



Fatal Crash Review Team

Report for July 16, 2024

Indianapolis, Indiana

Meeting Minutes

Jill Palmer (DPW)	Present
Captain Frederick Ilnicki (IMPD)	Present
Logan Lane (DMD)	Present
Theodore S Grain (Citizen Member)	Present
Damon Richards (Citizen Member)	Present
Jason Bowers (Public)	Present
Dave Allender (Public)	Present
Benjamin Morrical (Legal Counsel)	Present

On Tuesday, July 16, 2024, at 2:00 PM, the meeting of the Indianapolis Fatal Crash Review Team was called to order.

Jill Palmer asked if there were any old business to attend to. Seeing none, the Jill called down any new business. The Minutes and Report for the previous May 21st, 2024, Fatal Crash Review Team meeting were presented to the Team Members. It was asked of team members if there was any further discussion. Seeing none, Logan Lane moved to adopt these Minutes and Report; this was seconded by Captain Ilnicki. The Minutes and Report for May 21st, 2024, were adopted with all in attendance voting “Yes.”

Jill Palmer then called down the completed Road Safety Audit (RSA) at 79th Street and Michigan Road. It was asked of team members if there was any further discussion. Seeing none, Damon Richards moved to adopt the 79th Street and Michigan Road RSA; this was seconded by Logan Lane. The 79th Street and Michigan Road RSA was adopted with all in attendance voting “Yes.”

Jill Palmer then called down the completed Road Safety Audit (RSA) at Binford Boulevard and Kessler Boulevard. It was asked of team members if there was any further discussion. Seeing none, Captain Ilnicki moved to adopt the Binford Boulevard and Kessler Boulevard RSA; this was seconded by Theodore Grain. The Binford Boulevard and Kessler Boulevard RSA was adopted with all in attendance voting “Yes.”

The fatal crashes to be reviewed for the period of March and April of 2024 were called down and presented to Team members. Each crash was discussed at length, the results of which are provided below.



Following the review of crashes, Jill Palmer asked for any further business from Team members. Jason Bowers informed the group that the next RSA location would be forthcoming and with a reminder that the next RSA field check (location TBD) will be held on Thursday, August 15th, 2024. The selected location for the next RSA will have the highest combined total of severe injury and fatal crashes within the 2-month period March – April 2024.

Jill Palmer then asked for any further business from Team members. Seeing none, it was asked if there was a motion to adjourn. This motion was made by Theodore Grain, seconded by Logan Lane, and passed by all present members.

Signed,

Jason Bowers

Jason Bowers
Transportation Safety Engineer
Secretary – Fatal Crash Review Team

Crashes for the Period of March and April of 2024

Master Record Number: 904470112

Date	March 9, 2024
Time	2:02 AM
Location/Nearest Intersection	NORTH COLLEGE AVENUE & MASSACHUSETTES AVENUE
Vulnerable Road User?	Yes – Pedestrian
Hit & Run?	Yes
SUV/Truck?	No
High Rate of Speed?	No
Does motorist have prior serious driving offenses?	No, but D1 licensed in Texas
Circumstances	D1 said he was driving southbound N College Ave and struck something, he said he did not stop. P1 and P2 were unable to give a statement about the crash due to injuries received. P3 said they were walking northeast Massachusetts Ave on the sidewalk, he said they stopped at N College Ave waiting to cross College Ave when V1 ran up on the sidewalk and struck all of them (pedestrians), he said V1 did not stop and continued south bound on N College Ave. P1 and P3 were transported to Methodist Hospital by Medic 10. P2 was transported to Methodist Hospital by Medic 15. On March 10, 2024, at 1:12 PM P2 succumbed to his injuries. NOTE See report under Case #IP240022002 and IP240022071. Supplement done to add Coroner Tox for Fatal Pedestrian (JAG)
Recommendation	Reduce curb ramp to provide better protection for pedestrians.



Master Record Number: 904472061

Date	March 9, 2024
Time	9:00 PM
Location/Nearest Intersection	SOUTH EAST STREET
Vulnerable Road User?	Yes – Pedestrian
Hit & Run?	No
SUV/Truck?	Yes – SUV
High Rate of Speed?	No
Does motorist have prior serious driving offenses?	No
Circumstances	<p>On Saturday, March 9, 2024, at 21:00, IMPD Officers responded to a crash on S East St and the road surface was dry. Unit 1, Gray Toyota Tundra, Going straight. Unit 2, Green Honda Cr-V, Going straight. P1, walking across the street Investigation shows Unit 1 and Unit 2 were both southbound on S East St in the 6100 block in the middle lane. P1 was walking eastbound across S East St not at a crosswalk. D1 stated when he saw P1, he swerved to the left to tried to miss him but struck P1 with his outside mirror on passenger side. After P1 was struck, P1 was knocked to the ground in the middle lane. D1 stated he got out and tried to let other vehicles know about P1, but he was too late. V2 was behind V1 and had run over P1. P1 was dragged and came to rest in the middle lane. V1 came to rest shortly after striking P1 and came to rest in the inside lane. V2 continued southbound and stopped then pulled off on to a side street. Paramedics arrived and attempted to treat P1, but his injuries were concluded to be grave, and he was pronounced deceased. Witness 1 stated he was in the inside lane and V1 and V2 were in the middle lane. He stated he saw V1 swerve to the left, then V2, which was behind V1, ran over something and dragged it. He got out and realized it was a body. D2 stated she saw V1 had swerved over to the next lane and came to a stop; she then saw P1 on the ground in her lane. She tried to swerve but couldn't and ran over P1. IMPD case number IP240022228 was assigned to this crash Supplement done to add Coroner Toxicology for Fatal Pedestrian (JAG)</p>
Recommendation	None. INDOT jurisdiction.

Master Record Number: 904473713

Date	March 17, 2024
Time	2:18 AM
Location/Nearest Intersection	EAST SOUTH STREET & SOUTH OGDEN STREET
Vulnerable Road User?	No
Hit & Run?	No
SUV/Truck?	No





High Rate of Speed?	Yes – Fleeing the scene of another hit & run
Does motorist have prior serious driving offenses?	No
Circumstances	On Sunday, March 17, 2024, at 02:18, Anderson, D. responded to a crash on E South St at the intersection of S Ogden St and the road surface was Dry. V1, Dark Blue Chevrolet Camaro, Going straight. Investigation showed V1 was fleeing from a hit/run at S Pennsylvania St/South St (IP240024656/IP24031800002167). Witnesses stated V1 fled eastbound South St at a high rate of speed when they saw the vehicle lose control as it went through the intersection at Alabama St. When the witnesses reached Alabama St, they could see the vehicle had crashed into a building. D1 was transported to Eskenazi hospital where he was later pronounced deceased. The vehicle was towed to Auto Return. Also see case IP240024650. Driver 1 was not taken to the Marion County Coroner.
Recommendation	None.

Master Record Number: 904478277

Date	March 22, 2024
Time	5:10 AM
Location/Nearest Intersection	EAST 46 TH STREET & NORTH EMERSON AVENUE
Vulnerable Road User?	No
Hit & Run?	No
SUV/Truck?	Yes – Pickup Truck
High Rate of Speed?	Yes
Does motorist have prior serious driving offenses?	No D1 – 18 years old; nothing prior but was charged with a felony as a result of this crash.
Circumstances	On Friday, March 22, 2024, at 05:10, IMPD Officers responded to a crash at the intersection of N Emerson Ave & E 46th St and the road surface was dry. V1, White Dodge Ram, Going straight. V2, White Lincoln Continental, Going straight. Investigation shows V1 was eastbound on E 46th St at a high rate of speed. V2 was southbound on N Emerson Ave. V1 had entered the intersection with E 46th St and was halfway through the east bound lanes when V1 entered the intersection and struck V2 on the passenger side front quarter panel. After the collision, the motor of V2 was knocked out and came to rest in the center of the intersection. D2 was ejected and came to rest on the sidewalk on the southeast corner of intersection. Both Units veered off in a southeast direction and ran off the road on the southeast corner. V1 went off the road first and struck a utility pole (AES 331374-B) with its passenger side doors. After striking the utility pole, V1 rotated to the left. The utility pole was broken off at the ground. V1 then struck the pole which was being held up by the wires. The pole then came to rest



	<p>leaning against V2 as V2 came to a stop at the rear of V1. V2 came to rest facing the northeast with the pole leaning on the trunk. V1 was facing southeast. D2 was pronounced deceased at the scene. D1 was transported to Methodist Hospital in critical condition. Detective Snow applied for and was granted a search warrant for the Airbag Control Module (ACM) in V1 (2010 Ram 1500). The ACM collects and stores up to five seconds of pre-crash vehicle data, which includes vehicle speed, engine RPM, accelerator pedal position and brake pedal switch activation. On March 26, 2024, Detective Snow served the search warrant and obtained the data from the ACM of V1 on March 27, 2024. Detective Snow downloaded the ACM from V1, and the data showed V1 was traveling 89 mph 5 seconds before the crash, was traveling 91 mph 3 seconds before the crash, was traveling 93 mph 1 second before the crash and was traveling 94 mph at 0.1 second before the crash. Unit 1 never applied the brakes. The posted speed limit for E 46th St where the collision occurred is 45 mph. Supplement done to add Coroner Toxicology for Fatal Driver 2 (JAG)</p>
Recommendation	None.

Master Record Number: 904480865

Date	March 24, 2024
Time	7:51 PM
Location/Nearest Intersection	EAST RAYMOND STREET & BETHEL AVENUE
Vulnerable Road User?	No
Hit & Run?	Yes
SUV/Truck?	Yes – Pickup Truck
High Rate of Speed?	No
Does motorist have prior serious driving offenses?	No D1 = 3 Speeding infractions.
Circumstances	<p>On Sunday, March 24, 2024, at 19:51, Officers. responded to a crash on E Raymond St at the intersection of Bethel Ave and the road surface was Dry. V1, Maroon\Burgundy (purple) GMC Sierra, Going straight. V2, Silver\Aluminum BMW K 1200 S, Slowing or stopped in traffic. V3, White Ford Fusion, Slowing or stopped in traffic. Investigation showed V1 was traveling westbound on E Raymond St with a red light. V1 failed to stop for the light striking the rear of V2 while V2 was stopped at the red-light westbound E Raymond St. V1 shoved V2 through the intersection where V2 crossed center crashing into the left front of V3 who was stopped at the red light facing eastbound E Raymond St. V1 continued westbound failing to stop. D2 was pronounced at the scene. V1 was located several blocks away parked at a housing unit. Also see case IP240027056 Supplement done on 4/25/24 to add Alcohol results for D1 and Coroner Toxicology for Fatal Driver (JAG)</p>





Recommendation	None.
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Master Record Number: 904478509

Date	March 26, 2024
Time	12:01 AM
Location/Nearest Intersection	EAST 30 TH STREET & PAWNEE DRIVE
Vulnerable Road User?	No
Hit & Run?	Yes
SUV/Truck?	Yes – Van
High Rate of Speed?	No
Does motorist have prior serious driving offenses?	No D1 = Multiple Speeding, No Seatbelt, Invalid License Infractions.
Circumstances	On Tuesday, March 26, 2024, at 12:01, Thalheimer, Jason responded to a crash on 30th St at the intersection of Pawnee Dr and the road surface was Wet. V1, Bronze Harley Davidson Fltr / Road Glide, leaving traffic lane. V1 was traveling east on 30th St when, at Pawnee Dr, V1 went down on its left side. It slid through the intersection, over the curb and into the fence. The driver was thrown from V1. D1 was rushed to Eskenazi Hospital but died soon after arrival. It was a steady rain in the area when the crash occurred, and the roadway was wet. Photographs and measurements were taken. V1 was towed to 1300 Mickley by Zores. Video was recovered that shows victim's motorcycle was struck by a van going north and turning west on to 30th Street from Pawnee. Vehicle fled the scene. T6788 Supplement done to add Coroner Toxicology for Fatal Driver.
Recommendation	None.

Master Record Number: 904481935

Date	March 28, 2024
Time	2:35 PM
Location/Nearest Intersection	SOUTH LYNHURST DRIVE, 150 FEET SOUTH OF ROCKVILLE ROAD
Vulnerable Road User?	No
Hit & Run?	No
SUV/Truck?	Yes – Pickup Truck
High Rate of Speed?	No
Does motorist have prior serious driving offenses?	No
Circumstances	On Thursday, March 28, 2024, at 14:35, IMPD Officers responded to a crash on S Lynhurst Dr 150 ft of the intersection with Rockville Rd and the road surface was dry. V1, Silver\Aluminum Chevrolet Silverado, Making U-Turn. V2, Black Harley Davidson Heritage Softail Classic, Going straight.





	<p>Investigation shows V1 had just turned right out of the McClure Oil at 5301 Rockville to go southbound on S Lynhurst Dr. V2 was southbound on S Lynhurst Dr. D1 stated he had just pulled out of the McClure Oil to go south on Lynhurst then he was going to make U-Turn to go back north on Lynhurst. When V1 started to make the U-Turn, V1 changed lanes to the inside lane to make the left turn. V1 started the turn in front of V2. V2 struck V1 in the front quarter panel on the driver side. D2 was ejected in the southeast direction and came to rest in the northbound lanes of S Lynhurst Dr. After the collision, V2 went in an east direction and came to rest in the north bound lanes. V1 continued southbound and came to rest facing southeast in the northbound lanes. D2 suffered critical injuries from the crash and was transported by ambulance to Methodist Hospital for treatment. However, despite medical intervention, D2's injuries were determined to be grave, and he was pronounced deceased. IMPD case number IP240028394 was assigned to the crash.</p>
Recommendation	None.

Master Record Number: 904480245

Date	March 31, 2024
Time	3:26 AM
Location/Nearest Intersection	EAST 16 TH STREET, 100 FEET WEST OF NORTH WHITTIER PLACE
Vulnerable Road User?	Yes – Pedestrian
Hit & Run?	Yes
SUV/Truck?	No
High Rate of Speed?	No
Does motorist have prior serious driving offenses?	Unknown
Circumstances	<p>On Sunday, March 31, 2024, at 03:26, WEIDNER, SPENCER responded to a crash on E 16th St, 100 ft at the intersection of N Whittier Place and the road surface was Dry. On Sunday, March 31, 2024, at approximately 3:27 am, Officer S. Weidner ID 41961 with Indianapolis Metropolitan Police Department (IMPD), was dispatched to the 5400 block of E 16th St to investigate a pedestrian down in the roadway. Upon arrival, Officer Weidner observed a male, later identified via Indiana Identification Card P1 was laying in the westbound lane of E 16th St near the sidewalk. Officer Weidner observed that P1 was bleeding from the face and mouth area. Officer Weidner asked P1 if he had been struck by a vehicle. Officer Weidner was unable to understand P1's verbal response, however, P1 shook his head in the affirmative. P1 was transported by Indianapolis Emergency Medical Services (IEMS) Medic 41 (truck number 2840) to Eskenazi Hospital for further medical treatment. P1's injuries did not appear to be life-threatening. Officer J. Stayton, a trained IMPD Evidence</p>





	<p>Technician, responded to the scene and collected photographs. Officers were not able to locate any vehicle parts from the striking vehicle(s). Community Health Police was able to capture video footage of the incident via the property's surveillance cameras. The video showed P1 laying in the street prior to being struck after leaving the hospital property. At approximately 3:16 am, the footage showed an unknown make or model sedan that appeared to run over P1 and then continue driving westbound without stopping. Community Hospital Police saved the camera footage for further investigatory purposes. Officer Weidner was notified on 4/1/2024 that P1 had passed away from his injuries sustained in this incident.</p>
Recommendation	None.

Master Record Number: 904482351

Date	April 3, 2024
Time	9:25 PM
Location/Nearest Intersection	EAST WASHINGTON STREET, 725 FEET WEST OF GERMAN CHURCH ROAD
Vulnerable Road User?	Yes - Pedestrian
Hit & Run?	No
SUV/Truck?	No
High Rate of Speed?	No
Does motorist have prior serious driving offenses?	No
Circumstances	<p>On Wednesday, April 3, 2024, at 21:25, Snow, Eric responded to a crash on E Washington St, 725 ft west of the intersection of German Church Rd and the road surface was Wet. V1, Red Chevrolet Malibu, Going straight. P1, walking north Investigation shows V1 was eastbound in the 10700 block of E Washington St in the inside lane (next to the turn lane) P1 was walking from the south to north crossing E Washington St. D1 stated he was eastbound in the inside lane and all of sudden P1 came out of nowhere. He didn't have time to react. V1 struck P1 with the driver side front bumper. P1 was thrown in a northeast direction and came to rest in the turn lane. V1 turned into the Walmart parking lot and parked. D1 walked back to the scene. P1 was pronounce deceased at the scene. IMPD case number IP240030391 assigned to this accident.</p>
Recommendation	None. INDOT jurisdiction.

