Appendix A Crash Analysis

Memo

Date:	Wednesday, February 19, 2025
Project:	Symmes Road Rail Crossing Elimination Project
To:	Ben Mann, PE (Director of Public Works) – City of Fairfield, OH
From:	Dave Becker, PE, PTOE, ACP, HDR
Subject:	Symmes Road Safety Study

This memo was created to summarize the results of a safety study of Symmes Road Corridor in Butler County between the intersections of Dixie Way (SR4) and N Gilmore Road. Between these intersections, Symmes Road operates at 35MPH and has free-flowing movements EB and WB, with Dixie Way and N Gilmore Road being signalized. The remaining side roads (Tedia Way, Industry Drive, Hicks Boulevard) have stop signs and there is a rail crossing between Tedia Way and Industry Drive. These roads operate at 25 MPH.

A crash analysis was conducted of the most recent 3 years of available crash data from the ODOT Crash Analysis Tool. The crash data has been summarized below with the full crash data and collision diagrams included in the attachment.

Crash Analysis

A GCAT Analysis was conducted for the study corridor for the years 2022 to 2024. The results from the crash study have been summarized in Table 1 below. For the study corridor, there were 103 total crashes. 78 (76%) of these crashes occurred at an intersection, and 23 (30%) of those resulted in an injury. Although out of the study range, there were 2 fatalities in 2014 and 2015. The hot spots for crashes within the corridor are Dixie Way, N Gilmore Rd, and the At-Grade Crossing.

According to the crash analysis, the top 3 crash types were rear end, angle, and left turn. Thirty (29%) crashes that occurred were rear ends, 14 (14%) were angle, and 9 (9%) were left turn. Of the 30 rear ends, 5 were located at the At-Grade Crossing. The removal of the crossing would eliminate these crashes. It is also important to note that the surrounding intersections, Industry Dr and Tedia Way, also have rear end cases, likely the result of congestion due to the At-Grade Crossing as well. The elimination of the crossing has the potential to eliminate about 4 crashes per year.

