3

crash maps

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A3.1 Purpose of Crash Maps

Crash maps and visual summaries were developed to understand crash patterns, contributing factors, and exposure risks within the City of Bridgeport. Because Bridgeport is a small rural community with relatively low crash volumes and few fatal or serious injury crashes, the maps are intended to support pattern recognition and proactive risk identification, rather than predictive modeling or statistically significant trend analysis.

Consistent with FHWA SS4A guidance, these visuals are used to identify systemic risk factors, high-exposure locations, and recurring conditions that may contribute to severe outcomes if left unaddressed, even where crash counts remain low.

A3.2 High Injury Network (HIN) map

The High Injury Network (HIN) map identifies roadway segments and intersections where crashes involving fatal or serious injury are concentrated or where exposure and roadway context elevate risk.

In Bridgeport, the HIN reflects a small number of locations—primarily along state highway corridors and key downtown approaches—where higher speeds, turning movements, and pedestrian activity intersect. While the number of fatal or serious injury (KSI) crashes is limited, these locations represent systemic risk areas where targeted safety improvements can prevent high-severity outcomes.

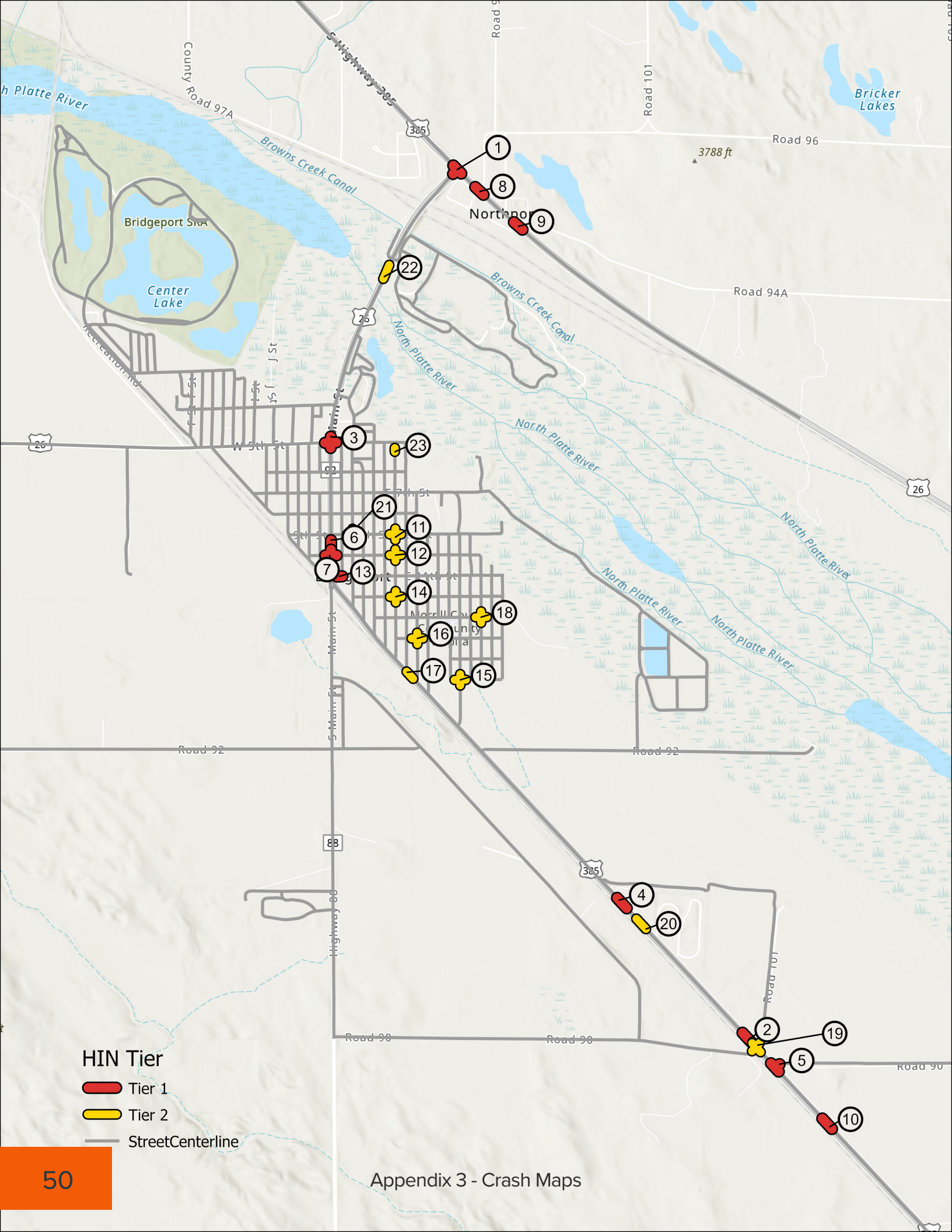
The methods for the HIN are found in **APPENDIX 7 - METHODS**. The ranking list was determined using an average of severity score ranking and severity per mile.

A3.3 HIN Intersections

The following pages contain a breakdown of the Tier 1 HIN Intersections. This breakdown includes a satellite overview of the intersection or roadway segment, overlaid with the crashes at that intersection. The crashes have color symbology as well as size variance to show severity of the crash. Pages also include a bar graph of crash type and crash severity, as well as a tabular crash tree showing weather, lighting, crash type, and first harmful event for all crashes at the intersection or road segment.