Master Record Number: 904481472

Date	April 4, 2024
Time	7:35 AM
Location/Nearest Intersection	EAST 21 ST STREET & COLLEGE AVENUE





Vulnerable Road User?	No
Hit & Run?	No
SUV/Truck?	Yes – Pickup Truck & SUV
High Rate of Speed?	No
Does motorist have prior serious driving offenses?	No D1 = 6 Speeding violations.
Circumstances	On Thursday, April 4, 2024, at 07:35, Jones, Antonio responded to a crash on 21 st St at the intersection of College Ave. and the road surface was Wet. V1, Silver\Aluminum Ford F-150, maintaining path of travel. V2, Gray Honda Cr-V, turning left. V1 stated that he was traveling northbound on College Ave. when V2 started to make a left turn out in front of him. V2 stated that she was traveling westbound attempting to make a left turn onto College Ave heading south. V2 stated she did not see V1 coming from the northbound lane. D2 stated that her view was obstructed by the vehicles parked on the northbound lane road. V2 had a passenger in the back seat that complained of pain and had a visible minor injury to his face and was transported to Methodist Hospital by Medic 13 2624. Report amended o 4/8/24 to show passenger of V2 had succumbed to injuries sustained in the crash.
Recommendation	Parking restriction requested for 170 feet on the south leg to prevent on-street parking within the sight triangle. Also, a request was submitted to DPW Forestry to investigate the trees and brush at this intersection and limb up trees / trim overgrown brush as warranted.

Master Record Number: 904487444

Date	April 13, 2024
Time	5:06 AM
Location/Nearest Intersection	2000 NORTH TIBBS AVENUE
Vulnerable Road User?	Yes - Pedestrian
Hit & Run?	Yes
SUV/Truck?	Unknown
High Rate of Speed?	Unknown
Does motorist have prior serious driving offenses?	Unknown
Circumstances	On Saturday, April 13, 2024, at 05:06, MELLOH, CALEB responded to a crash on 2000 N Tibbs Ave and the road surface was Dry. The caller stated a subject was lying face down near the east corner of W 20th St/N Tibbs Ave. IEMS Medic 5 was on scene and determined that the female was possibly struck by a vehicle. IEMS transported the female to Methodist. The female was pronounced deceased at 5:57 AM on 04/13/2024. An injured person report was done under IP240033460.
Recommendation	None.



Master Record Number: 904488984

Date	April 14, 2024
Time	12:15 PM
Location/Nearest Intersection	EAST 56 th STREET & NORTH ARLINGTON AVENUE
Vulnerable Road User?	No
Hit & Run?	No
SUV/Truck?	Yes - SUV
High Rate of Speed?	Yes
Does motorist have prior serious driving offenses?	No D1 = 3 Speeding infractions. No prior but was charged with a felony as a result of this crash.
Circumstances	V1 was traveling east on E. 56th St approaching N. Arlington Ave. V2 was driving west on E. 56th St and attempted to turn south onto N. Arlington Ave. V2 turned into the path of V1, which struck V2 on the passenger side. Both vehicles slid to the southeast and V2 struck a traffic signal pole before flipping onto the passenger side of the vehicle. D1 said she was traveling east, and the traffic light was green when V2 turned in front of her. D2 suffered grave injuries from the collision and was pronounced deceased at the scene. Investigation revealed V1 was traveling above the posted speed limit before and when the crash occurred. Supplement created to add toxicology results for D1 and to update primary factor in collision. (TSA, 05/20/2024) Investigators imaged data from the Airbag Control Module which showed V1 was traveling 84.1 mph, five seconds before the collision; 83.1 mph, four seconds prior; 81.6 mph, three seconds before the crash; 80.4 mph, two seconds before the collision; 79.4 mph, one second prior; and 67.6 mph at impact.
Recommendation	None.

Master Record Number: 904488383

Date	April 15, 2024
Time	9:55 PM
Location/Nearest Intersection	COUNTY LINE ROAD, 110 FEET EAST OF COSTCO DRIVE
Vulnerable Road User?	Yes - Pedestrian
Hit & Run?	No
SUV/Truck?	Yes – SUV
High Rate of Speed?	No
Does motorist have prior serious driving offenses?	No



Circumstances	V1 was traveling west on E. County Line Rd, approaching Costco Dr. P1 was walking north across E. County Line Rd; there was no crosswalk, signage or signal and it was very dark. D1 said he saw P1 at the last moment and swerved in attempt to avoid a collision but was unsuccessful. V1 struck P1 who was thrown to the roadway, suffering severe injuries. P1 was transported by ambulance to I.U. Methodist Hospital where he was pronounced deceased a short time later. Supplement made to update alcohol & toxicology results for D1: NEGATIVE results
Recommendation	None.

Master Record Number: 904494856

Date	April 25, 2024
Time	7:47 PM
Location/Nearest Intersection	CARVEL AVENUE & EAST 49 th STREET
Vulnerable Road User?	No
Hit & Run?	No
SUV/Truck?	Yes – SUV
High Rate of Speed?	Yes
Does motorist have prior serious driving offenses?	No D1 = Multiple Speeding, No Seatbelt, Invalid License Infractions.
Circumstances	On Thursday, April 25, 2024, at 19:47, IVERSEN, ELIZABETH responded to a crash on Carvel Ave. at the intersection of E 49th St. and the road surface was Dry. V1, Blue Jeep Patriot, Going straight. V2, Silver\Aluminum Toyota Prius, Going straight. D1 stated they were traveling eastbound on 49th St near Carvel Ave and collided into V2. D2 stated they were traveling northbound on Carvel Ave near 49th St and V1 ran their stop sign at a high rate of speed and ran into V2. Report amended on 6/17/24 to show Passenger of V2 succumbed to his injuries on 6/14/2024. DA
Recommendation	None.

SUMMARY

Total Number of Crashes Reviewed: 14

Total Cases with Recommendations or Follow-Up Action: 2 (14%)

Proportion of Crashes Involving Vulnerable Road User: 6 (43%)

Proportion of Crashes Identified as Hit & Run: 5 (36%)





Proportion of Crashes Involving SUV or Truck: 9 (64%)

Proportion of Crashes Involving Prior Serious Traffic Offender: 0 (0%)

Bicyclist Fatalities: 0 (0%)

Pedestrian Fatalities: 6 (43%)

Other (ex. riders of micro-mobility devices): 0 (0%)

Attachment A – 79th Street & Michigan Road RSA

Attachment B – Binford Boulevard and Kessler Boulevard RSA

ATTACHMENT A

Michigan Road & 79th Street

RSA

ROAD SAFETY AUDIT

Date:	6/25/2024
Des. No.:	n/a

Reviewer Information:		Agency/Firm Name:	Indy DPW - Engineering
Primary Author:	Jason Bowers	Agency:	Traffic Team
Phone Numbers:	(317) 590-4279	Email Address:	jason.bowers@indy.gov

Purpose of Review:

The Indianapolis City-County Council Ordinance PROP 24-022 requires the Fatal Crash Review Team (established under a prior ordinance) to review serious bodily injury crashes in addition to fatal crashes. For this purpose, an ongoing review of crash data for Marion County is being performed on a bi-monthly basis. Fatal and incapacitating injury crashes reported to ARIES during the period of November-December 2023 have been analyzed and the intersection of Michigan Road & 79th Street was identified as the highest crash location within this 2-month period. The team met to discuss current deficiencies at this existing intersection. A list of countermeasures has been developed to address the deficiencies that were identified. The results are included below.

Project Location:

Route:	Michigan Road	District:	Greenfield	City:	Indianapolis	County:	Marion
RP Start:		RP End:		Lat & Long:	39.897153 -86.215761	Inside Urban Area Boundary:	<input checked="" type="radio"/> Yes or No (circle)
MPO:	Indianapolis Metropolitan Planning Organization (IMPO) Project Type: Road Safety Audit (RSA)						

Location: Michigan Road at 79th Street

The intersection is located in northwest Marion County. See attached Site Location Map, Page 3.

Existing Conditions:

Within the study area, Michigan Road is a Primary Arterial. The roadway is not part of the National Highway System (NHS) and is not on the National Truck Network (NTN). 79th Street within the study area, is a Minor Arterial. At this signalized intersection, Michigan Road forms the north and south legs of the intersection, while 79th Street forms the east and west legs. The existing intersection has a skew of approximately 75 degrees.

The NB & SB approaches of Michigan Road include one dedicated left turn lane, two through lanes, and one dedicated right turn lane. The EB approach of 79th Street includes one dedicated left turn lane, one through lane, and one shared through/right turn lane. The WB approach of 79th Street includes one dedicated left turn lane, one through lane, and one dedicated right turn lane. The posted speed limit along Michigan Road is 45 mph and the posted speed limit along 79th Street is 40 mph. Both Michigan Road and 79th Street have uncontrolled access. During the field check on 4/23/2024, the following issues were identified:

Notes from the Field Check

- The existing typical cross section includes raised curb + offset and closed drainage with inlets in the curb in 3 of the 4 quadrants (the southeast quadrant is the exception).
- The existing raised concrete curb in the northeast quadrant is being struck frequently due to a shifting of the alignment along northbound Michigan Road. (See Photo 1 and Photo 2 on Page 3.) Vehicles traveling through the intersection could be forced to swerve, potentially causing sideswipes.
- The existing drainage inlet on the west side of Michigan Rd. just south of 79th St. is sunken below the roadway surface by approx. 3" and could potentially be hazardous to vehicles.
- Sidewalk exists along the west side of Michigan Rd. north and south of the intersection.
- Existing ADA ramps appear to meet current standards but would need to be surveyed to verify.
- Access control does not exist for the intersection and the immediate vicinity. Multiple crashes are occurring in association with the existing drive access points, particularly the Marathon Gas Station in the northeast quadrant.
- In 2015, this intersection was modified to add a dedicated right-turn lane for the northbound, southbound and westbound directions.
- Existing traffic signals for this intersection have had backplates since at least 2013 and retroreflective borders were added to the backplates prior to the completion of the 2015 reconstruction.
- Currently overhead utility lines are crossing in front of signal heads for both directions of 79th St. Above and below ground utilities exist at this intersection with numerous overhead power lines along the north side of 79th St. and the west side of Michigan Rd in particular.
- Due to the existing intersection skew, over tracking of the raised curb is occurring in the northeast and northwest quadrants (see photos).
- IndyGo bus stops are present on the south leg of Michigan Road for both northbound and southbound. Sidewalk is provided for the bus stop on the west side of the road but not the east side.
- Using Google Street View, a posted speed limit sign could not be located for the northbound direction either north or south of Michigan Road within the vicinity of the intersection. Posted speed limit signs are present for the southbound direction.
- Using Google Street View, a posted speed limit sign could not be located for the westbound direction either west or east of Michigan Road within the vicinity of the intersection. Posted speed limit signs are present for the eastbound direction.
- Multiple drainage inlets exist at this intersection which indicates that drainage issues may exist. If this intersection is reconstructed, a drainage study should be performed during the design phase.

Traffic Operations:

a) Mobility/Congestion Performance: According to available traffic count data from INDOT's Traffic Count Database System (TCDS), the 2022 AADT along Michigan Road in the study area was 26,275.

b) Safety Performance / Crash Analysis: According to available crash data, there were 174 crashes associated with the study area from Jan-1 2021 to Dec-31 2023 (3 full years), of which 0 crashes resulted in a fatality, 20 crashes resulted in incapacitating injuries, 9 crashes resulted in non-incapacitating injury or possible, and there were 145 PDOs. Note: within this 3-year period, 1 fatality occurred approx. 750' north of this intersection (beyond the intersection proper) which is not included in the analysis. See attached Crash Summary, Pages 5-7. Output from HAT 4.1:

2021-2023 Crash Data - Michigan Road at 79th Street (analyzed as Signalized Urban Local Intersection, One AADT) $I_{CF} = 6.41$, $I_{CC} = 4.60$

Alternatives and Recommendations

Based on the data summarized herein, and the current conditions at the study location, the following improvements are recommended:

RECOMMENDED IMPROVEMENTS

- Reconstruct the northeast quadrant to correct the horizontal shift and eliminate the curb getting struck repeatedly.
- Reconstruct turning radii for all 4 quadrants to accommodate the WB-50 design vehicle (as needed).
- Construct closed drainage in the southeast quadrant with raised curb + offset and inlets in the curb such that the entire intersection has closed drainage.
- Construct additional sidewalks with ADA ramps that meet the most current ADA design standards such that all 4 quadrants accommodate pedestrians. Perpetuate painted crosswalks on all 4 legs of the intersection.
 - * Note: A future multi-use path is planned as part of a complete streets scope from Michigan Road to Georgetown Road.
- Install pedestrian signal heads with push buttons to meet current ADA standards. Ensure symbol signs are used where possible to accommodate language barriers, as many crash reports noted a language barrier.
- Construct raised curb in the center median for the north leg of Michigan Road and the east leg of 79th Street for access control and to improve overall safety of the intersection. Existing drives along these segments will become right-in / right-out.
 - * Note: Consider left-in access where feasible.
- Investigate the existing traffic signal, consider adjusting the signal timings and/or converting the left turn signals to protected only. This could be done for 2 legs or all 4 legs depending on the analysis.
- Install a 45-mph posted Speed Limit Sign (R2-1) on Michigan Road north of 79th Street.
- Install a 40-mph posted Speed Limit Sign (R2-1) on 79th Street west of Michigan Road.

The bridge just east of this intersection is scheduled for replacement and the project is in the design phase. Proposed improvements at this intersection may be incorporated into that project.

Costs Estimate(s) for Proposed Safety Improvement Project

NEAR TERM
 Preliminary Engineering Cost = \$138,000
 Construction Cost = \$92,000
 Right-of-Way Cost = \$0
 Total Cost = \$1,146,000

It should be noted that possible environmental documentation costs are not included in this estimate. See attached Cost Estimate, Page 9.

Project Score: (for INDOT use)

