Intersection Control Evaluation (ICE) Study for
Illinois Route 251 and Prairie Hill Road

South Beloit, Illinois

Final Report

Prepared for:

Stateline Area Transportation Study (SLATS MPO)

Prepared by:

March 2023

CBS No. SLATS22002

Executive Summary

An intersection control evaluation (ICE) study was performed for the intersection of Illinois Route 251 (IL 251) and Prairie Hill Road. This intersection is located within the municipalities of South Beloit, Illinois; Roscoe, Illinois; and Roscoe Township, Illinois. This study investigated existing-year and future-year conditions at this location to balance traffic operations, traffic safety, and multimodal accommodations. Roadway geometrics, traffic data, historical crash data, intersection operations analysis, and potential alternatives were reviewed and performed to identify and mitigate deficiencies found at the intersection. The following summarizes findings from the ICE study:

- Existing-year traffic operations indicate adequate traffic operations (LOS D or better) are present for many intersection movements during peak traffic periods
    - The southbound left-turn movement operates at LOS E during the weekday morning peak hour but affects five vehicles during the peak hour
- Future-year (Year 2045) traffic operations show operational deficiencies are anticipated on the southbound left-turn movement (LOS E) during the weekday afternoon peak hour when background traffic is considered
- Providing intersection safety improvements such as signing and marking installations and traffic signal phasing and clearance interval review would improve traffic safety at IL 251 and Prairie Hill Road but would keep the Dearborn Avenue intersections within the functional area of the IL 251 intersection
    - Reconfiguring the eastbound and westbound left-turn lanes to eliminate the existing negative left-turn offset is not recommended as other strategies can be implemented that will achieve the same safety benefit without physical impacts to the roadway or intersection geometrics (e.g., protective-only signal phasing)
- Reconfiguring the Prairie Hill Road to provide proper lane following would also improve safety in the study area but would keep the Dearborn Avenue intersections within the functional area of the IL 251 intersection
- Relocating the Dearborn Avenue intersections away from the IL 251 intersection will improve safety but would require significant right of way acquisition to implement
- Upgrading the intersection to provide a roundabout improves traffic operations during peak traffic periods but is the most expensive to construct, requires the most right of way to implement (including realigning East and West Dearborn Avenue), and may introduce driver expectancy issues due to the existing function of the IL 251 corridor.

When considering the existing intersection configuration, the proposed alternatives, and the advantages and disadvantages of each option, it is recommended that, for the near-term, the intersection maintain traffic signal control and implement the intersection safety improvements and through lane reconfiguration of Prairie Hill Road. These improvements are simple and cost-effective to apply and will help alert motorists of the approaching traffic signal and provide proper travel through the intersection. While the Dearborn Avenue intersections will remain within the functional area of the IL 251 intersection, the improvements along Prairie Hill Road will reduce driver expectancy issues related to proper lane assignment and travel through this area. Furthermore, the use of pavement markings and signs to implement these improvements allows for flexibility should traffic volumes along Prairie Hill Road increase to a point where increased traffic capacity along the Prairie Hill Road approaches is necessary.

It is recommended that, as a long-term solution, to relocate the Dearborn Avenue roadways farther away from IL 251. This alternative will improve safety for all intersections in the study area as proper intersection spacing will be created, providing adequate decision-making and driver expectancy times and distances for motorists. As parcels in the immediate vicinity of the IL 251 and Prairie Hill Road intersection are developed, consideration should be given to preserving right of way to allow for the realignment of East and West Dearborn Avenue.

It is recommended that consideration should be given to preserving land within the existing Prairie Hill Road right of way for a physically separated multi-use path to provide bicycle and pedestrian travel in the area. From current aerial imagery, the existing right of way along Prairie Hill Road should be able to have room for the existing Prairie Hill Road cross-section as well as a multi-use path feature. In addition, the proposed sidewalk along West Dearborn Avenue should be considered if any roadway or intersection improvements are made along this roadway.

The roundabout alternative also provides safe, efficient traffic flow at the IL 251 and Prairie Hill Road intersection, but it has the highest construction costs (which includes realignment of Dearborn Avenue) to implement. Furthermore, installing a rural roundabout along a high-speed, multi-lane divided arterial like IL 251 can contradict the roadway's functionality and purpose of a regional travel route. This, in turn, can introduce driver expectancy issues as motorists are not anticipating a slower-speed roundabout to navigate which may increase rear-end, sideswipe, and run off road crash probabilities.

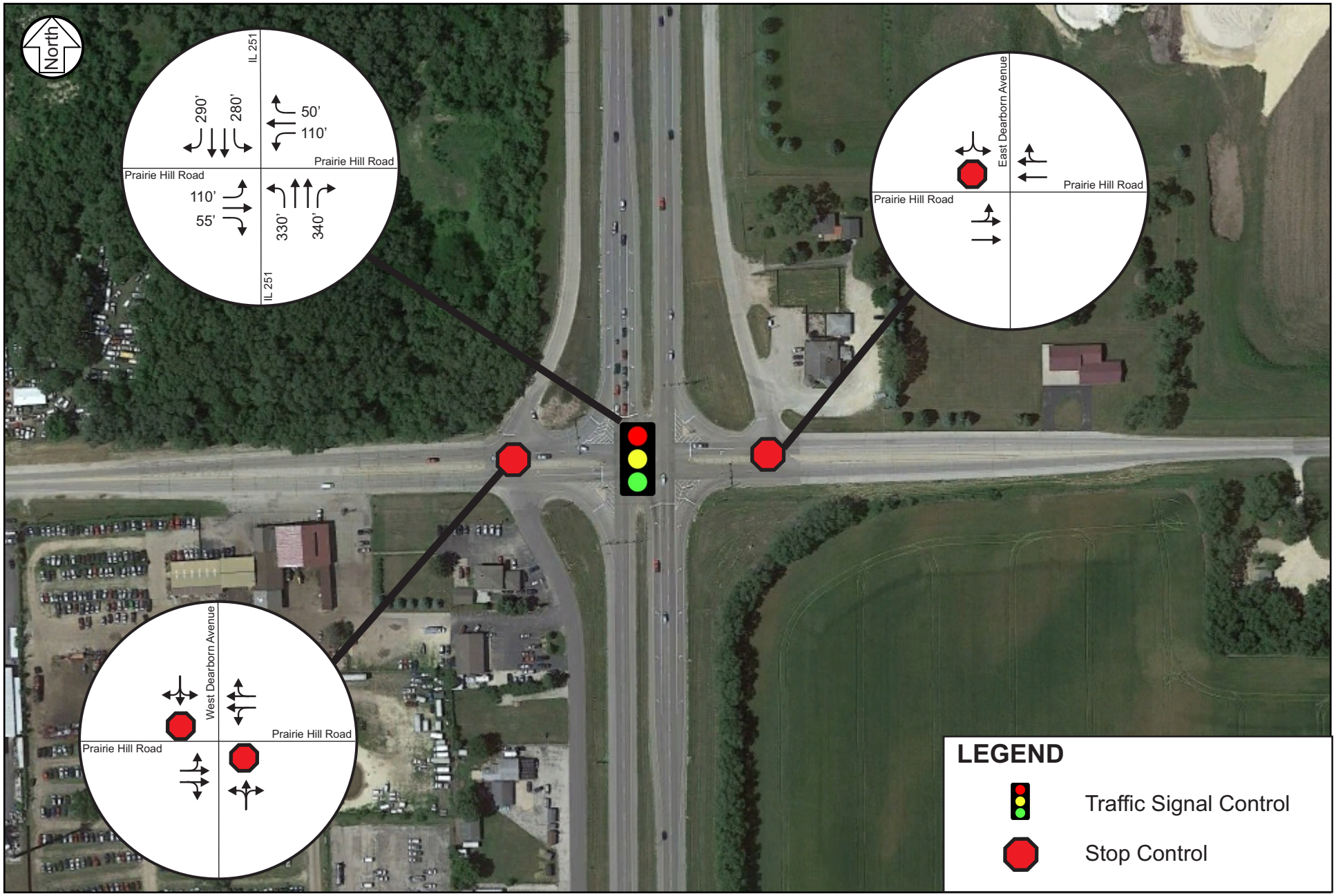
1.0 Introduction

1.1 Study Purpose

This study documents the results of an intersection control evaluation (ICE) study for the intersection of Illinois Route 251 (IL 251) and Prairie Hill Road in the City of South Beloit, Village of Roscoe, and Roscoe Township, Illinois. This study investigated existing-year and future-year conditions at this location to balance traffic operations, traffic safety, and multimodal accommodations. Intersection modification recommendations were made at the study location to accommodate traffic increases related to proposed growth in the vicinity of the intersection.

1.2 Study Area

The ICE study area includes the IL 251 and Prairie Hill Road intersection, which is illustrated in Figure 1.1. In addition, the Prairie Hill Road intersections with Dearborn Avenue (west frontage road) and Dearborn Avenue (east frontage road) are included in the study. Land uses in the vicinity of the study area include vacant wooded land in the northwest quadrant, the Macktown Lounge restaurant and Rogers Ready Mix and Materials in the northeast quadrant, vacant agricultural land in the southeast quadrant, and various automotive sales and services in the southwest quadrant.



Project Study Area & Existing Intersection Geometrics

IL 251 and Prairie Hill Road ICE Study

South Beloit, Roscoe, and Roscoe Township, Illinois

Figure 1.1

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2.0 Existing Area Conditions

2.1 Roadway Transportation System

Descriptions of major area roadways within the study area are summarized below. Roadway and intersection characteristics are illustrated in Figure 1.1. All roadway cross-section widths provided are measured from edge-to-edge of asphalt pavement along the roadway.

Illinois Route 251 (IL 251)

IL 251 is a north-south, four-lane divided roadway that serves as a primary north-south connection between the Rockford and Beloit metropolitan areas and is classified as a principal arterial roadway. The roadway has an approximately 120 feet cross-section (edge-to-edge of paved shoulders) with 12-foot paved outside shoulders, 10-foot paved inside shoulders, and a 30-foot natural median separating the inside shoulders. At its signalized intersection with Prairie Hill Road, both IL 251 approaches provide an exclusive left-turn lane, two through lanes, and a flared, exclusive right-turn lane. Sidewalks and bike lanes are not present along IL 251 and the roadway has a posted speed limit of 55 miles per hour. IL 251 has a Year 2021 average daily traffic (ADT) volume of approximately 12,000 vehicles per day (vpd) north of Prairie Hill Road and 13,400 vpd south of Prairie Hill Road.

Prairie Hill Road

Prairie Hill Road (also known as Winnebago County Route 76) is an east-west, two-lane minor arterial roadway that runs from South Bluff Road to County Line Road. In the vicinity of IL 251 and the Dearborn Avenue frontage roads, the roadway widens to provide four travel lanes and has an 80-foot cross-section (edge-to-edge of outside paved shoulders) with 8 to 10-foot paved shoulders and a 12-foot raised median separating the travel lanes. At its signalized intersection with IL 251 Street, both Prairie Hill Road approaches provide an exclusive left-turn lane, a through lane, and a flared, exclusive right-turn lane. At its unsignalized intersections with the Dearborn Avenue frontage roads, no exclusive turn lanes are provided. Sidewalks and bike lanes are not present along Prairie Hill Road and the roadway has a posted speed limit of 40 miles per hour. Prairie Hill Road has a Year 2021 ADT of approximately 6,700 vehicles west of IL 251 and 3,200 vehicles east of IL 251.

It should be noted that Prairie Hill Road was identified in the *SLATS Bicycle and Pedestrian System Plan Update (2017)* document as a corridor recommended for a future shared-use path. This recommendation would provide a valuable east-west bicycle and pedestrian connection in the area and would provide a vital crossing at IL 251 due to the existing traffic signal.

West Dearborn Avenue

West Dearborn Avenue is a north-south, two-lane local roadway that serves as a western frontage road to IL 251. At its unsignalized intersection with Prairie Hill Road, no turn lanes are provided and all movements from West Dearborn Avenue are under stop-sign control. The West Dearborn Avenue and Prairie Hill Road intersection is located approximately 140 feet west of IL 251, within the functional area of the IL 251 and Prairie Hill Road intersection. On-street parking is prohibited along West Dearborn Avenue and the roadway has a posted speed limit of 45 miles per hour north of Prairie Hill Road and 40 miles per hour south of Prairie Hill Road.

It should be noted that West Dearborn Avenue was identified in the *SLATS Bicycle and Pedestrian System Plan Update (2017)* document as a corridor recommended for a future sidewalk on the west side of the roadway. This recommendation would provide a north-south connection between the City of South Beloit and the recommended Stone Bridge Trail extension.

East Dearborn Avenue

East Dearborn Avenue is a north-south, two-lane local roadway that serves as an eastern frontage road to IL 251 and terminates at Prairie Hill Road. At its unsignalized intersection with Prairie Hill Road, no turn lanes are provided and all movements from East Dearborn Avenue are under stop-sign control. The East Dearborn Avenue and Prairie Hill Road intersection is located approximately 130 feet east of the IL 251 and Prairie Hill Road intersection, within the functional area of the IL 251 and Prairie Hill Road intersection. On-street parking is prohibited along East Dearborn Avenue and the roadway has a posted speed limit of 45 miles per hour.