Tier 1 HIN Intersections

- #1: US-26 / US-385 Intersection
- #2: US-385/CR 101 Intersection
- #3: Main Street (US-385) / 5th Street (US-26) Intersection
- #4: US-385 Southeast of the East-West portion of CR 101
- #5: US-385 / CR 90 Intersection
- #6-7: Main Street (US-385) / 10th Street Intersection
- #8: US-26 Northport & Service Station Intersection
- #9: US-26 / CR 94A (Northport Access Intersection)
- #10: US-385, Southeast of CR 90
- #11: East 9th Street & P Street Intersection
- #12: East 10th Street & P Street Intersection
- #13: East 11th Street & Main Street Intersection



Appendix 3 - Crash Maps

This T-intersection represents a key transition between US-26 and US-385 and serves both regional through traffic and local access to Bridgeport. Crash patterns at this location are primarily driven by turning movements and driver expectancy, with angle and single-vehicle crashes comprising the majority of recorded incidents.

The intersection geometry introduces complexity, particularly for northbound traffic approaching from the viaduct. The northbound approach widens near the stop-controlled intersection, creating conditions where drivers may informally position vehicles side-by-side despite a single designated lane. Public input confirms this behavior, indicating confusion and inconsistent lane use.

Additional contributing factors include the offset alignment between the north-south and east-west approaches and the presence of a channelizing island on the north-south leg without a corresponding feature on the east-west roadway. These conditions can reduce clarity for turning movements and increase conflict potential.

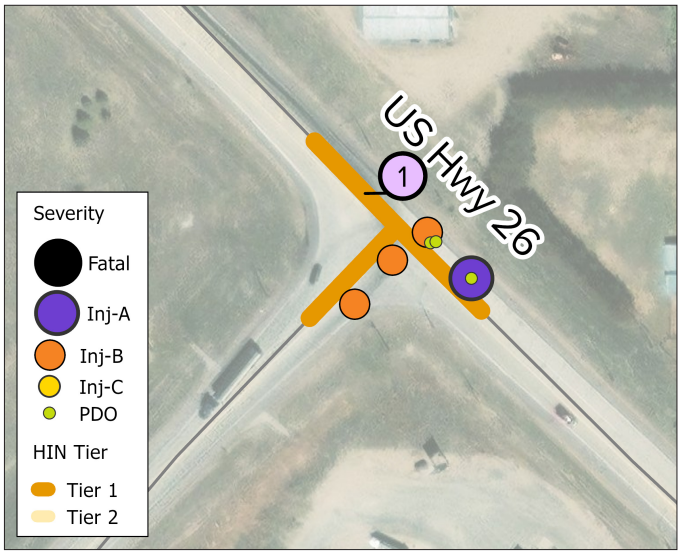
Overall, this location reflects a combination of geometric complexity, informal driver behavior, and regional traffic influence, reinforcing the need for treatments that improve lane definition, visibility, and driver expectancy.

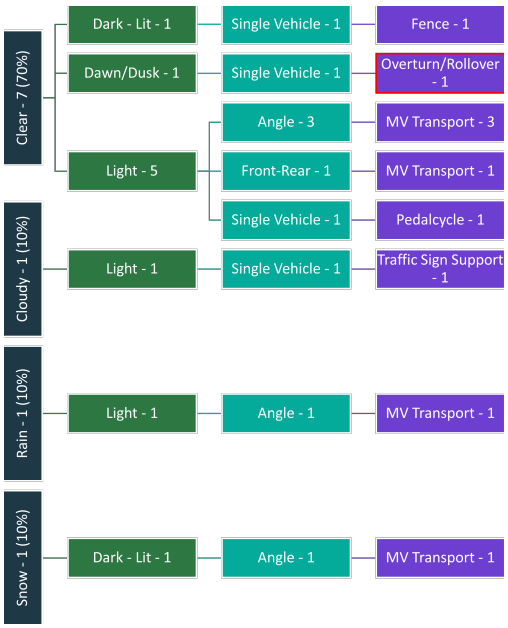
Key Pattern

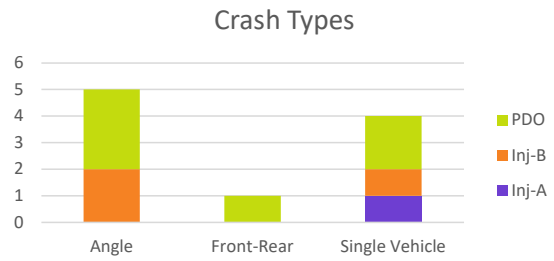
Angle and single-vehicle crashes dominate at this intersection, driven by turning conflicts, informal lane use on the northbound approach, and unclear driver expectancy at the stop-controlled T-intersection.

Potential Countermeasures

Improve lane definition and driver guidance through channelization, pavement markings, and signing; enhance visibility and turning clarity with delineation or median treatments; and evaluate operational adjustments to reduce informal two-lane behavior on the northbound approach.







Count of Severity				
Light/Weather	**Inj-A**	**Inj-B**	**PDO**	**Total**
Clear	**1**	**3**	**3**	**7**
Dark - Lit			**1**	**1**
Single Vehicle			1	1
Fence			1	1
Dawn/Dusk	**1**			**1**
Single Vehicle	1			1
Overturn/Rollover	1			1
Light		**3**	**2**	**5**
Angle		2	1	3
MV Transport		2	1	3
Front-Rear			1	1
MV Transport			1	1
Single Vehicle		1		1
Pedalcycle		1		1
Cloudy			**1**	**1**
Light			**1**	**1**
Single Vehicle			1	1
Traffic Sign Support			1	1
Rain			**1**	**1**
Light			**1**	**1**
Angle			1	1
MV Transport			1	1
Snow			**1**	**1**
Dark - Lit			**1**	**1**
Angle			1	1
MV Transport			1	1
Total	**1**	**3**	**6**	**10**