Table 1 Corridor Crash Summary (without animal crashes), 2022-2024

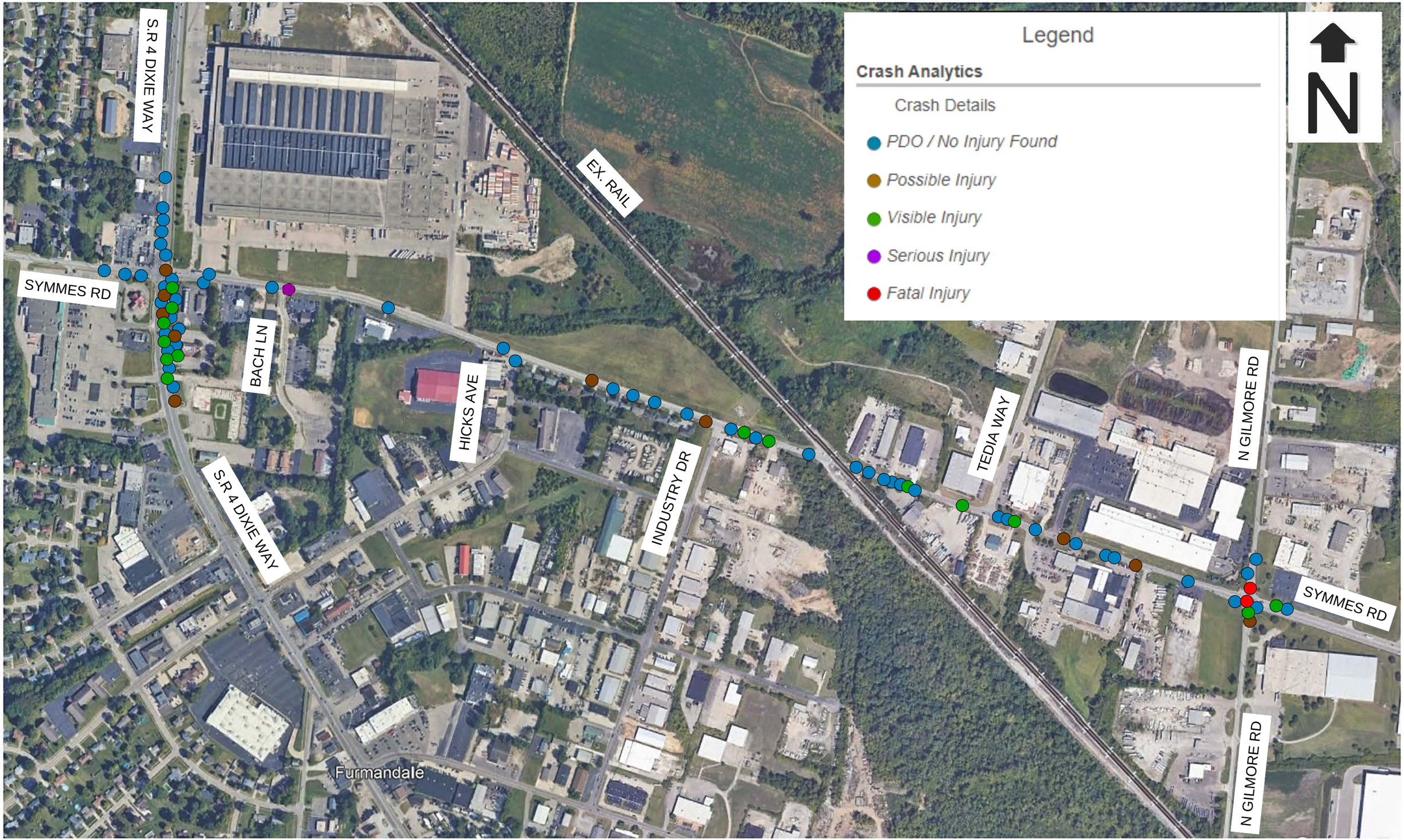
	Total	Injury (%)	Notes
Dixie Way (SR4)	44	15 (34%)	16 Rear End, 14 Angle, 9 Left Turn
Hicks Blvd	3	0	All 3 NB on Hicks
Industry Dr	6	2 (33%)	3 Rear Ends
At Grade Crossing	6	1 (16%)	5 Rear Ends
Tedia Way	6	2 (33%)	3 Rear Ends