2.2 Data Collection Plan

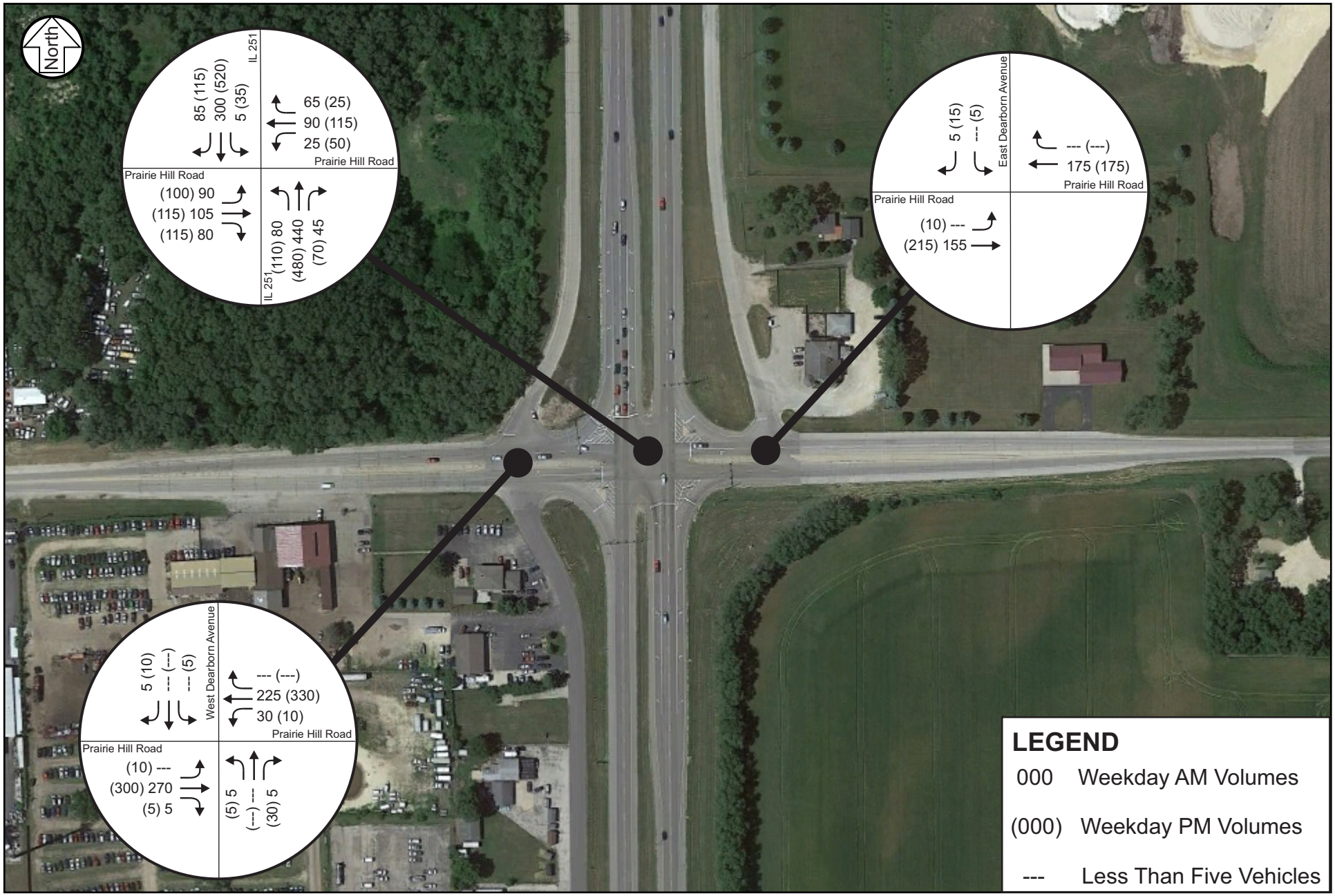
Intersection turning movement counts were collected at IL 251 and Prairie Hill Road as well as Prairie Hill Road with West Dearborn Avenue and East Dearborn Avenue from 6:00 a.m. to 7:00 p.m. in February 2023. It should be noted that classes at area schools were in session during the count period. The counts were collected using video-based data collection technology. It was determined that the morning peak hour of the study area occurred from 7:00 a.m. to 8:00 a.m. and the afternoon peak hour occurred from 3:45 p.m. to 4:45 p.m. The intersection turning movement volumes are illustrated in Figure 2.1 while intersection turning movement count summaries for each intersection are provided in Appendix A.

2.3 Intersection Crash History

A review of intersection-related crashes at the IL 251 and Prairie Hill Road intersection was conducted to identify crash frequency and type and determine any crash commonalities. Crash data for Years 2017 through 2021 were collected from the Illinois Department of Transportation (IDOT). 30 intersection-related crashes were reported at this location. This results in an intersection crash rate of 0.92 crashes per million entering vehicles. As a general indicator, locations with crash rates above 1.00 should be considered for safety improvements. Figure 2.2 illustrates an intersection crash diagram of the observed crashes. The following outlines crash characteristics at the intersection:

- Crash type
    - 16 were identified as angle / turning crashes
        - 6 involved eastbound right-turning vehicles
        - 6 involved a left-turning vehicle
    - 13 were identified as rear-end crashes
        - 6 involved southbound vehicles
        - 4 involved northbound vehicles
    - 1 was identified as a sideswipe crash
- Crash severity
    - 0 were identified as a fatal crash
    - 1 was identified as a serious (A-type) injury crash
        - Crashed involved two eastbound right-turning vehicles
    - 4 were identified as a minor (B-type) injury crash
    - 3 were identified as a possible (C-type) injury crash
    - 22 were identified as a property damage only crash

In reviewing the crash data at the IL 251 and Prairie Hill Road, the vast majority of crashes (29 of 30) involve turning or rear-end crashes. This suggests that motorists may have difficulty assessing speeds and gaps of opposing or following traffic at the intersection. The number of crashes involving eastbound and westbound vehicles slowing or turning (11 of 30) suggest that the existing intersection geometrics, such as the "trapping left" condition on eastbound and westbound Prairie Hill Road at IL 251, and the close proximity to the Dearborn Avenue intersections may aid in driver expectancy issues for motorists traveling along Prairie Hill Road.



Existing Intersection Peak-Hour Traffic Volumes

IL 251 and Prairie Hill Road ICE Study

South Beloit, Roscoe, and Roscoe Township, Illinois

Figure 2.1

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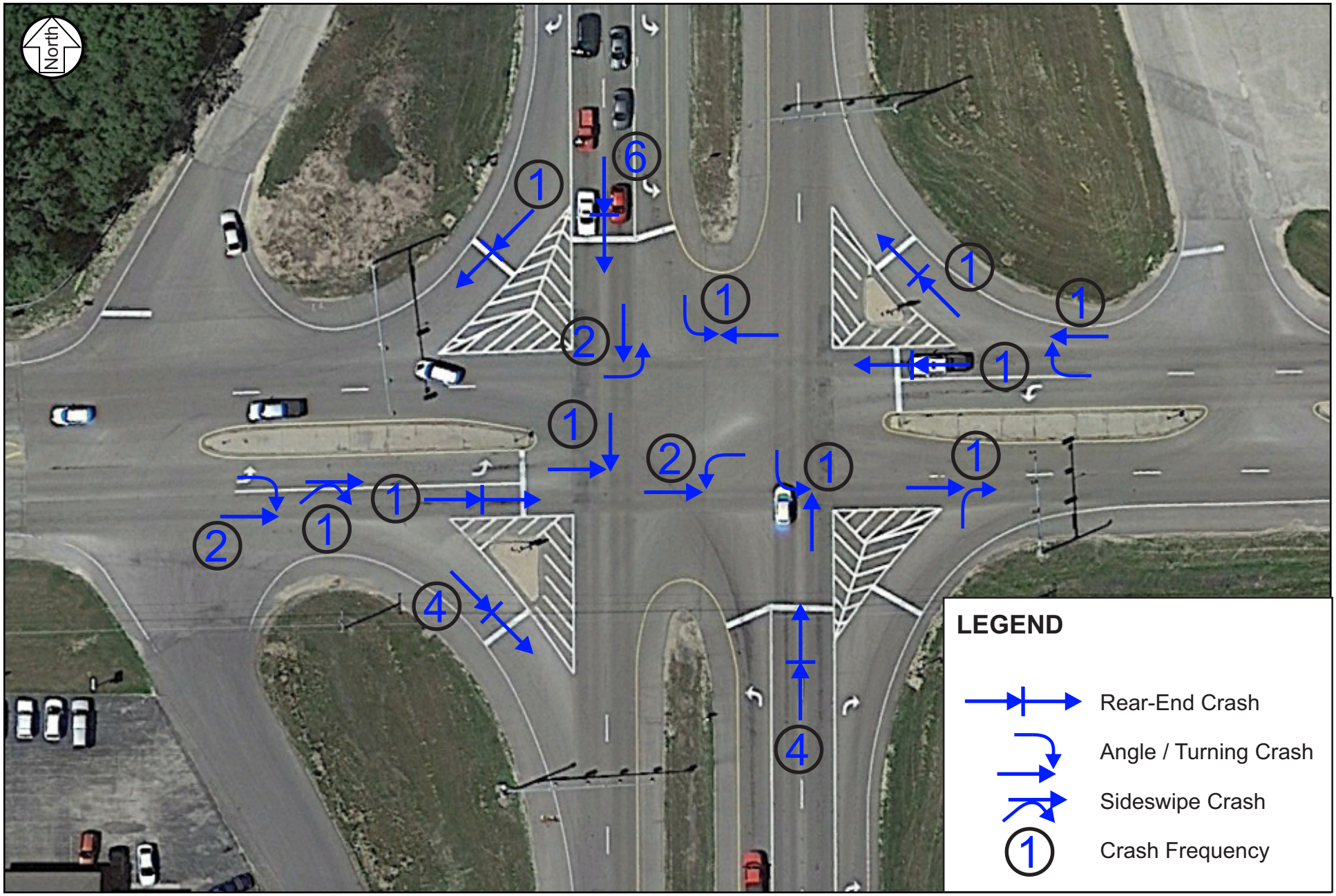

Intersection Crash Diagram

IL 251 and Prairie Hill Road ICE Study

South Beloit, Roscoe, and Roscoe Township, Illinois

Figure 2.2

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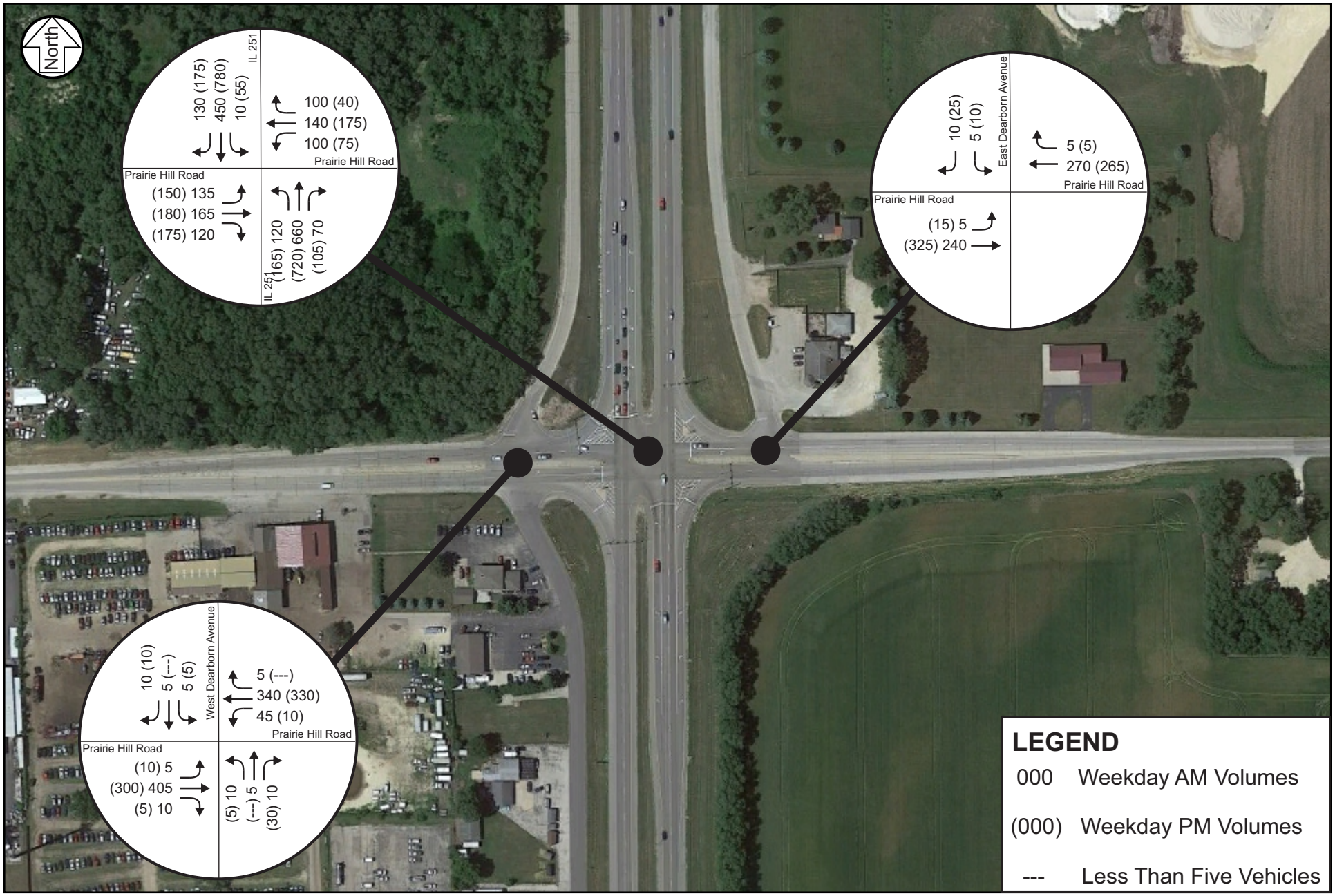
3.0 Background Traffic Volumes

The Illinois Department of Transportation's (IDOT) travel demand model was used to forecast traffic volumes for the IL 251 and Prairie Hill Road intersection. This model, developed for Year 2045 conditions, forecasts roadway segment traffic volumes based on existing observed traffic counts, changes to local and regional land uses, and changes to the local and regional transportation network. For purposes of this study, the roadway segment traffic volume forecast growth was proportioned to the individual intersection turning movement counts to generate projected intersection traffic volumes in the study area.

From the travel demand model, it was determined that traffic volumes on IL 251 and Prairie Hill Road west of IL 251 would grow between three and ten percent from Year 2021 to Year 2045. Prairie Hill Road east of IL 251, though, is anticipated to increase by 125 percent between these time periods. A review of the roadways and land uses in the vicinity show many areas of vacant or underutilized land surrounding the intersection. With both IL 251 and Prairie Hill Road being key arterials in this area, it is likely that development or redevelopment of land will occur in this timeframe. Therefore, to provide a conservative estimate of traffic conditions for this study, it was assumed that all intersection turning movement counts would increase by 50 percent by Year 2045. Figure 3.1 illustrates the forecasted Year 2045 traffic volumes in the study area.



Year 2045 Intersection Peak-Hour Traffic Volumes

IL 251 and Prairie Hill Road ICE Study

South Beloit, Roscoe, and Roscoe Township, Illinois

Figure 3.1

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4.0 Traffic Operations Analysis

To determine how traffic operates under existing and future conditions, an operational analysis was conducted for the IL 251 and Prairie Hill Road intersection using methodologies published in the *Highway Capacity Manual* (HCM). The HCM module in the traffic operations software package, Synchro11, was used to document the results of the traffic operations analysis. Operational analysis results identify a Level of Service (LOS), which is intended to depict the quality of traffic flow through an intersection. Signalized and unsignalized intersections are given a ranking from LOS A through LOS F as a function of the average control delay as presented in Table 4.1 for signalized intersections and Table 4.2 for unsignalized and roundabout intersections.

Table 4.1 Level of Service (LOS) Criteria, Signalized Intersections

LOS Designation	Average Control Delay/Vehicle (seconds)	Description
A	≤ 10.0	Very low vehicle delays, free flow, signal progression extremely favorable, most vehicles arrive during given signal phase.
B	10.1 to 20.0	Good signal progression, more vehicles stop and experience higher delays than for LOS A.
C	20.1 to 35.0	Stable flow, fair signal progression, significant number of vehicles stop at signals.
D	35.1 to 55.0	Congestion noticeable, longer delays and unfavorable signal progression, many vehicles stop at signals.
E	55.1 to 80.0	Limit of acceptable delay, unstable flow, poor signal progression, traffic near roadway capacity, frequent cycle failures.
F	> 80.0	Unacceptable delays, extremely unstable flow and congestion, traffic exceeds roadway capacity, stop-and-go conditions

Table 4.2: Level of Service (LOS) Criteria, Unsignalized Intersections

LOS Designation	Average Control Delay/Vehicle (seconds)	Description
A	≤ 10.0	No delays at intersections with continuous flow of traffic. Uncongested operations: high frequency of long gaps available for all left and right turning traffic. No observable queues.
B	10.1 to 15.0	Same as LOS A
C	15.1 to 25.0	Moderate delays at intersections with satisfactory to good traffic flow. Light congestion; infrequent backups on critical approaches.
D	25.1 to 35.0	Increased probability of delays along every approach. Significant congestion on critical approaches, but intersection functional. No standing long lines formed.
E	35.1 to 50.0	Heavy traffic flow condition. Heavy delays probable. No available gaps for cross-street traffic or main street turning traffic. Limited stable traffic flow.
F	> 50.0	Unstable traffic flow. Heavy congestion. Traffic moves in forced flow condition. Average delays greater than one minute highly probable. Total breakdown.