US-385/CR 101 Intersection: HIN #2

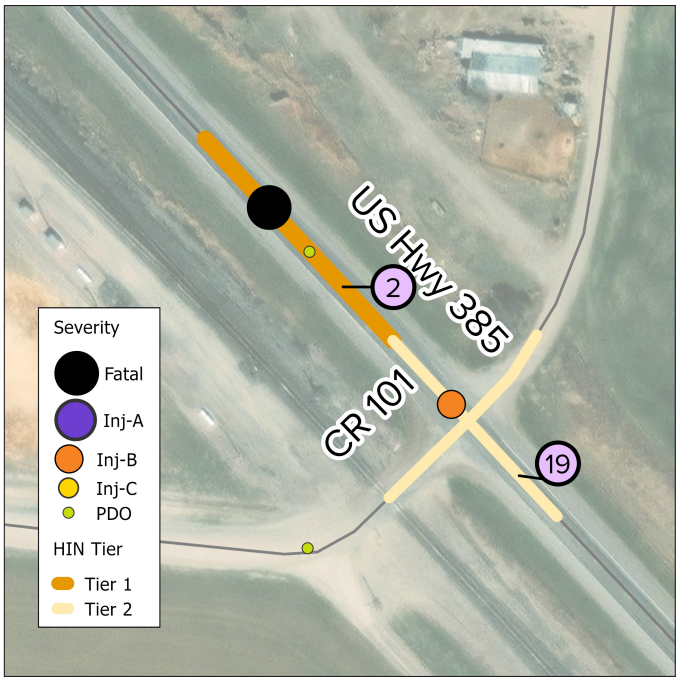
This intersection is located along US-385 at CR 101, serving agricultural and industrial traffic, including access to a nearby ethanol facility. The corridor is constrained by the adjacent BNSF railroad, limiting available roadway width and influencing turning movements and shoulder conditions.

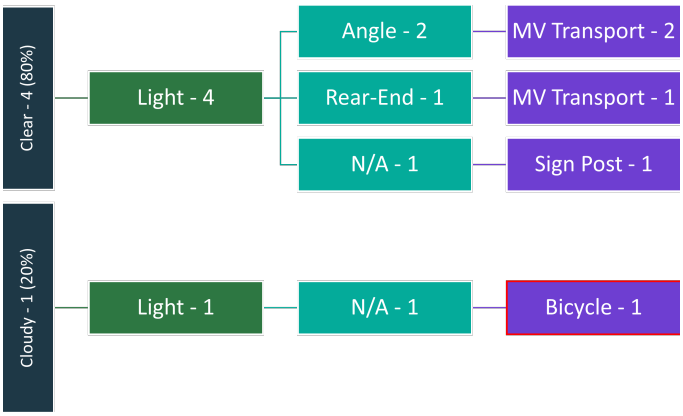
Key Pattern

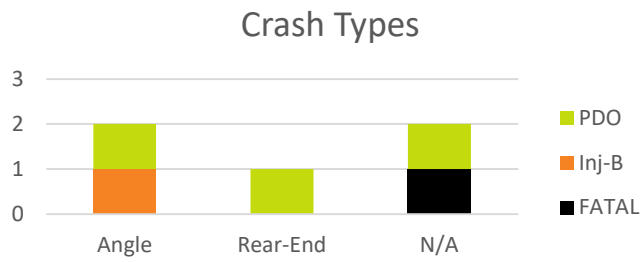
Crashes at this location are associated with turning movements at the stop-controlled intersection and limited space between the highway and adjacent railroad corridor, with constrained shoulder width reducing separation for non-motorized users.

Potential Countermeasures

Improve intersection visibility and turning clarity through signing and delineation; evaluate channelization or access management for truck movements; and consider opportunities to re-establish or enhance shoulder width or alternative accommodation for bicyclists where feasible.







Count of Severity Weather/Light/FHE	Inj-B	PDO	FATAL	Total
Clear	**1**	**3**		**4**
Light	**1**	**3**		**4**
Angle	1	1		2
MV Transport	1	1		2
Rear-End		1		1
MV Transport		1		1
N/A		1		1
Sign Post		1		1
Cloudy			**1**	**1**
Light			**1**	**1**
N/A			1	1
Bicycle			1	1
Total	**1**	**3**	**1**	**5**

Main Street (US-385) / 5th Street (US-26) Intersection: HIN #3

Location Description

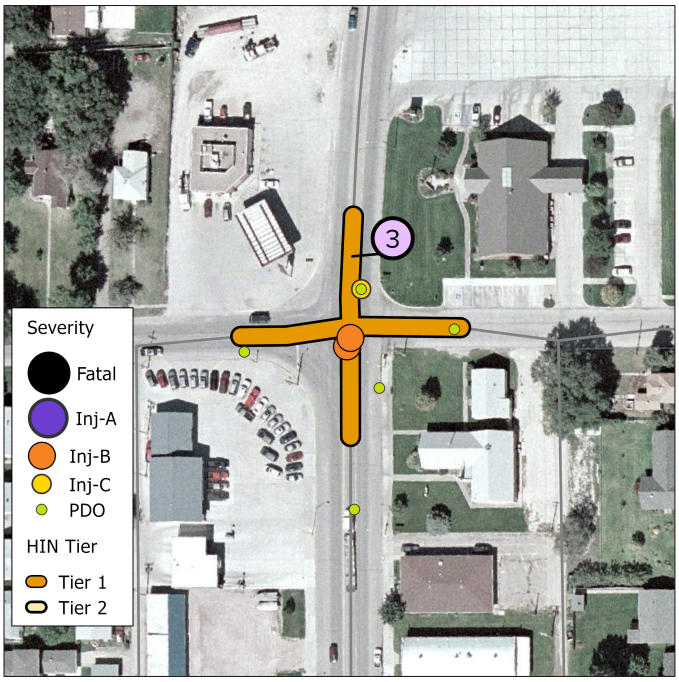
This intersection is located at the junction of US-26 and US-385 in downtown Bridgeport, serving as a primary gateway and one of the community's busiest intersections. It accommodates regional through traffic, local downtown access, and nearby community destinations, resulting in a mix of turning movements, pedestrian activity, and on-street parking influences.