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	0	
	0	
	0	
	0	
	0	

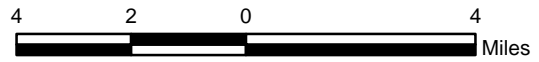
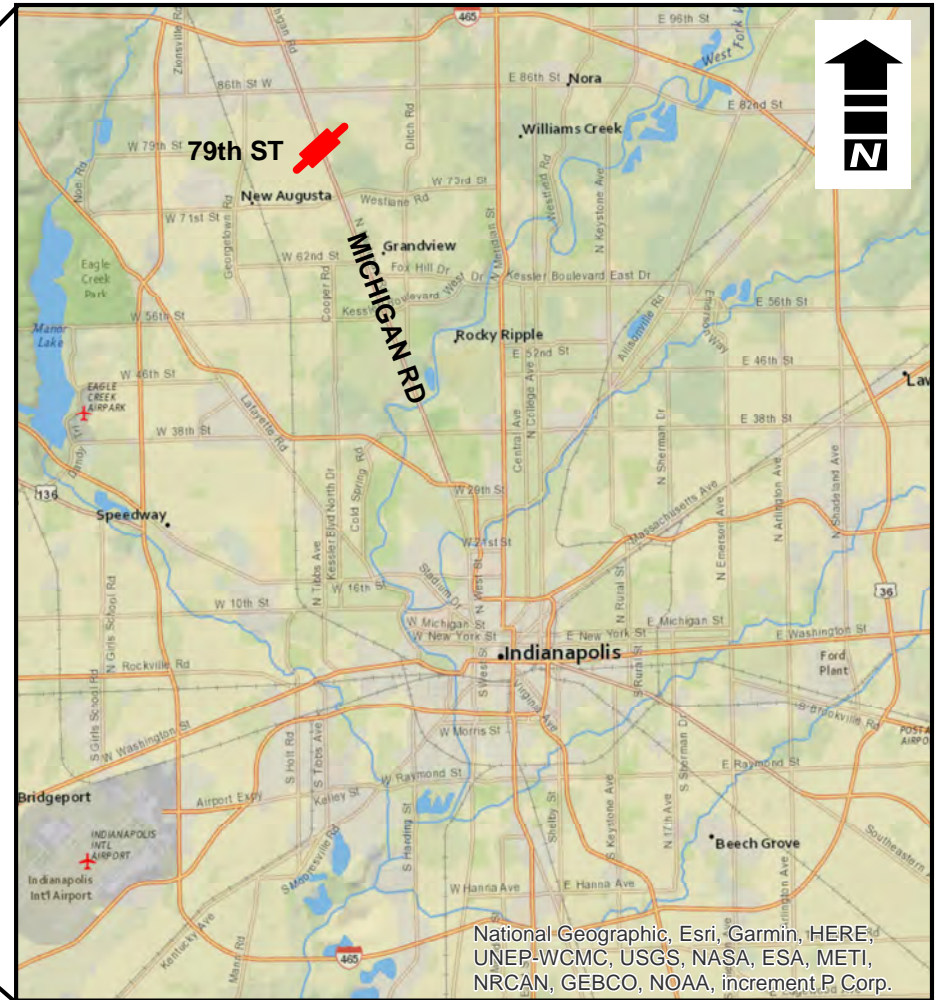
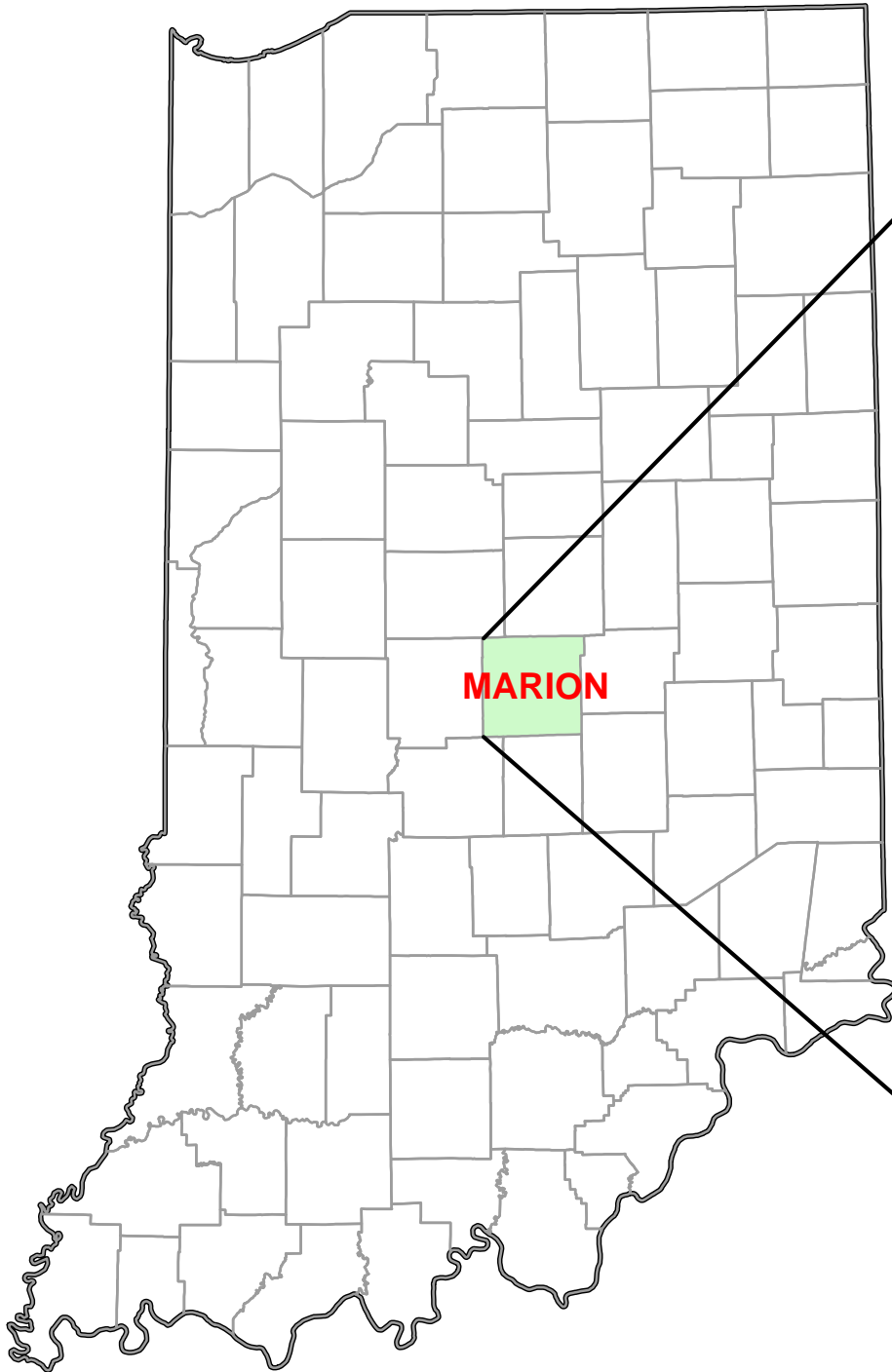
Miscellaneous Notes:

A site visit was held on Tuesday, April 23, 2024, at 1:30 pm. The purpose of the site visit was to observe existing conditions, collect notes and photographs, and discuss proposed improvements with attendees. The following people were present: Damon Richards (Health by Design), Tim Abrams (IMPD), Keith Echternach, Jill Palmer, and Jason Bowers (Indy DPW).

Attachments:

- | | |
|---------------------------|--|
| Site Location Map, Page 3 | Attachment A - Deep Dive Crash Data Analysis |
| Collision Diagram, Page 4 | Attachment B - Meeting Minutes |
| Crash Summary, Pages 5-7 | |
| Photographs, Pages 8 | |
| Cost Estimate, Page 9 | |

Michigan Road & 79th Street

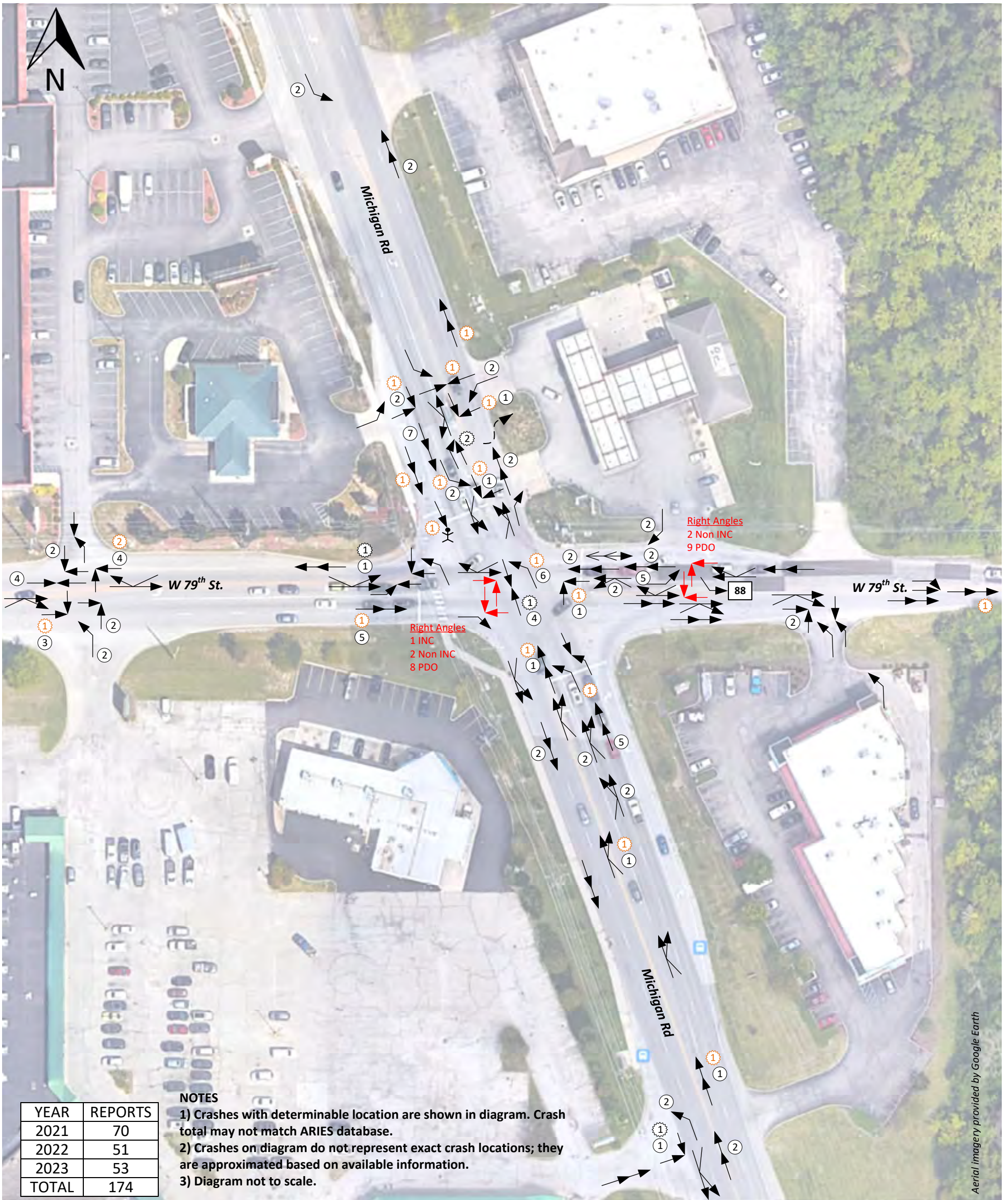


SITE LOCATION MAP

DIAGRAM OF COLLISION REPORTS

79th St. at Michigan Rd.

Study Period: 1/1/2021 to 12/31/2023 Location: 1
 District: Greenfield County: Marion City/Town: Indianapolis
 Analyst: JB QC: JP Date: 4/17/24



YEAR	REPORTS
2021	70
2022	51
2023	53
TOTAL	174

NOTES
 1) Crashes with determinable location are shown in diagram. Crash total may not match ARIES database.
 2) Crashes on diagram do not represent exact crash locations; they are approximated based on available information.
 3) Diagram not to scale.

Right Angles
 2 Non INC
 9 PDO

Right Angles
 1 INC
 2 Non INC
 8 PDO

Aerial Imagery provided by Google Earth

Object Symbols

- MOVING VEHICLE
- TURNING VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- PARKED VEHICLE
- PEDESTRIAN
- BICYCLE
- ANIMAL
- DEBRIS IN ROADWAY
- DRIVEWAY CRASH
- FATAL CRASH
- INJURY CRASH – INCAPACITATING
- INJURY CRASH – NONINCAPACITATING
- PDO CRASHES (IF > 1)

- SIGNALIZED INTERSECTION
- FIXED OBJECT (See table for # codes)

Collision Symbols

- REAR END
- HEAD ON
- OTHER
- SIDESWIPE – SAME
- SIDESWIPE – OPPOSITE
- RIGHT ANGLE
- LEFT/RIGHT TURN
- RAN OFF ROAD

Fixed Object Codes

- 01 – BRIDGE or OVERPASS
- 02 – BUILDING
- 03 – CULVERT or DITCH
- 04 – CURB
- 05 – GUARDRAIL or BARRIER
- 06 – EMBANKMENT
- 07 – FENCE
- 08 – TRAFFIC POLE
- 09 – UTILITY POLE
- 10 – SIGN
- 11 – TREE / SHRUB
- 12 – CONSTRUCTION BARRIER
- 13 – CRASH ATTENUATOR
- 88 – OTHER
- 99 – UNKNOWN

ARIES Summary

79th Street & Michigan Road

Jan-1, 2021 to Dec-31, 2023 (3 Years)

Total # of Crashes **174**

INJURY STATUS	
FATAL	0
INCAPACITATING	20
NON-INCAPACITATING	8
PDO	145
POSSIBLE	1

83%

PERSON TYPE	
DRIVER	168
INJURED	4
OWNER VEHICLE	1
PEDESTRIAN	1

LIGHT CONDITION	
DARK (LIGHTED)	42
DARK (NOT LIGHTED)	4
DAWN/DUSK	9
DAYLIGHT	119

68%

WEATHER CONDITION	
CLEAR	137
CLOUDY	13
RAIN	20
SNOW	4

79%

SURFACE CONDITION	
DRY	139
ICE	1
SNOW/SLUSH	3
WATER (STANDING OR MOVING)	2
WET	29

80%

PRIMARY FACTOR	
BRAKE FAILURE OR DEFECTIVE	1
DISREGARD SIGNAL/REG SIGN	6
FAILURE TO YIELD RIGHT OF WAY	88
FOLLOWING TOO CLOSELY	40
IMPROPER LANE USAGE	6
IMPROPER PASSING	1
IMPROPER TURNING	7
LEFT OF CENTER	1
OTHER (DRIVER) - EXPLAIN IN NARRATIVE	2
OTHER (ENVIRONMENTAL) - EXPLAIN IN NARR	1
RAN OFF ROAD RIGHT	1
SPEED TOO FAST FOR WEATHER CONDITIONS	2
TIRE FAILURE OR DEFECTIVE	1
UNSAFE BACKING	4
UNSAFE LANE MOVEMENT	13

51%

23%

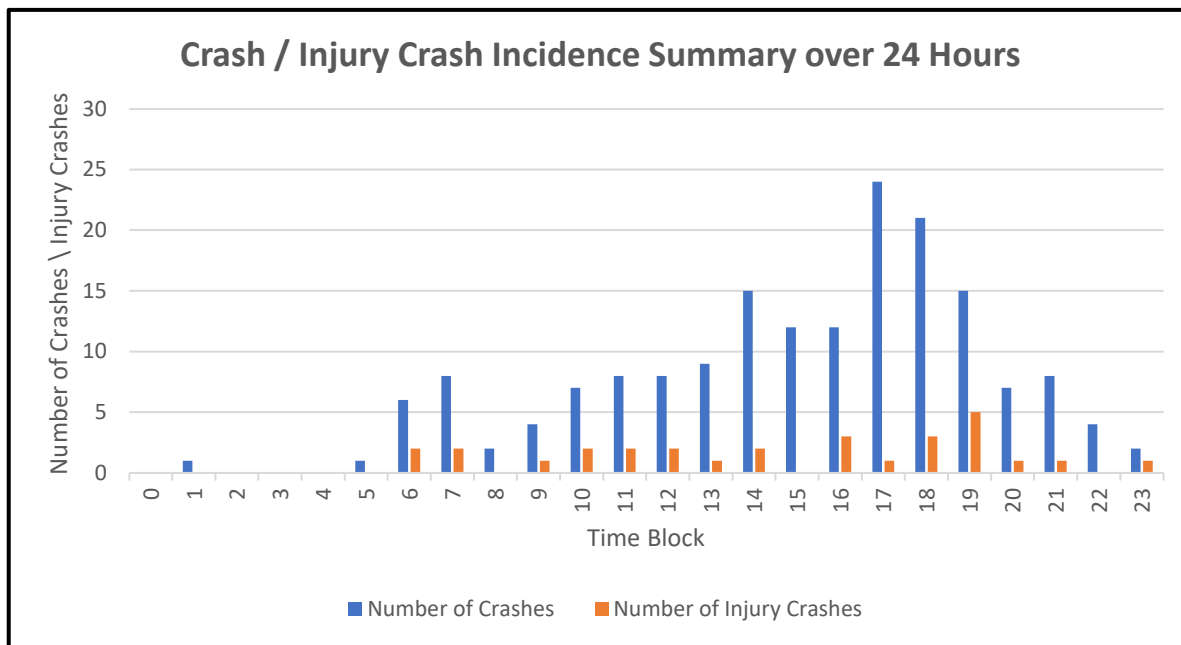
MANNER OF COLLISION	
BACKING CRASH	2
HEAD ON BETWEEN TWO MOTOR VEHICLES	10
LEFT TURN	26
LEFT/RIGHT TURN	5
OPPOSITE DIRECTION SIDESWIPE	5
OTHER - EXPLAIN IN NARRATIVE	6
RAN OFF ROAD	1
REAR END	44
RIGHT ANGLE	50
RIGHT TURN	5
SAME DIRECTION SIDESWIPE	20

15%

25%

29%

TIME OF DAY ANALYSIS





Raised concrete curb in the northeast quadrant is being struck frequently due to alignment shift of Michigan Road.



Arrow pointing at the raised curb showing the shift in alignment of Michigan Road looking northbound.



Over tracking of raised curb in the northwest quadrant.