SOURCE: *Highway Capacity Manual, HCM2010*, Transportation Research Board, 2010.

For purposes of this ICE study, LOS A through D is considered acceptable for all intersection turning movements. A detailed analysis was conducted to identify and address turning movements or lane groups that may be currently, or are anticipated to, operate at LOS E or F. It is important to note that it may be possible for intersections to currently have turning movements or lane groups operating at LOS E or F but not recommend any strategies to improve these conditions. This is typical for movements with low traffic volumes (less than 50 vehicles per hour) as cost-effective improvements may not exist to improve their LOS.

In addition, increases in local or regional growth may lead to small increases in vehicle delay, triggering a change in the LOS from one letter grade to the next. The actual increase in delay may only be a few seconds, which would be insignificant in terms of driver perception. In those cases, mitigation for these conditions may not be necessary.

Existing Conditions

To determine how traffic currently operates in the study area, an operational analysis was conducted for the weekday morning and afternoon peak hours at the IL 251 and Prairie Hill Road intersection. Existing geometrics, traffic controls, and peak hour traffic volumes for the study intersection is shown in Figure 1.1. Level of service and queueing results for each turning movement at the Farwell Street and Exchange Street intersection is shown in Table 4.3 The traffic operations output files are located in Appendix B.

Table 4.3: Traffic Operations Analysis, Existing Conditions

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Weekday Morning Peak Hour	20.3	C	Lane Configuration	1	1	1	1	1	1	1	2	1	1	2	1
			Volume	90	105	80	65	90	25	80	440	45	5	300	85
			Delay (s)	24.7	33.8	19.5	24.7	33.5	29.2	26.4	13.0	8.3	58.4	20.8	15.1
			LOS	C	C	B	C	C	C	C	B	A	E	C	B
			V/C Ratio	0.29	0.53	0.20	0.22	0.47	0.15	0.28	0.30	0.06	0.43	0.33	0.16
			95% Queue (ft)	65	90	50	45	80	20	55	90	15	10	85	45
Weekday Afternoon Peak Hour	22.3	C	Lane Configuration	1	1	1	1	1	1	1	2	1	1	2	1
			Volume	100	120	115	50	115	25	110	480	70	35	520	115
			Delay (s)	25.6	33.3	19.0	25.8	37.7	27.8	26.8	14.6	10.0	42.6	23.6	16.1
			LOS	C	C	B	C	D	C	C	B	B	D	C	B
			V/C Ratio	0.34	0.52	0.25	0.18	0.62	0.12	0.36	0.35	0.10	0.58	0.57	0.21
			95% Queue (ft)	75	105	70	35	110	20	75	110	30	35	165	65

The results of the traffic operations analysis indicate that all turning movements currently operate at LOS D or better during peak traffic periods except for the southbound left-turn movement during the weekday morning peak hour. It should be noted, though, that this movement (LOS E) affects only five vehicles during this peak period; therefore, improvements to accommodate these vehicles may not be cost-effective.

Year 2045 Conditions

A horizon-year of Year 2045 was selected for this study as it is the horizon-year of the region's travel demand model. This model, which forecasts daily traffic volumes along area roadways using land use and transportation network changes, was utilized to determine future-year traffic volumes for which alternatives can be evaluated.

Year 2045 traffic operations analysis was conducted to determine whether the existing intersection control and geometrics would accommodate future traffic volumes. The results of this analysis is illustrated in Table 4.4 and the traffic operations output files are located in Appendix B.

Table 4.4: Traffic Operations Year 2045 No-Build Conditions

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Weekday Morning Peak Hour	23.2	C	Lane Configuration	1	1	1	1	1	1	1	2	1	1	2	1
			Volume	135	165	120	100	140	40	120	660	70	10	450	130
			Delay (s)	25.5	36.7	19.5	25.0	34.4	28.8	29.1	16.5	9.7	51.2	25.5	18.1
			LOS	C	D	B	C	C	C	C	B	A	D	C	B
			V/C Ratio	0.43	0.66	0.26	0.34	0.55	0.17	0.41	0.48	0.09	0.46	0.54	0.25
			95% Queue (ft)	100	155	80	75	130	30	90	175	30	15	155	80
Weekday Afternoon Peak Hour	27.0	C	Lane Configuration	1	1	1	1	1	1	1	2	1	1	2	1
			Volume	150	180	175	75	175	40	165	720	105	55	780	175
			Delay (s)	29.5	38.5	22.8	28.6	43.3	30.2	35.3	18.5	11.5	55.0	28.9	17.8
			LOS	C	D	C	C	D	C	D	B	B	E	C	B
			V/C Ratio	0.52	0.63	0.36	0.28	0.72	0.15	0.59	0.51	0.14	0.76	0.77	0.29
			95% Queue (ft)	130	190	135	65	195	35	150	215	50	65	295	115

The results of the traffic operations analysis indicate that all movements will operate adequately (LOS D or better) during peak traffic periods except for the southbound left-turn movement during the weekday afternoon peak hour. It should be noted that the anticipated delay of 55 seconds is at the LOS D/E threshold for delay so minor fluctuations in volume or green time demand could make this movement operate at LOS D. In addition, the anticipated queue during this timeframe (65 feet) can be accommodated within the existing turn lane. In addition, it should be noted that the southbound left-turn movement improved from LOS E to LOS D during the weekday morning peak hour. This is likely due to the minimal amount of traffic anticipated to perform this movement and how the HCM equations account for low traffic volumes in their delay calculations. As previously mentioned, improvements to this movement may not be cost-effective due to the low amount of anticipated traffic performing this movement.

5.0 Alternative Evaluation

Section 4.0 determined that the intersection of IL 251 and Prairie Hill Road is anticipated to have left-turn movements operate at LOS E during Year 2045 traffic conditions. In addition, the existing intersection geometrics and close proximity of the Dearborn Avenue intersections likely create driver expectancy issues which increases crash probability. This section will develop and evaluate potential alternatives to address these deficiencies. Illustrations of the alternatives can be found in Appendix D.

5.1 Proposed Alternatives

Intersection Safety Alternatives

A review of crashes at this intersection determined that 13 of 30 observed crashes were rear-end crashes with 10 of the 13 crashes occurring along IL 251. IL 251 is currently a high-speed, multi-lane, divided highway; motorists may not anticipate negotiating and reacting to an approaching traffic signal along this roadway. Therefore, providing an enhanced level of advanced warning to the traffic signal may aid in alerting motorists of the approaching traffic signal so they can take proper action. Improvements may include increasing the size or frequency of the advance warning signs, installing pavement markings to alert motorists of the approaching traffic signal, and implementing an advance traffic light warning system that would alert IL 251 motorists when the through movement is in its red phase. These strategies are relatively inexpensive and would help alert motorists of the traffic signal but may require maintenance to ensure they are functioning properly.

The crash review also identified 6 of 30 crashes involving left-turning vehicles. Typically, these crashes occur when left-turning vehicles are choosing smaller gaps in the opposing traffic stream to make their turn, trying to complete their movement during the yellow or red signal phase, or turning left when they don't have a clear line of vision. For the first two conditions, a review of the traffic signal phasing and yellow and red clearance intervals would be conducted to determine whether left-turning vehicles have adequate green and clearance time to complete their turn movement safely and efficiently.

For the third condition, a review of the intersection indicates that the northbound/southbound and eastbound/westbound left-turn lanes have a negative offset with each other. A negative left-turn offset is a geometric condition in which opposing left-turn lanes have a horizonal lateral distance between them that can create sight obstructions to the motorist's eye. The IL 251 negative left-turn offset is negated by the protected-only traffic signal phase as left-turns are the only vehicles allowed to enter the intersection at this time. However, the Prairie Hill Road left-turns have a protected-permissive phase to maximize their capacity. During the permissive phase, it is possible that opposing left-turn vehicles cannot see approaching through vehicles due to their vision being blocked by the left-turning vehicle. This condition can be improved in one of two ways: alter the intersection geometrics to provide zero or positive left-turn offset or make the traffic signal phase protected-only. Altering the intersection geometrics has higher construction costs but would be a permanent solution while still maintaining protected-permissive phasing; updating the left-turn phasing to protected-only is more cost-effective but limits the capacity of the left-turn lane. When the intersection was evaluated with protected-only left-turn phases, the LOS for the eastbound and westbound left-turns changed from LOS C to LOS D during Year 2045 conditions.

Reconfigure Prairie Hill Road Alternative

Prairie Hill Road has two travel lanes in each direction through the IL 251 and Dearborn Avenue intersections. At IL 251, though, Prairie Hill Road provides an exclusive left-turn lane and a through/right-turn lane. This condition, known as a "trapping left" condition, occurs when a through lane suddenly becomes an exclusive turn lane and motorists wishing to continue using the through lane must merge to avoid being "trapped" in the exclusive turn lane. This is not a desired situation as it can lead to driver expectancy issues and an increase in sideswipe and rear-end crashes due to sudden vehicle movements.

This alternative would reconfigure Prairie Hill Road to provide exclusive left-turn lanes at the Dearborn Avenue intersections and provide a single through lane throughout the study area. While Year 2045 traffic volume projections do not require the need for exclusive left-turn lanes onto Dearborn Avenue, implementing these turn lanes would provide the proper delineation for through movements so they would avoid using the inside lanes. In addition, this improvement would be performed via pavement markings and signage and would not require any pavement or median construction.

This alternative would produce traffic operations similar to Table 4.4 (Year 2045, no-build) as the lane configuration at the IL 251 and Prairie Hill Road intersection would not change; however, traffic safety at and near the IL 251 and Prairie Hill Road intersection would be improved with the reconfiguration of approach lanes along Prairie Hill Road.

Relocate Dearborn Avenue Alternative

This alternative would maintain the signalized intersection of IL 251 and Prairie Hill Road but would realign West Dearborn Avenue and East Dearborn Avenue approximately 1,000 feet east and west from their existing locations, respectively. Currently, the Dearborn Avenue roadways intersect Prairie Hill Road within the functional area of the IL 251 intersection. The functional area of an intersection includes upstream and downstream areas that consider motorists maneuvers, deceleration, and stopping/queueing. This condition leads to an increase in crash probability as motorists may make sudden or non-traditional movements traveling to/from one of the Dearborn Avenue intersections and IL 251 over a short distance. This, in turn, would lead to driver expectancy issues as intersections are not typically so close to a signalized intersection such as IL 251 and Prairie Hill Road. Relocating the Dearborn Avenue intersections approximately 1,000 feet away from IL 251 will remove these locations from the functional area of the IL 251 and Prairie Hill Road intersection.

The south leg of West Dearborn Avenue does not have an outlet to another roadway (i.e., a dead-end roadway). Therefore, eliminating its access and using another roadway for access to this area cannot occur so the roadway must be relocated. The north legs of West Dearborn Avenue and East Dearborn Avenue do have an outlet roadway, Cheney Drive, approximately one mile north of Prairie Hill Road. While this distance is rather long for vehicles to travel for access to IL 251, there are currently no properties on the north leg of West Dearborn Avenue with direct access to the roadway that are located near Prairie Hill Road and two properties on the north leg of East Dearborn Avenue (a restaurant and quarry) that are close to Prairie Hill Road. Therefore, the impact that relocating the north legs of Dearborn Avenue would have to existing parcels and their travel would be minimal. Furthermore, residential neighborhoods east of the study area already have roadways dead-end at their property line; it is likely that these roadways will continue westward as parcels are developed to provide additional access in the area.

This alternative would produce traffic operations similar to Table 4.4 (Year 2045, no-build) as a minimal amount of traffic would be removed or relocated from the signalized intersection; however, traffic safety at and near the IL 251 and Prairie Hill Road intersection would be improved with the relocation of both Dearborn Avenue roadways away from IL 251.

Roundabout Alternative

This alternative would upgrade the intersection control at IL 251 and Prairie Hill Road from a traffic signal to a multi-lane roundabout. A roundabout provides favorable traffic operations while improving safety by forcing motorists to travel through the roundabout at slower speeds, reducing the probability of fatal or injury crashes. In addition, because all motorists must circulate around the roundabout, left-turning or angle crashes are eliminated from occurring at a roundabout.

The roundabout alternative assumed two-lane approaches for IL 251 and Prairie Hill Road. Due to the size of the proposed roundabout and the yield control of motorists through the intersection, the Dearborn Avenue roadways would be realigned further away from the intersection, similar to what was proposed for the previous alternative. The results of this analysis is illustrated in Table 5.2 and the traffic operations output files are located in Appendix C.

Table 5.2: Traffic Operations, Year 2045 Conditions, Roundabout Alternative

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Weekday Morning Peak Hour	9.1	A	Lane Configuration		<2>			<2>			<2>			<2>	
			Volume	135	165	120	100	140	40	120	660	70	10	450	130
			Delay (s)	9.5		8.8	11.1		10.0	9.4		9.2	8.4		8.1
			LOS	A		A	B		B	A		A	A		A
			V/C Ratio	0.32		0.33	0.28		0.28	0.46		0.48	0.35		0.37
			95% Queue (ft)	35		35	30		30	65		70	40		45
Weekday Afternoon Peak Hour	12.8	B	Lane Configuration		<2>			<2>			<2>			<2>	
			Volume	150	180	175	75	175	40	165	720	105	55	780	175
			Delay (s)	15.8		14.3	13.4		11.9	11.9		11.7	12.7		12.5
			LOS	C		A	B		B	B		B	B		B
			V/C Ratio	0.49		0.49	0.33		0.32	0.56		0.58	0.59		0.61
			95% Queue (ft)	70		70	35		35	90		100	100		110

The results of this traffic operations analysis show that all approaches are anticipated to operate at LOS C or better with the proposed roundabout.

5.2 Alternatives Comparison

Four alternatives were developed to address operational and safety deficiencies at the IL 251 and Prairie Hill Road intersection. These alternatives were evaluated based on existing intersection geometrics, a review of crash history in the area, and future-year traffic projections to determine whether those deficiencies were addressed. In addition, each alternative was evaluated based on other elements, such as constructability, multimodal accommodations, and right of way impacts to identify their feasibility.

Intersection Safety Improvements

This alternative would be simple and cost-effective to implement as it would require minimal resources to employ (signing, pavement marking, signal timing review). While no changes to the intersection control and geometrics would be made to the study area, the improvements would improve safety for approaching motorists (advanced warning elements) and traveling through the intersection (signal timing review). Traffic operations are anticipated to remain the same as no-build conditions. This alternative would keep the closely-spaced Dearborn Avenue intersections within the functional area of the IL 251 intersection, which may lead to driver expectancy issues due to numerous movements in close proximity of each intersection. In addition, pavement markings and signing can be ignored by the traveling public. It should be noted that a reconfiguration of Prairie Hill Road to eliminate the existing negative left-turn offset was proposed; however, this feature is not recommended as other strategies, such as making the eastbound and westbound left-turn phasing protected-only, can accomplish the same goal without the geometric impacts and construction costs to implement.