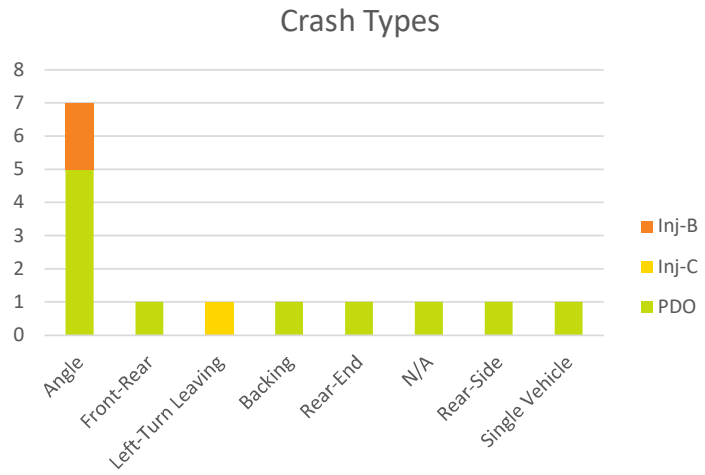
Key Pattern

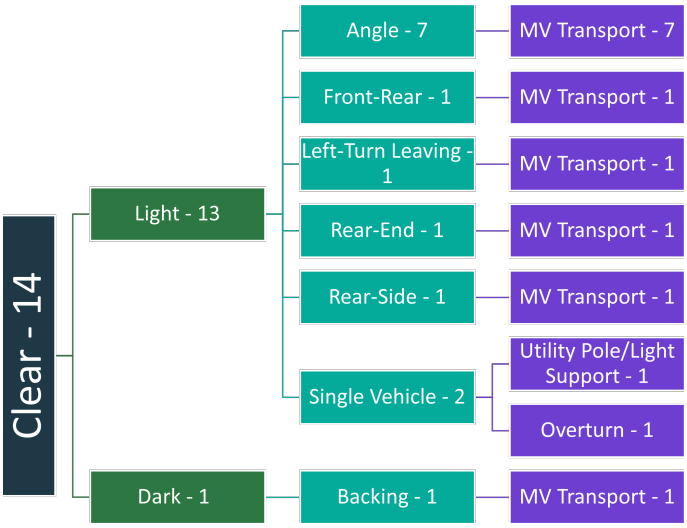
Angle crashes dominate at this intersection, driven by turning conflicts, multiple movement options, and visibility constraints associated with downtown conditions and intersection complexity.

Potential Countermeasures

Improve intersection visibility and driver awareness through enhanced signing, pavement markings, and lighting; clarify turning movements and lane use; and consider targeted crossing improvements to better accommodate pedestrian activity.







Weather/Light/FHE	Inj-B	Inj-C	PDO	Total
Clear	**2**	**1**	**11**	**14**
Light	**2**	**1**	**10**	**13**
Angle	2		5	7
MV Transport	2		5	7
Front-Rear			1	1
MV Transport			1	1
Left-Turn Leaving		1		1
MV Transport		1		1
Rear-End			1	1
MV Transport			1	1
N/A			1	1
Overturn			1	1
Rear-Side			1	1
MV Transport			1	1
Single Vehicle			1	1
Utility Pole/Light Support			1	1
Dark			**1**	**1**
Backing			1	1
MV Transport			1	1
Total	**2**	**1**	**11**	**14**

US-385 Southeast of the East-West portion of CR 101: HIN #4

Location Description

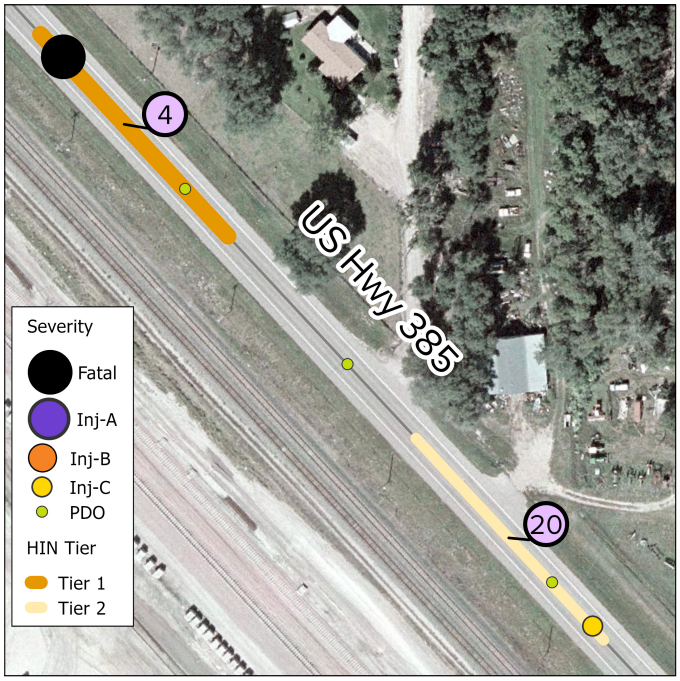
This segment of US-385 is located adjacent to agricultural residential properties within Bridgeport's planning jurisdiction, with rural cross-section characteristics and limited roadside separation between travel lanes and adjacent land uses.

