 48072-3414 (###) ###-####				Driver is Owner Yes	Injury C	Position Front - Left		Restraint Shoulder and Lap Belt	
Driver Condition at Time of Crash 1st Other				2nd		Driver Distracted By Unknown		Ejected	Trapped	Airbag Deployed Deployed - Combination
Hospital REFUSED				Ambulance REFUSED						
Alcohol Suspected Yes	Contributing Factor Yes	Alcohol Test Type <input type="radio"/> Breath <input checked="" type="radio"/> Blood <input type="radio"/> Urine <input checked="" type="radio"/> Field <input checked="" type="radio"/> PBT <input type="radio"/> Refused <input type="radio"/> Not Offered			Alcohol Test Results <input checked="" type="radio"/> Pending		Test Results:		Interlock Device No	
Drug Suspected No	Contributing Factor No	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input checked="" type="radio"/> Not Offered			Drug Test Results <input type="radio"/> Pending		Test Results:		Citation Issued <input type="radio"/> Hazardous <input type="radio"/> Other	
Vehicle Registration BTG564	State MI	Vehicle Description 2019	Year	Make LEXUS	Model NX	Color BLACK				
VIN JTJBARBZK2201916	Vehicle Type Passenger Car, SUV, Van		Special Vehicles Not Applicable		Private Trailer Type		Vehicle Defect			
Automation System(s) in Vehicle No		Automation System Level in Vehicle No Automation				Automation System Level Engaged at Time of Crash No Automation				
Insurance Company #####		Insurance Policy # #####			Towed By A&M IMPOUND LOT 248-398-8309		Towed To			
Location of Greatest Damage 01	First Impact 01	Extent of Damage (Power Unit and/or Trailers) Disabling Damage		Vehicle Direction N	Vehicle Use Private		Action Prior Negotiating a Curve			
Sequence of Events First <input checked="" type="radio"/> 32 - Other Post/Pole/Support Second Third Fourth ( <input checked="" type="radio"/> indicates MOST harmful event)										

Passenger Information ##### SOUTHGATE, MI 48195-1117 (###) ###-####	Date of Birth (Age) ###/##/#### (44)	Sex F	Race W	Position Front - Right	Restraint Shoulder and Lap Belt
Injury O	Ejected	Trapped	Airbag Deployed Deployed - Combination		
Hospital NONE			Ambulance NONE		
Passenger Information	Date of Birth (Age)	Sex	Race	Position	Restraint
Injury	Ejected	Trapped	Airbag Deployed		
Hospital			Ambulance		

Carrier Information	USDOT	MC	MPSC			
GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.	Vehicle Configuration	Cargo Body Type	Medical Card	Hazardous Material <input type="radio"/> Placard <input type="radio"/> Cargo Spill	ID #	Class #

Owner Information ##### ##### #####	Owner Information
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Damaged Property 08-TRAFFIC SIGN/POST	Public Yes	Owner & Phone ##### (###) ###-####
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UNIT / DRIVER	Unit Number	Unit Known	State	Driver License Number	Date of Birth (Age)	License Type <input type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped	Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation	Sex	Race	Total Occupants	Hazardous Action
	Unit Type	Driver Information				Driver is Owner	Injury	Position		Restraint	
	Driver Condition at Time of Crash 1st				2nd		Driver Distracted By		Ejected	Trapped	Airbag Deployed
	Hospital					Ambulance					
	Alcohol Suspected	Contributing Factor	Alcohol Test Type <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Refused <input type="radio"/> Not Offered			Alcohol Test Results <input type="radio"/> Pending		Test Results:		Interlock Device	
	Drug Suspected	Contributing Factor	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input type="radio"/> Not Offered			Drug Test Results <input type="radio"/> Pending		Test Results:		Citation Issued <input type="radio"/> Hazardous <input type="radio"/> Other	
	Vehicle Registration	State	Vehicle Description	Year	Make	Model	Color				
	VIN	Vehicle Type		Special Vehicles		Private Trailer Type		Vehicle Defect			
	Automation System(s) in Vehicle		Automation System Level in Vehicle				Automation System Level Engaged at Time of Crash				
	Insurance Company			Insurance Policy #			Towed By		Towed To		
	Location of Greatest Damage	First Impact	Extent of Damage (Power Unit and/or Trailers)		Vehicle Direction	Vehicle Use		Action Prior			
	Sequence of Events		First		Second		Third		Fourth		
	(● indicates MOST harmful event)										
	PASSENGERS	Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint	
				Injury	Ejected	Trapped	Airbag Deployed				
Hospital				Ambulance							
Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint			
				Injury	Ejected	Trapped	Airbag Deployed				
Hospital				Ambulance							
TRUCK / BUS	Carrier Information				USDOT		MC	MPSC			
					Driver's CDL Type		Endorsements OH <input type="radio"/> P <input type="radio"/> T ON <input type="radio"/> S <input type="radio"/> X	CDL Exempt <input type="radio"/> Farm <input type="radio"/> Other			
	GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.		Vehicle Configuration		Cargo Body Type		Medical Card	Hazardous Material <input type="radio"/> Placard <input type="radio"/> Cargo Spill		ID #	Class #
OWNERS	Owner Information				Owner Information						
WITNESS	Witness Information				Witness Information						
	##### ##### #####, ## #####-#### (###) ###-####				##### ##### #####, ## #####-#### (###) ###-####						
Investigated at Scene Yes		Reported Date (Time) 07/24/2022 (15:10)		1st Investigator Name (Badge) SMITH (459)		2nd Investigator Name (Badge)		Photos No			
Narrative					Diagram						
<p>UNIT 1 WAS TRAVELING N/B ON COOLIDGE WHEN THEY LOST CONTROL OF VEHICLE AND VEERED RIGHT, JUMPED THE CURB EAST OF COOLIDGE, STRUCK A TRAFFIC SIGN WITH AN ARROW INDICATING A CURVE AHEAD. CONTINUED NORTH ACROSS THE LAWN OF THE APARTMENT BUILDING(2830 COOLIDGE). UNIT 1 SCRAPED ALONG SIDE THE FRONT OF THE APARTMENT BUILDING, KNOCKING DOWN SEVERAL POLES HOLDING THE UPSTAIRS BALCONIES IN PLACE. ALSO TORE DOWN PARTS OF THE AWNINGS OF THE GROUND FLOOR APARTMENTS, AND DAMAGED THE WINDOW TO APARTMENT 1. DRIVER OF UNIT 1 WAS ULTIMATELY ARRESTED FOR OWI. SHE APPEARED TO HAVE SOME INJURIES (I.E. BLISTERS/BRUISING) TO HER WRIST MOST LIKELY FROM AIRBAG DEPLOYMENT. UNIT 1 WAS IMPOUNDED AND TOWED TO A&amp;M.</p>											

Authority: 1949 PA 300, Sec.257-622  
Compliance: Required MSP UD-10E  
Penalty: \$100 and/or 90 days (Rev 11/2020)

External #  
1287343

Crash ID  
2648881

Page 02 of 03  
File Class C3146

Incident #  
220026044

Reviewer  
DESANO (00408)

# STATE OF MICHIGAN TRAFFIC CRASH REPORT

ORI MI 6371400		Department Name Royal Oak Police Department								
Crash Date 07/24/2022	Crash Time 15:10	No. of Units 01	Crash Type Single Motor Vehicle	Special Circumstances <input checked="" type="radio"/> None <input type="radio"/> Fleeing Police <input type="radio"/> Hit and Run <input type="radio"/> Unknown <input type="radio"/> School Bus <input type="radio"/> Animal			Special Checks <input type="radio"/> Fatal <input type="radio"/> Non-Traffic Area <input type="radio"/> ORV/Snowmobile			
County 63 - Oakland	Traffic Control None		Relation to Roadway Outside of Shoulder/Curb		Weather Clear		Area NON-FRWY Curved Roadway			
City/Twp 90 - Royal Oak	Contributing Circumstances 1st None		2nd		Light Daylight		Road Surface Condition Dry	Total Lanes 02	Speed Limit 35	Posted Yes
Work Zone (if applicable) Type Workers Present Activity Location										

LOCATION	Prefix	Primary Road Name COOLIDGE	Road Type HWY	Suffix	Divided Roadway
	Distance / Direction 50 Feet S		Trafficway Divided Hwy wo/Barrier		
	Prefix	Intersecting Road Name WARICK	Road Type RD	Suffix	Divided Roadway

UNIT / DRIVER	Unit Number	Unit Known	State	Driver License Number	Date of Birth (Age)	License Type <input type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped	Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation	Sex	Race	Total Occupants	Hazardous Action
	Unit Type	Driver Information				Driver is Owner	Injury	Position	Restraint		
	Driver Condition at Time of Crash 1st				2nd		Driver Distracted By		Ejected	Trapped	Airbag Deployed
	Hospital					Ambulance					
	Alcohol Suspected	Contributing Factor	Alcohol Test Type <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Refused <input type="radio"/> Not Offered			Alcohol Test Results <input type="radio"/> Pending Test Results:		Interlock Device			
	Drug Suspected	Contributing Factor	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input type="radio"/> Not Offered			Drug Test Results <input type="radio"/> Pending Test Results:		Citation Issued <input type="radio"/> Hazardous <input type="radio"/> Other			
	Vehicle Registration	State	Vehicle Description	Year	Make	Model	Color				
	VIN	Vehicle Type		Special Vehicles		Private Trailer Type	Vehicle Defect				
	Automation System(s) in Vehicle		Automation System Level in Vehicle				Automation System Level Engaged at Time of Crash				
	Insurance Company			Insurance Policy #			Towed By		Towed To		
	Location of Greatest Damage	First Impact	Extent of Damage (Power Unit and/or Trailers)		Vehicle Direction	Vehicle Use		Action Prior			
	Sequence of Events First		Second		Third		Fourth				
● indicates MOST harmful event)											

PASSENGERS	Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint
					Injury	Ejected	Trapped	Airbag Deployed	
	Hospital				Ambulance				
	Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint
				Injury	Ejected	Trapped	Airbag Deployed		
Hospital				Ambulance					

TRUCK / BUS	Carrier Information				USDOT	MC	MPSC
					Driver's CDL Type	Endorsements OH OP OT ON OS OX	CDL Exempt <input type="radio"/> Farm <input type="radio"/> Other
	GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.	Vehicle Configuration		Cargo Body Type	Medical Card	Hazardous Material <input type="radio"/> Placard <input type="radio"/> Cargo Spill	ID #

OWNERS	Owner Information				Owner Information			

Damaged Property DAMAGE TO APARTMENT 1 2830 COO				Public No	Owner & Phone ##### (###) ###-####			
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UNIT / DRIVER	Unit Number	Unit Known	State	Driver License Number	Date of Birth (Age)	License Type <input type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped	Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation	Sex	Race	Total Occupants	Hazardous Action	
	Unit Type	Driver Information				Driver is Owner	Injury	Position		Restraint		
	Driver Condition at Time of Crash 1st 2nd				Driver Distracted By			Ejected	Trapped	Airbag Deployed		
	Hospital					Ambulance						
	Alcohol Suspected	Contributing Factor	Alcohol Test Type <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Refused <input type="radio"/> Not Offered			Alcohol Test Results <input type="radio"/> Pending Test Results:		Interlock Device				
	Drug Suspected	Contributing Factor	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input type="radio"/> Not Offered			Drug Test Results <input type="radio"/> Pending Test Results:		Citation Issued <input type="radio"/> Hazardous <input type="radio"/> Other				
	Vehicle Registration		State	Vehicle Description	Year	Make	Model		Color			
	VIN		Vehicle Type		Special Vehicles		Private Trailer Type		Vehicle Defect			
	Automation System(s) in Vehicle		Automation System Level in Vehicle				Automation System Level Engaged at Time of Crash					
	Insurance Company			Insurance Policy #			Towed By			Towed To		
	Location of Greatest Damage		First Impact	Extent of Damage (Power Unit and/or Trailers)		Vehicle Direction	Vehicle Use			Action Prior		
	Sequence of Events		First	Second		Third		Fourth				
	(● indicates MOST harmful event)											
	PASSENGERS	Passenger Information				Date of Birth (Age)	Sex	Race	Position		Restraint	
				Injury	Ejected	Trapped	Airbag Deployed					
Hospital				Ambulance								
Passenger Information				Date of Birth (Age)	Sex	Race	Position		Restraint			
				Injury	Ejected	Trapped	Airbag Deployed					
Hospital				Ambulance								
TRUCK / BUS	Carrier Information					USDOT		MC	MPSC			
						Driver's CDL Type		Endorsements <input type="radio"/> H <input type="radio"/> P <input type="radio"/> T <input type="radio"/> N <input type="radio"/> S <input type="radio"/> X	CDL Exempt <input type="radio"/> Farm <input type="radio"/> Other			
	GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.		Vehicle Configuration			Cargo Body Type		Medical Card	Hazardous Material <input type="radio"/> Placard <input type="radio"/> Cargo Spill		ID #	Class #
OWNERS	Owner Information					Owner Information						
WITNESS	Witness Information					Witness Information						
Investigated at Scene		Reported Date (Time)		1st Investigator Name (Badge)		2nd Investigator Name (Badge)			Photos			
Narrative					Diagram							