Reconfigure Prairie Hill Road Alternative

This alternative, like the previous alternative, would be cost-effective to implement as it would likely require only pavement marking and signing updates along Prairie Hill Road. No changes to the intersection control and geometrics would be made at IL 251 and Prairie Hill Road. While traffic operations will likely remain the same as no-build conditions, safety would be improved as proper lane alignment along Prairie Hill Road will be established. The use of pavement markings and signage for this alternative also allows for future flexibility of lane configurations along Prairie Hill Road if traffic volumes or traffic operations would require updating the lane configuration along the roadway. This alternative, though, would keep the closely-spaced Dearborn Avenue intersections within the functional area of the IL 251 intersection, which may lead to driver expectancy issues due to numerous movements in close proximity of each intersection. In addition, pavement markings can be ignored by the traveling public without any physical barrier forcing traffic to travel in a certain way.

Relocate Dearborn Avenue Alternative

This alternative would physically relocate the Dearborn Avenue roadways outside the functional area of the IL 251 and Prairie Hill Road intersection, eliminating two closely-spaced intersections to IL 251. This would eliminate any driver expectancy issues, queue spillback from IL 251, or uncommon turning movements from one intersection to the next, improving safety along Prairie Hill Road. While traffic operations will likely remain the same as no-build conditions, safety would be improved with the relocation of the Dearborn Avenue intersection legs. This alternative, though, would require significant right of way acquisition and new roadway construction, increasing construction costs for implementation.

Roundabout Alternative

This alternative would have the most impacts to the surrounding parcels and be the most expensive alternative to implement as the roundabout design would require Dearborn Avenue to be realigned away from the roundabout for safe, efficient traffic flow. However, the roundabout is anticipated to provide the least amount of delay to motorists and improve intersection safety by reducing angle and head-on collisions as well as reducing the crash severity of collisions since motorists much travel through the roundabout at slower speeds.

IL 251 is a higher-speed, multi-lane principal arterial that is focused on the mobility of people and goods in the Beloit and Rockford metropolitan areas. The installation of a roundabout may interfere with the context of the roadway's function as motorists typically do not anticipate navigating through a slow-speed roundabout along a divided roadway. This, in turn, could lead to motorists not slowing down as they are not expecting a roundabout along IL 251. In addition, the roundabout could create a "halo" effect of travel speeds as motorists may exit the roundabout at increased travel speeds as they feel they have to make up travel time that was lost due to the roundabout.

Concept-level drawings of the intersection alternative and roundabout alternative are provided in Appendix D. It should be noted that these illustrations are not used for design or construction purposes and will require a more-detailed design analysis to determine its feasibility and impacts.

Section 2.1 discussed the identification of Prairie Hill Road and West Dearborn Avenue for future bicycle/pedestrian accommodations. While the Prairie Hill Road multi-use path recommendation should be considered as an overall improvement to the intersection and to Prairie Hill Road, this recommendation should be considered if the geometrics along Prairie Hill Road or at the IL 251 intersection are altered in the future. A review of online GIS imagery indicate Prairie Hill Road has approximately 125 feet of right of way west of IL 251 and approximately 75 feet of right of way east of IL 251; the current right of way should be able to accommodate the existing Prairie Hill Road cross-section as well as a multi-use path. Similarly, the proposed sidewalk along the west side of West Dearborn Avenue should be considered if the roadway is realigned, per the alternatives discussion.

6.0 Conclusions

The following summarizes findings from an intersection control evaluation study of the IL 251 and Prairie Hill Road intersection in South Beloit, Illinois. Roadway geometrics, traffic data, historical crash data, intersection operations analysis, and potential alternatives were reviewed and performed to identify and mitigate deficiencies found at the intersection.

- Existing-year traffic operations indicate adequate traffic operations (LOS D or better) are present for many intersection movements during peak traffic periods
    - The southbound left-turn movement operates at LOS E during the weekday morning peak hour but affects five vehicles during the peak hour
- Future-year (Year 2045) traffic operations show operational deficiencies are anticipated on the southbound left-turn movement (LOS E) during the weekday afternoon peak hour when background traffic is considered
- Providing intersection safety improvements such as signing and marking installations and traffic signal phasing and clearance interval review would improve traffic safety at IL 251 and Prairie Hill Road but would keep the Dearborn Avenue intersections within the functional area of the IL 251 intersection
    - Reconfiguring the eastbound and westbound left-turn lanes to eliminate the existing negative left-turn offset is not recommended as other strategies can be implemented that will achieve the same safety benefit without physical impacts to the roadway or intersection geometrics (e.g., protective-only signal phasing)
- Reconfiguring the Prairie Hill Road to provide proper lane following would also improve safety in the study area but would keep the Dearborn Avenue intersections within the functional area of the IL 251 intersection
- Relocating the Dearborn Avenue intersections away from the IL 251 intersection will improve safety but would require significant right of way acquisition to implement
- Upgrading the intersection to provide a roundabout improves traffic operations during peak traffic periods but is the most expensive to construct, requires the most right of way to implement (including realigning East and West Dearborn Avenue), and may introduce driver expectancy issues due to the existing function of the IL 251 corridor.

When considering the existing intersection configuration, the proposed alternatives, and the advantages and disadvantages of each option, it is recommended that, for the near-term, the intersection maintain traffic signal control and implement the intersection safety improvements and through lane reconfiguration of Prairie Hill Road. These improvements are simple and cost-effective to apply and will help alert motorists of the approaching traffic signal and provide proper travel through the intersection. While the Dearborn Avenue intersections will remain within the functional area of the IL 251 intersection, the improvements along Prairie Hill Road will reduce driver expectancy issues related to proper lane assignment and travel through this area. Furthermore, the use of pavement markings and signs to implement these improvements allows for flexibility should traffic volumes along Prairie Hill Road increase to a point where increased traffic capacity along the Prairie Hill Road approaches is necessary.

It is recommended that, as a long-term solution, to relocate the Dearborn Avenue roadways farther away from IL 251. This alternative will improve safety for all intersections in the study area as proper intersection spacing will be created, providing adequate decision-making and driver expectancy times and distances for motorists. As parcels in the immediate vicinity of the IL 251 and Prairie Hill Road intersection are developed, consideration should be given to preserving right of way to allow for the realignment of East and West Dearborn Avenue.

It is recommended that consideration should be given to preserving land within the existing Prairie Hill Road right of way for a physically separated multi-use path to provide bicycle and pedestrian travel in the area. From current aerial imagery, the existing right of way along Prairie Hill Road should be able to have room for the existing Prairie Hill Road cross-section as well as a multi-use path feature. In addition, the proposed sidewalk along West Dearborn Avenue should be considered if any roadway or intersection improvements are made along this roadway.

The roundabout alternative also provides safe, efficient traffic flow at the IL 251 and Prairie Hill Road intersection, but it has the highest construction costs (which includes realignment of Dearborn Avenue) to implement. Furthermore, installing a rural roundabout along a high-speed, multi-lane divided arterial like IL 251 can contradict the roadway's functionality and purpose of a regional travel route. This, in turn, can introduce driver expectancy issues as motorists are not anticipating a slower-speed roundabout to navigate which may increase rear-end, sideswipe, and run off road crash probabilities.

Appendix

Appendix A: Intersection Turning Movement Counts

Appendix B: Existing-Year Traffic Operations Analysis Worksheets

Appendix C: Future-Year Traffic Operations Analysis Worksheets

Appendix D: Concept Alternatives

Appendix A: Intersection Turning Movement Counts

Intersection Traffic Volume Report

Count Basics			Page 3 of 11
Start Date:	Tuesday, February 28, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 13		Non-Holiday	No Special Events

Peak Hour Volume Summary

IL 251 and Prairie Hill Road

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Tuesday, February 28, 2023		From North					From East					From South					From West					
	AM Peak Hour	IL 251					Prairie Hill Road					IL 251					Prairie Hill Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:00 AM	25	76	2	0	103	6	21	11	0	38	14	85	15	0	114	13	22	20	0	55	310
	7:15 AM	24	74	0	0	98	2	19	18	0	39	12	94	19	0	125	29	23	21	0	73	335
	7:30 AM	15	75	1	0	91	5	22	18	0	45	10	140	19	0	169	21	23	26	0	70	375
	7:45 AM	22	74	1	0	97	10	28	17	0	55	11	121	29	0	161	17	21	23	0	61	374
	Peak Hour Volume	86	299	4	0	389	23	90	64	0	177	47	440	82	0	569	80	89	90	0	259	1394
	Rounded Hourly Volume	85	300	5	0	390	25	90	65	0	180	45	440	80	0	565	80	90	90	0	260	1395
	% Single Unit Trucks	3.5	2.3	0.0	0.0	2.6	0.0	4.4	3.1	0.0	3.4	0.0	2.0	6.1	0.0	2.5	15.0	7.9	8.9	0.0	10.4	4.1
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	3.5	2.3	0.0	0.0	2.6	0.0	4.4	3.1	0.0	3.4	0.0	2.0	6.1	0.0	2.5	15.0	7.9	8.9	0.0	10.4	4.1
	Peak Hour Factor (PHF)	0.86	0.98	0.50	0.00	0.94	0.57	0.80	0.89	0.00	0.80	0.84	0.79	0.71	0.00	0.84	0.69	0.97	0.87	0.00	0.89	0.93

Tuesday, February 28, 2023		From North					From East					From South					From West					
	MD Peak Hour	IL 251					Prairie Hill Road					IL 251					Prairie Hill Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	11:15 AM	10	91	0	0	101	2	16	7	0	25	9	90	15	0	114	27	12	12	0	51	291
	11:30 AM	16	90	2	0	108	3	10	13	0	26	9	84	32	0	125	20	22	20	0	62	321
	11:45 AM	16	76	2	0	94	2	12	11	0	25	1	78	9	0	88	25	14	20	0	59	266
	12:00 PM	12	78	2	0	92	2	15	5	0	22	11	94	28	0	133	30	15	14	0	59	306
	Peak Hour Volume	54	335	6	0	395	9	53	36	0	98	30	346	84	0	460	102	63	66	0	231	1184
	Rounded Hourly Volume	55	335	5	0	395	10	55	35	0	100	30	345	85	0	460	100	65	65	0	230	1185
	% Single Unit Trucks	14.8	3.3	16.7	0.0	5.1	22.2	7.5	2.8	0.0	7.1	3.3	4.9	8.3	0.0	5.4	5.9	15.9	19.7	0.0	12.6	6.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	14.8	3.3	16.7	0.0	5.1	22.2	7.5	2.8	0.0	7.1	3.3	4.9	8.3	0.0	5.4	5.9	15.9	19.7	0.0	12.6	6.8
	Peak Hour Factor (PHF)	0.84	0.92	0.75	0.00	0.91	0.75	0.83	0.69	0.00	0.94	0.68	0.92	0.66	0.00	0.86	0.85	0.72	0.82	0.00	0.93	0.92

Tuesday, February 28, 2023		From North					From East					From South					From West					
	PM Peak Hour	IL 251					Prairie Hill Road					IL 251					Prairie Hill Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	3:45 PM	32	97	8	0	137	7	29	11	0	47	14	110	43	0	167	26	24	25	0	75	426
	4:00 PM	26	150	12	0	188	4	31	11	0	46	18	145	22	0	185	28	19	18	0	65	484
	4:15 PM	33	134	4	0	171	8	24	14	0	46	14	111	28	0	153	18	20	20	0	58	428
	4:30 PM	24	139	5	0	168	5	27	14	0	46	13	112	16	0	141	42	36	36	0	114	469
	Peak Hour Volume	115	520	29	0	664	24	111	50	0	185	59	478	109	0	646	114	99	99	0	312	1807
	Rounded Hourly Volume	115	520	30	0	665	25	110	50	0	185	60	480	110	0	650	115	100	100	0	315	1815
	% Single Unit Trucks	3.5	0.8	0.0	0.0	1.2	0.0	8.1	0.0	0.0	4.9	1.7	1.3	4.6	0.0	1.9	6.1	3.0	3.0	0.0	4.2	2.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	3.5	0.8	0.0	0.0	1.2	0.0	8.1	0.0	0.0	4.9	1.7	1.3	4.6	0.0	1.9	6.1	3.0	3.0	0.0	4.2	2.3
	Peak Hour Factor (PHF)	0.87	0.87	0.60	0.00	0.88	0.75	0.90	0.89	0.00	0.98	0.82	0.82	0.63	0.00	0.87	0.68	0.69	0.69	0.00	0.68	0.93

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		IL 251			Prairie Hill Road			IL 251			Prairie Hill Road			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		*Page 5 of 11*
Start Date: Tuesday, February 28, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 13	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