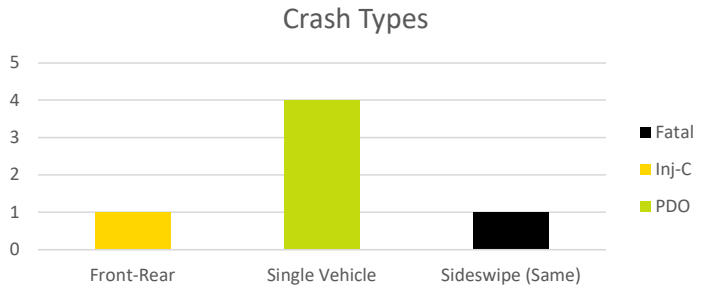
Key Pattern

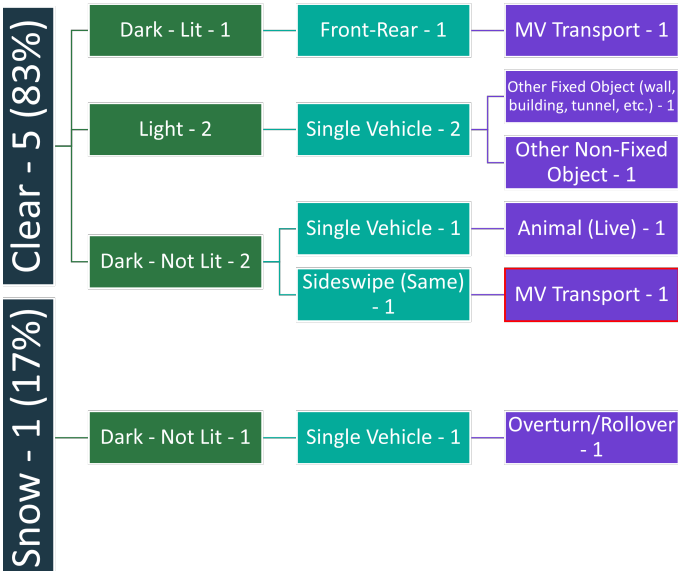
Single-vehicle crashes dominate along this corridor, with contributing factors including roadside conditions, limited recovery area, and environmental influences such as lighting and weather.

Potential Countermeasures

Improve roadside safety through enhanced clear zone treatments and delineation; increase visibility with signing and lighting where appropriate; and consider speed management and pavement marking enhancements to support driver awareness along the corridor.







Weather/Light/FHE	PDO	Inj-C	Fatal	Total
Clear	**3**	**1**	**1**	**5**
Dark - Lit		**1**		**1**
Front-Rear		1		1
MV Transport		1		1
Light	**2**			**2**
Single Vehicle	2			2
Other Fixed Object (wall, building, tunnel, etc.)	1			1
Other Non-Fixed Object	1			1
Dark - Not Lit	**1**		**1**	**2**
Single Vehicle	1			1
Animal (Live)	1			1
Sideswipe (Same)			1	1
MV Transport			1	1
Snow	**1**			**1**
Dark - Not Lit	**1**			**1**
Single Vehicle	1			1
Overturn/Rollover	1			1
Total	**4**	**1**	**1**	**6**

US-385 / CR 90 Intersection: HIN #5

Location Description

This rural intersection is located along US-385 at CR 90 within Bridgeport's planning jurisdiction, serving agricultural traffic with a stop-controlled side road intersecting a higher-speed highway.

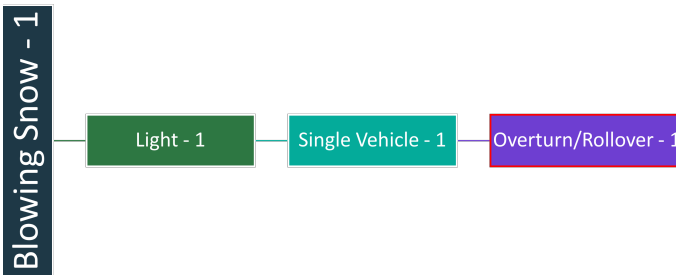
Key Pattern

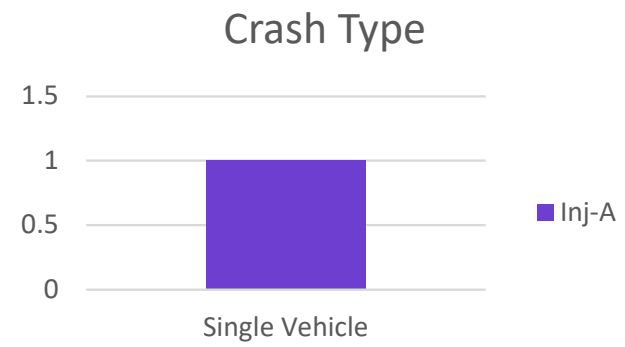
A severe single-vehicle crash at this location is associated with environmental conditions, particularly blowing snow, indicating reduced visibility and roadway departure risk along the corridor.

Potential Countermeasures

Enhance driver awareness and visibility through delineation and signing; consider wind and snow mitigation strategies where feasible; and evaluate roadside recovery conditions to reduce the severity of run-off-road crashes.