Authority: 1949 PA 300, Sec.257-622  
Compliance: Required MSP UD-10E  
Penalty: \$100 and/or 90 days (Rev 11/2020)

External #  
1287343

Crash ID  
2648881

Page 03 of 03  
File Class C3146

Incident #  
220026044

Reviewer  
DESANO (00408)

# STATE OF MICHIGAN TRAFFIC CRASH REPORT

ORI MI 6371400		Department Name Royal Oak Police Department								
Crash Date 07/24/2022	Crash Time 15:10	No. of Units 01	Crash Type Single Motor Vehicle	Special Circumstances <input checked="" type="radio"/> None <input type="radio"/> Fleeing Police <input type="radio"/> Hit and Run <input type="radio"/> Unknown <input type="radio"/> School Bus <input type="radio"/> Animal			Special Checks <input type="radio"/> Fatal <input type="radio"/> Non-Traffic Area <input type="radio"/> ORV/Snowmobile			
County 63 - Oakland	Traffic Control None		Relation to Roadway Outside of Shoulder/Curb		Weather Clear		Area NON-FRWY Curved Roadway			
City/Twsp 90 - Royal Oak	Contributing Circumstances 1st None		2nd		Light Daylight		Road Surface Condition Dry	Total Lanes 02	Speed Limit 35	Posted Yes
Work Zone (if applicable) Type Workers Present Activity Location										

LOCATION	Prefix	Primary Road Name COOLIDGE	Road Type HWY	Suffix	Divided Roadway
	Distance / Direction 50 Feet S		Trafficway Divided Hwy wo/Barrier		
	Prefix	Intersecting Road Name WARICK	Road Type RD	Suffix	Divided Roadway

UNIT / DRIVER	Unit Number	Unit Known	State	Driver License Number	Date of Birth (Age)	License Type <input type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped	Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation	Sex	Race	Total Occupants	Hazardous Action
	Unit Type	Driver Information				Driver is Owner	Injury	Position	Restraint		
	Driver Condition at Time of Crash 1st 2nd				Driver Distracted By			Ejected	Trapped	Airbag Deployed	
	Hospital					Ambulance					
	Alcohol Suspected	Contributing Factor	Alcohol Test Type <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Refused <input type="radio"/> Not Offered			Alcohol Test Results <input type="radio"/> Pending Test Results:		Interlock Device			
	Drug Suspected	Contributing Factor	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input type="radio"/> Not Offered			Drug Test Results <input type="radio"/> Pending Test Results:		Citation Issued <input type="radio"/> Hazardous <input type="radio"/> Other			
	Vehicle Registration	State	Vehicle Description	Year	Make	Model	Color				
	VIN	Vehicle Type		Special Vehicles		Private Trailer Type	Vehicle Defect				
	Automation System(s) in Vehicle		Automation System Level in Vehicle				Automation System Level Engaged at Time of Crash				
	Insurance Company			Insurance Policy #			Towed By		Towed To		
	Location of Greatest Damage	First Impact	Extent of Damage (Power Unit and/or Trailers)		Vehicle Direction	Vehicle Use		Action Prior			
	Sequence of Events First		Second			Third			Fourth		
(• indicates MOST harmful event)											

PASSENGERS	Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint	
					Injury	Ejected	Trapped	Airbag Deployed		
	Hospital				Ambulance					
	Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint	
				Injury	Ejected	Trapped	Airbag Deployed			
Hospital				Ambulance						

TRUCK / BUS	Carrier Information				USDOT	MC	MPSC
					Driver's CDL Type	Endorsements OH OP OT ON OS OX	CDL Exempt <input type="radio"/> Farm <input type="radio"/> Other
	GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.	Vehicle Configuration		Cargo Body Type	Medical Card	Hazardous Material <input type="radio"/> Placard <input type="radio"/> Cargo Spill	ID #

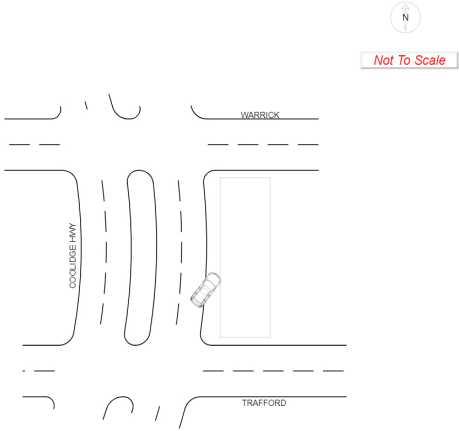
OWNERS	Owner Information				Owner Information			

Damaged Property APARTMENT BUILDING 2830 COOLID				Public No	Owner & Phone ##### (###) ###-####
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UNIT / DRIVER	Unit Number	Unit Known	State	Driver License Number	Date of Birth (Age)	License Type <input type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped	Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation	Sex	Race	Total Occupants	Hazardous Action	
	Unit Type	Driver Information				Driver is Owner	Injury	Position		Restraint		
	Driver Condition at Time of Crash 1st 2nd				Driver Distracted By			Ejected	Trapped	Airbag Deployed		
	Hospital					Ambulance						
	Alcohol Suspected	Contributing Factor	Alcohol Test Type <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Refused <input type="radio"/> Not Offered			Alcohol Test Results <input type="radio"/> Pending Test Results:		Interlock Device				
	Drug Suspected	Contributing Factor	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input type="radio"/> Not Offered			Drug Test Results <input type="radio"/> Pending Test Results:		Citation Issued <input type="radio"/> Hazardous <input type="radio"/> Other				
	Vehicle Registration		State	Vehicle Description	Year	Make	Model		Color			
	VIN		Vehicle Type		Special Vehicles		Private Trailer Type		Vehicle Defect			
	Automation System(s) in Vehicle		Automation System Level in Vehicle				Automation System Level Engaged at Time of Crash					
	Insurance Company			Insurance Policy #			Towed By			Towed To		
	Location of Greatest Damage		First Impact	Extent of Damage (Power Unit and/or Trailers)		Vehicle Direction	Vehicle Use			Action Prior		
	Sequence of Events		First	Second		Third		Fourth				
	(● indicates MOST harmful event)											
	PASSENGERS	Passenger Information				Date of Birth (Age)	Sex	Race	Position		Restraint	
				Injury	Ejected	Trapped	Airbag Deployed					
Hospital				Ambulance								
Passenger Information				Date of Birth (Age)	Sex	Race	Position		Restraint			
				Injury	Ejected	Trapped	Airbag Deployed					
Hospital				Ambulance								
TRUCK / BUS	Carrier Information					USDOT		MC	MPSC			
						Driver's CDL Type		Endorsements <input type="radio"/> H <input type="radio"/> P <input type="radio"/> T <input type="radio"/> N <input type="radio"/> S <input type="radio"/> X	CDL Exempt <input type="radio"/> Farm <input type="radio"/> Other			
	GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.		Vehicle Configuration			Cargo Body Type	Medical Card	Hazardous Material <input type="radio"/> Placard <input type="radio"/> Cargo Spill		ID #	Class #	
OWNERS	Owner Information					Owner Information						
WITNESS	Witness Information					Witness Information						
Investigated at Scene		Reported Date (Time)		1st Investigator Name (Badge)		2nd Investigator Name (Badge)			Photos			
Narrative						Diagram						

Authority: 1949 PA 300, Sec.257.622 Compliance: Required MSP UD-10E Penalty: \$100 and/or 90 days (Rev 11/2020)		External # 1469912		Crash ID 3204444		Page 01 of 02 File Class C3155					
<b>STATE OF MICHIGAN TRAFFIC CRASH REPORT</b>						Incident # 240017841					
ORI MI 6371400		Department Name Royal Oak Police Department				Reviewer BUDZYNOWSKI (00316)					
Crash Date 05/20/2024		Crash Time 16:46	No. of Units 01	Crash Type Single Motor Vehicle	Special Circumstances <input checked="" type="radio"/> None <input type="radio"/> Fleeing Police <input type="radio"/> Hit and Run <input type="radio"/> Unknown <input type="radio"/> School Bus <input type="radio"/> Animal		Special Checks <input type="radio"/> Fatal <input type="radio"/> Non-Traffic Area <input type="radio"/> ORV/Snowmobile				
County 63 - Oakland		Traffic Control None		Relation to Roadway On the Road		Weather Clear		Area NON-FRWY Curved Roadway			
City/Twsp 90 - Royal Oak		Contributing Circumstances 1st None		2nd		Light Daylight		Road Surface Condition Dry			
Work Zone (if applicable) Type		Workers Present		Activity		Location					
Prefix		Primary Road Name COOLIDGE		Road Type HWY		Suffix		Divided Roadway			
Distance / Direction 50 Feet N		Trafficway Divided Hwy wo/Barrier									
Prefix		Intersecting Road Name TRAFFORD		Road Type RD		Suffix		Divided Roadway			
Unit Number 01	Unit Known Yes	State MI	Driver License Number #####	Date of Birth (Age) ##/##/#### (29)	License Type <input checked="" type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped	Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation	Sex F	Race W	Total Occupants 01	Hazardous Action Other	
Unit Type MV	Driver Information ##### ##### OAK PARK, MI 48237-1895 (###) ###-####				Driver is Owner Yes	Injury C	Position Front - Left		Restraint Shoulder and Lap Belt		
Driver Condition at Time of Crash 1st Appeared Normal				2nd		Driver Distracted By Not Distracted		Ejected	Trapped	Airbag Deployed Not Deployed	
Hospital COREWELL HEALTH WILLIAM BEAUMONT UNIVERSITY HOSP					Ambulance ROYAL OAK FIRE DEPARTMENT						
Alcohol Suspected No	Contributing Factor No	Alcohol Test Type <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Refused <input checked="" type="radio"/> Not Offered			Alcohol Test Results <input type="radio"/> Pending		Test Results:		Interlock Device No		
Drug Suspected No	Contributing Factor No	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input checked="" type="radio"/> Not Offered			Drug Test Results <input type="radio"/> Pending		Test Results:		Citation Issued <input checked="" type="radio"/> Hazardous <input type="radio"/> Other		
Vehicle Registration EMZ7282		State MI	Vehicle Description 2019		Make FORD		Model EDGE		Color WHITE		
VIN 2FMPK4J92KBC46767		Vehicle Type Passenger Car, SUV, Van		Special Vehicles Not Applicable		Private Trailer Type		Vehicle Defect			
Automation System(s) in Vehicle No		Automation System Level in Vehicle No Automation				Automation System Level Engaged at Time of Crash No Automation					
Insurance Company #####			Insurance Policy # #####			Towed By AM TOWING 248-398-8309			Towed To		
Location of Greatest Damage 01		First Impact 01	Extent of Damage (Power Unit and/or Trailers) Disabling Damage		Vehicle Direction N	Vehicle Use Private		Action Prior Going Straight Ahead			
Sequence of Events (• indicates MOST harmful event)		First 04 - Ran Off Roadway-Right		Second 28 - Traffic Sign / Post		Third • 41 - Building		Fourth			
PASSENGERS	Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint		
					Injury	Ejected	Trapped	Airbag Deployed			
	Hospital				Ambulance						
PASSENGERS	Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint		
					Injury	Ejected	Trapped	Airbag Deployed			
	Hospital				Ambulance						
TRUCK/BUS	Carrier Information				USDOT		MC		MPSC		
					Driver's CDL Type		Endorsements OH OP OT ON OS OX		CDL Exempt <input type="radio"/> Farm <input type="radio"/> Other		
	GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.		Vehicle Configuration		Cargo Body Type		Medical Card		Hazardous Material <input type="radio"/> Placard <input type="radio"/> Cargo Spill		
OWNERS	Owner Information ##### ##### #####, ## #####-#### (###) ###-####				Owner Information						
	Damaged Property UNIT #5 WINDOW/BRICK WALL				Public No	Owner & Phone ##### (###) ###-####					