N Gilmore Rd	13	3 (23%)	3 Rear Ends, 3 Angle, Fatality in 2014 and 2015
Intersections Total	78	23 (30%)	
Segments	25	5 (20%)	Turns out of drives and loss of vehicle control
Corridor Total	103	28 (27%)	

A summary of the overall crashes for the study corridor is shown below in Figure 1.

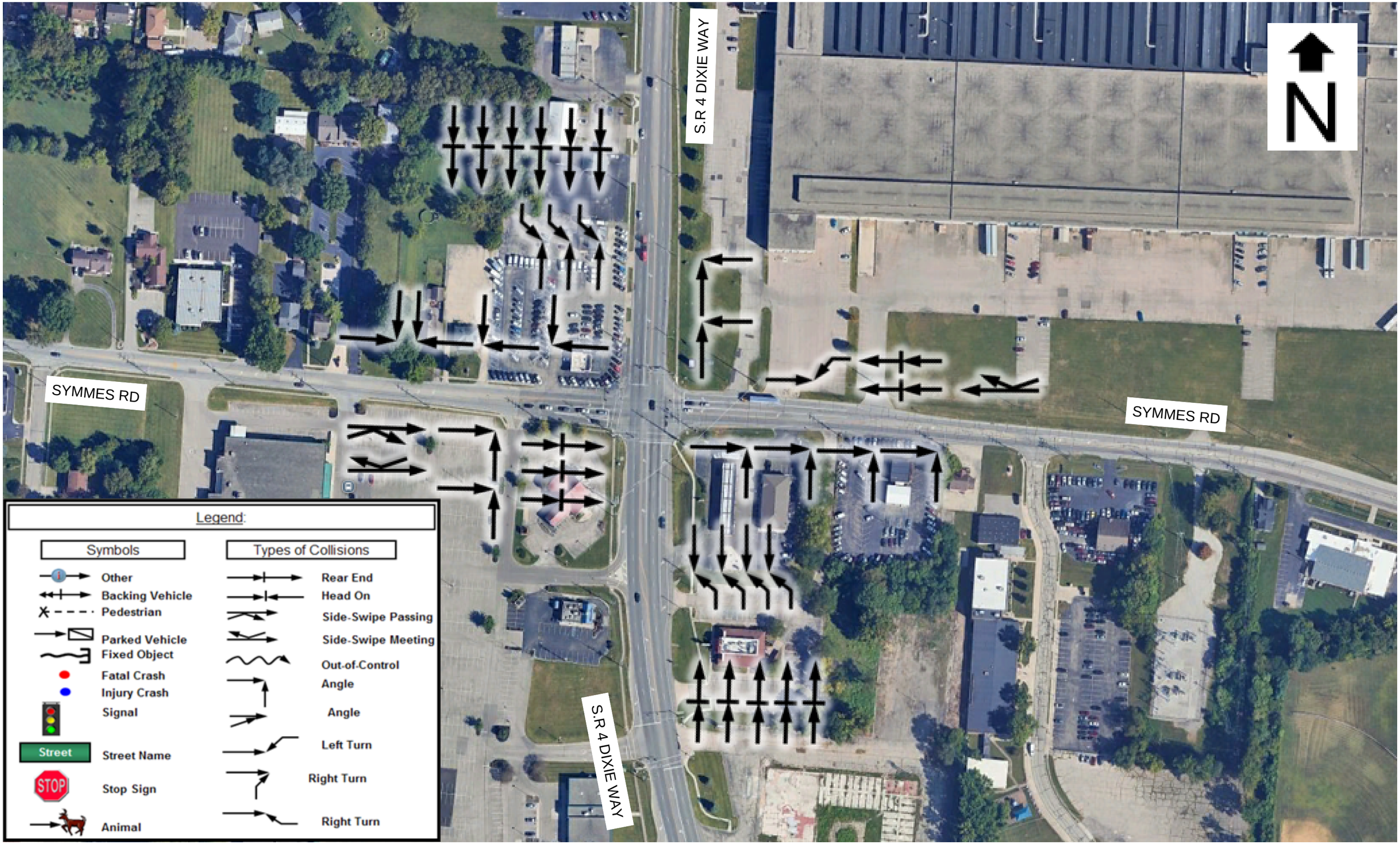
Figure 1: Crash Analysis Overview (2022-2024)