COST ESTIMATE

79th and Michigan Intersection Improvements - City of Indianapolis

Item No	Description	Quantity	Unit	Unit Price	Total Amount
1	Construction Engineering	1	LS	\$ 18,000.00	\$ 18,000.00
2	Mobilization and Demobilization	1	LS	\$ 70,000.00	\$ 70,000.00
3	Clearing of Right of Way	1	LS	\$ 29,000.00	\$ 29,000.00
4	Excavation, Common	500	CYD	\$ 40.00	\$ 20,000.00
5	Storm Water Quality Management Budget	5000	DOL	\$ 1.00	\$ 5,000.00
6	Stormwater Management Implementaiton	1	LS	\$ 14,900.00	\$ 14,900.00
7	SWQCP Preparation	1	LS	\$ 20,000.00	\$ 20,000.00
8	Subgrade Treatment, Type II	1162	SYD	\$ 30.00	\$ 34,866.67
9	Structure Backfill, Type 1	30	CYD	\$ 70.00	\$ 2,100.00
10	Compacted Aggregate, No. 53, Base	128	CYD	\$ 60.00	\$ 7,700.00
11	Milling, Asphalt 1.5 IN	6121	SYD	\$ 5.00	\$ 30,606.67
12	HMA Surface, Type C	505	TON	\$ 130.00	\$ 65,651.30
13	Patching with HMA, Type C	703	TON	\$ 150.00	\$ 105,471.67
14	Joint Adhesive, Surface	6500	LFT	\$ 1.00	\$ 6,500.00
15	Joint Adhesive, Intermediate	6500	LFT	\$ 1.00	\$ 6,500.00
16	Liquid Asphalt Sealant	6500	LFT	\$ 1.00	\$ 6,500.00
17	Asphalt for Tack Coat	2	TON	\$ 600.00	\$ 1,200.00
18	PCCP for Approaches, 6 in	385	SYD	\$ 100.00	\$ 38,500.00
19	Sidewalk, Concrete	451	SYD	\$ 80.00	\$ 36,097.78
20	Curb Ramp, Concrete	78	SYD	\$ 275.00	\$ 21,388.89
21	Detectable Warning Surfaces	16	SYD	\$ 400.00	\$ 6,400.00
22	Curb & Gutter, Concrete	1000	LFT	\$ 35.00	\$ 35,000.00
23	Center Curb, D, Concrete	134	SYD	\$ 150.00	\$ 20,066.67
24	Sodding, Nursery	444	SYD	\$ 5.00	\$ 2,222.22
25	Field Office, B	3	MOS	\$ 2,500.00	\$ 7,500.00
26	Computer System Equipment	1	EA	\$ 1,000.00	\$ 1,000.00
27	Computer System	1	EA	\$ 2,000.00	\$ 2,000.00
28	Pipe, Type 2, Circular, 12 IN	20	LFT	\$ 60.00	\$ 1,200.00
29	Pipe, Type 2, Circular, 18 IN	20	LFT	\$ 75.00	\$ 1,500.00
30	Casting, Adjust to Grade	5	EA	\$ 600.00	\$ 3,000.00
31	Inlet, B-15	2	EA	\$ 5,000.00	\$ 10,000.00
32	Inlet, C-15	2	EA	\$ 5,000.00	\$ 10,000.00
33	Maintaining Traffic	1	LS	\$ 43,000.00	\$ 43,000.00
34	Pavement Markings and Signs	1	LS	\$ 10,000.00	\$ 10,000.00

SUBTOTAL \$692,871.86

15% CONTINGENCY \$103,930.78

CONSTRUCTION TOTAL \$796,802.63

INFLATION (4.75% FOR 3 YEARS) \$119,023.13

FORECASTED CONSTRUCTION TOTAL \$915,825.76

PRELIMINARY ENGINEERING \$137,373.86

CONSTRUCTION INSPECTION \$91,582.58



Andrew John Wolf

FY 2028 PROJECT COSTS	
P/E	\$ 138,000.00
CONSTRUCTION	\$ 916,000.00
CONSTRUCTION ENG.	\$ 92,000.00
R/W	\$ -
REIMB. UTILITIES	\$ -
TOTAL	\$ 1,146,000.00

Attachments

Crash Narratives – Incapacitating (0 Fatafs)

INCAPACITATING Crashes (Total = 20)

903737598 – 2/5/2021 at 1:25 PM

DAYLIGHT SNOW ICE FAILURE TO YIELD RIGHT OF WAY RIGHT ANGLE

INC - Driver 1 advised she was driving North on Michigan road and had just passed through the 79th Street intersection. D2, who was driving South on Michigan road was waiting to turn East into the Marathon gas station on the Northeast corner of 79th and Michigan. D1 advised that D2 pulled in front of her to turn left and she was unable to stop in time, striking his passenger side panel. D2 advised he was waiting to turn left into the Marathon Gas Station on the Northeast corner of 79th and Michigan. D2 initiated his turn and then realized that D1 was coming Northbound. Driver 2 was unable to pass both lanes of Northbound traffic in time and a collision occurred. Officer Tatlock observed heavy disabling front end damage to Driver 1's vehicle and heavy disabling Passenger side damage to Driver 2's vehicle. Officer David Yohe wrote citation to Driver 2 as he had no insurance or license. Driver 1's 36-week pregnant passenger was transported from the scene by ambulance. Supplement done on 5/21/2021 to change the OLN for Driver 1 (JAG)

903751171 – 3/2/2021 at 10:53 AM

DAYLIGHT CLEAR DRY FAILURE TO YIELD RIGHT OF WAY HEAD ON BETWEEN TWO MOTOR VEHICLES

INC - Driver 1 stated that he was driving northbound on Michigan Road. D1 stated that V2 was coming southbound on Michigan Road and turned left (east) towards the parking lot at 7901 North Michigan Road. D1 stated that he was unable to stop in time and struck V2. Front passenger of vehicle 1 was transported to St Vincent Hospital by Medic 99 EMS 2128 for complaint of pain in his neck and hand. Driver 2 stated that he was on southbound Michigan Road. Driver 2 stated that he was turning left (east) towards the parking lot at 7901 North Michigan Road. Driver 2 stated that he did not see vehicle 1 approaching and is not sure what happened. Driver 2 stated that he had pain in his neck and was evaluated by Medic 9 EMS 2842. Driver 2 declined EMS transportation.

903758632 – 3/11/2021 at 6:51 PM

DAWN/DUSK RAIN WET LEFT OF CENTER SAME DIRECTION SIDESWIPE

INC - Officer Wright was driving south bound on Michigan Rd just passing through the 79th St intersection. Officer Wright witnessed unit 1 go left of center and strike unit 2 head on. Unit 1 had three children in the car, with one being seriously injured. They were transported to Riley's children hospital. Unit 2 had two passengers who were both transported to Saint Vincent's Hospital. A total of 6 individuals involved with 3 being children.

903795214 – 5/18/2021 at 6:09 PM

DAYLIGHT CLEAR DRY FOLLOWING TOO CLOSELY REAR END

INC - D2 STATED THAT SHE WAS DRIVING EAST ON W 79TH FROM MICHIGAN RD AND GOT REAR ENDED BY D1. DRIVER 1 STATED THAT HE WAS DRIVING EAST ON 79TH FROM MICHIGAN RD AND THAT PEOPLE WERE CHASING HIM. DRIVER 1 REAR ENDED DRIVER 2. DRIVER 1'S VEHICLE WAS ALSO INVOLVED IN HIT AND RUN EARLIER ON TODAY'S DATE REFERENCE IP210049378.

903854289 – 8/11/2021 at 4:38 PM

DAYLIGHT CLEAR DRY FAILURE TO YIELD RIGHT OF WAY RIGHT ANGLE

INC - Driver 1 was struggling to give a statement on scene before being transported to Hospital. To the best of Officer Tatlock's understanding Driver 1 advised he was driving North on Michigan Road approaching 79th Street. D1 said he had the light to continue NB when D2, turning Westbound on 79th street from Southbound Michigan Road, struck his vehicle, causing him to crash into a traffic light control box. Driver 2 advised she was driving South bound on Michigan Road and waiting to turn East bound on 79th Street. Driver 2 advised the North and South bound lights turned red, so she began to turn East onto 79th Street after yielding. As she was turning East on 79th, she advised Driver 1 blew the red light coming toward her. Driver 2 advised she struck to rear driver side of Driver 1. D2 then careened into the rear driver side panel of D3. Driver 3 advised he was facing West bound on 79th Street waiting at the red light at Michigan Road. Driver 3 advised he couldn't tell what color the lights were for Drivers 1 and 2 but that he observed Driver 1 speeding excessively north bound through 79th as Driver 2 was attempting to turn East onto 79th Street. After drivers 1 and 2 collided, driver 2's vehicle struck his rear driver side panel. Officer Tatlock observed heavy passenger, driver, and rear side damage to vehicle 1. There was heavy front end driver side damage to vehicle 2 and moderate rear driver side damage on vehicle 3.

904009493 – 4/1/2022 at 6:25 AM

DARK (LIGHTED) RAIN WET FAILURE TO YIELD RIGHT OF WAY OTHER - EXPLAIN IN NARRATIVE

INC - On April 01, 2022, Officer Q. Powell was dispatched to 79th and Michigan Rd in reference to a personal injury accident. Upon arrival Officer Powell came into contact with the driver of vehicle number one, Ms. Paravi Patel. Paravi stated she V1 was turning left to go north onto Michigan Rd from 79th street when she slid into V2. Paravi V1 stated she had a green arrow to turn left before attempting the turn. Officer Powell spoke with the driver of vehicle number two, Mr. Juan Martinez. Juan stated he V2 was facing south on Michigan Rd just north of 79th street attempting to turn left into the Marathon Gas Station parking lot. Juan stated north and south bound traffic had a green light and when traffic cleared, he attempting to turn before being struck by V1. Ms. Patel stated she had back and neck pain and was treated by Pike Medic 63 while on scene and transported to St. Vincent's Hospital. Both vehicles were towed due to disabling damage and sent to Auto Return. No further information at this time.

904010042 – 4/5/2022 at 9:05 PM

DARK (LIGHTED) CLEAR DRY FOLLOWING TOO CLOSELY REAR END

INC - This incident was recorded with a body-worn camera. On Tuesday, April 5, 2022 at approximately 9:50pm, Officer K. Anderson (43828) of the IMPD was dispatched to W 79th and Michigan Rd on a report of a PI Accident Hit-and-Run. Upon arrival, Officer Anderson observed a White 2008 Chrysler Sebring bearing IN CM plate CBV960 (unit 1) in the ditch on the east side of Michigan Rd, just north of W 79th St. IFD was already on scene, and Pike M63, EMS 0634 arrived shortly thereafter. Officer Anderson made contact with the driver, Earl Richardson, who was still in the vehicle. Mr. Richardson had an approximately 2-inch laceration on the upper part of his nose, and he had complaint of neck pain. Mr. Richardson stated he did not lose consciousness during or after the collision. Mr. Richardson stated he was northbound on Michigan Rd in the rightmost lane and there was an ambulance with lights and sirens on traveling southbound on Michigan Rd. Mr. Richardson stated he pulled to the side of the road and slowed to a stop, as other vehicles were doing. Mr. Richardson stated he then heard an unknown vehicle (unit 2) rev its engine loudly, saw headlights approaching quickly, and then felt the impact of the collision. Mr. Richardson was wearing his

seatbelt, but the airbags did not deploy. Mr. Richardson did not have any description of the vehicle, and no witnesses who saw the collision could be located. Mr. Richardson was transported to St. Vincent Hospital by Pike M63 with non-life-threatening injuries. Mr. Richardson was not able to retrieve his insurance information, as he was transported to the hospital. Officers could not locate insurance information in the vehicle. No further information at this time.

904045037 – 5/31/2022 at 4:50 PM

DAYLIGHT CLEAR DRY FAILURE TO YIELD RIGHT OF WAY RIGHT ANGLE

INC - Vehicle 1 possessed moderate/heavy damage around its front passenger side wheel and front bumper on the passenger side. The vehicle's damaged wheel seemed knocked off its axle and its tire was flattened. Vehicle 1 was just off the north side of the roadway of W 79th St facing northwest approx. 50 ft. west of Michigan Rd. Driver 1 did not speak English very well but did not appear injured and indicated that he had minor pain in his head and did not need to be transported to a hospital. Driver 1 advised that he was eastbound on 79th St and was turning left into a shopping plaza's parking lot when the accident occurred. Vehicle 2 possessed moderate damage to its front bumper and headlight on the driver side. Vehicle 2 was facing northwest and was sitting just east of Vehicle 1 in the middle of the shopping plaza's access lane. Driver 2 stated that he had pain in his back and was transported from the scene by Pike Medic 63. Driver 2 stated that he was westbound on 79th St going straight when Vehicle 1 attempted to turn in front of him to enter the shopping plaza. Both vehicles were towed from the scene to Auto Return by Affordable Towing.

904053003 – 6/12/2022 at 7:10 PM

DAYLIGHT CLEAR DRY FOLLOWING TOO CLOSELY REAR END

INC - D1 stated he was driving East on 79th Street approaching Michigan Road when he observed D2 stopped in front of him. Unable to slow down in time D1 rear ended D2. Driver 2 stated she was stopped facing East bound on 79th Street at the red light at Michigan Road. Driver 1 then rear-ended her. Officer Tatlock observed moderate front bumper damage to vehicle 1 and moderate rear bumper damage to vehicle 2.

904116414 – 9/19/2022 at 2:54 PM

DAYLIGHT CLEAR DRY FAILURE TO YIELD RIGHT OF WAY OTHER - EXPLAIN IN NARRATIVE

INC - On September 19, 2022, at approximately 02:55 P.M. Indianapolis Metropolitan Police Officers were dispatched to the intersection of 79th Street and Michigan Road, to investigate a personal injury accident. Officers located the accident just west of the intersection and spoke with both drivers involved. Unit 1 stated that he was facing northbound, getting ready to pull out into traffic. Unit 1 stated that he did not see Unit 2, as he was pulling out onto to 79th Street. Unit 1 stated that as he pulled out on to 79th Street, Unit 2 vehicle struck his vehicle in the side. Officer Franz observed damage to the passenger side of Unit 1 vehicle. Unit 1 passenger was injured and taken to the hospital via Pike Medic 63. Unit 2 stated that he was driving westbound on 79th Street. Unit 2 stated that he had the right of way and stated that Unit 1 pulled out in front of his vehicle from the south side parking lot. Unit 2 stated that he was not able to stop in time, due to Unit 1 pulling out in front of him and struck his vehicle. Officer Franz observed damage to the front bumper of Unit 2 vehicle. Unit 2 did not complain of any injuries at this time. Unit 1 vehicle was towed to Auto Return, due to damage.

904163307 – 11/22/2022 at 6:59 PM

DARK (NOT LIGHTED) CLEAR DRY FAILURE TO YIELD RIGHT OF WAY LEFT TURN

INC - On November 22, 2022, at 6:59 PM IMPD Officers were dispatched to investigate a Personal Injury Accident located at 79th Street and Michigan Road involving two vehicles. Officer John Frederick arrived on scene with fully functional body worn camera and fully functional police vehicle. Officer Frederick spoke with Driver 1 and asked what happened. **D1 stated that he was travelling Northbound on Michigan Rd and attempted to get into the turn lane. D1 stated that the lights were red at the time of him trying to do this. When D1 got into the turn lane, D2 struck his driver side door.** Pike Medic 63 arrived and checked out the female passenger for neck pain and was released on scene. Officer Frederick spoke with Driver 2 and asked what happened. Driver 2 stated that he was travelling Northbound on Michigan Road and already in the turn lane. **D2 stated that D1 hit his vehicle while getting into the turn lane and then attempted to do a U-turn while hitting his vehicle.** Driver 2's vehicle was towed due to heavy front-end damage to Auto Return. Driver 2 was transported to St. Vincent Hospital by Pike Medic 63 for stomach pain. Officer Frederick handed Driver 1 and Driver 2 crash report numbers without incident. Note: While speaking with both drivers, there was a large language barrier and was difficult to understand what was being said. Officer Frederick put everything in the report based on what he was able to understand through his investigation. All events occurred in Indianapolis, Marion County, Indiana.

904247723 – 3/24/2023 at 2:27 PM

DAYLIGHT RAIN WET DISREGARD SIGNAL/REG SIGN RIGHT ANGLE

INC - Driver 1 was southbound on Michigan Rd going through the intersection with W 79th St. Driver 2 was westbound on W 79th St going through the intersection at Michigan Rd. Driver 3 with at the same intersection, waiting to turn southbound onto Michigan Rd from the westside of W 79th St. **D3 stated they saw D1 drive southbound through the intersection through a red light,** hitting the rear passenger side of Driver 2's vehicle, who was driving west through the intersection. **D2's vehicle then spun and hit the front driver side of D3's vehicle.** Driver 1 stated they went through the intersection going south and hit Driver 2 who had pulled in front of them, Driver 1 did not state the color of the light they drove through. Driver 2 was transported to the hospital for pain in their right arm, Driver 2 did not give a statement before being transported to the hospital. Driver 1 and 2's vehicles were towed to Auto Return.