UNIT / DRIVER	Unit Number	Unit Known	State	Driver License Number	Date of Birth (Age)	License Type <input type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped	Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation	Sex	Race	Total Occupants	Hazardous Action	
	Unit Type	Driver Information				Driver is Owner	Injury	Position	Restraint			
	Driver Condition at Time of Crash 1st				2nd			Driver Distracted By		Ejected	Trapped	Airbag Deployed
	Hospital					Ambulance						
	Alcohol Suspected	Contributing Factor	Alcohol Test Type <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Refused <input type="radio"/> Not Offered			Alcohol Test Results <input type="radio"/> Pending		Test Results:		Interlock Device		
	Drug Suspected	Contributing Factor	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input type="radio"/> Not Offered			Drug Test Results <input type="radio"/> Pending		Test Results:		Citation Issued <input type="radio"/> Hazardous <input type="radio"/> Other		
	Vehicle Registration		State	Vehicle Description	Year	Make	Model		Color			
	VIN		Vehicle Type		Special Vehicles		Private Trailer Type		Vehicle Defect			
	Automation System(s) in Vehicle		Automation System Level in Vehicle				Automation System Level Engaged at Time of Crash					
	Insurance Company			Insurance Policy #			Towed By			Towed To		
	Location of Greatest Damage		First Impact	Extent of Damage (Power Unit and/or Trailers)		Vehicle Direction	Vehicle Use			Action Prior		
	Sequence of Events		First	Second		Third			Fourth			
(● indicates MOST harmful event)												
PASSENGERS	Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint			
					Injury	Ejected	Trapped	Airbag Deployed				
	Hospital				Ambulance							
	Passenger Information				Date of Birth (Age)	Sex	Race	Position	Restraint			
					Injury	Ejected	Trapped	Airbag Deployed				
	Hospital				Ambulance							
TRUCK / BUS	Carrier Information				USDOT		MC	MPSC				
					Driver's CDL Type		Endorsements <input type="radio"/> H <input type="radio"/> P <input type="radio"/> T <input type="radio"/> N <input type="radio"/> S <input type="radio"/> X		CDL Exempt <input type="radio"/> Farm <input type="radio"/> Other			
	GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.		Vehicle Configuration		Cargo Body Type		Medical Card		Hazardous Material <input type="radio"/> Placard <input type="radio"/> Cargo Spill		ID #	Class #
OWNERS	Owner Information				Owner Information							
WITNESS	Witness Information ##### ##### #####, ## #####-#### (###) ###-####				Witness Information ##### ##### #####, ## #####-#### (###) ###-####							
Investigated at Scene		Yes	Reported Date (Time) 05/20/2024 (16:46)		1st Investigator Name (Badge) SMITH (459)			2nd Investigator Name (Badge)			Photos No	
Narrative UNIT 1 WAS TRAVELING N/B COOLIDGE NEAR TRAFFORD, WHEN THEY WENT OFF THE ROAD TO THE RIGHT STRIKING A TRAFFIC SIGN AND AN APARTMENT BUILDING. DRIVER OF UNIT 1 APPEARED NORMAL ON SCENE BUT ADVISED SHE WAS UNSURE OF WHAT HAPPENED. WITNESS ADVISED THAT UNIT 1 MADE NO ATTEMPT TO FOLLOW THE CURVE OF COOLIDGE, CONTINUED STRAIGHT, WENT OVER THE CURB, STRUCK A SIGN, AND THEN STRUCK THE BUILDING. NO INJURIES TO THE RESIDENT OF UNIT 5, WHOM WAS HOME AT THE TIME OF THE CRASH. DRIVER OF UNIT 1 WAS TRANSPORTED TO COREWELL TO BE CHECKED OUT.					Diagram 							

Page 02 of 02  
File Class C3155

# STATE OF MICHIGAN TRAFFIC CRASH REPORT

ORI MI 6371400		Department Name Royal Oak Police Department					Reviewer BUDZYNOWSKI (00316)					
Crash Date 05/20/2024		Crash Time 16:46	No. of Units 01	Crash Type Single Motor Vehicle	Special Circumstances <input checked="" type="radio"/> None <input type="radio"/> Fleeting Police <input type="radio"/> Hit and Run <input type="radio"/> Unknown <input type="radio"/> School Bus <input type="radio"/> Animal			Special Checks <input type="radio"/> Fatal <input type="radio"/> Non-Traffic Area <input type="radio"/> ORV/Snowmobile				
County 63 - Oakland		Traffic Control None		Relation to Roadway On the Road		Weather Clear		Area NON-FRWY Curved Roadway				
City/Twp 90 - Royal Oak		Contributing Circumstances 1st None			2nd		Light Daylight	Road Surface Condition Dry		Total Lanes 02	Speed Limit 35	Posted Yes
Work Zone (if applicable) Type												
Workers Present				Activity				Location				

LOCATION	Prefix	Primary Road Name COOLIDGE	Road Type HWY	Suffix	Divided Roadway
	Distance / Direction 50 Feet N	<div>Trafficway</div> <div>Divided Hwy wo/Barrier</div>			
	Prefix	Intersecting Road Name TRAFFORD	Road Type RD	Suffix	Divided Roadway

UNIT/DRIVER	Unit Number	Unit Known	State Driver License Number		Date of Birth (Age)		License Type <input type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped		Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation		Sex	Race	Total Occupants	Hazardous Action	
	Unit Type	Driver Information				Driver is Owner	Injury	Position			Restraint				
	Driver Condition at Time of Crash 1st					2nd			Driver Distracted By			Ejected	Trapped	Airbag Deployed	
	Hospital						Ambulance								
	Alcohol Suspected	Contributing Factor	Alcohol Test Type <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Refused <input type="radio"/> Not Offered				Alcohol Test Results <input type="radio"/> Pending   Test Results:			Interlock Device					
	Drug Suspected	Contributing Factor	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input type="radio"/> Not Offered				Drug Test Results <input type="radio"/> Pending   Test Results:			Citation Issued <input type="radio"/> Hazardous <input type="radio"/> Other					
	Vehicle Registration		State	Vehicle Description		Year	Make	Model			Color				
	VIN		Vehicle Type			Special Vehicles			Private Trailer Type			Vehicle Defect			
	Automation System(s) in Vehicle		Automation System Level in Vehicle						Automation System Level Engaged at Time of Crash						
	Insurance Company			Insurance Policy #				Towed By				Towed To			
Location of Greatest Damage		First Impact	Extent of Damage (Power Unit and/or Trailers)			Vehicle Direction	Vehicle Use				Action Prior				
Sequence of Events (● indicates MOST harmful event)		First			Second			Third			Fourth				

PASSENGERS	Passenger Information			Date of Birth (Age)		Sex	Race	Position		Restraint
				Injury	Ejected	Trapped	Airbag Deployed			
	Hospital					Ambulance				
	Passenger Information			Date of Birth (Age)		Sex	Race	Position		Restraint
				Injury	Ejected	Trapped	Airbag Deployed			
	Hospital					Ambulance				

TRUCK/BUS	Carrier Information			USDOT			MC		MPSC		
				Driver's CDL Type			Endorsements <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> T <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> X		CDL Exempt <input type="checkbox"/> Farm <input type="checkbox"/> Other		
	GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.			Vehicle Configuration		Cargo Body Type		Medical Card		Hazardous Material <input type="checkbox"/> Placard <input type="checkbox"/> Cargo Spill	
	ID #		Class #								

OWNERS	Owner Information	Owner Information

Damaged Property 08-TRAFFIC SIGN/POST	Public Yes	Owner & Phone ##### (###) ###-####
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UNIT / DRIVER	Unit Number	Unit Known	State	Driver License Number	Date of Birth (Age)	License Type <input type="radio"/> Operator <input type="radio"/> Chauffeur <input type="radio"/> Moped	Endorsements <input type="radio"/> Cycle <input type="radio"/> Farm <input type="radio"/> Recreation	Sex	Race	Total Occupants	Hazardous Action	
	Unit Type	Driver Information				Driver is Owner	Injury	Position		Restraint		
	Driver Condition at Time of Crash 1st 2nd				Driver Distracted By			Ejected	Trapped	Airbag Deployed		
	Hospital					Ambulance						
	Alcohol Suspected	Contributing Factor	Alcohol Test Type <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Refused <input type="radio"/> Not Offered			Alcohol Test Results <input type="radio"/> Pending Test Results:		Interlock Device				
	Drug Suspected	Contributing Factor	Drug Test Type <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Field <input type="radio"/> Refused <input type="radio"/> Not Offered			Drug Test Results <input type="radio"/> Pending Test Results:		Citation Issued <input type="radio"/> Hazardous <input type="radio"/> Other				
	Vehicle Registration		State	Vehicle Description	Year	Make	Model		Color			
	VIN		Vehicle Type		Special Vehicles		Private Trailer Type		Vehicle Defect			
	Automation System(s) in Vehicle		Automation System Level in Vehicle				Automation System Level Engaged at Time of Crash					
	Insurance Company			Insurance Policy #			Towed By			Towed To		
	Location of Greatest Damage		First Impact	Extent of Damage (Power Unit and/or Trailers)		Vehicle Direction	Vehicle Use			Action Prior		
	Sequence of Events		First	Second		Third		Fourth				
	(● indicates MOST harmful event)											
	PASSENGERS	Passenger Information				Date of Birth (Age)	Sex	Race	Position		Restraint	
				Injury	Ejected	Trapped	Airbag Deployed					
Hospital				Ambulance								
Passenger Information				Date of Birth (Age)	Sex	Race	Position		Restraint			
				Injury	Ejected	Trapped	Airbag Deployed					
Hospital				Ambulance								
TRUCK / BUS	Carrier Information					USDOT		MC	MPSC			
						Driver's CDL Type		Endorsements <input type="radio"/> H <input type="radio"/> P <input type="radio"/> T <input type="radio"/> N <input type="radio"/> S <input type="radio"/> X	CDL Exempt <input type="radio"/> Farm <input type="radio"/> Other			
	GVWR/GCWR <input type="radio"/> 10,000 lbs. or Less <input type="radio"/> 10,001 - 26,000 lbs. <input type="radio"/> Greater than 26,000 lbs.		Vehicle Configuration			Cargo Body Type		Medical Card	Hazardous Material <input type="radio"/> Placard <input type="radio"/> Cargo Spill		ID #	Class #
OWNERS	Owner Information					Owner Information						
WITNESS	Witness Information					Witness Information						
Investigated at Scene		Reported Date (Time)		1st Investigator Name (Badge)		2nd Investigator Name (Badge)			Photos			
Narrative					Diagram							

**From:** [noreply@civicplus.com](mailto:noreply@civicplus.com)  
**To:** [Engineering Division](#)  
**Subject:** Online Form Submittal: Traffic Committee Request  
**Date:** Tuesday, May 21, 2024 1:48:23 PM

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## Traffic Committee Request

**Please complete required fields and submit.**

Name	Ari Zartarian
Email Address	ari@thelegacyequities.com
Street Address	2804 Coolidge Highway
Phone Number	248-767-4366
Location of Concern	Coolidge Highway Northbound Between Trafford and Warrick
Type of Issue	Safety
Detailed Description of Concern	I own the apartment building that sits on Coolidge Highway between Trafford and Warrick and as of yesterday three vehicles have crashed into the building over the course of the last 24 months. Each crash has resulted in injuries to the drivers and tenants, extensive damage to my building, the displacement of residents, and a general uneasiness by everyone that lives or works at the property. For varying reasons, drivers are not properly veering to the left at the curve on Coolidge North of the Cemetery, and I'm getting news reporters, neighbors and residents asking me why a barrier or guard rail hasn't been installed on the road. Tenants are asking to vacate from the property for fear of another vehicle striking and maintenance workers are reluctant to do work on the Coolidge facing side of the property.
Proposed Solution	It seems a simple and obvious solution would be to put some sort of guard rail along the East side of Coolidge highway at the turn, that would stop vehicles from jumping that curb and striking the building.
Media Upload	<a href="#">View recent photos.jpeg</a>
Important	I have the reviewed the Traffic Committee's Frequently Asked Questions (FAQ) regarding traffic requests and concerns

(Section Break)

### Neighborhood Support

Analyzing traffic requests can take a significant amount of staff time,

and we require neighborhood support for a particular issue before beginning review.