ATTACHMENT A

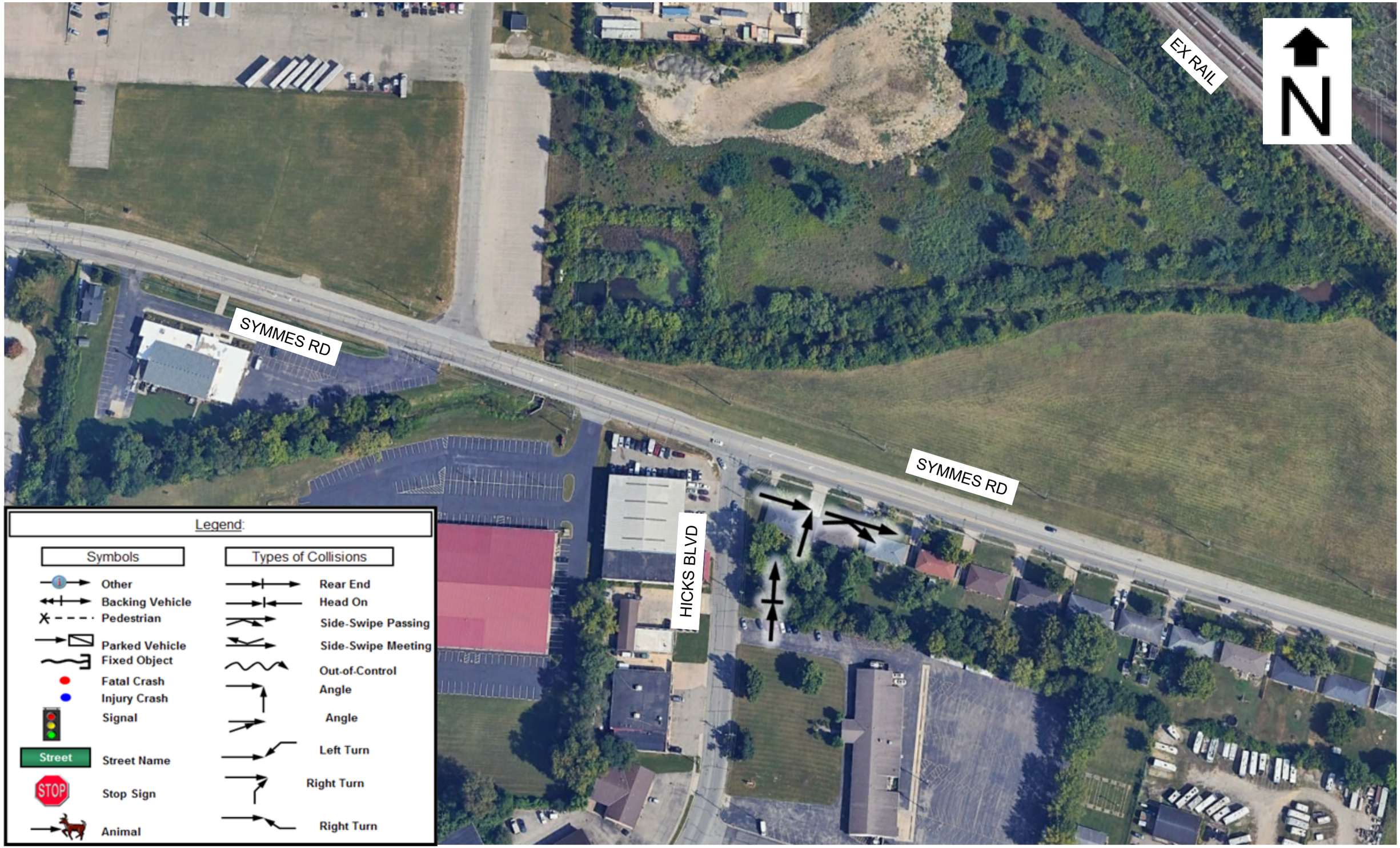
Crash Analysis Overview - Total



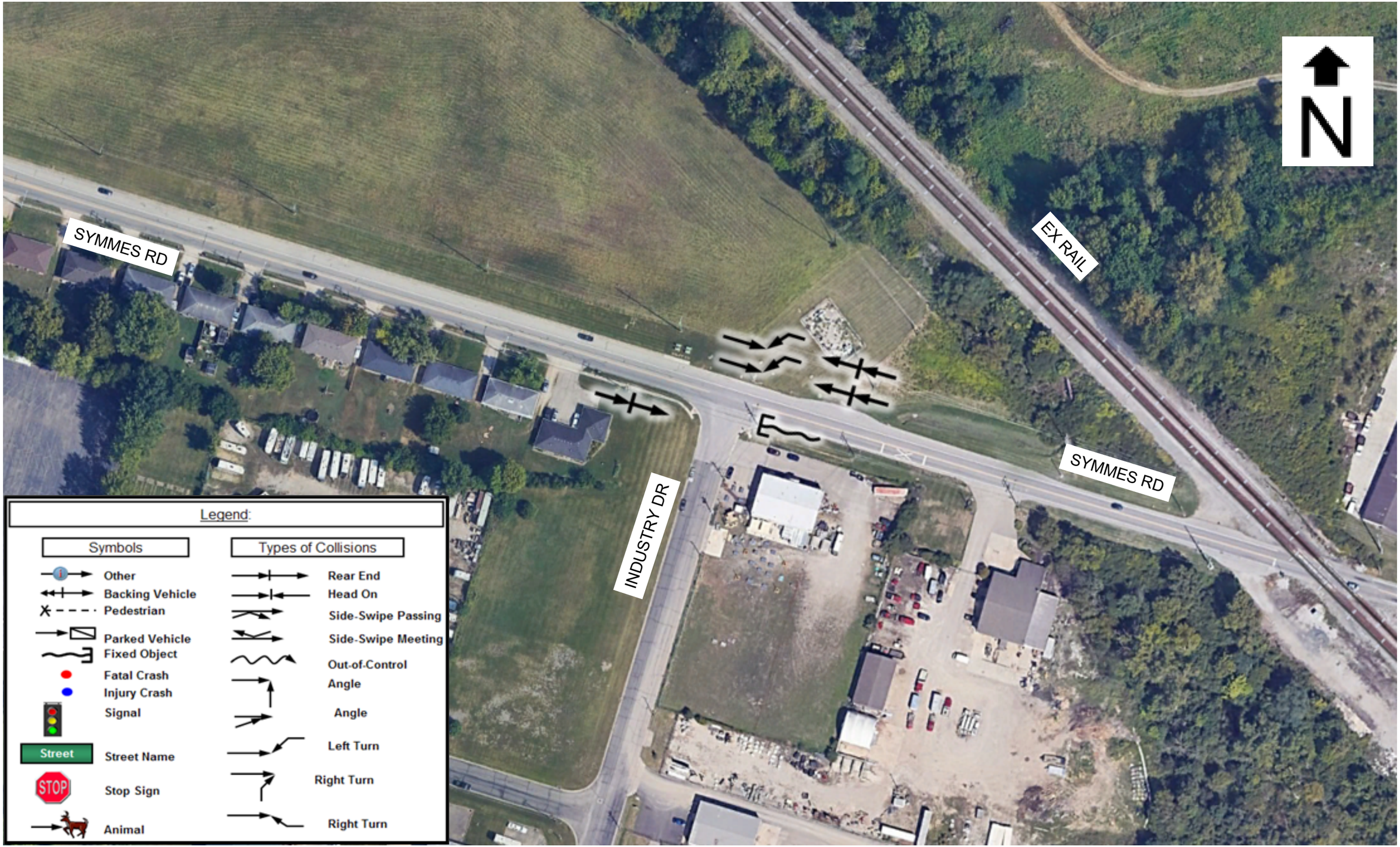