904265857 – 4/27/2023 at 7:20 PM

DAWN/DUSK CLEAR DRY FAILURE TO YIELD RIGHT OF WAY RIGHT ANGLE

INC - Driver 1 stated she was driving South on Michigan Road approaching 79th Street when Driver 2 attempted to turn West in front of her into the Crooked Creek Shoppes parking lot from North bound Michigan Road. **D2 stated she was driving North on Michigan Road just past 79th Street attempting to turn West into the Crooked Creek Shoppes when one car stopped to let her turn West. D2 began her turn, but D1 was driving south in the far west lane and didn't see D2 causing a collision.** Officer Tatlock observed heavy front end damage to vehicle 1 and moderate rear passenger side damage to vehicle 2. Driver 2 and a four-year-old passenger were transported to the hospital.

904285551 – 5/30/2023 at 10:32 AM

DAYLIGHT CLEAR DRY FAILURE TO YIELD RIGHT OF WAY RIGHT ANGLE

INC - Driver 1 said that Unit 1 was traveling east on 79th ST when Uni 2 pulled out from a parking lot on the north side of the street heading south across 79th ST. D1 said that the front end of unit 1 struck the rear passenger's side corner of unit 2. D2 said that she thought she had enough time to make it across before attempting to cross 79th ST. There was a large dent in the rear passenger's side corner of unit 2 and a large dent in the front bumper of unit 1.

904290921 – 6/8/2023 at 11:08 PM

DARK (LIGHTED) CLEAR DRY FOLLOWING TOO CLOSELY REAR END

INC - DRIVER OF UNIT#1 REAR ENDED UNIT #2 WHO WAS SLOWING OR STOPPED IN TRAFFIC AT THE LIGHT AT W. 79TH STREET AND N. MICHIGAN ROAD. DRIVER OF UNIT#1 WAS CLEARLY FOLLOWING TOO CLOSELY, TRAFFIC WITHOUT DUE REGARD, AND IT WAS LATER DETERMINED THAT HE WAS OPERATING THE VEHICLE AS A HABITUAL TRAFFIC VIOLATOR. HE WAS ARRESTED FOR THE FELONY OFFENSE ON SCENE.

904308635 – 7/4/2023 at 11:59 AM

DAYLIGHT CLEAR DRY FAILURE TO YIELD RIGHT OF WAY OTHER - EXPLAIN IN NARRATIVE

INC - The pedestrian said that he was crossing Michigan RD at 79th ST when he struck by a gold kia that fled south on Michigan. An IMPD Hit and Run report was also completed.

904377504 – 10/22/2023 at 5:25 PM

DAYLIGHT CLEAR DRY FOLLOWING TOO CLOSELY REAR END

INC - On Sunday, October 22, 2023, at 17:25, Officer B Wong with IMPD responded to a crash on Michigan Road, south of the W 79th St Intersection. The road surface was Dry. Unit 4 was facing north bound on Michigan road, stopped in traffic. Unit 3 was stopped in traffic directly behind unit 4. Unit 2 was slowing or stopped in traffic directly behind unit 3. Unit 1 was traveling northbound on Michigan road, approaching Unit 2. Driver of unit 1 stated that unit 2 was wirelessly hacking his breaks (?) and he was unable to stop, causing unit 1 to strike the rear bumper of unit 2. Driver of unit 2 stated that he was slowing or stopped in traffic when unit 1, traveling at a high rate of speed, struck his rear bumper, causing the front bumper of unit 2 to then strike the rear bumper of unit 3. Driver of unit 3 stated that he was completely stopped in traffic when unit 1 struck the rear bumper of unit 2, causing unit 2 to strike the rear bumper of unit 3. Driver of unit 3 stated that, as a result from being struck by unit 2, unit 3's front bumper struck the rear bumper of unit 4. Driver of unit 4 stated she was stopped in traffic when unit 3's front bumper struck the rear bumper of unit 4. Driver of unit 2 complained of neck and back pain. He was transported to IU North Hospital via Pike Medic 63. Unit 1 had air bag deployment and was towed to auto return via Wheeler's Towing. Unit 2 was towed to auto return via Wheeler's Towing. Unit 3 and 4 were driven from the scene by their respective drivers. Assisting Officers performed field sobriety tests and PBT on driver of unit 1. Results were 0.00 on the PBT.

904395617 – 11/14/2023 at 9:50 AM

DAYLIGHT CLEAR DRY FOLLOWING TOO CLOSELY REAR END

INC - On Tuesday, November 14, 2023, at 09:50, MARGETSON, MICHAEL responded to a crash on Michigan Rd at intersection the of w 79th and the road surface was Dry. Vehicle 1, Black Honda Civic, Going straight. Vehicle 2, Gold Chevrolet Equinox, Slowing or stopped in traffic. Driver two stated she was driving north on Michigan road approaching W. 79th St. She **D2 observed an ambulance coming and she stopped in traffic to let him through. That is when vehicle one rear ended her.** Driver 1 stated he saw the ambulance coming and was preparing to stop, but the car in front of him slammed on his brakes. He tried to maneuver out of the way but was not able to stop in time.

904398211 – 11/20/2023 at 7:00 AM

DAWN/DUSK CLEAR DRY FAILURE TO YIELD RIGHT OF WAY RIGHT ANGLE

INC - This incident was recorded on body camera. On this day November 20, 2023, at approximately 7:00 am while working for the Indianapolis metropolitan police department I, Public Safety Officer A. Wooten (UN# 45509) in full uniform was dispatched to a personal injury accident in the 7900 block of Michigan Rd. The driver of the 2009 Silver Toyota, unit 1, license plate DD8902, Powell, Aletha explained that she was involved in an accident on 79th St and N Michigan Rd. Ms. Powell stated that she **V1 was going northbound on Michigan Rd when the dodge charger V2 pulled out onto Michigan Rd from the Marathon Gas Station Infront of her.** At that point she T-bone the charger on the driver side. There is significant damage on the entire front of the silver Toyota that matches her version of the event. Ms. Powell was checked out on scene by Pike Medics. The driver of the 2010 black dodge charger, unit 2, license plate TJD370, Hatcher, Michael **V2 was attempting to turn left onto Michigan Rd from the Marathon parking lot.** Michigan Rd at this intersection is a double yellow. When he was T-bone on the front and rear driver side doors. Mr. hatcher was taken by medics to the hospital for unknown injuries, by Pike Medics. Witness was Mr. Hatcher fiancé, and she gave the same statement as him. Officers on scene were not able to see inside of the dodge charger, not noticing the airbag deployment until conducting an inventory due to **heavy tinting. This may be why** Mr. Hatcher was not able to see Ms. Powell. Both cars were towed by Indy Best Towing to Auto Return located at 2451 S Belmont Ave Indianapolis, IN 46224. All events occurred in Indianapolis, Marion County, Indiana.

904411218 – 12/12/2023 at 7:14 AM

DARK (LIGHTED) CLEAR DRY DISREGARD SIGNAL/REG SIGN LEFT TURN

INC - On Tuesday, December 12, 2023, at 07:14, Perryman, Andrew responded to a crash on 79th ST at intersection the of Michigan RD and the road surface was Dry. Vehicle 1, Blue Toy Corolla Cross, Turning left. Vehicle 2, Black Kia Optima, Going straight. **D1 said that he was west on 79th attempting to turn south on Michigan and he had a green arrow. D1 said that as he entered the intersection the front end of unit 2 struck the front end of unit 1 causing unit 1 to spin and come to rest facing northwest.** Driver 2 said that he bumped his head and was not sure what happened. Witness 1 said that she was behind driver 1 when the lights turned green, but he did not have a green arrow. Witness 1 said that driver 1 turned into oncoming traffic and the front end of unit 1 struck the front end of unit 2. The front ends of both units were destroyed.

Meeting Minutes

Michigan Road & 79th Street – Road Safety Audit (RSA)

PROP 24-022 of the City-County Ordinance requires the Fatal Crash Review Team (FCRT) to review serious bodily injury crashes in addition to fatal crashes. The FCRT review is performed on a bi-monthly basis. Based on the incidence of fatal and incapacitating injury crashes reported during the period of November-December 2023, as reported to ARIES, the intersection of Michigan Road & 79th Street is identified as a high crash location. A site visit was held on Tuesday, April 23, 2024, at 1:30 pm. The purpose of the site visit was to observe existing conditions, collect notes and photographs, and discuss proposed improvements with attendees.

Attendees:

Damon Richards (Health by Design)
Tim Abrams (IMPD)
Keith Echternach (Indy DPW)
Jason Bowers (Indy DPW)
Jill Palmer (Indy DPW)

Intersection Basics

This 4-leg intersection is signalized, including protected / permissive 5-section heads for left-turn movements in all directions. The land use along the corridor is primarily commercial. The posted speed limit on Michigan Road is 45 mph. The posted speed limit on 79th Street is 40 mph.

Crash History (ARIES 2021-2023)

- 174 crashes/3 years
- 0 Fatal
- 20 Incapacitating Injury
- 9 Non-Incapacitating Injury / Possible
- 145 Property Damage Only (PDO)

Output from HAT 4.1 (analyzed as City Arterial Intersection One AADT):

- $I_{cf} = 6.41$
- $I_{cc} = 4.60$

Observations and Preliminary Identified Problems

- The existing typical cross section includes raised curb + offset and closed drainage with inlets in the curb in 3 of the 4 quadrants (the southeast quadrant is the exception).
- The existing raised concrete curb in the northeast quadrant is being struck frequently due to a shifting of the alignment along northbound Michigan Road. (See Photo 1 and Photo 2 on Page 3.)
- The existing drainage inlet on the west side of Michigan Rd. just south of 79th St. is sunken below the roadway surface by approx. 3" and could potentially be hazardous to vehicles.
- Sidewalk exists along the west side of Michigan Rd. north and south of the intersection.
- Existing ADA ramps appear to meet current standards but would need to be surveyed to verify.
- Access control does not exist for the intersection and the immediate vicinity. Multiple crashes are occurring in association with the existing drive access points, particularly the Marathon Gas Station in the northeast quadrant.
- In 2015, this intersection was reconstructed to add a dedicated right turn lane for the northbound, southbound and westbound directions.
- Existing traffic signals for this intersection have had backplates since at least 2013 and retroreflective borders were added to the backplates prior to the completion of the 2015 reconstruction.
- Currently overhead utility lines are crossing in front of signal heads for both directions of 79th St.
- Above and below ground utilities exist at this intersection with numerous overhead power lines along the north side of 79th St. and the west side of Michigan Rd in particular.
- Over tracking of the raised curb in the northwest quadrant is evident by tire tracks (see Photo 3 on Page 3).
- Using Google Street View, a posted speed limit sign could not be located for the northbound direction north or south of Michigan Road within the vicinity of the intersection.
- Using Google Street View, a posted speed limit sign could not be located for the westbound direction west or east of Michigan Road within the vicinity of the intersection.



Photo 1 – Raised concrete curb in the northeast quadrant is being struck frequently due to alignment shift of Michigan Road.



Photo 2 – Arrow pointing at the raised curb showing the shift in alignment of Michigan Road looking northbound.



Photo 3 – Over tracking of raised curb in the northwest quadrant.

Preliminary Recommendations

- Reconstruct the radius in the northeast quadrant such that the curbed radius no longer sticks out into the northbound travel lane to eliminate the curb getting struck repeatedly.
- Reconstruct turning radii for all 4 quadrants to accommodate the WB-50 design vehicle.
- Construct closed drainage in the southeast quadrant with raised curb + offset and inlets in the curb such that the entire intersection has closed drainage.
- Construct new sidewalks with ADA ramps such that all 4 quadrants accommodate multi-mode. Perpetuate painted crosswalks on all 4 legs of the intersection.
 - Note a future multi-use path is planned as part of a complete streets scope from Michigan Road to Georgetown Road.
- Construct raised curb in the center median for the north leg of Michigan Road and the east leg of 79th Street for access control and to improve overall safety of the intersection.
- Based on investigation of the existing traffic signal, adjust the signal timings and/or convert the left turn signals to protected only. This could be done for 2 legs or all 4 legs depending on the analysis.
- Install a 45-mph posted Speed Limit Sign (R2-1) on Michigan Road north of 79th Street.
- Install a 40-mph posted Speed Limit Sign (R2-1) on 79th Street west of Michigan Road.

If you have any questions or require additional information, please contact me.

Sincerely,



Jason Bowers
Transportation Safety Engineer
Department of Public Works – Engineering
200 E. Washington St., Suite 1401
Indianapolis, IN 46225

P: (317) 590-4279

E: Jason.Bowers@Indy.gov

cc: File

ATTACHMENT B

Binford Boulevard and Kessler Boulevard

RSA

ROAD SAFETY AUDIT

Date:	6/20/2024
Des. No.:	n/a

Reviewer Information:		Agency/Firm Name:	Indy DPW - Engineering
Primary Author:	Jason Bowers	Agency:	Traffic Team
Phone Numbers:	(317) 590-4279	Email Address:	jason.bowers@indy.gov

Purpose of Review:

The Indianapolis City-County Council Ordinance PROP 24-022 requires the Fatal Crash Review Team (established under a prior ordinance) to review serious bodily injury crashes in addition to fatal crashes. For this purpose, an ongoing review of crash data for Marion County is being performed on a bi-monthly basis. Fatal and incapacitating injury crashes reported to ARIES during the period of January-February 2024 have been analyzed and the intersection of Binford Blvd. & Kessler Blvd. was identified as the highest crash location within this 2-month period. The team met to discuss current deficiencies at this existing intersection. A list of countermeasures has been developed to address the deficiencies that were identified. The results are included below.

Project Location:

Route:	Binford Boulevard	District:	Greenfield	City:	Indianapolis	County:	Marion
RP Start:		RP End:		Lat & Long:	39.858415 -86.093866	Inside Urban Area Boundary:	<input checked="" type="radio"/> Yes or No (circle)
MPO:	Indianapolis Metropolitan Planning Organization (IMPO) Project Type: Road Safety Audit (RSA)						

Location: Binford Boulevard at Kessler Boulevard

The intersection is located in northeastern Marion County. See attached Site Location Map, Page 3.

Existing Conditions:

Within the study area, Binford Boulevard is a Primary Arterial and a Tier 3 Regional Freight Corridor (IMPO). The roadway is not part of the National Highway System (NHS) and is not on the National Truck Network (NTN). Kessler Boulevard within the study area, is a Primary Arterial. At this signalized intersection, Binford Boulevard forms the north and south legs of the intersection, while Kessler Boulevard forms the east and west legs. Existing Binford Boulevard runs on an angle northeast / southwest while existing Kessler Boulevard runs on a horizontal curve through the intersection which is at a 90 degree angle.

The NB & SB approaches of Binford Boulevard include one dedicated left turn lane, two through lanes, and one dedicated right turn lane. The EB approach of Kessler Boulevard includes one dedicated left turn lane, one through lane, and one shared through/right turn lane. The WB approach of Kessler Boulevard includes one dedicated left turn lane, two through lanes, and one dedicated right turn lane. The posted speed limit along Binford Boulevard is 35 mph and the posted speed limit along Kessler Boulevard is 35 mph. Binford Boulevard has partially controlled access, while Kessler Boulevard has uncontrolled access. During the field check on 6/12/2024, the following issues were identified:

Notes from the Field Check

- The existing intersection has traffic signal ahead warning signs on NB and SB Binford Blvd in advance of the intersection with Kessler Blvd. The existing sign for SB is overgrown with brush.
- Traffic signal ahead warning signs do not currently exist for EB or WB Kessler Blvd.
- On the west leg of Kessler Blvd. there are existing chevrons in place for the horizontal curves and they are for both EB and WB direction. The chevrons for EB approaching Binford Blvd. appear to be at the incorrect angle therefore they are not very visible to motorists.
- Signage currently in place at the intersection, including the traffic signal ahead warning signs on Binford Blvd., are in like new condition (2019 install).
- The existing traffic signal heads include back plates and retroreflective yellow borders as is preferred.
- Tucker Born (DPW) checked the existing signal timings and clearance intervals for this intersection to see if they can be tweaked to help reduce the number of rear end crashes.
 - Tucker's response: *Yellow clearance on Kessler is a little long but the road also curves and is narrow. SB Binford is slightly downhill which should be accounted for in the yellow clearance. Note: See recommendations below.*
- Rear end crashes make up 44% of the total manner of collision over the past 3 years of crash data. 24 of the 42 rear end crashes (57%) occurred between 2:00 pm and 6:00 pm. 5 of those were incapacitating. The highest 1-hour total was 4:00 pm with 8 crashes (3 INC). This indicates rear end crashes increase during the PM peak. This coincides with an increase in PM peak traffic. Countermeasures will be investigated to reduce rear ends.
- 27 of the 95 total crashes were right angles / left turns (28%) that occurred within the intersection. Of these 27 crashes, 13 were due to failure to yield, 11 disregarded the traffic signal, and 3 were due to other factors. In 16 of the 27 crashes, the driver at fault was traveling eastbound or westbound prior to the crash. In 9 of the 27 crashes, the driver at fault was traveling northbound or southbound prior to the crash. 2 crashes were undetermined.
- The existing pavement markings are in satisfactory condition.
- EB Kessler Blvd. has a horizontal curve approaching Binford Blvd. Vehicles jockeying for position, or changing into the lane with the shortest queue, is not desirable when navigating a horizontal curve while approaching a signalized intersection.
- The group noted occurrences of red light running, gunning engines, and general disregard of traffic laws – including excessive speed. These behaviors occurred even though one of the attendees was an IMPD officer and his patrol vehicle was visibly parked in the corner of the intersection.
- Although standard crash data analysis is for 3 full years, 1 Fatal crash did occur in 2020.
- Overhead street lighting exists in the northeast and southwest quadrants of the intersection.
- A safety study along Binford Blvd. was completed in approximately 2017. Jill was the lead (prior to joining DPW) and secured \$3.2 million for corridor safety improvements. When the project was designed, some of the safety recommendations were not included.
- A study was conducted approximately 20 years ago that recommended a road diet for Kessler Blvd. (Only Jill and Nathan Sheets remember.) Attendees at the field check suggested maybe this should be re-visited.