IL 251 and Prairie Hill Road

15-Minute Motor Vehicle Data

15-Minute Time Period Start Time		From North (↓) IL 251					From East (←) Prairie Hill Road					From South (↑) IL 251					From West (→) Prairie Hill Road					15-Min Totals	Hourly Sum	PHF
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period	6:00 AM	12	55	2	0	69	2	6	5	0	13	3	58	11	0	72	14	8	7	0	29	183	864	0.86
	6:15 AM	12	57	4	0	73	3	12	7	0	22	1	52	7	0	60	7	14	16	0	37	192	991	0.80
	6:30 AM	7	57	2	0	66	1	13	8	0	22	5	91	10	0	106	9	17	18	0	44	238	1134	0.85
	6:45 AM	18	61	1	0	80	5	15	9	0	29	5	88	17	0	110	15	9	8	0	32	251	1271	0.85
	7:00 AM	25	76	2	0	103	6	21	11	0	38	14	85	15	0	114	13	22	20	0	55	310	1394	0.93
	7:15 AM	24	74	0	0	98	2	19	18	0	39	12	94	19	0	125	29	23	21	0	73	335	1339	0.89
	7:30 AM	15	75	1	0	91	5	22	18	0	45	10	140	19	0	169	21	23	26	0	70	375	1307	0.87
	7:45 AM	22	74	1	0	97	10	28	17	0	55	11	121	29	0	161	17	21	23	0	61	374	1208	0.81
	8:00 AM	8	50	3	0	61	1	15	13	0	29	5	85	19	0	109	18	18	20	0	56	255	1073	0.89
	8:15 AM	19	63	2	0	84	4	35	19	0	58	9	89	18	0	116	20	12	13	0	45	303	1014	0.84
	8:30 AM	14	67	3	0	84	4	29	24	0	57	1	79	12	0	92	12	13	18	0	43	276	918	0.83
	8:45 AM	15	71	0	0	86	4	17	8	0	29	4	78	15	0	97	18	4	5	0	27	239	879	0.92
	9:00 AM	6	62	0	0	68	5	5	8	0	18	3	62	15	0	80	10	10	10	0	30	196	863	0.91
	9:15 AM	7	70	3	0	80	3	16	9	0	28	7	60	7	0	74	10	8	7	0	25	207	894	0.94
	9:30 AM	10	60	3	0	73	5	7	5	0	17	5	83	11	0	99	18	15	15	0	48	237	929	0.96
	9:45 AM	8	66	1	0	75	5	11	13	0	29	1	80	17	0	98	5	9	7	0	21	223	951	0.92
Midday Peak Period	10:00 AM	9	72	0	0	81	1	14	8	0	23	8	70	13	0	91	16	8	8	0	32	227	975	0.94
	10:15 AM	9	69	3	0	81	1	14	9	0	24	4	80	17	0	101	14	10	12	0	36	242	1045	0.88
	10:30 AM	11	88	3	0	102	2	10	5	0	17	8	80	9	0	97	15	14	14	0	43	259	1094	0.92
	10:45 AM	13	77	1	0	91	5	12	9	0	26	10	64	15	0	89	17	12	12	0	41	247	1156	0.90
	11:00 AM	19	79	4	0	102	4	14	10	0	28	8	92	24	0	124	20	11	12	0	43	297	1175	0.92
	11:15 AM	10	91	0	0	101	2	16	7	0	25	9	90	15	0	114	27	12	12	0	51	291	1184	0.92
	11:30 AM	16	90	2	0	108	3	10	13	0	26	9	84	32	0	125	20	22	20	0	62	321	1177	0.92
	11:45 AM	16	76	2	0	94	2	12	11	0	25	1	78	9	0	88	25	14	20	0	59	266	1155	0.94
	12:00 PM	12	78	2	0	92	2	15	5	0	22	11	94	28	0	133	30	15	14	0	59	306	1182	0.97
	12:15 PM	22	72	2	0	96	5	9	9	0	23	9	83	23	0	115	13	17	20	0	50	284	1155	0.97
	12:30 PM	17	78	5	0	100	5	22	9	0	36	11	90	14	0	115	19	13	16	0	48	299	1131	0.95
	12:45 PM	15	83	4	0	102	3	21	7	0	31	12	90	18	0	120	20	9	11	0	40	293	1161	0.88
	1:00 PM	11	95	3	0	109	5	17	8	0	30	5	83	14	0	102	11	13	14	0	38	279	1166	0.89
	1:15 PM	20	79	3	0	102	1	19	6	0	26	2	88	16	0	106	9	9	8	0	26	260	1186	0.90
	1:30 PM	13	71	3	0	87	3	11	10	0	24	10	105	29	0	144	24	24	26	0	74	329	1261	0.94
	1:45 PM	20	89	1	0	110	1	15	6	0	22	5	93	18	0	116	23	12	15	0	50	298	1311	0.86
PM Peak Period	2:00 PM	14	95	5	0	114	2	18	11	0	31	8	83	13	0	104	16	18	16	0	50	299	1354	0.89
	2:15 PM	20	98	3	0	121	5	19	8	0	32	18	97	26	0	141	17	13	11	0	41	335	1399	0.92
	2:30 PM	32	121	2	0	155	5	14	11	0	30	11	103	25	0	139	17	19	19	0	55	379	1453	0.93
	2:45 PM	15	109	2	0	126	3	17	12	0	32	17	77	23	0	117	26	21	19	0	66	341	1535	0.83
	3:00 PM	22	130	2	0	154	4	27	8	0	39	12	99	10	0	121	16	7	7	0	30	344	1620	0.88
	3:15 PM	22	126	0	0	148	3	27	15	0	45	11	115	24	0	150	19	14	13	0	46	389	1760	0.91
	3:30 PM	27	117	4	0	148	3	27	15	0	45	12	128	28	0	168	47	28	25	0	100	461	1799	0.93
	3:45 PM	32	97	8	0	137	7	29	11	0	47	14	110	43	0	167	26	24	25	0	75	426	1807	0.93
	4:00 PM	26	150	12	0	188	4	31	11	0	46	18	145	22	0	185	28	19	18	0	65	484	1801	0.93
	4:15 PM	33	134	4	0	171	8	24	14	0	46	14	111	28	0	153	18	20	20	0	58	428	1781	0.95
	4:30 PM	24	139	5	0	168	5	27	14	0	46	13	112	16	0	141	42	36	36	0	114	469	1794	0.96
	4:45 PM	22	127	5	0	154	1	21	13	0	35	22	110	29	0	161	23	24	23	0	70	420	1720	0.93
	5:00 PM	26	146	6	0	178	3	27	18	0	48	18	109	29	0	156	32	24	26	0	82	464	1610	0.87
	5:15 PM	27	124	5	0	156	5	27	8	0	40	18	126	33	0	177	27	20	21	0	68	441	1502	0.85
	5:30 PM	18	106	4	0	128	4	33	12	0	49	23	98	19	0	140	24	27	27	0	78	395	1332	0.84
	5:45 PM	17	92	5	0	114	3	27	8	0	38	15	89	22	0	126	14	9	9	0	32	310	1164	0.82
	6:00 PM	17	100	4	0	121	5	15	12	0	32	10	122	26	0	158	11	17	17	0	45	356	1052	0.74
	6:15 PM	12	72	1	0	85	6	15	9	0	30	4	93	17	0	114	14	14	14	0	42	271		
	6:30 PM	14	66	1	0	81	4	16	11	0	31	8	61	18	0	87	8	10	10	0	28	227		
	6:45 PM	10	64	4	0	78	2	9	6	0	17	10	60	8	0	78	11	7	7	0	25	198		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		885	4538	148	0	5571	192	952	551	0	1695	494	4757	994	0	6245	975	812	831	0	2618	16129		

Peak Hour All Vehicle Volume Summary

Hourly Time Period Start Time		From North (↓) IL 251					From East (←) Prairie Hill Road					From South (↑) IL 251					From West (→) Prairie Hill Road					Total Hourly Volume	PHF
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	7:00 AM	86	299	4	0	389	23	90	64	0	177	47	440	82	0	569	80	89	90	0	259	1394	0.93
MD	11:15 AM	54	335	6	0	395	9	53	36	0	98	30	346	84	0	460	102	63	66	0	231	1184	0.92
PM	3:45 PM	115	520	29	0	664	24	111	50	0	185	59	478	109	0	646	114	99	99	0	312	1807	0.93

Intersection Traffic Volume Report

Count Basics		*Page 9 of 11*
Start Date: Tuesday, February 28, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 13	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

IL 251 and Prairie Hill Road

15-Minute Heavy Vehicle Data

15-Minute Time Period		From North (↓) IL 251					From East (←) Prairie Hill Road					From South (↑) IL 251					From West (→) Prairie Hill Road					15-Min	Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
AM Peak Period	6:00 AM	3	1	0	0	4	0	1	0	0	1	0	1	0	0	1	1	1	0	0	2	8	39
	6:15 AM	0	2	0	0	2	0	1	0	0	1	0	3	0	0	3	0	0	2	0	2	8	50
	6:30 AM	2	0	0	0	2	0	1	0	0	1	0	3	0	0	3	1	1	2	0	4	10	56
	6:45 AM	3	0	0	0	3	0	2	0	0	2	1	2	0	0	3	2	2	1	0	5	13	60
	7:00 AM	1	0	0	0	1	0	3	1	0	4	0	4	1	0	5	3	4	2	0	9	19	57
	7:15 AM	1	3	0	0	4	0	1	1	0	2	0	0	1	0	1	5	2	0	0	7	14	55
	7:30 AM	0	3	0	0	3	0	0	0	0	0	0	2	2	0	4	2	1	4	0	7	14	56
	7:45 AM	1	1	0	0	2	0	0	0	0	0	0	3	1	0	4	2	0	2	0	4	10	68
	8:00 AM	1	2	0	0	3	0	0	1	0	1	0	3	2	0	5	2	2	4	0	8	17	74
	8:15 AM	2	1	0	0	3	0	3	1	0	4	1	3	2	0	6	1	0	1	0	2	15	74
	8:30 AM	3	2	0	0	5	1	4	2	0	7	0	7	0	0	7	2	0	5	0	7	26	77
	8:45 AM	2	7	0	0	9	0	2	1	0	3	0	2	0	0	2	1	0	1	0	2	16	76
	9:00 AM	1	4	0	0	5	0	0	0	0	0	1	5	0	0	6	2	2	2	0	6	17	71
	9:15 AM	2	3	1	0	6	1	0	1	0	2	2	3	2	0	7	2	1	0	0	3	18	66
	9:30 AM	3	5	1	0	9	0	2	1	0	3	0	4	2	0	6	1	3	3	0	7	25	71
	9:45 AM	0	3	0	0	3	0	0	0	0	0	0	3	2	0	5	1	2	0	0	3	11	62
Midday Peak Period	10:00 AM	2	3	0	0	5	0	2	0	0	2	0	2	1	0	3	0	1	1	0	2	12	72
	10:15 AM	3	4	0	0	7	0	1	0	0	1	0	4	2	0	6	5	1	3	0	9	23	85
	10:30 AM	2	6	0	0	8	1	0	0	0	1	0	2	1	0	3	0	2	2	0	4	16	83
	10:45 AM	2	5	0	0	7	0	2	0	0	2	0	6	1	0	7	1	2	2	0	5	21	90
	11:00 AM	4	2	0	0	6	0	2	0	0	2	0	8	4	0	12	2	1	2	0	5	25	87
	11:15 AM	2	4	0	0	6	1	1	0	0	2	0	5	1	0	6	3	2	2	0	7	21	81
	11:30 AM	4	2	0	0	6	0	3	0	0	3	1	5	2	0	8	0	4	2	0	6	23	82
	11:45 AM	2	2	1	0	5	1	0	1	0	2	0	3	1	0	4	1	0	6	0	7	18	85
	12:00 PM	0	3	0	0	3	0	0	0	0	0	0	4	3	0	7	2	4	3	0	9	19	95
	12:15 PM	4	6	0	0	10	0	1	0	0	1	0	3	1	0	4	2	1	4	0	7	22	96
	12:30 PM	3	4	0	0	7	0	5	1	0	6	1	4	2	0	7	3	0	3	0	6	26	88
	12:45 PM	3	5	0	0	8	0	3	2	0	5	3	2	2	0	7	2	2	4	0	8	28	73
	1:00 PM	1	4	0	0	5	0	3	0	0	3	0	4	1	0	5	2	2	3	0	7	20	66
	1:15 PM	4	4	0	0	8	0	2	0	0	2	0	2	0	0	2	1	1	0	0	2	14	61
	1:30 PM	2	3	0	0	5	0	0	0	0	0	0	3	1	0	4	0	0	2	0	2	11	62
	1:45 PM	2	4	0	0	6	0	2	0	0	2	0	4	2	0	6	2	1	4	0	7	21	59
PM Peak Period	2:00 PM	0	3	0	0	3	0	3	0	0	3	0	0	1	0	1	2	4	2	0	8	15	54
	2:15 PM	2	2	0	0	4	0	0	0	0	0	1	4	1	0	6	1	3	1	0	5	15	49
	2:30 PM	2	1	0	0	3	0	2	0	0	2	0	1	1	0	2	1	0	0	0	1	8	47
	2:45 PM	1	0	0	0	1	0	0	0	0	0	0	1	2	0	3	6	4	2	0	12	16	52
	3:00 PM	1	2	0	0	3	0	2	0	0	2	0	2	0	0	2	3	0	0	0	3	10	45
	3:15 PM	3	2	0	0	5	0	1	0	0	1	1	1	1	0	3	1	2	1	0	4	13	48
	3:30 PM	1	4	0	0	5	0	0	0	0	0	0	2	2	0	4	1	3	0	0	4	13	43
	3:45 PM	0	0	0	0	0	0	3	0	0	3	1	1	1	0	3	2	0	1	0	3	9	42
	4:00 PM	3	2	0	0	5	0	3	0	0	3	0	1	1	0	2	0	2	1	0	3	13	36
	4:15 PM	1	1	0	0	2	0	2	0	0	2	0	0	1	0	1	1	1	1	0	3	8	26
	4:30 PM	0	1	0	0	1	0	1	0	0	1	0	4	2	0	6	4	0	0	0	4	12	23
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	3	16
	5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3	17
	5:15 PM	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	5	16
	5:30 PM	0	0	0	0	0	0	1	0	0	1	0	4	0	0	4	0	0	0	0	0	5	15
	5:45 PM	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	1	0	0	0	1	4	11
	6:00 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2	9
	6:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	4	
	6:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	6:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		84	120	4	0	208	5	67	13	0	85	13	133	54	0	200	80	65	84	0	229	722	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period		From North (↓) IL 251					From East (←) Prairie Hill Road					From South (↑) IL 251					From West (→) Prairie Hill Road					Total Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:00 AM	3	7	0	0	10	0	4	2	0	6	0	9	5	0	14	12	7	8	0	27	57
MD	11:15 AM	8	11	1	0	20	2	4	1	0	7	1	17	7	0	25	6	10	13	0	29	81
PM	3:45 PM	4	4	0	0	8	0	9	0	0	9	1	6	5	0	12	7	3	3	0	13	42

Intersection Traffic Volume Report

Count Basics			Page 3 of 11
Start Date:	Tuesday, February 28, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 13		Non-Holiday	No Special Events

Peak Hour Volume Summary

East Dearborn Avenue and Prairie Hill Road

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Tuesday, February 28, 2023		From North					From East					From South					From West					
	AM Peak Hour	East Dearborn Avenue					Prairie Hill Road					East Dearborn Avenue					Prairie Hill Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:00 AM	1	0	0	0	1	0	36	0	0	36	0	0	0	0	0	0	43	0	0	43	80
	7:15 AM	1	0	0	0	1	0	37	0	0	37	0	0	0	0	0	0	40	0	0	40	78
	7:30 AM	1	0	0	0	1	0	46	0	0	46	0	0	0	0	0	0	41	0	0	41	88
	7:45 AM	0	0	1	0	1	0	54	0	0	54	0	0	0	0	0	0	33	2	0	35	90
	Peak Hour Volume	3	0	1	0	4	0	173	0	0	173	0	0	0	0	0	0	157	2	0	159	336
	Rounded Hourly Volume	5	0	0	0	5	0	175	0	0	175	0	0	0	0	0	0	155	0	0	155	335
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	4.4	3.9
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	4.4	3.9
	Peak Hour Factor (PHF)	0.75	0.00	0.25	0.00	1.00	0.00	0.80	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.25	0.00	0.92	0.93

Tuesday, February 28, 2023		From North					From East					From South					From West					
	MD Peak Hour	East Dearborn Avenue					Prairie Hill Road					East Dearborn Avenue					Prairie Hill Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:15 PM	5	0	0	0	5	1	18	0	0	19	0	0	0	0	0	0	26	1	0	27	51
	12:30 PM	3	0	0	0	3	0	32	0	0	32	0	0	0	0	0	0	29	4	0	33	68
	12:45 PM	3	0	0	0	3	0	29	0	0	29	0	0	0	0	0	0	28	6	0	34	66
	1:00 PM	6	0	1	0	7	3	23	0	0	26	0	0	0	0	0	0	25	4	0	29	62
	Peak Hour Volume	17	0	1	0	18	4	102	0	0	106	0	0	0	0	0	0	108	15	0	123	247
	Rounded Hourly Volume	15	0	0	0	15	5	100	0	0	105	0	0	0	0	0	0	110	15	0	125	245
	% Single Unit Trucks	17.6	0.0	0.0	0.0	16.7	25.0	11.8	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	5.6	20.0	0.0	7.3	10.1
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	17.6	0.0	0.0	0.0	16.7	25.0	11.8	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	5.6	20.0	0.0	7.3	10.1
	Peak Hour Factor (PHF)	0.71	0.00	0.25	0.00	0.64	0.33	0.80	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.62	0.00	0.90	0.91