Collision Diagram - S.R 4 Dixie Way



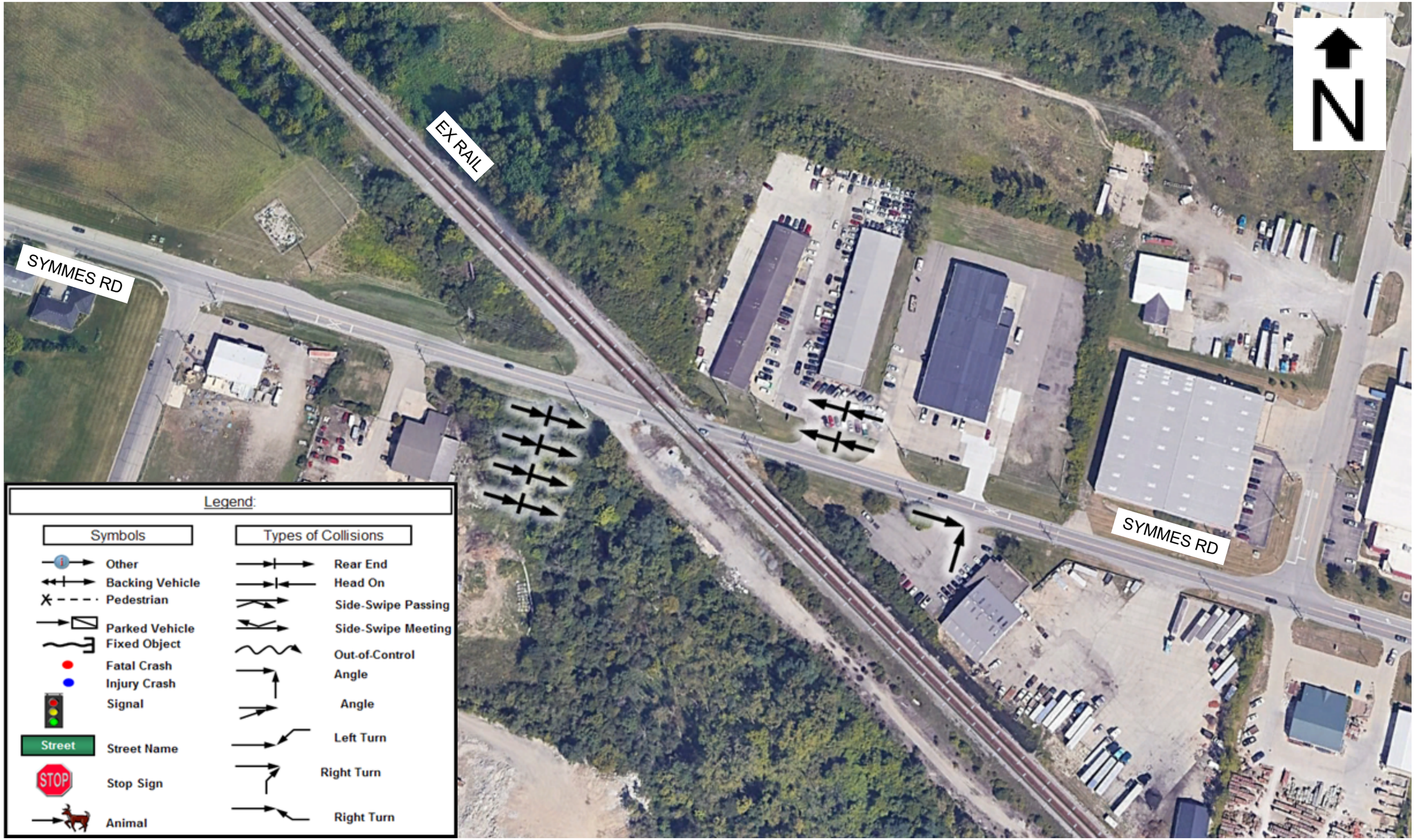
Collision Diagram - Hicks Blvd