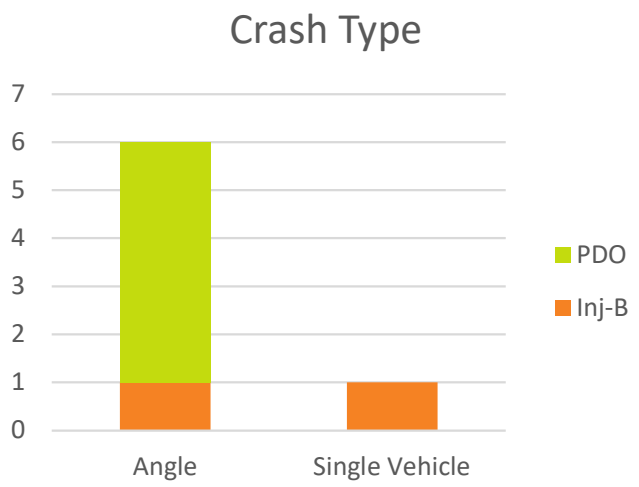


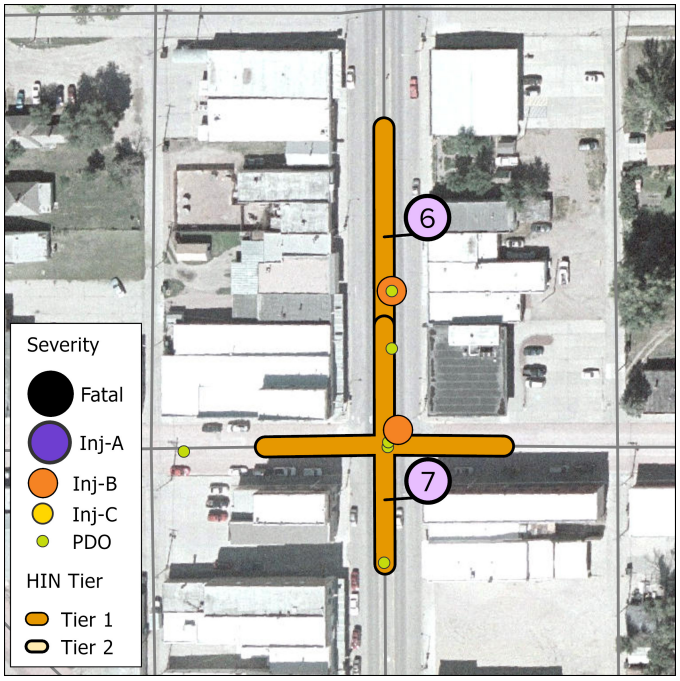




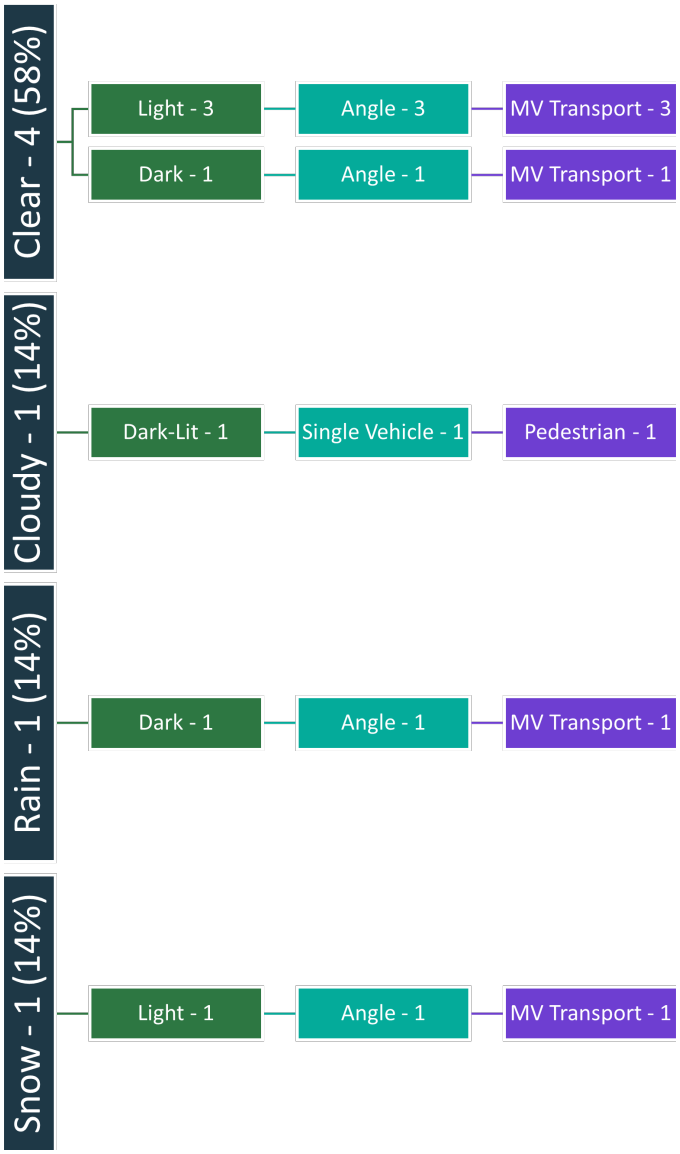
Weather/Light/FHE	Inj-A	Total
Blowing Snow	**1**	**1**
Light	**1**	**1**
Single Vehicle	1	1
Overturn/Rollover	1	1
Total	**1**	**1**

Main Street (US-385) / 10th Street Intersection: HIN #6-7





Weather/Light/FHE	Inj-B	PDO	Total
Clear	**1**	**3**	**4**
Light	**1**	**2**	**3**
Angle	1	2	3
MV Transport	1	2	3
Dark		**1**	**1**
Angle		1	1
MV Transport		1	1
Cloudy	**1**		**1**
Dark-Lit	**1**		**1**
Single Vehicle	1		1
Pedestrian	1		1
Rain		**1**	**1**
Dark		**1**	**1**
Angle		1	1
MV Transport		1	1
Snow		**1**	**1**
Light		**1**	**1**
Angle		1	1
MV Transport		1	1
Total	**2**	**5**	**7**





Location Description

This intersection is located along Main Street (US-385) within Bridgeport's downtown corridor, serving a mix of local access, commercial activity, and through traffic. The HIN segment extends north of the intersection, reflecting broader corridor conditions within the business district.