Tuesday, February 28, 2023		From North					From East					From South					From West					
	PM Peak Hour	East Dearborn Avenue					Prairie Hill Road					East Dearborn Avenue					Prairie Hill Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	3:30 PM	7	0	1	0	8	1	38	0	0	39	0	0	0	0	0	0	68	2	0	70	117
	3:45 PM	0	0	2	0	2	1	46	0	0	47	0	0	0	0	0	0	51	3	0	54	103
	4:00 PM	4	0	1	0	5	0	45	0	0	45	0	0	0	0	0	0	56	4	0	60	110
	4:15 PM	2	0	0	0	2	0	44	0	0	44	0	0	0	0	0	0	42	0	0	42	88
	Peak Hour Volume	13	0	4	0	17	2	173	0	0	175	0	0	0	0	0	0	217	9	0	226	418
	Rounded Hourly Volume	15	0	5	0	20	0	175	0	0	175	0	0	0	0	0	0	215	10	0	225	420
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	3.1	3.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	3.1	3.8
	Peak Hour Factor (PHF)	0.46	0.00	0.50	0.00	0.53	0.50	0.94	0.00	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.56	0.00	0.81	0.89

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		East Dearborn Avenue			Prairie Hill Road			East Dearborn Avenue			Prairie Hill Road			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		*Page 5 of 11*
Start Date: Tuesday, February 28, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 13	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

East Dearborn Avenue and Prairie Hill Road

15-Minute Motor Vehicle Data

15-Minute Time Period Start Time	From North (East Dearborn Avenue)					From East (Prairie Hill Road)					From South (East Dearborn Avenue)					From West (Prairie Hill Road)					15-Min Totals	Hourly Sum	PHF
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period 6:00 AM	1	0	1	0	2	0	12	0	0	12	0	0	0	0	0	0	15	1	0	16	30	173	0.85
6:15 AM	1	0	3	0	4	1	21	0	0	22	0	0	0	0	0	0	16	0	0	16	42	223	0.70
6:30 AM	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	0	26	1	0	27	51	259	0.81
6:45 AM	0	0	0	0	0	0	28	0	0	28	0	0	0	0	0	0	20	2	0	22	50	296	0.84
7:00 AM	1	0	0	0	1	0	36	0	0	36	0	0	0	0	0	0	43	0	0	43	80	336	0.93
7:15 AM	1	0	0	0	1	0	37	0	0	37	0	0	0	0	0	0	40	0	0	40	78	318	0.88
7:30 AM	1	0	0	0	1	0	46	0	0	46	0	0	0	0	0	0	41	0	0	41	88	327	0.91
7:45 AM	0	0	1	0	1	0	54	0	0	54	0	0	0	0	0	0	33	2	0	35	90	313	0.87
8:00 AM	2	0	0	0	2	0	28	0	0	28	0	0	0	0	0	0	29	3	0	32	62	267	0.77
8:15 AM	1	0	1	0	2	1	56	0	0	57	0	0	0	0	0	0	26	2	0	28	87	241	0.69
8:30 AM	4	0	1	0	5	0	51	0	0	51	0	0	0	0	0	0	18	0	0	18	74	203	0.69
8:45 AM	1	0	0	0	1	0	29	0	0	29	0	0	0	0	0	0	14	0	0	14	44	170	0.87
9:00 AM	0	0	0	0	0	1	17	0	0	18	0	0	0	0	0	0	17	1	0	18	36	175	0.89
9:15 AM	2	0	0	0	2	0	26	0	0	26	0	0	0	0	0	0	19	2	0	21	49	180	0.92
9:30 AM	1	0	0	0	1	1	16	0	0	17	0	0	0	0	0	0	21	2	0	23	41	174	0.89
9:45 AM	1	0	1	0	2	0	28	0	0	28	0	0	0	0	0	0	18	1	0	19	49	173	0.88
Midday Peak Period 10:00 AM	2	0	0	0	2	1	21	0	0	22	0	0	0	0	0	0	16	1	0	17	41	169	0.94
10:15 AM	3	0	0	0	3	0	22	0	0	22	0	0	0	0	0	0	18	0	0	18	43	181	0.85
10:30 AM	1	0	2	0	3	0	16	0	0	16	0	0	0	0	0	0	20	1	0	21	40	193	0.88
10:45 AM	3	0	0	0	3	0	21	0	0	21	0	0	0	0	0	0	19	2	0	21	45	208	0.95
11:00 AM	2	0	0	0	2	0	26	0	0	26	0	0	0	0	0	0	22	3	0	25	53	206	0.94
11:15 AM	0	0	1	0	1	1	26	0	0	27	0	0	0	0	0	0	26	1	0	27	55	209	0.93
11:30 AM	3	0	1	0	4	0	22	0	0	22	0	0	0	0	0	0	23	6	0	29	55	205	0.92
11:45 AM	5	0	0	0	5	0	20	0	0	20	0	0	0	0	0	0	16	2	0	18	43	218	0.80
12:00 PM	1	0	0	0	1	1	19	0	0	20	0	0	0	0	0	0	31	4	0	35	56	241	0.89
12:15 PM	5	0	0	0	5	1	18	0	0	19	0	0	0	0	0	0	26	1	0	27	51	247	0.91
12:30 PM	3	0	0	0	3	0	32	0	0	32	0	0	0	0	0	0	29	4	0	33	68	247	0.91
12:45 PM	3	0	0	0	3	0	29	0	0	29	0	0	0	0	0	0	28	6	0	34	66	236	0.89
1:00 PM	6	0	1	0	7	3	23	0	0	26	0	0	0	0	0	0	25	4	0	29	62	216	0.87
1:15 PM	3	0	1	0	4	0	24	0	0	24	0	0	0	0	0	0	22	1	0	23	51	206	0.90
1:30 PM	3	0	1	0	4	1	21	0	0	22	0	0	0	0	0	0	27	4	0	31	57	227	0.79
1:45 PM	1	0	0	0	1	0	23	0	0	23	0	0	0	0	0	0	19	3	0	22	46	241	0.84
PM Peak Period 2:00 PM	3	0	0	0	3	0	26	0	0	26	0	0	0	0	0	0	22	1	0	23	52	266	0.92
2:15 PM	1	0	0	0	1	0	32	0	0	32	0	0	0	0	0	0	34	5	0	39	72	286	0.99
2:30 PM	2	0	0	0	2	3	33	0	0	36	0	0	0	0	0	0	31	2	0	33	71	293	0.93
2:45 PM	2	0	2	0	4	0	25	0	0	25	0	0	0	0	0	0	40	2	0	42	71	339	0.72
3:00 PM	2	0	1	0	3	0	37	0	0	37	0	0	0	0	0	0	31	1	0	32	72	371	0.79
3:15 PM	4	0	3	0	7	2	40	0	0	42	0	0	0	0	0	0	29	1	0	30	79	409	0.87
3:30 PM	7	0	1	0	8	1	38	0	0	39	0	0	0	0	0	0	68	2	0	70	117	418	0.89
3:45 PM	0	0	2	0	2	1	46	0	0	47	0	0	0	0	0	0	51	3	0	54	103	387	0.88
4:00 PM	4	0	1	0	5	0	45	0	0	45	0	0	0	0	0	0	56	4	0	60	110	380	0.86
4:15 PM	2	0	0	0	2	0	44	0	0	44	0	0	0	0	0	0	42	0	0	42	88	361	0.94
4:30 PM	7	0	2	0	9	1	36	0	0	37	0	0	0	0	0	0	36	4	0	40	86	370	0.95
4:45 PM	0	0	0	0	0	2	36	0	0	38	0	0	0	0	0	0	56	2	0	58	96	387	0.94
5:00 PM	0	0	0	0	0	2	47	0	0	49	0	0	0	0	0	0	40	2	0	42	91	374	0.91
5:15 PM	1	0	3	0	4	0	40	0	0	40	0	0	0	0	0	0	53	0	0	53	97	351	0.85
5:30 PM	2	0	0	0	2	1	48	0	0	49	0	0	0	0	0	0	52	0	0	52	103	313	0.76
5:45 PM	7	0	0	0	7	2	31	0	0	33	0	0	0	0	0	0	40	3	0	43	83	261	0.79
6:00 PM	5	0	1	0	6	1	26	0	0	27	0	0	0	0	0	0	32	3	0	35	68	221	0.81
6:15 PM	2	0	2	0	4	0	29	0	0	29	0	0	0	0	0	0	26	0	0	26	59		
6:30 PM	2	0	1	0	3	0	28	0	0	28	0	0	0	0	0	0	19	1	0	20	51		
6:45 PM	2	0	0	0	2	3	16	0	0	19	0	0	0	0	0	0	20	2	0	22	43		
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals	116	0	34	0	150	31	1575	0	0	1606	0	0	0	0	0	0	1541	98	0	1639	3395		

Peak Hour All Vehicle Volume Summary

Hourly Time Period Start Time	From North (East Dearborn Avenue)					From East (Prairie Hill Road)					From South (East Dearborn Avenue)					From West (Prairie Hill Road)					Total Hourly Volume	PHF
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 7:00 AM	3	0	1	0	4	0	173	0	0	173	0	0	0	0	0	0	157	2	0	159	336	0.93
MD 12:15 PM	17	0	1	0	18	4	102	0	0	106	0	0	0	0	0	0	108	15	0	123	247	0.91
PM 3:30 PM	13	0	4	0	17	2	173	0	0	175	0	0	0	0	0	0	217	9	0	226	418	0.89

Intersection Traffic Volume Report

Count Basics			*Page 9 of 11*
Start Date:	Tuesday, February 28, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 13		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

East Dearborn Avenue and Prairie Hill Road

15-Minute Heavy Vehicle Data

15-Minute Time Period		From North (East Dearborn Avenue)					From East (Prairie Hill Road)					From South (East Dearborn Avenue)					From West (Prairie Hill Road)					15-Min	Hourly
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
AM Peak Period	6:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	11
	6:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2	17
	6:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	19
	6:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5	18
	7:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	8	13
	7:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4	8
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	9
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
	8:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3	18
	8:15 AM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	1	0	1	5	18
	8:30 AM	2	0	0	0	2	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	7	20
	8:45 AM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3	20
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	3	19
	9:15 AM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	2	2	0	4	7	19
	9:30 AM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	3	1	0	4	7	14
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2	9
Midday Peak Period	10:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	10
	10:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	10
	10:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	12
	10:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3	18
	11:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	3	18
	11:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4	19
	11:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	1	0	5	8	17
	11:45 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3	15
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4	23
	12:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	25
	12:30 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	6	28
	12:45 PM	2	0	0	0	2	0	3	0	0	3	0	0	0	0	0	0	3	3	0	6	11	23
	1:00 PM	1	0	0	0	1	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	6	16
	1:15 PM	1	0	1	0	2	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	5	16
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	15
	1:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4	17
PM Peak Period	2:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	6	18
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	4	14
	2:30 PM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	3	15
	2:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	5	15
	3:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	14
	3:15 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	5	17
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3	16
	3:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4	14
	4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5	10
	4:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4	5
	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	4
	5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	3
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
	6:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		12	0	3	0	15	3	75	0	0	78	0	0	0	0	0	0	69	12	0	81	174	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period		From North (East Dearborn Avenue)					From East (Prairie Hill Road)					From South (East Dearborn Avenue)					From West (Prairie Hill Road)					Total Hourly
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:00 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	7	0	0	7	13
MD	12:15 PM	3	0	0	0	3	1	12	0	0	13	0	0	0	0	0	0	6	3	0	9	25
PM	3:30 PM	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	7	0	0	7	16

Intersection Traffic Volume Report

Count Basics			Page 3 of 11
Start Date:	Tuesday, February 28, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 13		Non-Holiday	No Special Events

Peak Hour Volume Summary

West Dearborn Avenue and Prairie Hill Road

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Tuesday, February 28, 2023		From North					From East					From South					From West					
	AM Peak Hour	West Dearborn Avenue					Prairie Hill Road					West Dearborn Avenue					Prairie Hill Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:00 AM	0	1	0	0	1	0	55	7	0	62	0	0	1	0	1	0	57	0	0	57	121
	7:15 AM	2	0	0	0	2	0	59	3	0	62	1	0	0	0	1	3	75	0	0	78	143
	7:30 AM	2	0	1	0	3	0	47	9	0	56	3	0	0	0	3	0	75	0	0	75	137
	7:45 AM	0	0	0	0	0	1	64	12	0	77	2	0	2	0	4	2	61	2	0	65	146
	Peak Hour Volume	4	1	1	0	6	1	225	31	0	257	6	0	3	0	9	5	268	2	0	275	547
	Rounded Hourly Volume	5	0	0	0	5	0	225	30	0	255	5	0	5	0	10	5	270	0	0	275	545
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	5.3	3.2	0.0	5.1	0.0	0.0	33.3	0.0	11.1	0.0	9.7	0.0	0.0	9.5	7.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	5.3	3.2	0.0	5.1	0.0	0.0	33.3	0.0	11.1	0.0	9.7	0.0	0.0	9.5	7.3
	Peak Hour Factor (PHF)	0.50	0.25	0.25	0.00	0.50	0.25	0.88	0.65	0.00	0.83	0.50	0.00	0.37	0.00	0.56	0.42	0.89	0.25	0.00	0.88	0.94

Tuesday, February 28, 2023		From North					From East					From South					From West					
	MD Peak Hour	West Dearborn Avenue					Prairie Hill Road					West Dearborn Avenue					Prairie Hill Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	11:30 AM	1	0	0	0	1	1	55	2	0	58	4	0	2	0	6	1	55	1	0	57	122
	11:45 AM	0	1	0	0	1	0	36	2	0	38	9	2	1	0	12	0	50	2	0	52	103
	12:00 PM	1	0	1	0	2	1	45	9	0	55	8	1	1	0	10	3	56	1	0	60	127
	12:15 PM	2	0	1	0	3	0	47	7	0	54	6	0	2	0	8	0	41	0	0	41	106
	Peak Hour Volume	4	1	2	0	7	2	183	20	0	205	27	3	6	0	36	4	202	4	0	210	458
	Rounded Hourly Volume	5	0	0	0	5	0	185	20	0	205	25	5	5	0	35	5	200	5	0	210	455
	% Single Unit Trucks	0.0	100.0	0.0	0.0	14.3	0.0	8.7	25.0	0.0	10.2	14.8	0.0	16.7	0.0	13.9	25.0	12.9	0.0	0.0	12.9	11.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	100.0	0.0	0.0	14.3	0.0	8.7	25.0	0.0	10.2	14.8	0.0	16.7	0.0	13.9	25.0	12.9	0.0	0.0	12.9	11.8
	Peak Hour Factor (PHF)	0.50	0.25	0.50	0.00	0.58	0.50	0.83	0.56	0.00	0.88	0.75	0.37	0.75	0.00	0.75	0.33	0.90	0.50	0.00	0.87	0.90

Tuesday, February 28, 2023		From North					From East					From South					From West					
	PM Peak Hour	West Dearborn Avenue					Prairie Hill Road					West Dearborn Avenue					Prairie Hill Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	3:30 PM	3	1	0	0	4	0	78	1	0	79	3	1	0	0	4	1	120	0	0	121	208
	3:45 PM	1	0	0	0	1	0	99	4	0	103	8	0	2	0	10	0	70	1	0	71	185
	4:00 PM	3	0	0	0	3	0	75	2	0	77	6	1	0	0	7	0	62	0	0	62	149
	4:15 PM	2	1	3	0	6	0	83	2	0	85	15	0	2	0	17	3	45	1	0	49	157
	Peak Hour Volume	9	2	3	0	14	0	335	9	0	344	32	2	4	0	38	4	297	2	0	303	699
	Rounded Hourly Volume	10	0	5	0	15	0	335	10	0	345	30	0	5	0	35	5	295	0	0	300	695
	% Single Unit Trucks	0.0	0.0	33.3	0.0	7.1	0.0	4.8	11.1	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	4.0	4.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	33.3	0.0	7.1	0.0	4.8	11.1	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	4.0	4.3
	Peak Hour Factor (PHF)	0.75	0.50	0.25	0.00	0.58	0.00	0.85	0.56	0.00	0.83	0.53	0.50	0.50	0.00	0.56	0.33	0.62	0.50	0.00	0.63	0.84