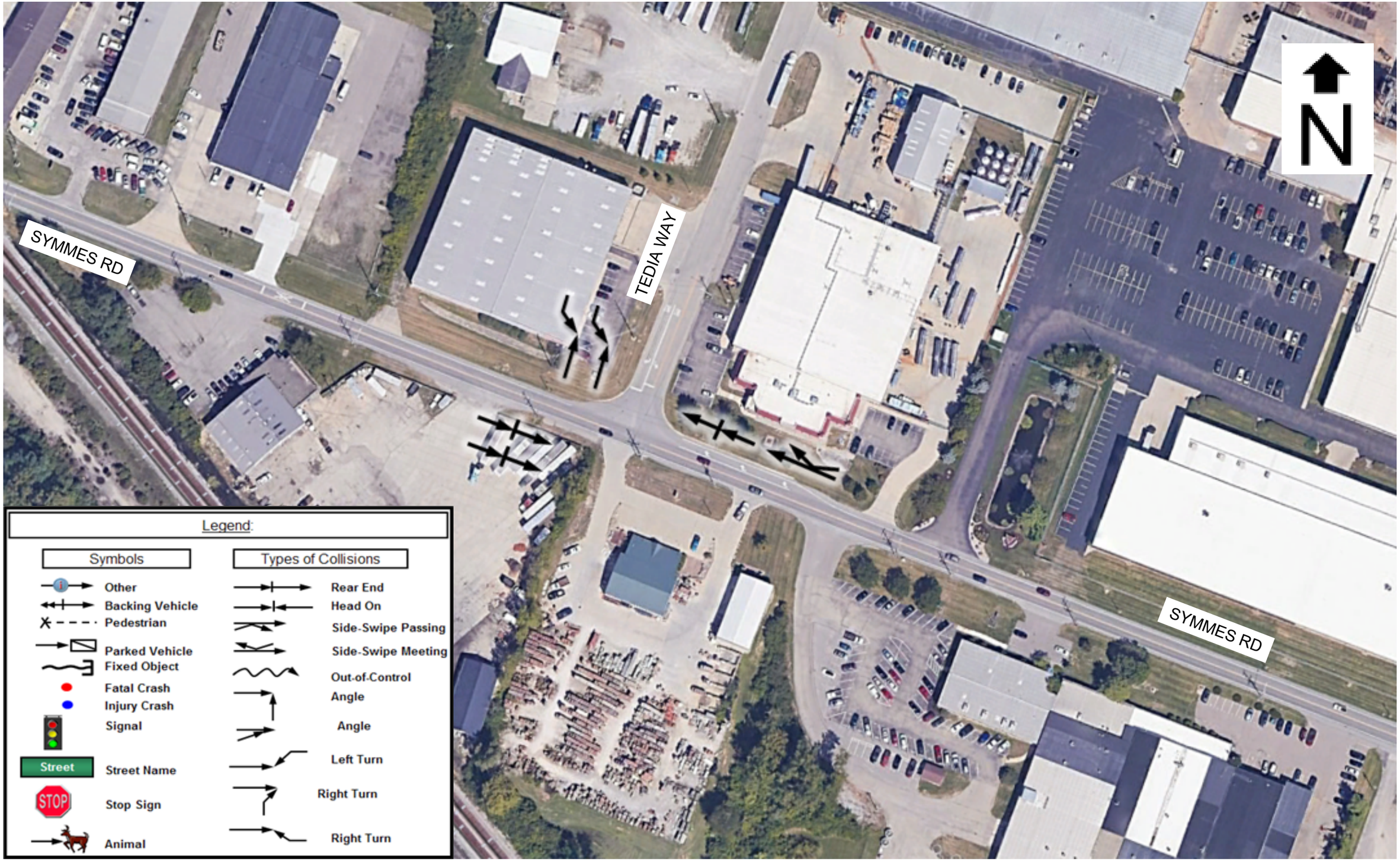
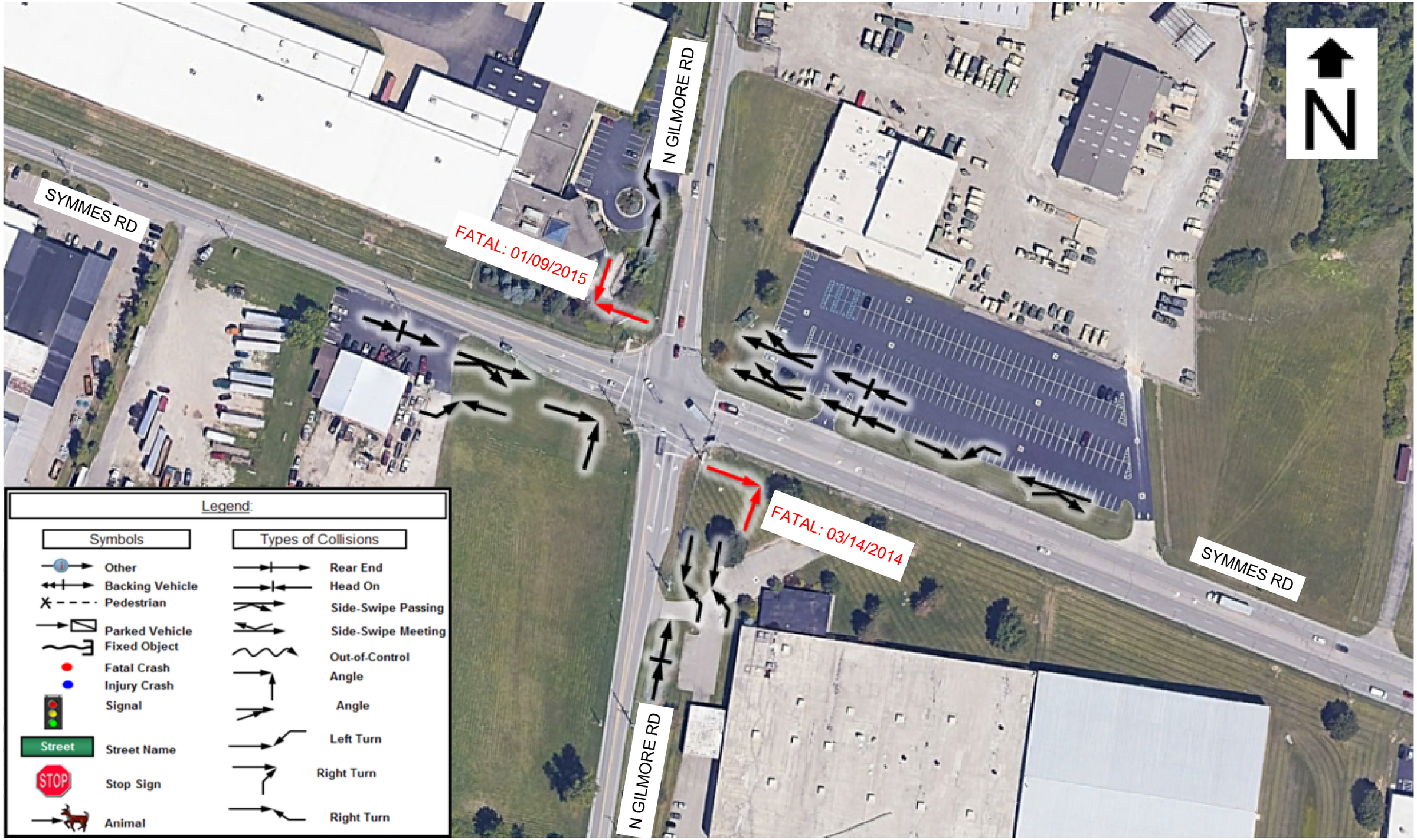
Collision Diagram - Industry Dr



Collision Diagram - At-Grade Crossing



Collision Diagram -Tedia Way



Collision Diagram - N Gilmore Rd