Key Pattern

Angle crashes and turning conflicts are concentrated at and near the intersection, with visibility constraints influenced by downtown building placement, on-street parking, and high pedestrian activity.

Potential Countermeasures

Improve intersection visibility and pedestrian awareness through enhanced crosswalk treatments, lighting, and signing; strengthen curb management and daylighting; and consider geometric or operational improvements that better define turning movements and reduce conflicts along the corridor.

US-26 Northport & Service Station Intersection: HIN #8

Location Description

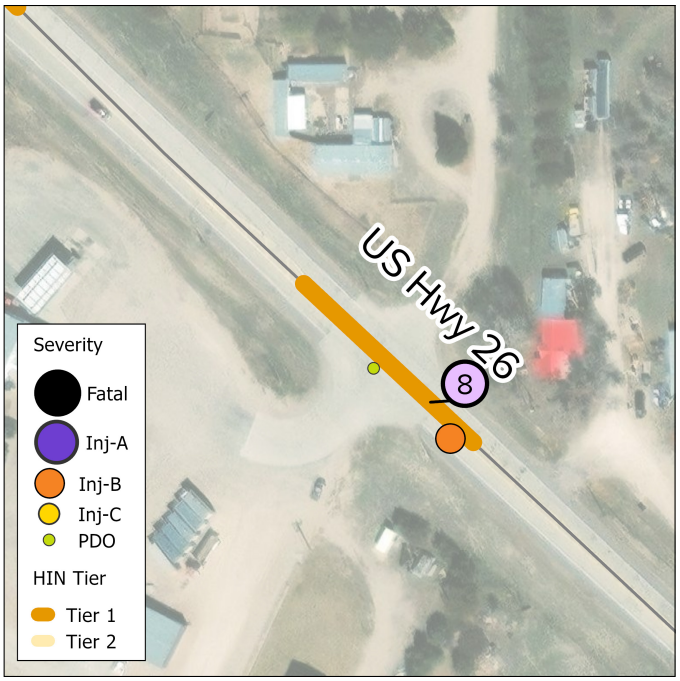
This intersection is located along US-26 at a local access point serving a truck stop on the south side of the highway and low-volume residential access to the north via an unpaved roadway.

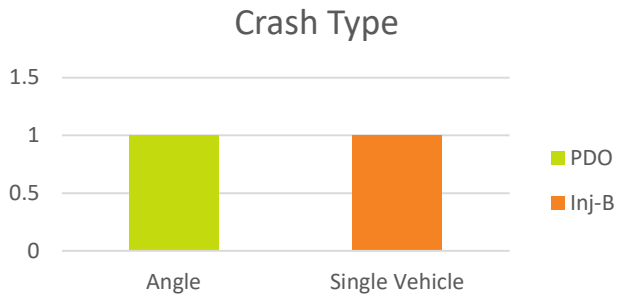
Key Pattern

Crashes at this location are associated with turning movements and heavy vehicle activity, with truck traffic accessing the service station contributing to conflict points along the highway.

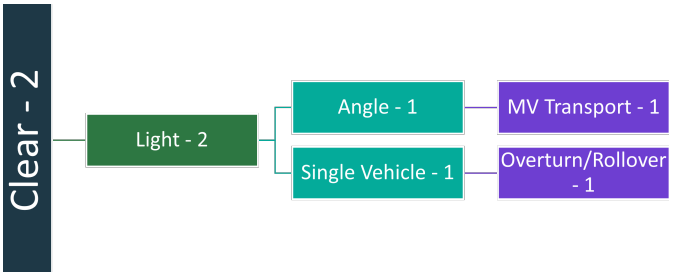
Potential Countermeasures

Improve turning movement clarity and driver awareness through signing and pavement markings; evaluate access management or channelization to better accommodate truck movements; and consider speed awareness and visibility enhancements along the corridor.





Weather/Light/FHE	Inj-B	PDO	Total
Clear	**1**	**1**	**2**
Light	**1**	**1**	**2**
Angle		1	1
MV Transport		1	1
Single Vehicle	1		1
Overturn/Rollover	1		1
Total	**1**	**1**	**2**