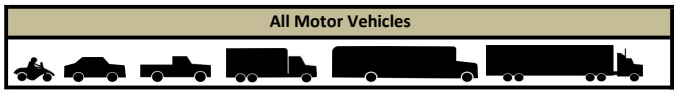
Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		West Dearborn Avenue			Prairie Hill Road			West Dearborn Avenue			Prairie Hill Road			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		*Page 5 of 11*
Start Date: Tuesday, February 28, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 13	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data



West Dearborn Avenue and Prairie Hill Road

15-Minute Motor Vehicle Data

15-Minute Time Period Start Time		From North (West Dearborn Avenue)					From East (Prairie Hill Road)					From South (West Dearborn Avenue)					From West (Prairie Hill Road)					15-Min Totals	Hourly Sum	PHF
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period	6:00 AM	0	0	0	0	0	0	20	9	0	29	4	0	0	0	4	1	32	0	0	33	66	296	0.80
	6:15 AM	0	0	0	0	0	0	27	1	0	28	0	0	0	0	0	1	33	0	0	34	62	351	0.73
	6:30 AM	0	0	0	0	0	0	29	2	0	31	1	0	0	0	1	0	44	0	0	44	76	432	0.76
	6:45 AM	0	0	0	0	0	0	45	4	0	49	1	0	0	0	1	2	39	1	0	42	92	493	0.86
	7:00 AM	0	1	0	0	1	0	55	7	0	62	0	0	1	0	1	0	57	0	0	57	121	547	0.94
	7:15 AM	2	0	0	0	2	0	59	3	0	62	1	0	0	0	1	3	75	0	0	78	143	534	0.91
	7:30 AM	2	0	1	0	3	0	47	9	0	56	3	0	0	0	3	0	75	0	0	75	137	518	0.89
	7:45 AM	0	0	0	0	0	1	64	12	0	77	2	0	2	0	4	2	61	2	0	65	146	484	0.83
	8:00 AM	1	0	0	0	1	0	38	3	0	41	2	0	0	0	2	2	61	1	0	64	108	416	0.82
	8:15 AM	1	0	0	0	1	0	70	2	0	72	0	0	3	0	3	1	49	1	0	51	127	372	0.73
	8:30 AM	0	0	0	0	0	0	55	5	0	60	1	0	0	0	1	0	42	0	0	42	103	306	0.74
	8:45 AM	0	0	0	0	0	1	42	4	0	47	2	0	0	0	2	0	29	0	0	29	78	280	0.90
	9:00 AM	0	0	0	0	0	0	25	0	0	25	3	0	1	0	4	0	33	2	0	35	64	268	0.87
	9:15 AM	1	0	0	0	1	0	30	2	0	32	1	0	0	0	1	0	27	0	0	27	61	274	0.89
	9:30 AM	1	0	0	0	1	0	26	2	0	28	3	0	1	0	4	1	43	0	0	44	77	293	0.92
	9:45 AM	0	0	0	0	0	1	34	1	0	36	1	0	0	0	1	1	28	0	0	29	66	290	0.91
Midday Peak Period	10:00 AM	1	0	0	0	1	1	34	1	0	36	1	1	1	0	3	1	29	0	0	30	70	308	0.92
	10:15 AM	2	0	0	0	2	1	35	2	0	38	2	0	1	0	3	2	35	0	0	37	80	343	0.82
	10:30 AM	2	0	0	0	2	1	26	3	0	30	3	0	1	0	4	2	36	0	0	38	74	367	0.87
	10:45 AM	0	0	0	0	0	0	38	3	0	41	4	0	2	0	6	1	36	0	0	37	84	415	0.85
	11:00 AM	2	0	2	0	4	1	52	4	0	57	0	0	1	0	1	1	42	0	0	43	105	434	0.89
	11:15 AM	2	0	0	0	2	0	36	5	0	41	3	0	1	0	4	2	55	0	0	57	104	456	0.90
	11:30 AM	1	0	0	0	1	1	55	2	0	58	4	0	2	0	6	1	55	1	0	57	122	458	0.90
	11:45 AM	0	1	0	0	1	0	36	2	0	38	9	2	1	0	12	0	50	2	0	52	103	439	0.86
	12:00 PM	1	0	1	0	2	1	45	9	0	55	8	1	1	0	10	3	56	1	0	60	127	440	0.87
	12:15 PM	2	0	1	0	3	0	47	7	0	54	6	0	2	0	8	0	41	0	0	41	106	402	0.95
	12:30 PM	0	0	0	0	0	0	48	5	0	53	2	0	1	0	3	0	47	0	0	47	103	391	0.94
	12:45 PM	0	0	0	0	0	0	51	3	0	54	7	0	0	0	7	2	41	0	0	43	104	401	0.89
	1:00 PM	1	1	1	0	3	0	38	3	0	41	3	1	1	0	5	1	38	1	0	40	89	412	0.90
	1:15 PM	1	0	2	0	3	1	49	6	0	56	1	1	2	0	4	1	31	0	0	32	95	412	0.90
	1:30 PM	0	0	1	0	1	1	42	1	0	44	2	0	1	0	3	0	65	0	0	65	113	429	0.93
	1:45 PM	5	2	1	0	8	0	52	1	0	53	3	1	1	0	5	0	49	0	0	49	115	455	0.82
PM Peak Period	2:00 PM	0	0	1	0	1	0	39	5	0	44	3	0	0	0	3	1	40	0	0	41	89	468	0.84
	2:15 PM	1	0	0	0	1	2	58	4	0	64	1	0	0	0	1	0	46	0	0	46	112	483	0.87
	2:30 PM	3	0	0	0	3	1	70	2	0	73	1	1	1	0	3	1	57	2	0	60	139	496	0.89
	2:45 PM	1	0	1	0	2	0	53	0	0	53	7	0	3	0	10	2	60	1	0	63	128	565	0.68
	3:00 PM	1	0	1	0	2	0	57	2	0	59	3	0	2	0	5	1	37	0	0	38	104	622	0.75
	3:15 PM	1	0	0	0	1	1	71	2	0	74	1	0	0	0	1	0	48	1	0	49	125	667	0.80
	3:30 PM	3	1	0	0	4	0	78	1	0	79	3	1	0	0	4	1	120	0	0	121	208	699	0.84
	3:45 PM	1	0	0	0	1	0	99	4	0	103	8	0	2	0	10	0	70	1	0	71	185	666	0.90
	4:00 PM	3	0	0	0	3	0	75	2	0	77	6	1	0	0	7	0	62	0	0	62	149	630	0.90
	4:15 PM	2	1	3	0	6	0	83	2	0	85	15	0	2	0	17	3	45	1	0	49	157	646	0.92
	4:30 PM	0	1	1	0	2	0	63	4	0	67	27	0	8	0	35	0	70	1	0	71	175	657	0.94
	4:45 PM	0	0	1	0	1	0	65	3	0	68	5	0	2	0	7	1	71	1	0	73	149	632	0.94
	5:00 PM	0	1	2	0	3	0	71	12	0	83	6	0	1	0	7	1	71	0	0	72	165	597	0.89
	5:15 PM	0	2	2	0	4	1	72	16	0	89	12	1	1	0	14	1	59	1	0	61	168	538	0.80
	5:30 PM	0	0	0	0	0	0	65	2	0	67	22	1	4	0	27	1	54	1	0	56	150	467	0.78
	5:45 PM	1	0	1	0	2	0	66	2	0	68	3	0	0	0	3	0	40	1	0	41	114	396	0.87
	6:00 PM	0	0	0	0	0	0	59	1	0	60	1	0	1	0	2	0	44	0	0	44	106	335	0.79
	6:15 PM	0	0	0	0	0	0	48	0	0	48	0	0	1	0	1	0	48	0	0	48	97		
	6:30 PM	1	0	0	0	1	0	46	1	0	47	1	0	0	0	1	1	29	0	0	30	79		
	6:45 PM	1	0	0	0	1	0	28	0	0	28	2	0	0	0	2	0	22	0	0	22	53		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		47	11	23	0	81	16	2616	188	0	2820	210	12	55	0	277	45	2527	23	0	2595	5773		

Peak Hour All Vehicle Volume Summary

Hourly Time Period Start Time		From North (West Dearborn Avenue)					From East (Prairie Hill Road)					From South (West Dearborn Avenue)					From West (Prairie Hill Road)					Total Hourly Volume	PHF
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	7:00 AM	4	1	1	0	6	1	225	31	0	257	6	0	3	0	9	5	268	2	0	275	547	0.94
MD	11:30 AM	4	1	2	0	7	2	183	20	0	205	27	3	6	0	36	4	202	4	0	210	458	0.90
PM	3:30 PM	9	2	3	0	14	0	335	9	0	344	32	2	4	0	38	4	297	2	0	303	699	0.84

Intersection Traffic Volume Report

Count Basics			*Page 9 of 11*
Start Date:	Tuesday, February 28, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 13		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

West Dearborn Avenue and Prairie Hill Road

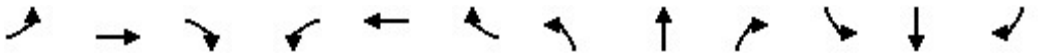
15-Minute Heavy Vehicle Data

15-Minute Time Period Start Time		From North (West Dearborn Avenue)					From East (Prairie Hill Road)					From South (West Dearborn Avenue)					From West (Prairie Hill Road)					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	3	0	0	3	7	28
	6:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	35
	6:30 AM	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	3	0	0	3	8	43
	6:45 AM	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	0	4	1	0	5	11	45
	7:00 AM	0	0	0	0	0	0	4	1	0	5	0	0	1	0	1	0	8	0	0	8	14	40
	7:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	7	0	0	7	10	38
	7:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	7	0	0	7	10	39
	7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	6	49
	8:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	8	0	0	8	12	49
	8:15 AM	1	0	0	0	1	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	11	44
	8:30 AM	0	0	0	0	0	0	12	1	0	13	0	0	0	0	0	0	7	0	0	7	20	41
	8:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6	35
	9:00 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	5	0	0	5	7	34
	9:15 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8	34
	9:30 AM	0	0	0	0	0	0	6	1	0	7	1	0	0	0	1	0	6	0	0	6	14	41
	9:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5	34
Midday Peak Period	10:00 AM	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	0	1	0	0	1	7	41
	10:15 AM	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	9	0	0	9	15	49
	10:30 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	1	3	0	0	4	7	45
	10:45 AM	0	0	0	0	0	0	5	1	0	6	1	0	1	0	2	0	4	0	0	4	12	54
	11:00 AM	0	0	1	0	1	0	10	0	0	10	0	0	0	0	0	0	4	0	0	4	15	53
	11:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	7	0	0	7	11	52
	11:30 AM	0	0	0	0	0	0	8	1	0	9	0	0	0	0	0	0	7	0	0	7	16	54
	11:45 AM	0	1	0	0	1	0	2	1	0	3	0	0	1	0	1	0	6	0	0	6	11	54
	12:00 PM	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	1	9	0	0	10	14	59
	12:15 PM	0	0	0	0	0	0	4	2	0	6	3	0	0	0	3	0	4	0	0	4	13	59
	12:30 PM	0	0	0	0	0	0	9	1	0	10	1	0	1	0	2	0	4	0	0	4	16	54
	12:45 PM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	8	0	0	8	16	43
	1:00 PM	0	0	0	0	0	0	6	0	0	6	1	0	0	0	1	1	6	0	0	7	14	40
	1:15 PM	0	0	0	0	0	0	6	0	0	6	1	0	0	0	1	0	1	0	0	1	8	38
	1:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5	38
	1:45 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	7	0	0	7	13	39
PM Peak Period	2:00 PM	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	7	0	0	7	12	43
	2:15 PM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	5	0	0	5	8	37
	2:30 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	6	38
	2:45 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	1	11	1	0	13	17	38
	3:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6	28
	3:15 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9	32
	3:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	6	30
	3:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7	31
	4:00 PM	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	0	3	0	0	3	10	25
	4:15 PM	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	7	17
	4:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7	12
	4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	6
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	7
	5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	7
	5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	9
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	9
	6:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	7
	6:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4	
	6:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		1	1	3	0	5	1	201	14	0	216	14	0	4	0	18	4	209	2	0	215	454	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time		From North (West Dearborn Avenue)					From East (Prairie Hill Road)					From South (West Dearborn Avenue)					From West (Prairie Hill Road)					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:00 AM	0	0	0	0	0	0	12	1	0	13	0	0	1	0	1	0	26	0	0	26	40
MD	11:30 AM	0	1	0	0	1	0	16	5	0	21	4	0	1	0	5	1	26	0	0	27	54
PM	3:30 PM	0	0	1	0	1	0	16	1	0	17	0	0	0	0	0	0	12	0	0	12	30

Appendix B: Existing-Year Traffic Operations Analysis Worksheets



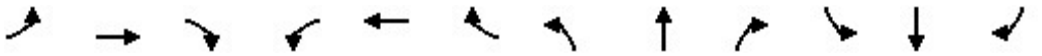
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	105	80	65	90	25	80	440	45	5	300	85
Future Volume (veh/h)	90	105	80	65	90	25	80	440	45	5	300	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	97	113	86	70	97	27	86	473	48	5	323	91
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	10	10	10	3	3	3	3	3	3	3	3	3
Cap, veh/h	333	215	437	321	207	185	303	1562	828	12	981	588
Arrive On Green	0.10	0.12	0.12	0.08	0.11	0.11	0.17	0.44	0.44	0.01	0.28	0.28
Sat Flow, veh/h	1668	1752	1485	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	97	113	86	70	97	27	86	473	48	5	323	91
Grp Sat Flow(s),veh/h/ln	1668	1752	1485	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	3.5	4.3	3.1	2.4	3.5	1.1	3.0	6.2	1.1	0.2	5.2	2.8
Cycle Q Clear(g_c), s	3.5	4.3	3.1	2.4	3.5	1.1	3.0	6.2	1.1	0.2	5.2	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	215	437	321	207	185	303	1562	828	12	981	588
V/C Ratio(X)	0.29	0.53	0.20	0.22	0.47	0.15	0.28	0.30	0.06	0.43	0.33	0.15
Avail Cap(c_a), veh/h	629	688	837	655	728	628	588	2630	1305	342	2139	1104
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	29.5	19.0	24.3	29.9	28.4	25.9	12.9	8.3	35.6	20.6	15.0
Incr Delay (d2), s/veh	0.6	4.2	0.5	0.4	3.5	0.8	0.5	0.1	0.0	22.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	3.6	1.9	1.8	3.1	0.8	2.1	3.5	0.6	0.3	3.4	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	33.8	19.5	24.7	33.5	29.2	26.4	13.0	8.3	58.4	20.8	15.1
LnGrp LOS	C	C	B	C	C	C	C	B	A	E	C	B
Approach Vol, veh/h		296			194			607			419	
Approach Delay, s/veh		26.6			29.7			14.5			20.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	26.4	11.4	15.6	6.6	38.2	12.2	14.8
Change Period (Y+Rc), s	6.1	* 6.4	* 5.4	* 6.8	6.1	* 6.4	* 5.4	* 6.8
Max Green Setting (Gmax), s	23.9	* 44	* 20	* 28	13.9	* 54	* 20	* 28
Max Q Clear Time (g_c+I1), s	5.0	7.2	4.4	6.3	2.2	8.2	5.5	5.5
Green Ext Time (p_c), s	0.2	2.1	0.1	1.7	0.0	3.0	0.2	1.0