Please provide at least two neighbors' contact information, who are in agreement with your concerns or request. **They must be from separate households.** They will be notified if this item is brought to the Traffic Committee.

Name	Richard Dewitt
Address	2804 Coolidge Highway, Apt. 24
Email	jumpsteady1965@yahoo.com
Name	Nick Marrogy
Address	2808 Coolidge Highway, Apt. 26
Email	nickmarrogy@gmail.com

Email not displaying correctly? [View it in your browser.](#)

## Royal Oak Traffic Committee INFORMATION ITEM

<b>Title</b>	<b>Update on Morse Avenue and Harrison Avenue Traffic Counts</b>
<b>SUBMITTING DEPARTMENT</b>	<b>Engineering</b>
<b>PRESENTER</b>	<b>Holly Donoghue, P.E.</b>
<b>MEETING DATE</b>	<b>July 23, 2024</b>

### Traffic Concern:

At the May 23, 2023 traffic meeting, the committee reviewed speeding concerns on E. Harrison Avenue and Morse Avenue. The committee did not recommend any changes to these streets, but recommended that staff re-study these streets one year later to determine if the data was still representative.

### Staff Analysis:

The Staff Traffic Committee has reviewed this request and determined that:

1. An image of the study location is shown below.



2. Staff ordered new traffic counts and the data from 2023 and 2024 are provided for comparison below:



Data Collected	Location	85th Percentile Speed (mph)	Vehicles Per Day
March 6-9, 2023	E Harrison Avenue (between Knowles and Morse)	25	1,642
June 11-13, 2024		25	1,547
March 6-9, 2023	Morse Avenue (south of E. Harrison)	23	1,296
June 11-13, 2024		23	1,446

3. The three-year (2021-2023) accident report shows two accidents:
  - a. Failure to yield to Harrison driver when turning left out of Diamond Court driveway.
  - b. Vehicle on Harrison backed into a driver exiting Diamond Court.
4. The speed and volume results were very similar between the two studies, and the crash report did not indicate a significant issue on either corridor. No further analysis is recommended.



## Transportation Improvement Association

### E. Harrison (Knowles to Morse)andMorse (Harrison to Parent)

#1 Location: E HARRISON (0.279) 148 feet Eof KNOWLES

Crash ID: 2881002

Date: 04/25/2023 Day: Tue Hour: 7am Weather: cloudy

Roadway: dry

Light: day

Injy K: 0 Injy A: 0 Injy B: 0 Injy C: 0

Injy 0: 2

How: angle

CVT: Royal Oak

Area: w/i intersection

HBD: N

Drugs: N

Complaint #: 230014464

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	N	left turn	veh in transpt	none	none	none	failed to yield	car	rtfront
2	E	go straight	veh in transpt	none	none	none	none	car	rtside

UD10: [2881002](#)

#2 Location: E HARRISON (0.286) 180 feet Wof MORSE

Crash ID: 3040916

Date: 10/30/2023 Day: Mon Hour: 1pm Weather: cloudy

Roadway: dry

Light: day

Injy K: 0 Injy A: 0 Injy B: 0 Injy C: 0

Injy 0: 2

How: back

CVT: Royal Oak

Area: w/i intersection

HBD: N

Drugs: N

Complaint #: 230038166

Unit#	Veh Dir	Action Prior	Event 1	Event 2	Event 3	Event 4	Haz Action	Veh Type	Damage
1	N	stop on road	veh in transpt	none	none	none	unknown	car	rtfront
2	E	backing	veh in transpt	none	none	none	none	truck/bus	none

UD10: [3040916](#)

## Crash Type

Count	Type
0	uncoded
0	single
0	head-on
0	head-on/lt
1	angle
0	rr-end
0	rr-end/lt
0	rr-end/rt
0	ss-same
0	ss-opp
1	back
0	other
0	unknown
<b>Totals</b>	<b>2</b>

## Lighting Conditions

Count	Type
0	uncoded
2	day
0	dawn
0	dusk
0	dark/ltl
0	dark/unltd
0	other
0	unknown
<b>Totals</b>	<b>2</b>

## Weather Conditions

Count	Type
0	uncoded
0	clear
2	cloudy
0	fog
0	rain
0	snow
0	wind
0	sleet/hail
0	blowing snow
0	blowing sand
0	smoke
0	unknown
<b>Totals</b>	<b>2</b>

## Road Condition

Count	Type
0	uncoded
2	dry
0	wet
0	ice
0	snow
0	mud
0	slush
0	debris
0	water
0	sand
0	oily
0	other
0	unknown
<b>Totals</b>	<b>2</b>

## Crashes by Month

Count	Type
0	January
0	February
0	March
1	April
0	May
0	June
0	July
0	August
0	September
1	October
0	November
0	December
<b>Totals</b>	<b>2</b>

## Hazardous Action

Count	Type
2	none
0	speeding
0	spd too slow
1	failed to yield
0	disrgd traffic cntrl
0	wrong way
0	left of center
0	imprp passing
0	imprp lane use
0	imprp turn
0	imprp/no signal
0	imprp backing
0	unable to stop
0	other
1	unknown
0	reckls driving
0	carels driving
<b>Totals</b>	<b>4</b>

## Unit Type

Count	Type
0	Bicyclist
0	Engineer
4	Vehicle
0	Pedestrian
<b>Totals</b>	<b>4</b>

## Crashes by Year

Count	Type
2	2023
<b>Totals</b>	<b>2</b>

## Crash Severity

	Fatal	A	B	C	No Injy	Total
Persons	0	0	0	0	0	0
Crashes	0	0	0	0	2	2

## Alcohol in Crashes

	Fatal	A	B	C	PDO	Total
Drinking	0	0	0	0	0	0
Not Drinking	0	0	0	0	2	2
Totals	0	0	0	0	2	2

## Crashes per Hour by Day

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
12a-1a	0	0	0	0	0	0	0	0
1a-2a	0	0	0	0	0	0	0	0
2a-3a	0	0	0	0	0	0	0	0
3a-4a	0	0	0	0	0	0	0	0
4a-5a	0	0	0	0	0	0	0	0
5a-6a	0	0	0	0	0	0	0	0
6a-7a	0	0	0	0	0	0	0	0
7a-8a	0	0	1	0	0	0	0	1
8a-9a	0	0	0	0	0	0	0	0
9a-10a	0	0	0	0	0	0	0	0
10a-11a	0	0	0	0	0	0	0	0
11a-12p	0	0	0	0	0	0	0	0
12p-1p	0	0	0	0	0	0	0	0
1p-2p	0	1	0	0	0	0	0	1
2p-3p	0	0	0	0	0	0	0	0
3p-4p	0	0	0	0	0	0	0	0
4p-5p	0	0	0	0	0	0	0	0
5p-6p	0	0	0	0	0	0	0	0
6p-7p	0	0	0	0	0	0	0	0
7p-8p	0	0	0	0	0	0	0	0
8p-9p	0	0	0	0	0	0	0	0
9p-10p	0	0	0	0	0	0	0	0
10p-11p	0	0	0	0	0	0	0	0
11p-12a	0	0	0	0	0	0	0	0
Totals	0	1	1	0	0	0	0	2



# City of Royal Oak

72-Hour Volume & Speed Counts:

1. E Harrison Ave, Knowles St to Morse Ave
2. Morse Ave, E Parent Ave to E Harrison Ave

Legend





# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: EB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/10/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	3	0	1	0	7	7	3	6	1	0	0	0	28
10:00	0	1	0	1	3	5	9	4	3	2	0	0	0	28
11:00	0	0	1	1	2	10	15	8	6	2	0	0	0	45
12:00 PM	0	2	3	5	7	10	9	2	5	1	1	1	0	46
1:00	0	1	2	4	5	10	14	13	1	5	0	0	0	55
2:00	0	0	1	2	3	12	10	12	6	1	0	0	0	47
3:00	0	1	3	2	2	14	15	19	4	1	1	0	1	63
4:00	0	0	2	5	13	21	22	11	6	4	0	0	0	84
5:00	0	1	5	5	4	25	20	15	12	2	0	0	0	89
6:00	0	0	1	5	6	23	13	14	8	2	0	0	0	72
7:00	0	0	2	5	11	15	14	2	0	1	0	0	0	50
8:00	0	1	1	1	6	19	5	8	3	2	1	0	0	47
9:00	0	0	2	3	3	5	12	8	2	0	0	0	0	35
10:00	1	1	0	1	3	0	2	6	5	2	0	0	0	21
11:00	0	0	0	0	0	2	1	1	3	0	0	0	0	7
Total	1	11	23	41	68	178	168	126	70	26	3	1	1	717

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: EB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/11/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	2	0	0	2	0	1	1	0	0	0	6
1:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	1	1	4	1	0	0	0	0	7
6:00	0	1	0	1	0	2	3	1	1	2	0	0	0	11
7:00	1	1	0	0	2	5	9	3	0	0	0	0	0	21
8:00	0	2	1	1	3	7	6	5	0	1	0	0	0	26
9:00	0	0	0	1	1	7	6	1	1	3	0	0	0	20
10:00	1	0	1	0	4	10	7	6	2	1	1	0	0	33
11:00	0	0	1	3	3	8	11	4	2	0	0	0	0	32
12:00 PM	0	1	2	2	10	10	8	10	2	0	0	0	0	45
1:00	3	2	2	1	7	17	7	9	5	0	0	0	0	53
2:00	3	1	4	7	9	14	13	5	5	0	0	0	0	61
3:00	0	0	2	2	4	16	18	4	0	0	0	0	0	46
4:00	0	0	0	9	18	23	35	13	1	1	0	0	0	100
5:00	2	1	6	7	17	28	31	13	0	0	0	0	0	105
6:00	1	1	2	6	8	22	18	5	2	0	0	0	0	65
7:00	0	1	6	10	10	22	11	4	0	0	0	0	0	64
8:00	0	0	2	6	12	9	9	5	0	0	0	0	0	43
9:00	1	0	2	3	5	19	8	4	0	0	0	0	0	42
10:00	0	0	0	1	3	3	4	4	1	0	0	0	0	16
11:00	0	0	1	0	1	2	1	1	0	0	0	0	0	6
Total	12	11	32	62	117	225	208	103	24	9	1	0	0	804

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Troy, Michigan 48083

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Location 3:

Location 4:

Direction: EB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/12/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	1	1	1	1	0	0	0	0	4
1:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	1	1	0	0	0	0	0	2
3:00	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	1	0	0	0	1	2	1	1	0	0	0	0	6
6:00	1	2	0	3	3	3	4	3	1	1	0	0	0	21
7:00	1	1	0	0	5	3	4	0	0	0	0	0	0	14
8:00	1	2	1	3	7	6	7	3	1	0	0	0	0	31
9:00	0	0	0	0	5	10	7	4	4	0	0	0	0	30
10:00	1	3	2	1	4	11	9	0	0	0	0	0	0	31
11:00	0	0	4	4	8	9	3	2	0	0	0	0	0	30
12:00 PM	0	4	2	3	5	17	9	9	1	0	0	0	0	50
1:00	0	0	0	3	11	6	6	5	0	0	0	0	0	31
2:00	0	1	2	4	10	18	15	5	1	0	0	0	0	56
3:00	0	1	3	5	6	20	13	8	2	0	0	0	0	58
4:00	0	1	3	4	10	19	14	12	1	0	0	0	0	64
5:00	0	0	2	9	10	26	26	10	5	0	0	0	0	88
6:00	1	1	3	7	12	11	19	13	2	1	0	0	0	70
7:00	1	2	1	5	8	12	8	2	0	0	0	0	0	39
8:00	0	0	0	6	9	13	4	2	0	0	0	0	0	34
9:00	1	0	2	5	11	7	5	4	1	0	1	0	0	37
10:00	0	0	1	1	1	3	2	1	0	0	0	0	0	9
11:00	0	0	0	1	2	5	0	0	0	0	0	0	0	8
Total	7	19	26	66	127	202	159	86	21	2	1	0	0	716



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Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

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Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: EB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/13/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	1	3	2	5	3	2	0	0	0	0	16
1:00	0	0	0	1	1	0	0	0	1	0	0	0	0	3
2:00	0	0	0	0	0	1	1	0	0	0	0	0	0	2
3:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	1	1	0	0	1	0	0	0	3
6:00	1	0	0	2	2	1	1	4	1	0	0	0	0	12
7:00	0	4	0	1	3	8	3	2	0	0	0	0	0	21
8:00	0	1	0	0	4	13	6	4	0	0	0	0	0	28
9:00	0	1	1	3	8	12	4	3	1	0	0	0	0	33
10:00	0	2	1	3	8	8	5	1	0	1	1	0	0	30
11:00	3	0	2	0	5	15	3	4	2	0	0	0	0	34
12:00 PM	0	1	0	4	6	9	3	2	3	0	0	0	1	29
1:00	1	0	2	2	3	13	7	5	3	0	0	0	0	36
2:00	0	0	2	3	6	14	11	3	0	1	0	0	0	40
3:00	0	1	1	8	10	11	13	6	1	0	0	0	0	51
4:00	1	1	1	7	15	23	17	7	2	0	0	0	0	74
5:00	0	1	4	11	18	16	18	9	5	1	0	0	0	83
6:00	1	0	3	7	6	22	12	7	0	0	0	0	0	58
7:00	1	0	5	6	12	22	8	1	0	0	0	0	0	55
8:00	0	0	2	1	7	12	6	3	0	0	0	0	0	31
9:00	1	1	4	3	12	14	7	3	0	0	0	0	0	45
10:00	0	0	2	2	5	5	0	1	0	0	0	0	0	15
11:00	0	0	1	1	2	9	2	0	0	0	0	0	0	15
Total	9	13	31	66	137	232	133	68	21	4	1	0	1	716

# Transportation Improvement Association

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Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: EB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/14/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	2	3	3	0	0	0	0	0	0	8
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	1	2	0	0	0	0	0	0	3
3:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	1	1	0	1	2	0	0	0	0	0	0	0	5
6:00	1	1	0	0	3	3	2	3	0	0	0	0	0	13
7:00	0	1	2	2	1	8	0	2	1	0	0	0	0	17
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	1	3	3	2	8	17	7	5	1	0	0	0	0	47
Grand Total	30	57	115	237	457	854	675	388	137	41	6	1	1	3000

Stats

Percentile

15th

50th

85th

95th

Speed

12

17

22

25

Mean Speed (Average)

17.0

10 MPH Pace Speed

12-21

Number in Pace

2110

Percent in Pace

70.3%

Number > 24 MPH

187

Percent > 24 MPH

6.2%

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: WB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/10/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	0	4	3	6	8	20	6	8	1	1	1	0	58
10:00	0	0	3	3	1	6	8	6	7	3	3	1	0	42
11:00	2	0	1	0	5	10	14	8	4	2	1	0	0	47
12:00 PM	0	0	3	1	4	7	9	6	4	2	2	0	0	38
1:00	0	0	0	1	2	3	9	10	8	4	1	0	0	38
2:00	0	0	0	1	2	7	13	8	7	2	2	1	0	43
3:00	0	0	0	0	1	8	15	14	9	2	0	0	0	49
4:00	0	0	1	4	3	13	23	11	3	4	0	0	0	62
5:00	0	0	1	2	3	12	22	15	3	3	0	0	0	61
6:00	1	0	4	1	3	15	16	10	1	4	2	0	1	58
7:00	1	0	0	2	3	9	12	12	7	4	0	0	0	50
8:00	0	0	1	1	4	5	4	5	3	1	1	0	0	25
9:00	0	0	0	1	1	5	2	5	1	0	0	0	0	15
10:00	0	0	0	0	2	1	0	1	0	0	0	0	0	4
11:00	0	0	1	0	0	1	1	1	1	0	0	0	0	5
Total	4	0	19	20	40	110	168	118	66	32	13	3	1	595

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Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: WB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/11/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	1	1	0	0	0	1	0	0	0	3
1:00	0	0	0	0	0	0	0	0	0	1	0	0	0	1
2:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00	0	0	0	1	0	0	4	3	2	0	2	0	0	12
6:00	0	1	0	1	3	2	7	3	9	4	3	0	0	33
7:00	0	0	0	0	5	3	18	17	9	8	5	1	0	66
8:00	0	1	5	2	5	9	12	16	9	11	4	2	1	78
9:00	0	0	1	1	3	2	8	8	6	2	2	2	1	36
10:00	0	0	0	0	0	3	9	6	5	4	3	4	0	34
11:00	0	0	0	1	4	3	7	10	5	1	3	1	0	35
12:00 PM	0	0	1	0	3	11	16	14	5	1	0	0	2	53
1:00	0	0	1	0	4	4	10	7	8	4	2	1	0	41
2:00	1	0	3	2	4	6	22	14	3	2	0	0	1	58
3:00	0	0	1	2	4	5	12	11	7	4	1	0	0	47
4:00	0	0	4	2	3	7	15	15	12	5	1	1	1	67
5:00	1	0	0	0	4	13	20	20	15	11	0	0	0	84
6:00	0	0	2	1	4	11	25	17	14	4	1	1	0	80
7:00	0	0	0	2	3	11	16	9	4	4	0	1	0	50
8:00	0	0	1	1	4	6	7	5	6	1	0	0	0	31
9:00	0	0	0	0	3	11	6	3	0	2	0	0	0	25
10:00	0	0	0	1	0	1	2	5	3	3	1	0	0	16
11:00	0	0	0	0	0	0	1	1	2	0	0	0	1	5
Total	2	2	19	17	57	110	217	185	124	72	29	14	7	857

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Location 2: Royal Oak

Location 3:

Location 4:

Direction: WB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/12/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:00	0	0	0	0	0	1	1	0	0	1	0	0	0	3
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	1	0	0	0	1
5:00	0	0	0	0	0	1	3	3	1	4	1	0	0	13
6:00	0	0	0	2	1	1	3	9	5	2	3	1	0	27
7:00	0	0	0	1	1	7	9	16	8	8	3	2	0	56
8:00	0	2	1	2	6	3	10	11	12	8	6	3	0	64
9:00	0	0	1	2	1	5	9	5	6	3	2	0	0	35
10:00	0	0	0	2	1	4	12	10	6	3	1	0	0	40
11:00	0	0	0	1	2	7	11	15	5	6	3	2	0	52
12:00 PM	0	0	0	2	4	9	22	16	9	4	5	0	0	71
1:00	0	0	0	2	5	7	9	11	5	2	2	0	0	43
2:00	0	0	1	2	6	9	13	12	7	5	2	1	1	59
3:00	0	0	0	2	6	6	11	15	8	6	2	2	0	58
4:00	0	0	0	1	1	13	17	11	12	7	3	1	0	66
5:00	0	0	2	2	3	11	14	17	11	9	1	0	0	70
6:00	1	0	1	2	6	11	13	11	9	6	0	1	2	63
7:00	0	0	1	1	3	6	5	4	4	0	0	0	0	24
8:00	0	0	0	2	4	7	15	7	2	2	2	0	0	41
9:00	0	0	1	0	6	4	3	4	3	1	0	0	0	22
10:00	0	0	1	0	0	1	2	1	1	0	0	1	0	7
11:00	0	0	0	0	0	2	1	2	0	1	1	1	0	8
Total	1	2	9	26	56	115	183	180	114	79	37	15	4	824

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: WB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/13/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	1	0	0	4	2	1	2	0	0	0	10
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	1	2	1	1	0	2	0	0	7
6:00	0	0	0	1	0	2	5	4	6	1	3	3	0	25
7:00	0	0	0	3	1	4	12	11	11	5	2	0	0	49
8:00	0	0	2	2	4	9	9	15	12	4	3	1	1	63
9:00	0	0	0	2	4	5	12	5	3	3	1	1	2	38
10:00	0	0	0	0	6	4	8	6	1	4	0	1	0	30
11:00	0	0	1	1	0	4	8	12	5	3	0	0	1	35
12:00 PM	0	0	1	1	2	4	9	7	8	4	1	1	0	38
1:00	0	0	0	0	1	5	8	11	7	5	0	4	0	41
2:00	0	0	0	4	3	5	5	5	3	1	2	1	1	30
3:00	0	0	0	1	1	7	13	8	6	6	3	1	0	46
4:00	1	0	1	1	2	12	10	13	5	6	1	1	0	53
5:00	0	0	3	2	3	15	17	17	10	9	4	0	0	80
6:00	0	0	1	0	5	14	16	24	17	12	3	0	0	92
7:00	0	0	1	1	4	5	8	11	10	2	0	0	0	43
8:00	0	0	0	2	1	7	11	3	4	5	0	0	0	33
9:00	0	0	0	2	1	6	6	3	2	0	2	0	0	22
10:00	0	0	0	0	0	1	3	1	0	0	0	0	0	5
11:00	0	0	0	3	0	2	1	0	0	0	0	0	0	6
Total	1	0	10	27	38	112	167	160	112	72	27	14	5	747

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: WB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/14/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	2
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	1	0	0	0	1	0	0	0	0	0	2
3:00	0	0	0	0	0	0	0	1	1	0	1	0	0	3
4:00	0	0	0	0	0	0	1	1	0	0	0	0	0	2
5:00	0	0	0	0	1	0	1	1	1	0	0	0	0	4
6:00	0	0	0	0	0	1	5	4	5	2	0	2	0	19
7:00	0	0	0	0	2	7	8	9	4	5	3	0	0	39
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	0	0	0	1	3	9	16	16	11	8	3	3	0	71
Grand Total	8	4	57	91	194	456	751	659	427	263	109	49	17	3094

Stats

Percentile

15th

50th

85th

95th

Speed

16

21

27

30

Mean Speed (Average)

21.5

10 MPH Pace Speed

15-24

Number in Pace

2001

Percent in Pace

64.7%

Number > 24 MPH

874

Percent > 24 MPH

28.2%

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/10/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	3	4	4	6	15	27	9	14	2	1	1	0	86
10:00	0	1	3	4	4	11	17	10	10	5	3	1	0	70
11:00	2	0	2	1	7	20	29	16	10	4	1	0	0	92
12:00 PM	0	2	6	6	11	17	18	8	9	3	3	1	0	84
1:00	0	1	2	5	7	13	23	23	9	9	1	0	0	93
2:00	0	0	1	3	5	19	23	20	13	3	2	1	0	90
3:00	0	1	3	2	3	22	30	33	13	3	1	0	1	112
4:00	0	0	3	9	16	34	45	22	9	8	0	0	0	146
5:00	0	1	6	7	7	37	42	30	15	5	0	0	0	150
6:00	1	0	5	6	9	38	29	24	9	6	2	0	1	130
7:00	1	0	2	7	14	24	26	14	7	5	0	0	0	100
8:00	0	1	2	2	10	24	9	13	6	3	2	0	0	72
9:00	0	0	2	4	4	10	14	13	3	0	0	0	0	50
10:00	1	1	0	1	5	1	2	7	5	2	0	0	0	25
11:00	0	0	1	0	0	3	2	2	4	0	0	0	0	12
Total	5	11	42	61	108	288	336	244	136	58	16	4	2	1312



# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/11/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	2	1	1	2	0	1	2	0	0	0	9
1:00	0	0	0	0	0	0	0	1	0	0	1	0	0	2
2:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00	0	0	0	1	0	1	5	7	3	0	2	0	0	19
6:00	0	2	0	2	3	4	10	4	10	6	3	0	0	44
7:00	1	1	0	0	7	8	27	20	9	8	5	1	0	87
8:00	0	3	6	3	8	16	18	21	9	12	4	2	1	104
9:00	0	0	1	2	4	9	14	9	7	5	2	2	1	56
10:00	1	0	1	0	4	13	16	12	7	5	4	4	0	67
11:00	0	0	1	4	7	11	18	14	7	1	3	1	0	67
12:00 PM	0	1	3	2	13	21	24	24	7	1	0	0	2	98
1:00	3	2	3	1	11	21	17	16	13	4	2	1	0	94
2:00	4	1	7	9	13	20	35	19	8	2	0	0	1	119
3:00	0	0	3	4	8	21	30	15	7	4	1	0	0	93
4:00	0	0	4	11	21	30	50	28	13	6	1	1	1	167
5:00	3	1	6	7	21	41	51	33	15	11	0	0	0	189
6:00	1	1	4	7	12	33	43	22	16	4	1	1	0	145
7:00	0	1	6	12	13	33	27	13	4	4	0	1	0	114
8:00	0	0	3	7	16	15	16	10	6	1	0	0	0	74
9:00	1	0	2	3	8	30	14	7	0	2	0	0	0	67
10:00	0	0	0	2	3	4	6	9	4	3	1	0	0	32
11:00	0	0	1	0	1	2	2	2	2	0	0	0	1	11
Total	14	13	51	79	174	335	425	288	148	81	30	14	7	1661

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/12/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	1	1	1	1	0	0	0	1	0
1:00	0	0	0	1	0	1	1	0	0	1	0	0	0	4
2:00	0	0	0	0	0	0	1	1	0	0	0	0	0	2
3:00	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00	0	1	0	0	0	2	5	4	2	4	1	0	0	19
6:00	1	2	0	5	4	4	7	12	6	3	3	1	0	48
7:00	1	1	0	1	6	10	13	16	8	8	3	2	0	70
8:00	1	4	2	5	13	9	17	14	13	8	6	3	0	95
9:00	0	0	1	2	6	15	16	9	10	3	2	0	0	65
10:00	1	3	2	3	5	15	21	10	6	3	1	0	0	71
11:00	0	0	4	5	10	16	14	17	5	6	3	2	0	82
12:00 PM	0	4	2	5	9	26	31	25	10	4	5	0	0	121
1:00	0	0	0	5	16	13	15	16	5	2	2	0	0	74
2:00	0	1	3	6	16	27	28	17	8	5	2	1	1	115
3:00	0	1	3	7	12	26	24	23	10	6	2	2	0	116
4:00	0	1	3	5	11	32	31	23	13	7	3	1	0	130
5:00	0	0	4	11	13	37	40	27	16	9	1	0	0	158
6:00	2	1	4	9	18	22	32	24	11	7	0	1	2	133
7:00	1	2	2	6	11	18	13	6	4	0	0	0	0	63
8:00	0	0	0	8	13	20	19	9	2	2	2	0	0	75
9:00	1	0	3	5	17	11	8	8	4	1	1	0	0	59
10:00	0	0	2	1	1	4	4	2	1	0	0	1	0	16
11:00	0	0	0	1	2	7	1	2	0	1	1	1	0	16
Total	8	21	35	92	183	317	342	266	135	81	38	15	4	1540

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/13/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	2	3	2	9	5	3	2	0	0	0	26
1:00	0	0	0	1	1	0	0	0	1	0	0	0	0	3
2:00	0	0	0	0	0	1	1	0	0	0	0	0	0	2
3:00	0	0	0	0	1	1	0	1	0	0	0	0	0	3
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	2	3	1	1	1	2	0	0	10
6:00	1	0	0	3	2	3	6	8	7	1	3	3	0	37
7:00	0	4	0	4	4	12	15	13	11	5	2	0	0	70
8:00	0	1	2	2	8	22	15	19	12	4	3	1	1	91
9:00	0	1	1	5	12	17	16	8	4	3	1	1	2	71
10:00	0	2	1	3	14	12	13	7	1	5	1	1	0	60
11:00	3	0	3	1	5	19	11	16	7	3	0	0	1	69
12:00 PM	0	1	1	5	8	13	12	9	11	4	1	1	0	67
1:00	1	0	2	2	4	18	15	16	10	5	0	4	0	77
2:00	0	0	2	7	9	19	16	8	3	2	2	1	1	70
3:00	0	1	1	9	11	18	26	14	7	6	3	1	0	97
4:00	2	1	2	8	17	35	27	20	7	6	1	1	0	127
5:00	0	1	7	13	21	31	35	26	15	10	4	0	0	163
6:00	1	0	4	7	11	36	28	31	17	12	3	0	0	150
7:00	1	0	6	7	16	27	16	12	10	2	0	0	0	98
8:00	0	0	2	3	8	19	17	6	4	5	0	0	0	64
9:00	1	1	4	5	13	20	13	6	2	0	2	0	0	67
10:00	0	0	2	2	5	6	3	2	0	0	0	0	0	20
11:00	0	0	1	4	2	11	3	0	0	0	0	0	0	21
Total	10	13	41	93	175	344	300	228	133	76	28	14	5	1463

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/14/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	2	4	4	0	0	0	0	0	0	10
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	1	0	1	2	1	0	0	0	0	0	5
3:00	0	0	0	0	1	0	0	1	1	0	1	0	0	4
4:00	0	0	0	0	0	0	1	1	0	0	0	0	0	2
5:00	0	1	1	0	2	2	1	1	1	0	0	0	0	9
6:00	1	1	0	0	3	4	7	7	5	2	0	2	0	32
7:00	0	1	2	2	3	15	8	11	5	5	3	0	0	56
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	1	3	3	3	11	26	23	21	12	8	3	3	0	118
Grand Total	38	61	172	328	651	1310	1426	1047	564	304	115	50	18	6094

Stats

Percentile

15th

50th

85th

95th

Speed

14

19

25

29

Mean Speed (Average)

19.3

10 MPH Pace Speed

14-23

Number in Pace

3987

Percent in Pace

65.4%

Number > 24 MPH

1061

Percent > 24 MPH

17.4%

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: HARRISON btwn KNOWLE

Station ID:

Location 1: E Harrison Ave btwn Knowles St and Morse Ave

Location 2: Royal Oak

Location 3:

Location 4:

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/10/2024	6/10/2024		6/11/2024		6/12/2024		6/13/2024		6/14/2024		Weekday Average		6/15/2024		6/16/2024	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	6	3	4	1	16	10	8	2	8	4	*	*	*	*
1:00	*	*	1	1	1	3	3	0	0	0	1	1	*	*	*	*
2:00	*	*	0	1	2	0	2	0	3	2	2	1	*	*	*	*
3:00	*	*	1	0	2	0	2	1	1	3	2	1	*	*	*	*
4:00	*	*	0	1	0	1	0	0	0	2	0	1	*	*	*	*
5:00	*	*	7	12	6	13	3	7	5	4	5	9	*	*	*	*
6:00	*	*	11	33	21	27	12	25	13	19	14	26	*	*	*	*
7:00	*	*	21	66	14	56	21	49	17	39	18	52	*	*	*	*
8:00	*	*	26	78	31	64	28	63	*	*	28	68	*	*	*	*
9:00	28	58	20	36	30	35	33	38	*	*	28	42	*	*	*	*
10:00	28	42	33	34	31	40	30	30	*	*	30	36	*	*	*	*
11:00	45	47	32	35	30	52	34	35	*	*	35	42	*	*	*	*
12:00 PM	46	38	45	53	50	71	29	38	*	*	42	50	*	*	*	*
1:00	55	38	53	41	31	43	36	41	*	*	44	41	*	*	*	*
2:00	47	43	61	58	56	59	40	30	*	*	51	48	*	*	*	*
3:00	63	49	46	47	58	58	51	46	*	*	54	50	*	*	*	*
4:00	84	62	100	67	64	66	74	53	*	*	80	62	*	*	*	*
5:00	89	61	105	84	88	70	83	80	*	*	91	74	*	*	*	*
6:00	72	58	65	80	70	63	58	92	*	*	66	73	*	*	*	*
7:00	50	50	64	50	39	24	55	43	*	*	52	42	*	*	*	*
8:00	47	25	43	31	34	41	31	33	*	*	39	32	*	*	*	*
9:00	35	15	42	25	37	22	45	22	*	*	40	21	*	*	*	*
10:00	21	4	16	16	9	7	15	5	*	*	15	8	*	*	*	*
11:00	7	5	6	5	8	8	15	6	*	*	9	6	*	*	*	*
Total	717	595	804	857	716	824	716	747	47	71	754	790	0	0	0	0
Day	1312		1661		1540		1463		118		1544		0		0	
AM Peak	11:00	9:00	10:00	8:00	8:00	8:00	11:00	8:00	7:00	7:00	11:00	8:00				
Volume	45	58	33	78	31	64	34	63	17	39	35	68				
PM Peak	5:00	4:00	5:00	5:00	5:00	12:00 PM	5:00	6:00			5:00	5:00				
Volume	89	62	105	84	88	71	83	92			91	74				
Comb Total	1312		1661		1540		1463		118		1544		0		0	
ADT	ADT: 1,547		AADT: 1,547													

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: NB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/10/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	4	3	3	2	15	20	6	1	0	0	0	0	54
10:00	0	0	0	1	0	3	10	11	8	1	0	0	0	34
11:00	1	0	0	2	9	6	8	4	5	0	0	0	0	35
12:00 PM	0	0	0	0	3	9	8	7	4	1	1	0	0	33
1:00	0	0	0	3	2	7	14	9	2	1	0	0	0	38
2:00	0	0	0	1	3	8	9	18	1	1	0	0	0	41
3:00	0	2	0	1	3	8	15	12	7	1	0	0	0	49
4:00	0	0	1	0	1	7	18	15	5	2	0	0	0	49
5:00	0	1	2	1	5	13	21	9	5	0	0	0	0	57
6:00	0	0	0	4	7	11	16	6	7	1	0	0	0	52
7:00	0	1	1	0	6	13	10	11	2	0	0	0	0	44
8:00	0	0	2	2	3	7	7	3	0	0	0	0	0	24
9:00	0	1	1	1	3	4	4	3	0	0	2	0	0	19
10:00	0	1	1	1	0	0	0	0	0	0	0	0	0	3
11:00	0	0	0	1	0	3	1	2	0	0	0	0	0	7
Total	1	10	11	21	47	114	161	116	47	8	3	0	0	539

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: NB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/11/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	1	1	0	1	0	0	0	0	0	3
1:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00	0	0	0	0	0	2	2	3	2	1	0	0	0	10
6:00	0	0	1	0	3	2	2	6	3	2	0	0	0	19
7:00	0	0	0	0	2	6	12	18	10	2	1	0	0	51
8:00	0	0	6	2	1	5	23	18	9	2	1	0	0	67
9:00	0	0	2	1	3	0	5	7	12	4	1	0	0	35
10:00	0	0	0	0	1	1	5	9	7	3	1	0	0	27
11:00	0	0	1	1	4	12	8	5	5	1	0	0	0	37
12:00 PM	2	1	0	2	6	14	9	7	1	1	0	0	0	43
1:00	0	1	0	2	7	9	15	4	5	0	0	0	0	43
2:00	0	1	0	2	6	10	7	15	8	0	1	0	0	50
3:00	0	0	0	1	1	7	17	5	3	3	0	0	0	37
4:00	0	0	0	1	12	13	15	17	9	1	0	0	0	68
5:00	0	0	0	0	16	17	24	14	4	4	0	0	0	79
6:00	0	0	1	0	7	17	29	12	6	1	0	0	0	73
7:00	0	0	1	5	7	10	12	11	3	1	0	0	0	50
8:00	0	0	2	1	2	9	3	6	1	1	0	0	0	25
9:00	0	0	1	1	5	8	6	3	2	0	0	0	0	26
10:00	0	0	0	3	0	5	5	3	2	0	0	0	0	18
11:00	0	0	1	0	0	1	1	2	1	0	1	0	0	7
Total	2	3	16	22	84	150	202	166	94	27	6	0	0	772