Traffic Operations:

a) Mobility/Congestion Performance: According to available traffic count data from INDOT's Traffic Count Database System (TCDS), the 2023 AADT along Binford Boulevard in the study area was approx. 30,000. The 2023 AADT along Kessler Boulevard in the study area was approx. 16,000.

b) Safety Performance / Crash Analysis: According to available crash data, there were 95 crashes associated with the study area from Feb-1 2021 to Jan-31 2024 (3 full years), of which 0 crashes resulted in a fatality, 11 crashes resulted in incapacitating injuries, 8 crashes resulted in non-incapacitating injury or possible, and there were 76 PDOs. Note: A fatality occurred at this intersection in December of 2020 (pre-dating this crash data analysis). See attached Crash Summary, Pages 5-7. Output from HAT 4.1:

Feb 2021-Jan 2024 Crash Data - Binford Boulevard at Kessler Boulevard (analyzed as a City Arterial Intersection) $I_{CF} = 2.02$, $I_{CC} = 2.55$

Alternatives and Recommendations

Based on the data summarized herein, and the current conditions at the study location, the following improvements are recommended:

RECOMMENDED COUNTERMEASURES (Near-Term)

- Trim any/all overgrown brush from the existing signs that are associated with this intersection.
- Install a traffic signal ahead warning sign (W3-3) for EB Kessler Blvd. approximately 600' west of the intersection. Install (2) traffic signal ahead warning signs (W3-3) for WB Kessler Blvd. at approximately 450' east and approximately 900' east of the intersection.
- Replace the existing chevrons on the west leg of Kessler Blvd. with new Chevron signs (W1-8) that are clearly visible to motorists who travel in each direction.
- Upon findings by Tucker Born, the signal timings and/or clearance intervals for this intersection may be adjusted. For each approach, add an additional signal on the nearside span as recommended.
- Re-stripe the white markings of EB Kessler Blvd. with solid white lines to let motorists know to stay in their lane while navigating the horizontal curve as they approach the traffic signal.
- Replace the flashing yellow left-turn arrows (FYA's) for EB and WB with protected only left-turn arrows. If crashes are not reduced, a capital improvement may be warranted, and alternative intersection design (such as displaced left turn lanes) would be investigated.
- Review existing pavement markings including all approaches. For example, speed reduction markings (MUTCD Section 3B.28) can be used to give drivers the impression that their speed is increasing. Police presence can be increased for more enforcement of traffic laws.

NOTE: The near term countermeasures can be implemented by the DPW Traffic Team or DPW Operations. Therefore a cost estimate is not necessary and was not developed.

RECOMMENDED COUNTERMEASURES (Long-Term)

- Crash data analysis for this intersection should be re-visited 3 years after the Near-Term Countermeasures are implemented to determine if the crashes were reduced.
- If the implementation of Near-Term Countermeasures listed above does not reduce crash totals at this intersection, then a more detailed study should be conducted that considers Reduced Conflict Intersection (RCI) design alternatives. For the purposes of this report, and to develop a planning level cost estimate, a dual lane roundabout is used. However, if a future study does commence, the NEPA process would be followed and all viable intersection designs would be considered to determine the recommended alternative.

Costs Estimate(s) for Proposed Safety Improvement Project

NEAR-TERM	LONG-TERM (Planning Level)
Preliminary Engineering Cost = \$6,000	Preliminary Engineering Cost = \$300K
Construction Cost = \$36,000	Construction Cost = \$2 Million
Construction Engineering = \$4,000	Construction Engineering = \$200K
Right-of-Way Cost = \$0	Right-of-Way Cost = \$50K
Total Cost = \$46,000	Total Cost = \$2.6 Million

It should be noted that possible environmental documentation costs are not included in this estimate. See attached Cost Estimate, Page 9.

Project Score: (for INDOT use)

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	0	
	0	
	0	
	0	
	0	

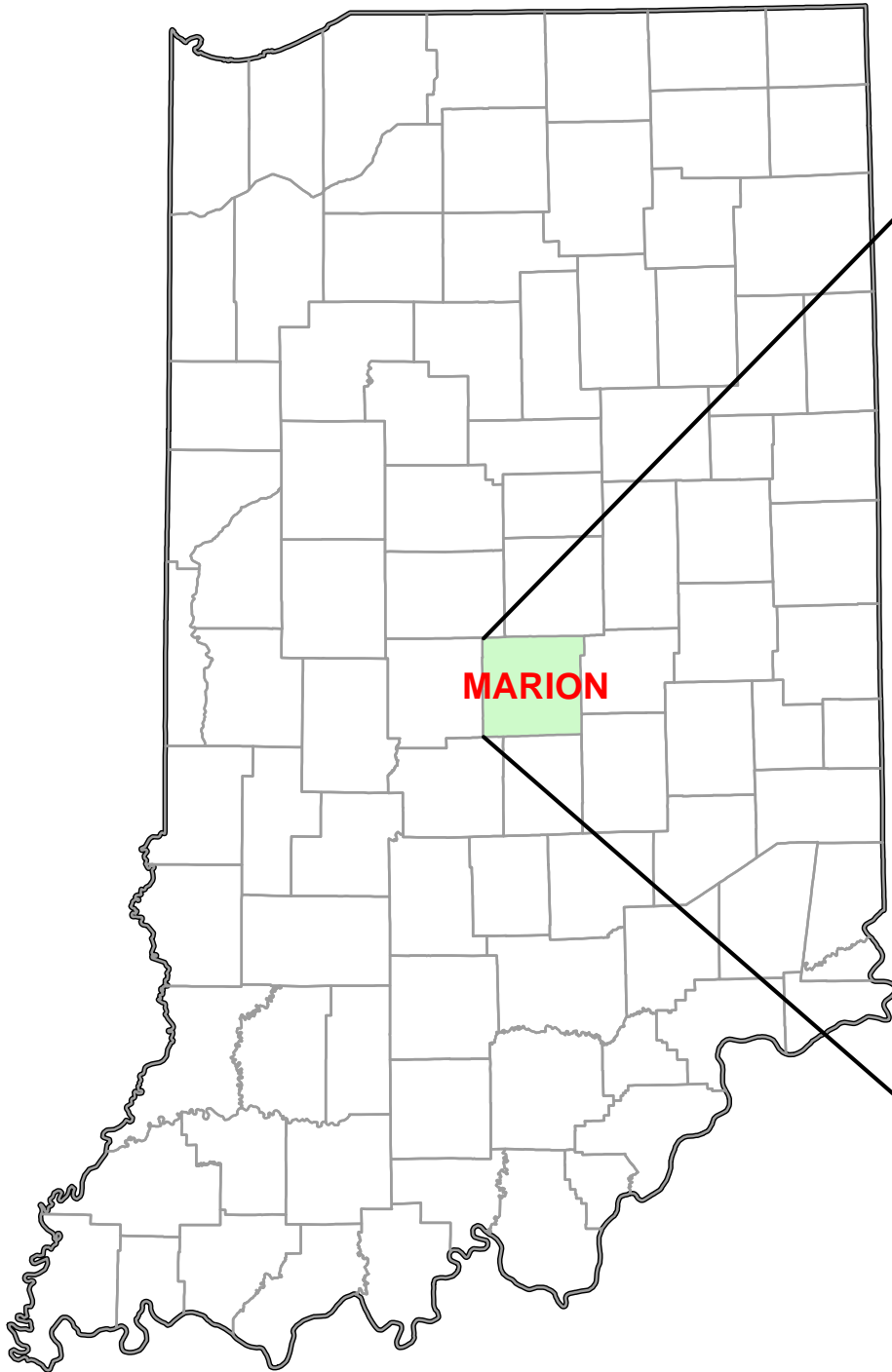
Miscellaneous Notes:

A site visit was held on Wednesday, June 12, 2024, at 1:00 pm. The purpose of the site visit was to observe existing conditions, collect notes and photographs, and discuss proposed improvements with attendees. The following people were present: Damon Richards (Health by Design), Sgt. Allan Whitesell (IMPD), Logan Lane (DMD), Jill Palmer, and Jason Bowers (Indy DPW).

Attachments:

Site Location Map, Page 3	Attachment A - Deep Dive Crash Data Analysis
Collision Diagram, Page 4	Attachment B - Meeting Minutes
Crash Summary, Pages 5-7	Attachment C - Conceptual Long Term Option
Photographs, Pages 8	
Cost Estimate, Page 9	

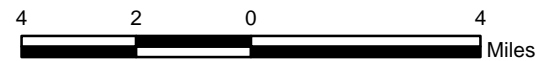
Binford Blvd. & Kessler Blvd.



MARION



National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

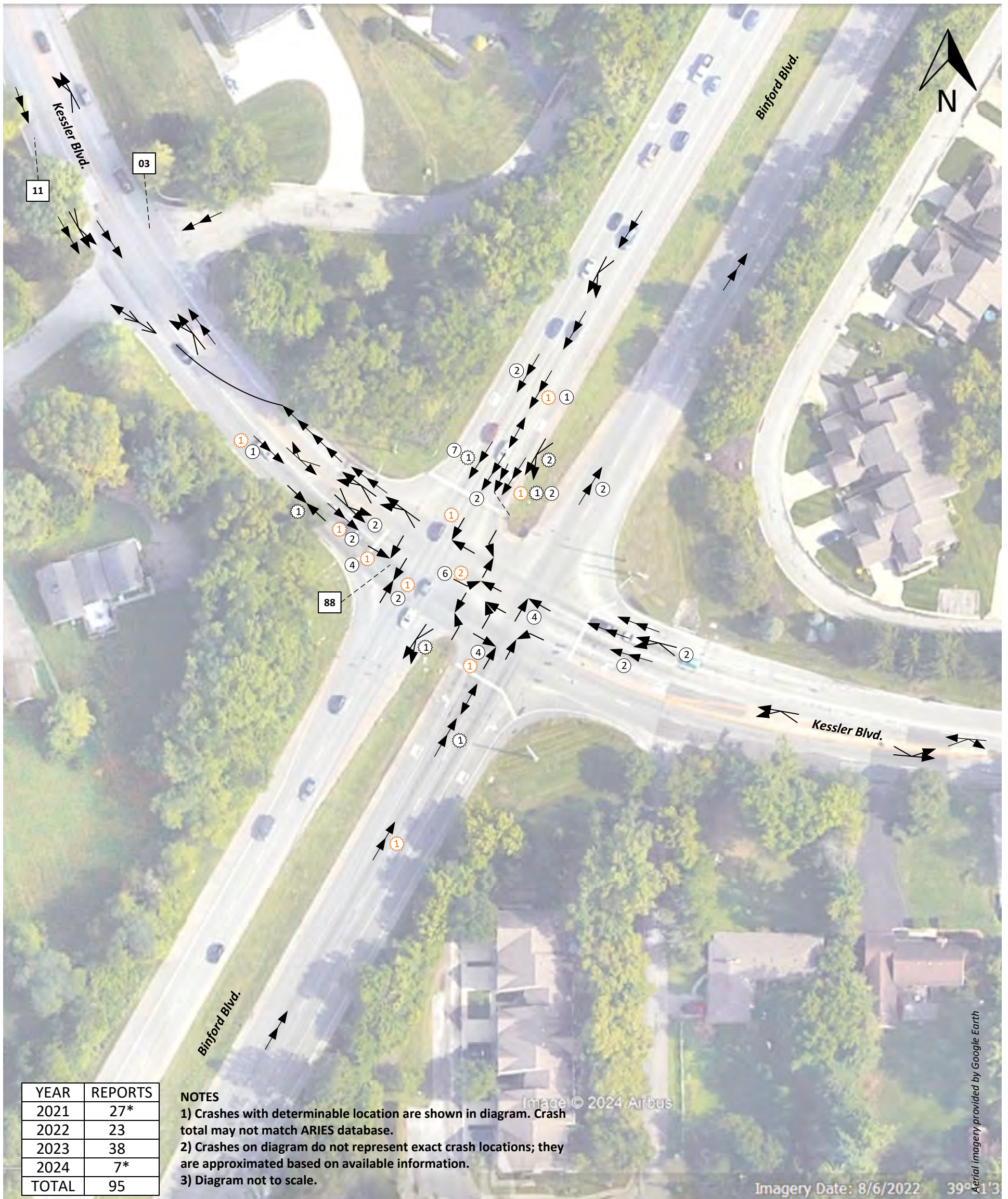


SITE LOCATION MAP

DIAGRAM OF COLLISION REPORTS

Binford Blvd. at Kessler Blvd.

Study Period 2/1/2021 to 1/31/2024 Location: 2
 District: Greenfield County: Marion City/Town: Indianapolis
 Analyst: JB QC: JP Date: 6/10/24



YEAR	REPORTS
2021	27*
2022	23
2023	38
2024	7*
TOTAL	95

NOTES
 1) Crashes with determinable location are shown in diagram. Crash total may not match ARIES database.
 2) Crashes on diagram do not represent exact crash locations; they are approximated based on available information.
 3) Diagram not to scale.

*Feb 1, 2021 to Jan 31, 2024

Object Symbols

- MOVING VEHICLE
- TURNING VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- PARKED VEHICLE
- PEDESTRIAN
- BICYCLE
- ANIMAL
- DEBRIS IN ROADWAY
- DRIVEWAY CRASH
- FATAL CRASH
- INJURY CRASH – INCAPACITATING
- INJURY CRASH – NONINCAPACITATING
- PDO CRASHES (IF > 1)

- SIGNALIZED INTERSECTION
- FIXED OBJECT (See table for # codes)

Collision Symbols

- REAR END
- HEAD ON
- OTHER
- SIDESWIPE – SAME
- SIDESWIPE – OPPOSITE
- RIGHT ANGLE
- LEFT/RIGHT TURN
- RAN OFF ROAD

Fixed Object Codes

- 01 – BRIDGE or OVERPASS
- 02 – BUILDING
- 03 – CULVERT or DITCH
- 04 – CURB
- 05 – GUARDRAIL or BARRIER
- 06 – EMBANKMENT
- 07 – FENCE
- 08 – TRAFFIC POLE
- 09 – UTILITY POLE
- 10 – SIGN
- 11 – TREE / SHRUB
- 12 – CONSTRUCTION BARRIER
- 13 – CRASH ATTENUATOR
- 88 – OTHER
- 99 – UNKNOWN

ARIES Summary
 Binford Blvd. & Kessler Blvd.