Intersection Summary	
HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	120	115	50	115	25	110	480	70	35	520	115
Future Volume (veh/h)	100	120	115	50	115	25	110	480	70	35	520	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1826	1826	1826	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	108	129	124	54	124	27	118	516	75	38	559	124
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	5	5	5	2	2	2	1	1	1
Cap, veh/h	322	247	499	300	201	227	331	1496	782	66	974	589
Arrive On Green	0.10	0.13	0.13	0.07	0.11	0.11	0.19	0.42	0.42	0.04	0.27	0.27
Sat Flow, veh/h	1753	1841	1560	1739	1826	1547	1781	3554	1585	1795	3582	1598
Grp Volume(v), veh/h	108	129	124	54	124	27	118	516	75	38	559	124
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1739	1826	1547	1781	1777	1585	1795	1791	1598
Q Serve(g_s), s	3.8	4.8	4.3	1.9	4.8	1.1	4.2	7.2	1.9	1.5	9.9	3.9
Cycle Q Clear(g_c), s	3.8	4.8	4.3	1.9	4.8	1.1	4.2	7.2	1.9	1.5	9.9	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	247	499	300	201	227	331	1496	782	66	974	589
V/C Ratio(X)	0.34	0.52	0.25	0.18	0.62	0.12	0.36	0.35	0.10	0.58	0.57	0.21
Avail Cap(c_a), veh/h	620	706	888	637	700	650	579	2590	1270	339	2123	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	29.7	18.5	25.4	31.3	27.3	26.1	14.4	9.9	34.9	23.1	15.9
Incr Delay (d2), s/veh	0.7	3.6	0.6	0.3	6.5	0.5	0.7	0.1	0.1	7.7	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	4.1	2.8	1.4	4.3	0.8	3.0	4.3	1.1	1.3	6.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	33.3	19.0	25.8	37.7	27.8	26.8	14.6	10.0	42.6	23.6	16.1
LnGrp LOS	C	C	B	C	D	C	C	B	A	D	C	B
Approach Vol, veh/h		361			205			709			721	
Approach Delay, s/veh		26.1			33.3			16.1			23.3	
Approach LOS		C			C			B			C	

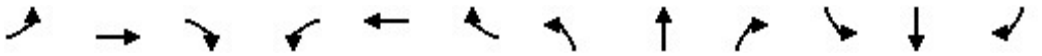
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	26.4	10.7	16.7	8.8	37.4	12.5	14.9
Change Period (Y+Rc), s	6.1	* 6.4	* 5.4	* 6.8	6.1	* 6.4	* 5.4	* 6.8
Max Green Setting (Gmax), s	23.9	* 44	* 20	* 28	13.9	* 54	* 20	* 28
Max Q Clear Time (g_c+I1), s	6.2	11.9	3.9	6.8	3.5	9.2	5.8	6.8
Green Ext Time (p_c), s	0.2	3.8	0.1	2.2	0.0	3.4	0.3	1.3

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Appendix C: Future-Year Traffic Operations Analysis Worksheets



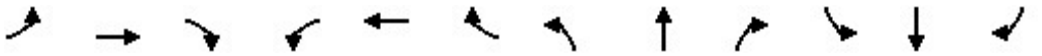
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	165	120	100	140	40	120	660	70	10	450	130
Future Volume (veh/h)	135	165	120	100	140	40	120	660	70	10	450	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	145	177	129	108	151	43	129	710	75	11	484	140
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	10	10	10	3	3	3	3	3	3	3	3	3
Cap, veh/h	338	270	497	319	276	255	319	1491	811	24	903	557
Arrive On Green	0.10	0.15	0.15	0.09	0.15	0.15	0.18	0.42	0.42	0.01	0.26	0.26
Sat Flow, veh/h	1668	1752	1485	1767	1856	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	145	177	129	108	151	43	129	710	75	11	484	140
Grp Sat Flow(s),veh/h/ln	1668	1752	1485	1767	1856	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	5.6	7.4	4.9	3.9	5.9	1.8	5.0	11.4	1.9	0.5	9.2	4.9
Cycle Q Clear(g_c), s	5.6	7.4	4.9	3.9	5.9	1.8	5.0	11.4	1.9	0.5	9.2	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	338	270	497	319	276	255	319	1491	811	24	903	557
V/C Ratio(X)	0.43	0.65	0.26	0.34	0.55	0.17	0.40	0.48	0.09	0.46	0.54	0.25
Avail Cap(c_a), veh/h	593	633	804	599	670	589	541	2421	1225	315	1969	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	31.1	18.9	24.3	30.8	28.1	28.3	16.3	9.6	38.2	25.0	17.9
Incr Delay (d2), s/veh	1.0	5.6	0.6	0.8	3.6	0.7	0.8	0.2	0.0	13.0	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.0	6.2	3.1	2.9	5.1	1.3	3.6	6.9	1.1	0.5	6.2	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	36.7	19.5	25.0	34.4	28.8	29.1	16.5	9.7	51.2	25.5	18.1
LnGrp LOS	C	D	B	C	C	C	C	B	A	D	C	B
Approach Vol, veh/h		451			302			914			635	
Approach Delay, s/veh		28.2			30.2			17.7			24.3	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	26.4	12.6	18.8	7.2	39.4	13.1	18.4
Change Period (Y+Rc), s	6.1	* 6.4	* 5.4	* 6.8	6.1	* 6.4	* 5.4	* 6.8
Max Green Setting (Gmax), s	23.9	* 44	* 20	* 28	13.9	* 54	* 20	* 28
Max Q Clear Time (g_c+I1), s	7.0	11.2	5.9	9.4	2.5	13.4	7.6	7.9
Green Ext Time (p_c), s	0.3	3.3	0.3	2.6	0.0	4.9	0.4	1.7

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	180	175	75	175	40	165	720	105	55	780	175
Future Volume (veh/h)	150	180	175	75	175	40	165	720	105	55	780	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1826	1826	1826	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	161	194	188	81	188	43	177	774	113	59	839	188
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	5	5	5	2	2	2	1	1	1
Cap, veh/h	312	307	524	286	263	290	301	1523	804	78	1085	646
Arrive On Green	0.10	0.17	0.17	0.08	0.14	0.14	0.17	0.43	0.43	0.04	0.30	0.30
Sat Flow, veh/h	1753	1841	1560	1739	1826	1547	1781	3554	1585	1795	3582	1598
Grp Volume(v), veh/h	161	194	188	81	188	43	177	774	113	59	839	188
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1739	1826	1547	1781	1777	1585	1795	1791	1598
Q Serve(g_s), s	6.7	8.6	8.0	3.3	8.6	2.0	8.0	13.9	3.3	2.8	18.6	6.9
Cycle Q Clear(g_c), s	6.7	8.6	8.0	3.3	8.6	2.0	8.0	13.9	3.3	2.8	18.6	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	312	307	524	286	263	290	301	1523	804	78	1085	646
V/C Ratio(X)	0.52	0.63	0.36	0.28	0.72	0.15	0.59	0.51	0.14	0.75	0.77	0.29
Avail Cap(c_a), veh/h	527	594	767	539	589	566	487	2178	1096	285	1786	959
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	33.9	21.9	28.0	35.7	29.7	33.5	18.2	11.4	41.4	27.7	17.6
Incr Delay (d2), s/veh	1.6	4.5	0.9	0.6	7.5	0.5	1.8	0.3	0.1	13.6	1.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.2	7.5	5.3	2.5	7.7	1.4	6.0	8.6	2.0	2.6	11.7	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	38.5	22.8	28.6	43.3	30.2	35.3	18.5	11.5	55.0	28.9	17.8
LnGrp LOS	C	D	C	C	D	C	D	B	B	D	C	B
Approach Vol, veh/h		543			312			1064			1086	
Approach Delay, s/veh		30.4			37.7			20.6			28.4	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	32.9	12.3	21.4	9.9	43.9	14.3	19.4
Change Period (Y+Rc), s	6.1	* 6.4	* 5.4	* 6.8	6.1	* 6.4	* 5.4	* 6.8
Max Green Setting (Gmax), s	23.9	* 44	* 20	* 28	13.9	* 54	* 20	* 28
Max Q Clear Time (g_c+I1), s	10.0	20.6	5.3	10.6	4.8	15.9	8.7	10.6
Green Ext Time (p_c), s	0.4	5.8	0.2	3.2	0.1	5.5	0.4	2.0

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCS7 Roundabouts Report

General Information

Analyst	
Agency or Co.	CBS Squared, Inc.
Date Performed	3/21/2023
Analysis Year	2045
Time Analyzed	AM Peak Hour
Project Description	

Site Information

Intersection	IL 251/Prairie Hill Road
E/W Street Name	Prairie Hill Road
N/S Street Name	IL 251
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.93
Jurisdiction	City of South Beloit

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	2	0	0	0	2	0	0	0	2	0	0	0	2	0
Lane Assignment	LT		TR		LT		TR		LT		TR		LT		TR	
Volume (V), veh/h	0	135	165	120	0	100	140	40	0	120	660	70	0	10	450	130
Percent Heavy Vehicles, %	0	10	10	10	0	3	3	3	0	3	3	3	0	11	11	11
Flow Rate (v_{PCE}), pc/h	0	160	195	142	0	111	155	44	0	133	731	78	0	12	537	155
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	2				2				2				2			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)	4.6453	4.3276		4.6453	4.3276		4.6453	4.3276		4.6453	4.3276	
Follow-Up Headway (s)	2.6667	2.5352		2.6667	2.5352		2.6667	2.5352		2.6667	2.5352	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h	234	263		146	164		443	499		331	373	
Entry Volume, veh/h	212	239		141	160		430	485		298	336	
Circulating Flow (v_c), pc/h	660			1024			367			399		
Exiting Flow (v_{ex}), pc/h	285			443			935			790		
Capacity (c_{pce}), pc/h	736	810		526	595		963	1039		935	1012	
Capacity (c), veh/h	669	737		511	577		935	1009		843	911	
v/c Ratio (x)	0.32	0.33		0.28	0.28		0.46	0.48		0.35	0.37	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh	9.5	8.8		11.1	10.0		9.4	9.2		8.4	8.1	
Lane LOS	A	A		B	A		A	A		A	A	
95% Queue, veh	1.4	1.4		1.1	1.1		2.5	2.7		1.6	1.7	
Approach Delay, s/veh	9.1			10.5			9.3			8.2		
Approach LOS	A			B			A			A		
Intersection Delay, s/veh | LOS	9.1						A					

HCS7 Roundabouts Report

General Information

Analyst	
Agency or Co.	CBS Squared, Inc.
Date Performed	3/21/2023
Analysis Year	2045
Time Analyzed	PM Peak Hour
Project Description	

Site Information

Intersection	IL 251/Prairie Hill Road
E/W Street Name	Prairie Hill Road
N/S Street Name	IL 251
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.93
Jurisdiction	City of South Beloit

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	2	0	0	0	2	0	0	0	2	0	0	0	2	0
Lane Assignment	LT		TR		LT		TR		LT		TR		LT		TR	
Volume (V), veh/h	0	150	180	175	0	75	175	40	0	165	720	105	0	55	780	175
Percent Heavy Vehicles, %	0	4	4	4	0	5	5	5	0	2	2	2	0	1	1	1
Flow Rate (v_{PCE}), pc/h	0	168	201	196	0	85	198	45	0	181	790	115	0	60	847	190
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	2				2				2				2			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)	4.6453	4.3276		4.6453	4.3276		4.6453	4.3276		4.6453	4.3276	
Follow-Up Headway (s)	2.6667	2.5352		2.6667	2.5352		2.6667	2.5352		2.6667	2.5352	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h	266	299		154	174		510	576		516	581	
Entry Volume, veh/h	255	288		147	166		500	564		510	576	
Circulating Flow (v_c), pc/h	992			1139			429			464		
Exiting Flow (v_{ex}), pc/h	376			569			1003			1128		
Capacity (c_{pce}), pc/h	542	611		473	539		910	986		881	957	
Capacity (c), veh/h	521	588		451	514		892	967		872	948	
v/c Ratio (x)	0.49	0.49		0.33	0.32		0.56	0.58		0.59	0.61	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh	15.8	14.3		13.4	11.9		11.9	11.7		12.7	12.5	
Lane LOS	C	B		B	B		B	B		B	B	
95% Queue, veh	2.7	2.7		1.4	1.4		3.6	3.9		3.9	4.3	
Approach Delay, s/veh	15.0			12.6			11.8			12.6		
Approach LOS	C			B			B			B		
Intersection Delay, s/veh | LOS	12.8						B					

Appendix D: Concept Alternatives

cbs²
ENGINEERS - SURVEYORS - ARCHITECTS
770 Technology Way
Chippewa Falls, WI 54729
Phone: 715.861.5226
www.cbssquaredinc.com

		REVISIONS	
DRAWN BY:	----	DATE:	AUTHOR:
DATE:	09/28/23		
DESIGNED BY:	----		
HORIZ. SCALE:	1" = 100'		
VERT. SCALE:	--		
PROJECT NO.	SLATS22002		

CORRIDOR STUDY
-
SOUTH BELOIT, IL

RECONFIGURE PRAIRIE HILL ROAD ALTERNATIVE

FILE LOCATION: T:\SLATS\22002 - Prairie Hill ICE\CAD\c3d\IL 251\IL 251 Single Lane.dwg

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		REVISIONS	
DRAWN BY:	----	DATE:	AUTHOR:
DATE:	08/28/23		
DESIGNED BY:	----		
HORIZ. SCALE:	1" = 100'		
VERT. SCALE:	--		
PROJECT NO.	SLATS22002		

CORRIDOR STUDY
IL 251 NORTH REALIGN
SOUTH BELOIT, IL

DEARBORN WEST

SHEET

FILE LOCATION: T:\SLATS\22002 - Prairie Hill ICE\CAD\c3d\IL 251\IL 251 Dearborn Realign 8-24-23.dwg

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Chippewa Falls, WI 54729
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DRAWN BY:	----
DATE:	08/28/23
DESIGNED BY:	----
HORIZ. SCALE:	1" = 100'
VERT. SCALE:	--
PROJECT NO.	SLATS22002

REVISIONS	
DATE:	AUTHOR:

CORRIDOR STUDY
IL 251 NORTH REALIGN
SOUTH BELOIT, IL

DEARBORN EAST

SHEET

FILE LOCATION: T:\SLATS\22002 - Prairie Hill ICE\CAD\c3d\IL 251\IL 251 Dearborn Realign 8-24-23.dwg

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CORRIDOR STUDY
-
SOUTH BELOIT, IL

ROUNDABOUT ALTERNATIVE

FILE LOCATION: T:\SLATS\22002 - Prairie Hill ICE\CAD\c3d\IL 251\IL 251 Roundabout.dwg