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: NB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/12/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	1	1	0	1	0	0	0	3
1:00	0	0	0	0	0	2	1	1	0	1	0	0	0	5
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	1	0	0	0	1	0	2
5:00	0	0	0	0	0	1	2	3	3	0	0	0	0	9
6:00	0	0	0	1	0	1	9	4	5	2	0	1	0	23
7:00	0	0	0	0	0	3	11	12	11	0	1	0	0	38
8:00	0	0	0	0	2	11	16	24	8	1	0	0	0	62
9:00	0	0	1	0	3	6	6	8	2	2	0	0	0	28
10:00	0	0	0	0	4	7	10	12	2	0	1	0	0	36
11:00	0	0	1	1	2	4	8	18	11	2	0	0	0	47
12:00 PM	0	0	0	0	5	9	25	13	12	0	0	0	0	64
1:00	0	0	2	0	6	11	12	13	6	2	0	0	0	52
2:00	1	1	0	5	4	10	17	16	4	2	0	0	0	60
3:00	0	0	0	2	3	14	12	19	7	3	0	0	0	60
4:00	0	0	0	2	3	7	18	19	7	0	0	0	0	56
5:00	0	1	2	2	4	20	21	19	4	0	0	0	0	73
6:00	0	0	0	3	11	12	21	8	4	0	0	0	0	59
7:00	0	0	2	0	9	7	7	4	2	2	0	0	0	33
8:00	0	1	0	0	9	16	9	5	1	0	0	0	0	41
9:00	0	0	0	1	6	8	4	4	0	0	0	0	0	23
10:00	0	0	0	0	0	3	4	1	2	0	0	0	0	10
11:00	0	0	1	0	1	3	2	5	0	0	0	0	0	12
Total	1	3	9	17	73	155	216	211	91	18	2	2	0	798



# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: NB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/13/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	2	2	1	2	2	1	0	0	0	0	10
1:00	0	0	0	0	0	0	0	2	0	0	0	0	0	2
2:00	0	0	0	0	0	0	2	0	0	0	0	0	0	2
3:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	1	1	3	1	0	0	0	0	6
6:00	0	1	2	0	1	3	6	3	5	2	0	0	0	23
7:00	0	0	0	0	1	4	15	12	3	4	1	0	0	40
8:00	0	2	0	1	7	9	24	10	5	1	0	0	0	59
9:00	0	0	1	1	2	13	10	3	2	1	0	0	0	33
10:00	0	0	1	2	3	3	8	7	3	1	0	0	0	28
11:00	0	1	1	2	4	11	11	4	3	0	0	0	0	37
12:00 PM	0	1	1	1	3	4	18	9	6	1	0	0	0	44
1:00	0	0	0	1	3	8	12	11	2	0	1	0	0	38
2:00	0	0	1	0	2	8	13	6	7	2	0	0	0	39
3:00	0	0	0	1	6	11	16	17	5	0	0	0	0	56
4:00	0	1	0	2	4	12	14	8	6	0	0	0	0	47
5:00	0	1	0	2	14	27	22	11	3	0	0	0	0	81
6:00	0	1	0	3	14	20	22	22	4	0	0	0	0	86
7:00	0	0	0	0	2	9	13	10	4	0	0	0	0	38
8:00	0	0	1	3	4	9	13	6	1	0	0	0	0	37
9:00	0	1	0	1	6	6	6	4	0	0	0	0	0	24
10:00	0	0	0	0	0	1	3	5	1	0	0	0	0	10
11:00	0	0	0	0	1	2	0	2	0	0	1	0	0	6
Total	0	9	8	22	79	162	232	155	64	12	3	0	0	747

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: NB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/14/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	1	0	0	2	1	0	0	0	0	0	4
1:00	0	0	0	0	0	1	2	0	0	0	0	0	0	3
2:00	0	1	0	0	0	0	0	0	1	0	0	0	0	2
3:00	0	0	0	0	0	0	0	2	1	0	0	0	0	3
4:00	0	0	0	0	2	2	0	2	0	0	0	0	0	6
5:00	0	0	0	0	0	0	1	2	1	2	0	0	0	6
6:00	0	0	0	0	0	4	5	5	5	1	1	1	0	22
7:00	0	0	0	1	2	8	10	6	5	2	0	0	0	34
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	0	1	0	2	4	15	20	18	13	5	1	1	0	80
Grand Total	4	26	44	84	287	596	831	666	309	70	15	3	0	2936

Stats

Percentile

15th

50th

85th

95th

Speed

15

20

24

26

Mean Speed (Average)

19.4

10 MPH Pace Speed

15-24

Number in Pace

2195

Percent in Pace

74.8%

Number > 24 MPH

398

Percent > 24 MPH

13.6%

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: SB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/10/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	0	0	1	2	3	15	6	1	0	0	0	0	28
10:00	0	0	0	2	2	11	9	2	1	1	0	0	0	28
11:00	0	0	1	2	6	9	17	2	0	0	0	0	0	37
12:00 PM	0	0	1	1	8	14	10	6	1	0	0	1	0	42
1:00	0	0	2	2	7	15	18	5	1	0	0	0	0	50
2:00	0	0	0	3	3	10	16	7	2	0	0	0	0	41
3:00	0	0	0	0	3	19	19	12	0	0	0	0	0	53
4:00	0	1	0	0	2	12	25	16	3	1	0	0	0	60
5:00	0	0	0	1	6	23	33	20	3	0	0	0	0	86
6:00	0	0	0	1	4	10	23	10	2	0	0	0	0	50
7:00	0	0	1	3	4	11	13	2	0	0	0	0	0	34
8:00	1	0	0	1	6	12	11	3	1	0	0	0	0	35
9:00	0	1	1	1	3	7	4	6	0	0	0	0	0	23
10:00	0	0	0	0	0	3	5	4	0	0	0	1	0	13
11:00	0	0	0	1	0	5	3	0	0	0	0	0	0	9
Total	1	2	6	19	56	164	221	101	15	2	0	2	0	589

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: SB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/11/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	1	1	2	1	0	0	0	0	0	5
1:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	1	1	0	0	0	0	0	0	2
4:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00	0	0	0	1	0	0	4	3	0	0	0	0	0	8
6:00	0	0	0	0	0	3	6	3	0	0	0	0	0	12
7:00	0	0	0	1	0	3	12	7	2	0	0	0	0	25
8:00	0	0	0	2	2	4	9	7	1	0	0	0	0	25
9:00	0	0	0	1	0	0	14	6	2	0	0	0	0	23
10:00	0	1	1	1	0	5	14	9	2	0	0	0	0	33
11:00	0	1	0	2	4	8	5	6	4	0	0	0	0	30
12:00 PM	0	1	3	5	10	18	5	3	0	0	0	0	0	45
1:00	0	1	0	1	8	8	13	5	3	0	0	0	0	39
2:00	0	0	0	2	4	14	20	9	2	0	0	0	0	51
3:00	1	0	1	1	3	11	18	9	2	0	0	0	0	46
4:00	0	0	0	1	7	34	34	13	1	0	0	0	0	90
5:00	0	0	1	1	7	30	36	14	2	1	0	0	0	92
6:00	0	0	1	1	9	19	15	8	2	0	0	0	0	55
7:00	0	1	0	5	8	18	14	3	0	0	0	0	0	49
8:00	0	0	1	4	6	7	10	3	1	0	0	0	0	32
9:00	0	0	0	1	6	13	7	3	0	0	0	0	0	30
10:00	0	0	1	0	1	6	4	1	0	0	0	0	0	13
11:00	0	0	0	0	0	1	2	1	0	0	0	0	0	4
Total	1	5	9	30	76	204	245	115	25	1	0	0	0	711

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: SB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/12/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	1	2	0	1	0	0	0	4
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	3	1	0	1	0	0	0	0	5
3:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	1	1	2	0	0	0	0	0	4
6:00	0	0	0	1	1	7	5	3	2	0	0	0	0	19
7:00	0	0	0	0	2	2	9	7	0	0	0	0	0	20
8:00	0	0	0	1	5	5	15	8	0	0	0	0	0	34
9:00	0	0	0	0	2	5	17	6	1	0	0	0	0	31
10:00	0	0	0	0	3	6	10	5	0	0	0	0	0	24
11:00	0	0	1	1	3	6	13	10	0	0	0	0	0	34
12:00 PM	0	0	0	0	1	10	21	12	2	0	0	0	0	46
1:00	0	1	0	3	2	7	14	7	2	0	0	0	0	36
2:00	0	1	0	2	6	7	20	12	2	0	0	0	0	50
3:00	0	1	0	3	7	7	27	12	2	1	0	0	0	60
4:00	0	0	0	2	5	17	28	15	2	0	0	0	0	69
5:00	0	0	0	2	8	18	34	14	2	1	0	0	0	79
6:00	0	0	2	5	5	12	33	7	0	0	0	0	0	64
7:00	0	0	0	2	6	9	10	4	1	0	0	0	0	32
8:00	0	0	0	5	5	13	9	1	0	0	0	0	0	33
9:00	0	1	2	3	7	7	6	5	1	0	0	0	0	32
10:00	0	0	0	0	2	2	5	5	0	0	0	0	0	14
11:00	0	0	1	0	1	5	4	2	0	0	0	0	0	13
Total	0	4	6	30	71	150	283	139	18	3	0	0	0	704

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: SB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/13/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	1	3	6	1	0	1	0	0	0	12
1:00	0	0	0	0	0	0	1	2	0	0	0	0	0	3
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	1	1	0	0	1	0	0	0	0	0	3
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	3	1	1	0	0	0	0	5
6:00	0	0	0	2	1	3	5	8	0	0	0	0	0	19
7:00	0	0	1	0	1	7	7	5	3	0	0	0	0	24
8:00	0	0	0	0	4	8	6	8	0	0	0	0	0	26
9:00	0	0	1	0	3	10	12	5	0	0	0	0	0	31
10:00	1	1	4	3	4	8	4	5	0	0	0	0	0	30
11:00	0	0	1	2	6	9	11	4	2	0	0	0	0	35
12:00 PM	0	0	0	1	2	3	11	10	4	1	0	0	0	32
1:00	0	0	0	2	4	10	13	11	1	0	0	0	0	41
2:00	0	0	0	2	3	10	11	9	1	0	0	0	0	36
3:00	0	1	0	1	3	6	18	6	2	1	0	0	0	38
4:00	2	1	3	6	9	17	30	15	2	0	0	0	0	85
5:00	0	0	0	2	9	24	25	14	2	1	0	0	0	77
6:00	0	1	0	5	4	19	21	7	1	0	0	0	0	58
7:00	0	0	0	1	5	19	19	2	0	0	0	0	0	46
8:00	0	1	0	0	6	14	7	7	0	1	0	0	0	36
9:00	0	0	1	2	2	8	9	1	0	0	0	0	0	23
10:00	0	0	0	0	1	6	7	3	1	0	0	0	0	18
11:00	0	1	0	0	3	0	4	4	0	1	0	0	0	13
Total	3	6	11	30	72	185	230	129	20	6	0	0	0	692

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: SB

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/14/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	1	2	2	2	2	0	0	0	0	0	9
1:00	0	0	0	0	0	0	0	0	2	0	0	0	0	2
2:00	0	0	0	0	1	0	1	1	0	0	0	0	0	3
3:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2
4:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00	0	0	0	0	0	2	2	1	0	0	0	0	0	5
6:00	0	0	0	1	2	3	1	7	1	0	0	0	0	15
7:00	0	0	0	1	2	3	10	6	1	0	0	0	0	23
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	0	0	0	3	8	11	17	17	4	0	0	0	0	60
Grand Total	5	17	32	112	283	714	996	501	82	12	0	2	0	2756