Feb-1, 2021 to Jan-31, 2024 (3 Years)

Total # of Crashes 95

INJURY STATUS	
FATAL	0
INCAPACITATING	11
NON-INCAPACITATING / POSSIBLE	8
PDO	75
REFUSED	1

79%

PERSON TYPE	
DRIVER	90
INJURED	1
OTHER - EXPLAIN IN NARRATIVE	3
OWNER VEHICLE	1

LIGHT CONDITION	
DARK (LIGHTED)	18
DARK (NOT LIGHTED)	7
DAWN/DUSK	7
DAYLIGHT	63

66%

WEATHER CONDITION	
BLOWING SAND/SOIL/SNOW	1
CLEAR	69
CLOUDY	15
RAIN	8
SNOW	2

73%

SURFACE CONDITION	
DRY	75
ICE	1
SNOW/SLUSH	2
WET	17

79%

PRIMARY FACTOR	
DISREGARD SIGNAL/REG SIGN	8
DRIVER DISTRACTED - EXPLAIN IN NARRATIVE	5
FAILURE TO MAINTAIN LANE	2
FAILURE TO YIELD RIGHT OF WAY	22
FOLLOWING TOO CLOSELY	34
IMPROPER LANE USAGE	3
IMPROPER PASSING	1
LEFT OF CENTER	1
OTHER (DRIVER) - EXPLAIN IN NARRATIVE	5
OTHER (VEHICLE) - EXPLAIN IN NARRATIVE	1
RAN OFF ROAD RIGHT	1
SPEED TOO FAST FOR WEATHER CONDITIONS	2
TRAFFIC CONTROL INOPERATIVE/MISSING/OBSC	1
UNSAFE BACKING	1
UNSAFE LANE MOVEMENT	6
UNSAFE SPEED	2

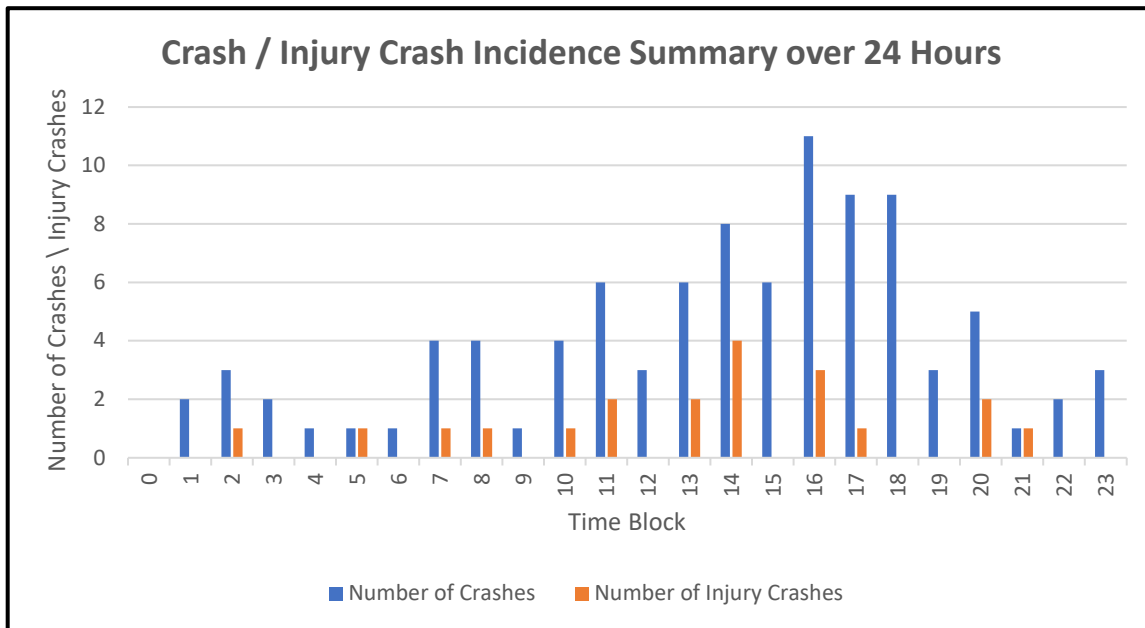
23%

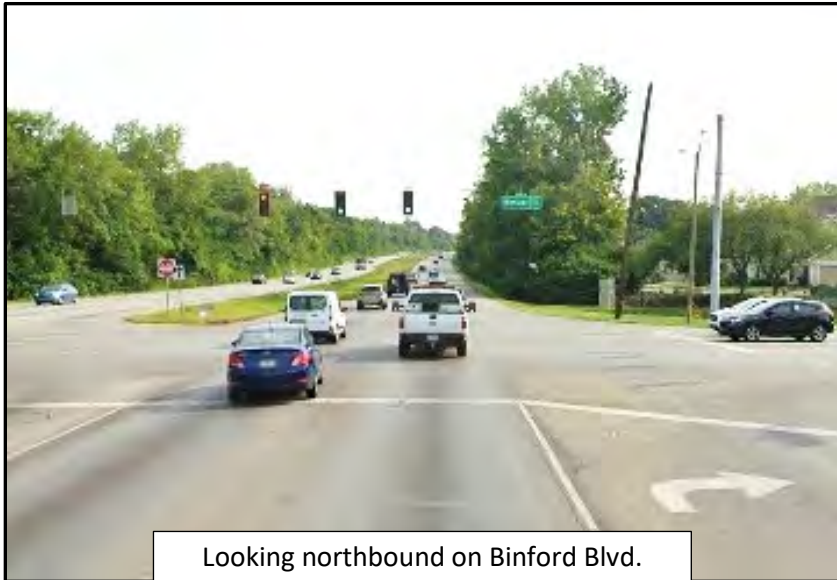
36%

MANNER OF COLLISION	
BACKING CRASH	1
HEAD ON BETWEEN TWO MOTOR VEHICLES	1
LEFT TURN	11
OPPOSITE DIRECTION SIDESWIPE	2
OTHER - EXPLAIN IN NARRATIVE	1
RAN OFF ROAD	4
REAR END	42
REAR TO REAR	2
RIGHT ANGLE	16
SAME DIRECTION SIDESWIPE	15

44%

TIME OF DAY ANALYSIS





Looking northbound on Binford Blvd.
from just south of Kessler Blvd.



Looking southbound on Binford Blvd.
from just north of Kessler Blvd.



Looking eastbound on Kessler Blvd.
from just west of Binford Blvd.



Looking westbound on Kessler Blvd.
from just east of Binford Blvd.

Note: Photos via Google Street View

COST ESTIMATE

Kessler Blvd and Binford Blvd Intersection Improvements - City of Indianapolis

Item No	Description	Quantity	Unit	Unit Price	Total Amount
1	Construction Engineering	1	LS	\$ 1,000.00	\$ 1,000.00
2	Mobilization and Demobilization	1	LS	\$ 8,000.00	\$ 8,000.00
3	Clearing of Right of Way	1	LS	\$ 7,000.00	\$ 7,000.00
4	Signal Cable, Control, Copper 5C/14 GA	400	LFT	\$ 3.00	\$ 1,200.00
5	Traffic Signal Head, 3 Section, 12 IN	4	EA	\$ 1,000.00	\$ 4,000.00
6	Maintaining Traffic	1	LS	\$ 1,000.00	\$ 1,000.00
7	Pavement Markings and Signs	1	LS	\$ 5,000.00	\$ 5,000.00

<i>SUBTOTAL</i>	\$27,200.00
<i>15% CONTINGENCY</i>	\$4,080.00
<i>CONSTRUCTION TOTAL</i>	\$31,280.00
<i>INFLATION (4.75% FOR 3 YEARS)</i>	\$4,672.48
<i>FORECASTED CONSTRUCTION TOTAL</i>	\$35,952.48
<i>PRELIMINARY ENGINEERING</i>	\$5,392.87
<i>CONSTRUCTION INSPECTION</i>	\$3,595.25



Andrew John Wolf

FY 2028 PROJECT COSTS	
P/E	\$ 6,000.00
CONSTRUCTION	\$ 36,000.00
CONSTRUCTION ENG.	\$ 4,000.00
R/W	\$ -
REIMB. UTILITIES	\$ -
TOTAL	\$ 46,000.00

Attachments

Crash Narratives – Incapacitating (Total =11)

903737835 – 2/7/2021 at 11:08 AM

DAYLIGHT CLEAR ICE SPEED TOO FAST FOR WEATHER CONDITIONS RIGHT ANGLE

INC – On February 7, 2021, Officer Freeman (40823) was dispatched to the intersection of Binford Blvd. and Kessler Blvd. for the report of a three-vehicle personal injury accident. Upon arrival Officer Freeman spoke with D1 who stated that she was headed eastbound on Kessler Blvd. approaching Binford Blvd. **D1 stated that she was headed down the hill when she hit ice and couldn't stop** forcing her into the intersection. D1 stated that she then hit V2. D1 stated she had extreme shoulder pain on her left side, and she thought it was dislocated. D1 was transported to Methodist by Medic 99. V1 was towed to Auto Return by Wards towing. Front Seat Passenger of V1 stated that she had extreme chest pain and shoulder pain from the accident. The Passenger of V1 was transported to Methodist by Lawrence Medic 40. D2 stated that she was headed northbound on Binford Blvd. approaching Kessler Blvd. and that she cannot remember anything else that occurred before the crash. D2 was unconcise when Fire and EMS arrived. D2 had an abrasion about the left eye and was transported to St. Vincent's hospital by Medic 21. V2 was towed to Auto Return by Affordable towing. D3 stated that she was stopped at the stop light at Binford Blvd. and Kessler Blvd. facing westbound when they saw V1 who was headed eastbound on Kessler Blvd. run the red light striking V2 who was headed northbound on Binford Blvd. D3 then stated that V2 was then redirected from being hit by V1 to their direction causing V2 to hit V3 head on pushing V3 back approximately 20 feet from where V3 was originally stopped for the red light. D3 had no injuries at the time of the report other than discomfort from the crash. V3 was towed to Auto Return by Wards towing.

903748642 – 2/24/2021 at 2:30 PM

DAYLIGHT CLEAR DRY FOLLOWING TOO CLOSELY REAR END

INC – D1 stated that she was attempting to get over into the left turn lane to turn onto Kessler Blvd. from Binford and she had taken her foot off the gas and hit the brake. V1 stated that her car had begun to stop but didn't fully stop before she rear-ended V2. D2 stated she was stopped in traffic, waiting to turn left onto Kessler from Binford when V1 rear-ended her car. D2 was transported to Community North Hospital by Medic 10 EMS 2844 for a complaint of back pain. **Note: Nothing to hi-light as far as cause.**

903803109 – 5/30/2021 at 8:35 PM

DAYLIGHT CLEAR DRY FAILURE TO YIELD RIGHT OF WAY LEFT TURN

INC – On May 30, 2021, V1 was traveling eastbound on Kessler Blvd. and was attempting to turn northbound on Binford Blvd. V2 was in the turning lane and appeared to have been trying to turn southbound on Binford Blvd. As V1 began turning northbound on Binford Blvd., D1 said that V2 suddenly stopped trying to turn and went westbound on Kessler Blvd. As V1 was turning northbound, and V2 was going westbound, both vehicles collided in the intersection of Binford and Kessler. D2 said that she was the third car going west on Kessler and that there was a small space between her and the car in front of her. **D2 said that she had the green light and V1 decided to try and turn in between her and the car in front of her.** V1 was towed due to disabling damage. D2 was taken to the hospital by medic 40.

903846774 – 7/30/2021 at 2:00 PM

DAYLIGHT CLEAR DRY UNSAFE SPEED OTHER - EXPLAIN IN NARRATIVE

INC – V1 WAS TRAVELING EASTBOUND ON KESSLER BLVD E DR COMING UP ON BINFORD BLVD. V'S 2, 3, 4, 5, WERE ALL TRAVELING WESTBOUND ON KESSLER BLVD EAST DR. IN THAT ORDER. **V1 WAS TRAVELING AT A HIGH RATE OF SPEED AS IT CAME AROUND THE SLIGHT CURVED ROAD.** V1 STRUCK V2 WHICH CAUSED A CHAIN OF ACCIDENTS. V1 STRUCK V2 WHICH STRUCK V3. V1 CONTINUED AFTER THE INITIAL COLLISION AND

STRUCK V4 AND V5. EVERY VEHICLE SUSTAINED HEAVY DAMAGE. ALL UNITS WERE TOWED. D1 SUSTAINED HEAVY FACIAL INJURIES AND WAS TRANSPORTED TO THE HOSPITAL BY MEDICS. D2 SUSTAINED INJURIES AS WELL AND HAD A COMPLAINT OF PAIN. D2 WAS ALSO TRANSPORTED TO THE HOSPITAL BY MEDICS. THE REMAINING DRIVERS AND PASSENGERS WERE CHECKED OUT BY MEDICS ON SCENE. DUE TO THE HECTIC SCENE AND PRIMARY FOCUS ON MEDICAL ATTENTION, INSURANCE INFORMATION WAS NOT OBTAINED FOR V'S 1, 2, 3, AND 5. THEIR PHONE NUMBERS ARE LISTED HOWEVER.

903856007 – 8/14/2021 at 9:34 PM

DARK (NOT LIGHTED) CLOUDY DRY FOLLOWING TOO CLOSELY REAR END

INC – D1 stated that she was looking down, and when she looked up, she did not have time to stop before hitting the vehicle slowing down in front of her. D2 stated he was slowing for traffic in front of him. He was then rear ended from behind by the car that was driven by D1. The collision pushed his car forward into the back end of D3. D3 stated he was slowing for traffic in front of him. He was then rear ended from behind by the car that was driven by D2. D1 was transported to community north by medic 9 due to injuries to her left wrist. The back passenger in D2's car complained of chest pain but was not transported to any hospital.

903875076 – 9/16/2021 at 11:30 AM

DAYLIGHT CLEAR DRY DRIVER DISTRACTED - EXPLAIN IN NARRATIVE REAR END

INC – V2 WAS STOPPED AT THE LIGHT OF THE KESSLER BLVD AND BINFORD BLVD, TRAVELING WESTBOUND ON KESSLER BLVD. V1 TRAVELING WESTBOUND ON KESSLER BLVD. FAILED TO STOP IN TIME. V1 STRUCK V2 IN THE REAR OF HIS VEHICLE. V1'S TWO OCCUPANTS WERE BOTH INJURED WITH COMPLAINT OF NECK AND BACK PAIN. BOTH OCCUPANTS WERE TRANSPORTED TO COMMUNITY NORTH HOSPITAL. V1 WAS TOWED TO AUTO RETURN. V2, PREGNANT FEMALE WAS CHECKED OUT BY MEDICS AND DECIDED TO SELF TRANSPORT TO THE HOSPITAL.

904018821 – 4/19/2022 at 4:35 PM

DAYLIGHT CLEAR DRY DRIVER DISTRACTED - EXPLAIN IN NARRATIVE REAR END

INC – ALL VEHICLES WERE HEADED SOUTHBOUND ON BINFORD BLVD. V'S 1, 2, 3, 4 WERE STATIONARY STOPPED AT THE RED LIGHT AT THE INTERSECTION OF BINFORD BLVD AND KESSLER BLVD E DR. V5 WAS SOUTHBOUND ON BINFORD TRAVELING AT A VERY HIGH RATE OF SPEED. V5 SIDESWIPPED V4 THEN REAR-ENDED V3 WHICH CAUSED A SECONDARY COLLISION OF V3 REAR ENDING V2 WHICH CAUSED A THIRD COLLISION OF V2 REAR ENDING V1. D3 (MASON) WAS TRANSPORTED TO METHODIST BY MEDIC 31 AND HER FRONT SEAT PASSENGER (JACQUELINE ANDERSON) WAS TRANSPORTED TO METHODIST HOSPITAL BY MEDIC 21. WITNESS (TRACI) (TX 317-728-1121) STATED THAT SHE WAS SITUATED ON THE TURN LANE WHEN SHE WITNESSED V5 FLY PAST HER AT A VERY HIGH RATE OF SPEED THEN STRIKE V3. D1, 2, AND 3 ALL STATED THAT THEY WERE STATIONARY WHEN THEY WERE REAR ENDED. D4 STATED THAT HE WAS ON THE TURN LANE WHEN HE WAS SIDESWIPPED BY V5. D5 (BODENHAMER) STATED THAT HE DID NOT KNOW WHAT HAPPENED. D5 WAS ISSUED A TICKET FOR EXCESSIVE SPEEDING.

904139664 – 10/22/2022 at 7:30 AM

DAYLIGHT CLEAR DRY FAILURE TO YIELD RIGHT OF WAY HEAD ON BETWEEN TWO MOTOR VEHICLES

INC – V1 stated she was traveling eastbound on Kessler Blvd and lights were flashing when she continued to travel across Binford Blvd. V1 stated she was struck by V2. V2 stated he had the right of the way traveling northbound on Binford Blvd. V2 stated he struck V1 after she drove through the red light, crossing Binford Blvd. V3 stated she was stopped at the intersection of Kessler Blvd & Binford Blvd traveling westbound when V1 struck V2. V1 struck V3 as a result of being struck by V2. Witness 1 (Tyrone Allie) stated he was traveling westbound on Kessler Blvd attempting to go northbound on Binford Blvd when he witnessed the collision.

Allie stated V2 had the right of way. Witness 2 (Allen Digby) stated he was stopped at the intersection of Kessler Blvd & Binford Blvd going westbound when he witnessed the collision. Digby stated V1 did not have the right of way when V2 struck V1.