Stats

Percentile

15th

50th

85th

95th

Speed

15

19

22

23

Mean Speed (Average)

18.3

10 MPH Pace Speed

14-23

Number in Pace

2298

Percent in Pace

83.4%

Number > 24 MPH

96

Percent > 24 MPH

3.5%

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/10/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	4	3	4	4	18	35	12	2	0	0	0	0	82
10:00	0	0	0	3	2	14	19	13	9	2	0	0	0	62
11:00	1	0	1	4	15	15	25	6	5	0	0	0	0	72
12:00 PM	0	0	1	1	11	23	18	13	5	1	1	1	0	75
1:00	0	0	2	5	9	22	32	14	3	1	0	0	0	88
2:00	0	0	0	4	6	18	25	25	3	1	0	0	0	82
3:00	0	2	0	1	6	27	34	24	7	1	0	0	0	102
4:00	0	1	1	0	3	19	43	31	8	3	0	0	0	109
5:00	0	1	2	2	11	36	54	29	8	0	0	0	0	143
6:00	0	0	0	5	11	21	39	16	9	1	0	0	0	102
7:00	0	1	2	3	10	24	23	13	2	0	0	0	0	78
8:00	1	0	2	3	9	19	18	6	1	0	0	0	0	59
9:00	0	2	2	2	6	11	8	9	0	0	2	0	0	42
10:00	0	1	1	1	0	3	5	4	0	0	0	1	0	16
11:00	0	0	0	2	0	8	4	2	0	0	0	0	0	16
Total	2	12	17	40	103	278	382	217	62	10	3	2	0	1128



# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/11/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	2	2	2	2	0	0	0	0	0	8
1:00	0	0	0	0	0	0	1	1	1	0	0	0	0	3
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	1	1	0	0	0	0	0	0	2
4:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
5:00	0	0	0	1	0	2	6	6	2	1	0	0	0	18
6:00	0	0	1	0	3	5	8	9	3	2	0	0	0	31
7:00	0	0	0	1	2	9	24	25	12	2	1	0	0	76
8:00	0	0	6	4	3	9	32	25	10	2	1	0	0	92
9:00	0	0	2	2	3	0	19	13	14	4	1	0	0	58
10:00	0	1	1	1	1	6	19	18	9	3	1	0	0	60
11:00	0	1	1	3	8	20	13	11	9	1	0	0	0	67
12:00 PM	2	2	3	7	16	32	14	10	1	1	0	0	0	88
1:00	0	2	0	3	15	17	28	9	8	0	0	0	0	82
2:00	0	1	0	4	10	24	27	24	10	0	1	0	0	101
3:00	1	0	1	2	4	18	35	14	5	3	0	0	0	83
4:00	0	0	0	2	19	47	49	30	10	1	0	0	0	158
5:00	0	0	1	1	23	47	60	28	6	5	0	0	0	171
6:00	0	0	2	1	16	36	44	20	8	1	0	0	0	128
7:00	0	1	1	10	15	28	26	14	3	1	0	0	0	99
8:00	0	0	3	5	8	16	13	9	2	1	0	0	0	57
9:00	0	0	1	2	11	21	13	6	2	0	0	0	0	56
10:00	0	0	1	3	1	11	9	4	2	0	0	0	0	31
11:00	0	0	1	0	0	2	3	3	1	0	1	0	0	11
Total	3	8	25	52	160	354	447	281	119	28	6	0	0	1483

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/12/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	0	0	0	2	3	0	2	0	0	0	7
1:00	0	0	0	0	0	2	1	1	0	1	0	0	0	5
2:00	0	0	0	0	1	3	1	0	1	0	0	0	0	6
3:00	0	0	0	0	0	1	0	1	0	0	0	0	0	2
4:00	0	0	0	0	0	0	0	1	0	0	0	1	0	2
5:00	0	0	0	0	0	2	3	5	3	0	0	0	0	13
6:00	0	0	0	2	1	8	14	7	7	2	0	1	0	42
7:00	0	0	0	0	2	5	20	19	11	0	1	0	0	58
8:00	0	0	0	1	7	16	31	32	8	1	0	0	0	96
9:00	0	0	1	0	5	11	23	14	3	2	0	0	0	59
10:00	0	0	0	0	7	13	20	17	2	0	1	0	0	60
11:00	0	0	2	2	5	10	21	28	11	2	0	0	0	81
12:00 PM	0	0	0	0	6	19	46	25	14	0	0	0	0	110
1:00	0	1	2	3	8	18	26	20	8	2	0	0	0	88
2:00	1	2	0	7	10	17	37	28	6	2	0	0	0	110
3:00	0	1	0	5	10	21	39	31	9	4	0	0	0	120
4:00	0	0	0	4	8	24	46	34	9	0	0	0	0	125
5:00	0	1	2	4	12	38	55	33	6	1	0	0	0	152
6:00	0	0	2	8	16	24	54	15	4	0	0	0	0	123
7:00	0	0	2	2	15	16	17	8	3	2	0	0	0	65
8:00	0	1	0	5	14	29	18	6	1	0	0	0	0	74
9:00	0	1	2	4	13	15	10	9	1	0	0	0	0	55
10:00	0	0	0	0	2	5	9	6	2	0	0	0	0	24
11:00	0	0	2	0	2	8	6	7	0	0	0	0	0	25
Total	1	7	15	47	144	305	499	350	109	21	2	2	0	1502

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/13/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	2	3	4	8	3	1	1	0	0	0	22
1:00	0	0	0	0	0	0	1	2	2	0	0	0	0	5
2:00	0	0	0	0	0	1	2	0	0	0	0	0	0	3
3:00	0	0	0	1	1	0	1	1	0	0	0	0	0	4
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	1	4	4	2	0	0	0	0	11
6:00	0	1	2	2	2	6	11	11	5	2	0	0	0	42
7:00	0	0	1	0	2	11	22	17	6	4	1	0	0	64
8:00	0	2	0	1	11	17	30	18	5	1	0	0	0	85
9:00	0	0	2	1	5	23	22	8	2	1	0	0	0	64
10:00	1	1	5	5	7	11	12	12	3	1	0	0	0	58
11:00	0	1	2	4	10	20	22	8	5	0	0	0	0	72
12:00 PM	0	1	1	2	5	7	29	19	10	2	0	0	0	76
1:00	0	0	0	3	7	18	25	22	3	0	1	0	0	79
2:00	0	0	1	2	5	18	24	15	8	2	0	0	0	75
3:00	0	1	0	2	9	17	34	23	7	1	0	0	0	94
4:00	2	2	3	8	13	29	44	23	8	0	0	0	0	132
5:00	0	1	0	4	23	51	47	25	5	1	0	0	0	158
6:00	0	2	0	8	18	39	43	29	5	0	0	0	0	144
7:00	0	0	0	1	7	28	32	12	4	0	0	0	0	84
8:00	0	1	1	3	10	23	20	13	1	1	0	0	0	73
9:00	0	1	1	3	8	14	15	5	0	0	0	0	0	47
10:00	0	0	0	0	1	7	10	8	2	0	0	0	0	28
11:00	0	1	0	0	4	2	4	6	0	1	1	0	0	19
Total	3	15	19	52	151	347	462	284	84	18	3	0	0	1439

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Direction: Combined

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/14/2024	> 3 - 6	> 6 - 9	> 9 - 12	> 12 - 15	> 15 - 18	> 18 - 21	> 21 - 24	> 24 - 27	> 27 - 30	> 30 - 33	> 33 - 36	> 36 - 39	> 39 MPH	Total
Time 0 - 3 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH														
12:00 AM	0	0	0	2	2	2	4	3	0	0	0	0	0	13
1:00	0	0	0	0	0	1	2	0	2	0	0	0	0	5
2:00	0	1	0	0	1	0	1	1	1	0	0	0	0	5
3:00	0	0	0	0	1	1	0	2	1	0	0	0	0	5
4:00	0	0	0	0	2	2	1	2	0	0	0	0	0	7
5:00	0	0	0	0	0	2	3	3	1	2	0	0	0	11
6:00	0	0	0	1	2	7	6	12	6	1	1	1	0	37
7:00	0	0	0	2	4	11	20	12	6	2	0	0	0	57
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	0	1	0	5	12	26	37	35	17	5	1	1	0	140
Grand Total	9	43	76	196	570	1310	1827	1167	391	82	15	5	0	5692
Stats	Percentile													
	Speed													
	15th													
	50th													
	85th													
	95th													
	15													
	19													
	23													
	25													
	Mean Speed (Average)													
	18.9													
	10 MPH Pace Speed													
	14-23													
	Number in Pace													
	4474													
	Percent in Pace													
	78.6%													
	Number > 24 MPH													
	494													
	Percent > 24 MPH													
	8.7%													

# Transportation Improvement Association

100 E. Big Beaver Road, Suite 910

Troy, Michigan 48083

Site Code: MORSE btwn HARRISON

Station ID:

Location 1: Morse Ave btwn E Parent Ave and E Harrison Ave

Location 2: Royal Oak

Location 3:

Location 4:

Comment 1:

Comment 2:

Comment 3:

Comment 4:

Latitude: 0.000000

Longitude: 0.000000

6/10/2024	6/10/2024		6/11/2024		6/12/2024		6/13/2024		6/14/2024		Weekday Average		6/15/2024		6/16/2024	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	3	5	3	4	10	12	4	9	5	8	*	*	*	*
1:00	*	*	2	1	5	0	2	3	3	2	3	2	*	*	*	*
2:00	*	*	1	0	1	5	2	1	2	3	2	2	*	*	*	*
3:00	*	*	0	2	1	1	1	3	3	2	1	2	*	*	*	*
4:00	*	*	1	1	2	0	0	0	6	1	2	0	*	*	*	*
5:00	*	*	10	8	9	4	6	5	6	5	8	6	*	*	*	*
6:00	*	*	19	12	23	19	23	19	22	15	22	16	*	*	*	*
7:00	*	*	51	25	38	20	40	24	34	23	41	23	*	*	*	*
8:00	*	*	67	25	62	34	59	26	*	*	63	28	*	*	*	*
9:00	54	28	35	23	28	31	33	31	*	*	38	28	*	*	*	*
10:00	34	28	27	33	36	24	28	30	*	*	31	29	*	*	*	*
11:00	35	37	37	30	47	34	37	35	*	*	39	34	*	*	*	*
12:00 PM	33	42	43	45	64	46	44	32	*	*	46	41	*	*	*	*
1:00	38	50	43	39	52	36	38	41	*	*	43	42	*	*	*	*
2:00	41	41	50	51	60	50	39	36	*	*	48	44	*	*	*	*
3:00	49	53	37	46	60	60	56	38	*	*	50	49	*	*	*	*
4:00	49	60	68	90	56	69	47	85	*	*	55	76	*	*	*	*
5:00	57	86	79	92	73	79	81	77	*	*	72	84	*	*	*	*
6:00	52	50	73	55	59	64	86	58	*	*	68	57	*	*	*	*
7:00	44	34	50	49	33	32	38	46	*	*	41	40	*	*	*	*
8:00	24	35	25	32	41	33	37	36	*	*	32	34	*	*	*	*
9:00	19	23	26	30	23	32	24	23	*	*	23	27	*	*	*	*
10:00	3	13	18	13	10	14	10	18	*	*	10	14	*	*	*	*
11:00	7	9	7	4	12	13	6	13	*	*	8	10	*	*	*	*
Total	539	589	772	711	798	704	747	692	80	60	751	696	0	0	0	0
Day	1128		1483		1502		1439		140		1447		0		0	
AM Peak	9:00	11:00	8:00	10:00	8:00	8:00	8:00	11:00	7:00	7:00	8:00	11:00				
Volume	54	37	67	33	62	34	59	35	34	23	63	34				
PM Peak	5:00	5:00	5:00	5:00	5:00	5:00	6:00	4:00			5:00	5:00				
Volume	57	86	79	92	73	79	86	85			72	84				
Comb Total	1128		1483		1502		1439		140		1447		0		0	
ADT	ADT: 1,446		AADT: 1,446													