904296526 – 6/17/2023 at 8:10 AM

DAYLIGHT CLEAR DRY DISREGARD SIGNAL/REG SIGN OTHER - EXPLAIN IN NARRATIVE

INC – D1 was unable to give a statement of what occurred during the accident. D2 stated that she was driving south on Binford Blvd approaching the green light at Kessler Blvd and when she went through the green light D1 ran the red light going eastbound Kessler hitting her in the passenger side of her car causing the car to flip over. Witness 1 stated that she was driving south on Binford Blvd behind D2 when she saw D1 run the red light going east on Kessler Blvd and hit D2 who was driving through the green light.

904431672 – 1/15/2024 at 5:40 AM

DARK (LIGHTED) CLEAR DRY FAILURE TO YIELD RIGHT OF WAY LEFT TURN

INC – On Monday, January 15, 2024, at 05:40, Emmel, Andrew responded to a crash on Kessler Blvd E Dr at the intersection of Binford Blvd and the road surface was Dry. V1, Gold Toy Cba, Turning left. V2, Blue Kia Spo, Going straight. V1 STATED SHE WAS EASTBOUND ON KESSLER BLVD E DR AND TURNING LEFT TO GO NORTH ON BINFORD BLVD. V1 STATED SHE HAD A FLASHING YELLOW ARROW WHEN SHE TURNED LEFT. V1 STATED AS SHE TURNED V2 CAME FROM THE WEST AND STRUCK HER PASSENGER SIDE. OFFICER EMMEL OBSERVED PASSENGER SIDE DAMAGE TO V1. V1 DID NOT REQUEST EMS. V1 WAS TOWED TO AUTO RETURN BY AFFORDABLE TOWING. V2 STATED SHE WAS WESTBOUND ON KESSLER BLVD E DR AND APPROACHING BINFORD BLVD. V2 STATED SHE HAD A GREEN LIGHT AS SHE CROSSED THE INTERSECTION BUT WAS STRUCK BY V1 AS IT TURNED TO GO NORTH. OFFICER EMMEL OBSERVED FRONT END DAMAGE TO V1. PASSENGER 1 WAS TRANSPORTED TO THE HOSPITAL DUE TO A COMPLAINT OF PAIN TO HIS BACK AND RIGHT WRIST. V2 WAS TOWNED TO AUTO RETURN BY COOKS TOWING.

904441031 – 1/29/2024 at 4:45 PM

DAYLIGHT CLOUDY WET FOLLOWING TOO CLOSELY REAR END

INC – On Monday, January 29, 2024, at 16:45, Jones, Joshua responded to a crash on Kessler Blvd E Dr at intersection the of Binford Blvd and the road surface was Wet. V1, Light Blue Honda Odyssey, Going straight. V2, White Dodge Nitro, Slowing or stopped in traffic. V3, White Toyota Rav4 Prime, Slowing or stopped in traffic. {Driver Statements} D1 stated that he was driving East on Kessler Blvd Dr E and was attempting to stop but stated his brakes did work correctly and he rear ended V2. D2 stated that she was stopped in traffic at the light when V1 rear ended her vehicle causing her to tap the back bumper of V3. D3 stated that she was stopped in traffic when she felt V2 bump the back of her vehicle.

Meeting Minutes
Binford Boulevard & Kessler Boulevard
Road Safety Audit (RSA)

PROP 24-022 of the City-County Ordinance requires the Fatal Crash Review Team (FCRT) to review serious bodily injury crashes in addition to fatal crashes. The FCRT review is performed on a bi-monthly basis. Based on the incidence of fatal and incapacitating injury crashes reported during the period of January-February 2024, as reported to ARIES, the intersection of Binford Boulevard & Kessler Boulevard is identified as a high crash location. A site visit was held on Wednesday, June 12, 2024, at 1:00 pm. The purpose of the site visit was to observe existing conditions, collect notes and photographs, and discuss proposed improvements with attendees.

Attendees:

Damon Richards (FCRT Member)
Sgt. Allan Whitesell (IMPD)
Jill Palmer (Indy DPW)
Logan Lane (Indy DMD)
Jason Bowers (Indy DPW)

Intersection Basics

This 4-leg intersection is signalized, including protected only 3-section heads for NB and SB left-turn movements from Binford Blvd. and 4-section heads with flashing yellow arrows (FYAs) for EB and WB left-turn movements from Kessler Blvd. The land use along the corridor is primarily residential. The posted speed limit on Binford Blvd. is 50 mph. The posted speed limit on Kessler Blvd. is 35 mph.

Crash History (ARIES Feb 1, 2021 – Jan 31, 2024)

- 95 crashes/3 years
- 0 Fatal
- 11 Incapacitating Injury
- 8 Non-Incapacitating Injury / Possible
- 76 Property Damage Only (PDO)

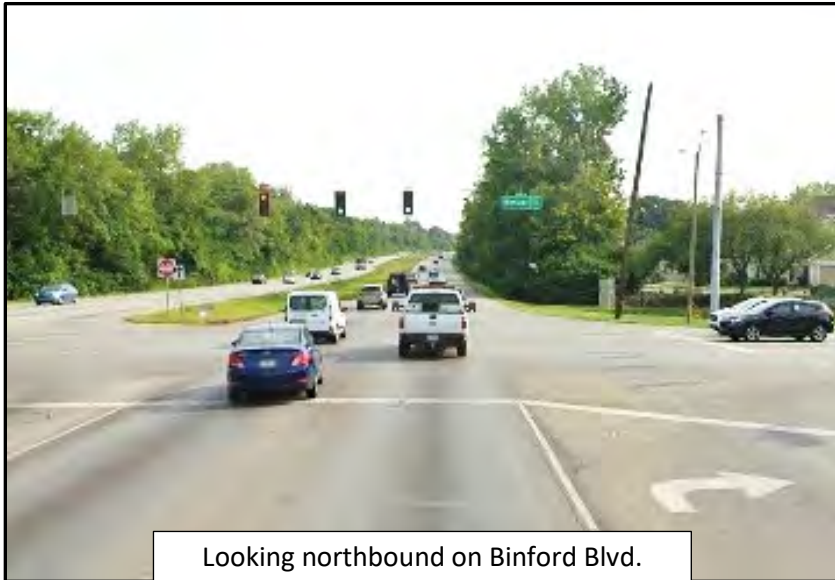
Output from HAT 4.1 (analyzed as City Arterial Intersection One AADT):

- $I_{cf} = 2.02$
- $I_{cc} = 2.55$

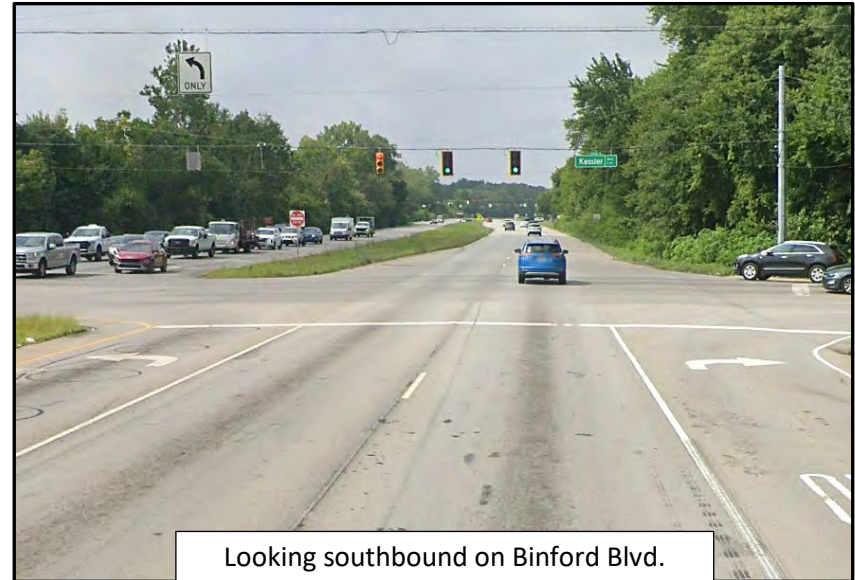
Observations and Preliminary Identified Problems

1. The existing intersection has traffic signal ahead warning signs on NB and SB Binford Blvd in advance of the intersection with Kessler Blvd. The existing sign for SB is overgrown with brush.
2. Traffic signal ahead warning signs do not currently exist for EB or WB Kessler Blvd.
3. On the west leg of Kessler Blvd. there are existing chevrons in place for the horizontal curves and they are for both EB and WB direction. The chevrons for EB approaching Binford Blvd. appear to be at the incorrect angle therefore they are not very visible to motorists.
4. The signage currently in place at the intersection, including the traffic signal ahead warning signs on Binford Blvd., are in like new condition (installed in 2019).
5. The existing traffic signal heads include back plates and retroreflective yellow borders as is preferred.
6. Tucker Born (DPW) checked the existing signal timings and clearance intervals for this intersection to see if they can be tweaked to help reduce the number of rear end crashes.
*Tucker's response: Yellow clearance on Kessler is a little long but the road also curves and is narrow. SB Binford is slightly downhill which should be accounted for in the yellow clearance. **Note: See recommendations below.***
7. Rear end crashes make up 44% of the total manner of collision over the past 3 years of crash data. 24 of the 42 rear end crashes (57%) occurred between 2:00 pm and 6:00 pm. 5 of those were incapacitating. The highest 1-hour total was 4:00 pm with 8 crashes (3 INC). This indicates rear end crashes increase during the PM peak. This is typical and coincides with an increase in PM peak traffic. However, countermeasures will be investigated to reduce rear end crashes at this intersection.
8. 27 of the 95 total crashes were right angles / left turns (28%) that occurred within the intersection. Of these 27 crashes, 13 were due to failure to yield, 11 disregarded the traffic signal, and 3 were due to other factors. In 16 of the 27 crashes, the driver at fault was traveling eastbound or westbound prior to the crash. In 9 of the 27 crashes, the driver at fault was traveling northbound or southbound prior to the crash. 2 crashes were undetermined.
9. The existing pavement markings are in satisfactory condition.
10. EB Kessler Blvd. has a horizontal curve approaching Binford Blvd. Vehicles jockeying for position, or changing into the lane with the shortest queue, is not desirable when navigating a horizontal curve while approaching a signalized intersection.

11. While observing this intersection the group noted occurrences of red light running, gunning engines, and general disregard of traffic laws – including excessive speed. These behaviors occurred even though one of the attendees was an IMPD officer and his patrol vehicle was visibly parked in the corner of the intersection.
12. Although standard crash data analysis is for 3 full years, 1 Fatal crash did occur in 2020.
13. Overhead street lighting exists in the northeast and southwest quadrants of the intersection.
14. A safety study along Binford Blvd. was completed in approximately 2017. Jill was the lead (prior to joining DPW) and secured \$3.2 million for corridor safety improvements. When the project was designed, some of the safety recommendations were not included.
15. A study was conducted approximately 20 years ago that recommended a road diet for Kessler Blvd. (Only Jill and Nathan Sheets remember.) Attendees at the field check suggested maybe this should be re-visited.



Looking northbound on Binford Blvd.
from just south of Kessler Blvd.



Looking southbound on Binford Blvd.
from just north of Kessler Blvd.



Looking eastbound on Kessler Blvd.
from just west of Binford Blvd.



Looking westbound on Kessler Blvd.
from just east of Binford Blvd.

Note: Photos via Google Street View

Attachment B-4

Preliminary Recommendations

- Trim any/all overgrown brush from the existing signs that are associated with this intersection.
- Install a traffic signal ahead warning sign (W3-3) for EB Kessler Blvd. approximately 600' west ([click](#)) of the intersection. Install (2) traffic signal ahead warning signs (W3-3) for WB Kessler Blvd. at approximately 450' east ([click](#)) and approximately 900' east ([click](#)) of the intersection.
- Replace the existing chevrons on the west leg of Kessler Blvd. with new Chevron signs (W1-8) that are clearly visible to motorists who travel in each direction.
- Upon findings by Tucker Born, the signal timings and/or clearance intervals for this intersection may be adjusted. For each approach, add an additional signal on the nearside span as recommended.
- Re-stripe the white markings of EB Kessler Blvd. with solid white lines to let motorists know to stay in their lane while navigating the horizontal curve as they approach the traffic signal.
- Replace the flashing yellow left-turn arrows (FYA's) for EB and WB with protected only left-turn arrows. If crashes are not reduced, a capital improvement may be warranted, and alternative intersection design (such as displaced left turn lanes) would be investigated.
- Review existing pavement markings including all approaches. For example, speed reduction markings (MUTCD Section 3B.28) can be used to give drivers the impression that their speed is increasing. Police presence can be increased for more enforcement of traffic laws.

If you have any questions or require additional information, please contact me.

Sincerely,



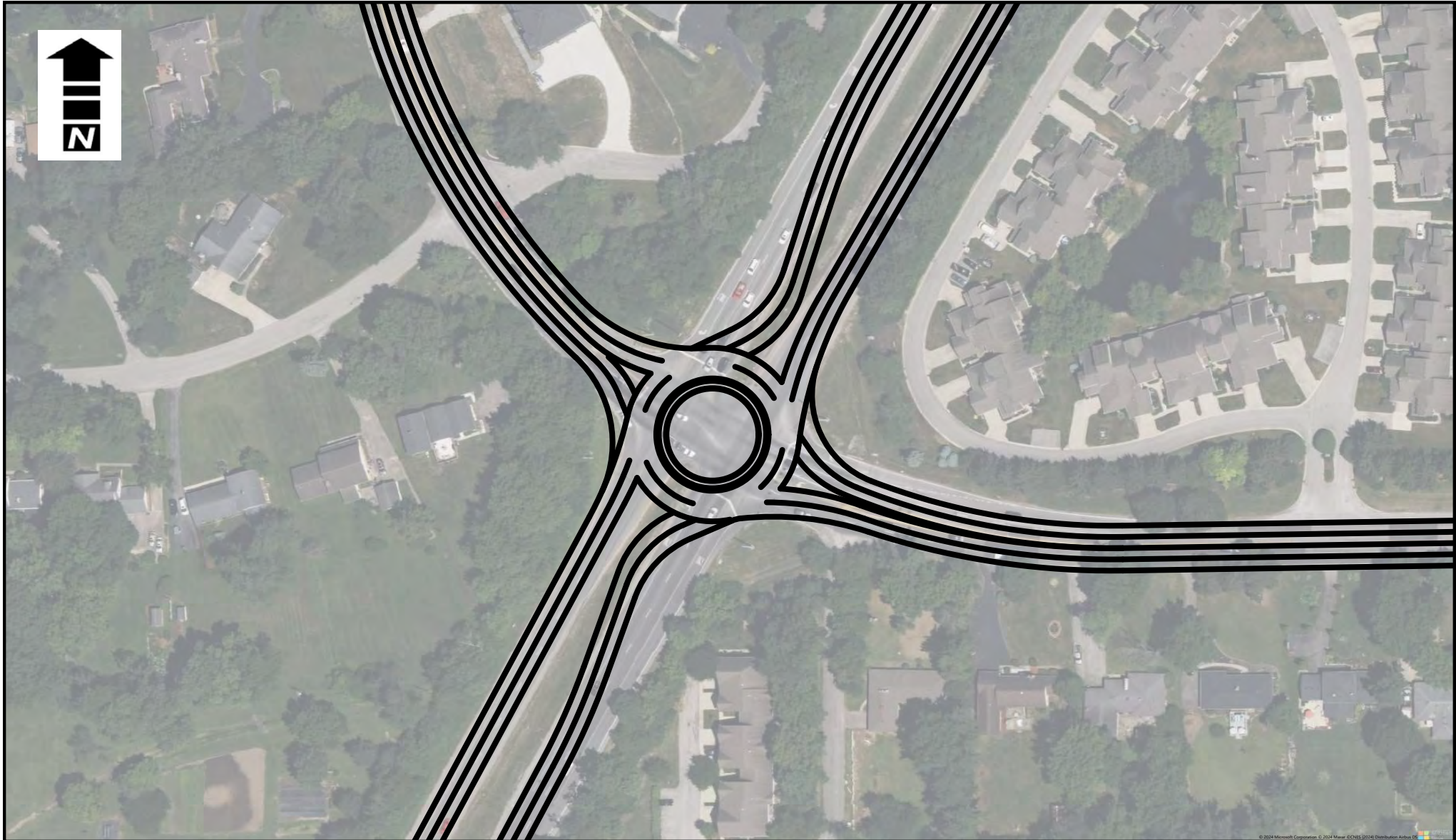
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cc: File

CONCEPTUAL LAYOUT



Note: A roundabout was used for the purposes of developing the cost estimate for a Long-Term option, however this RSA does not preclude that a roundabout is the best alternative. This decision would be made by following the NEPA process.