US-26 / CR 94A (Northport Access Intersection): HIN #9

Location Description

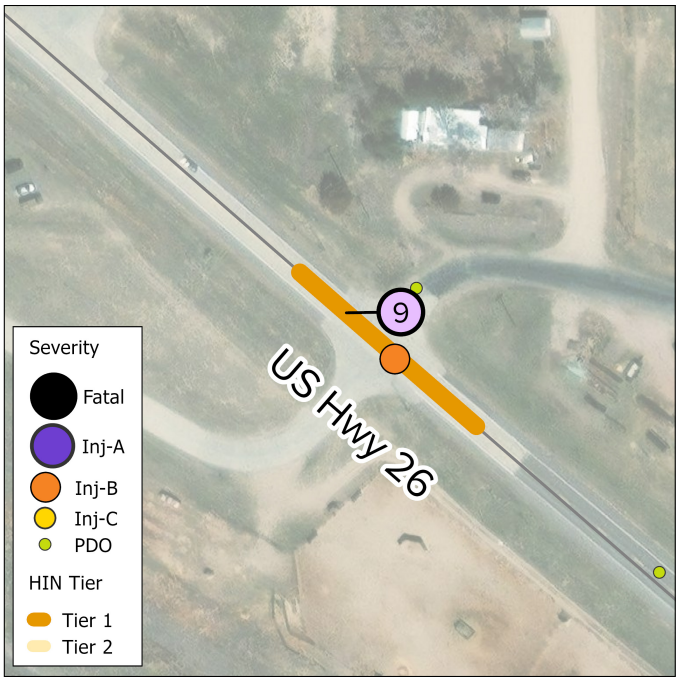
This intersection is located along US-26 southeast of the nearby service station access, serving a paved two-lane road that connects Northport and surrounding agricultural residential areas. The crossing roadway is stop-controlled, intersecting a higher-speed highway with paved shoulders.

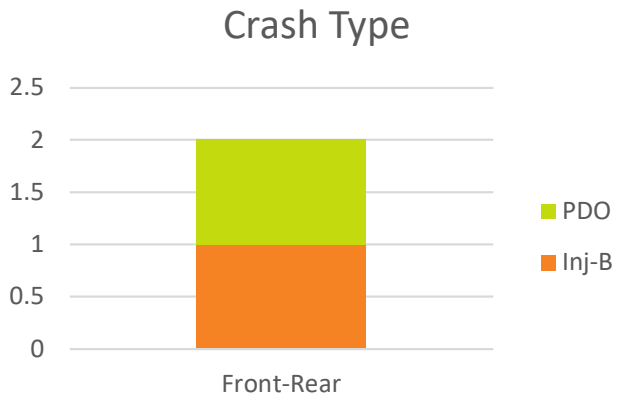
Key Pattern

Angle crashes at this location are associated with crossing and turning movements from the stop-controlled approach onto US-26, reflecting typical rural intersection conflicts with high-speed through traffic.

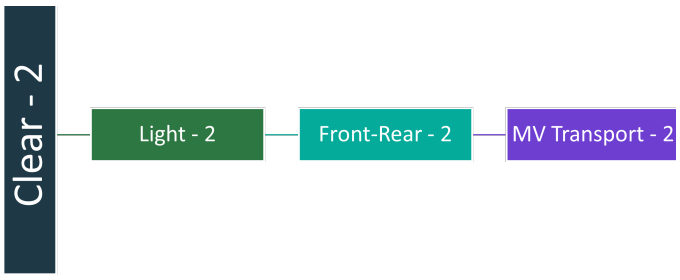
Potential Countermeasures

Improve intersection visibility and driver awareness through enhanced signing, advance warning, and pavement markings; consider intersection lighting or delineation; and evaluate speed awareness measures along the highway approach.





Weather/Light/FHE	Inj-B	PDO	Total
Clear	**1**	**1**	**2**
Light	**1**	**1**	**2**
Front-Rear	1	1	2
MV Transport	1	1	2
Total	**1**	**1**	**2**



US-385, Southeast of CR 90: HIN #10

Location Description

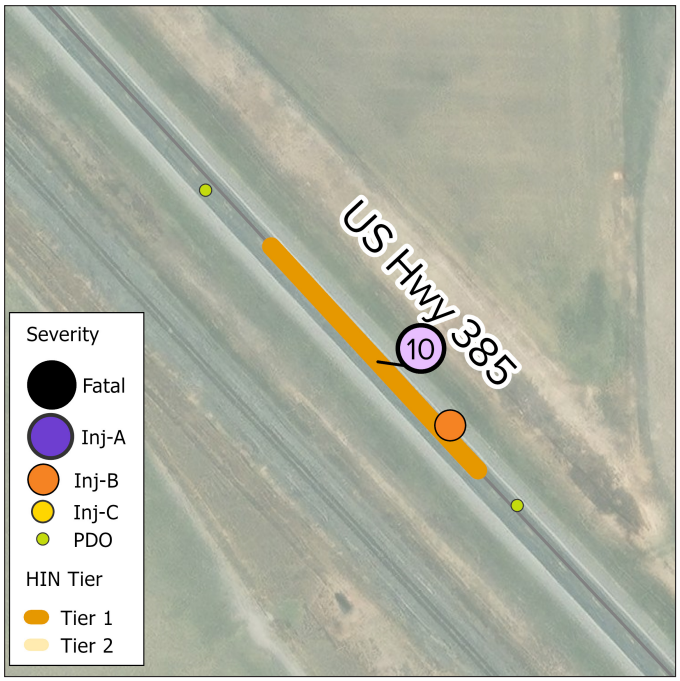
This segment is located along US-385 on the southeast side of Bridgeport within the planning jurisdiction, characterized by a rural highway cross-section with adjacent open land uses and limited access points.

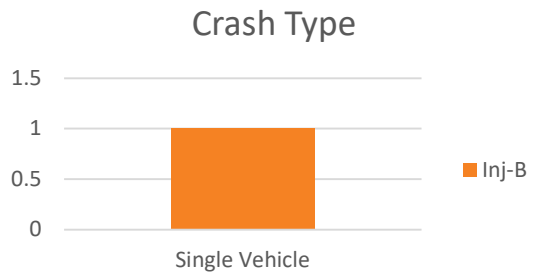
Key Pattern

Angle and single-vehicle crashes along this segment are associated with roadway departure and environmental conditions, including reduced visibility during inclement weather.

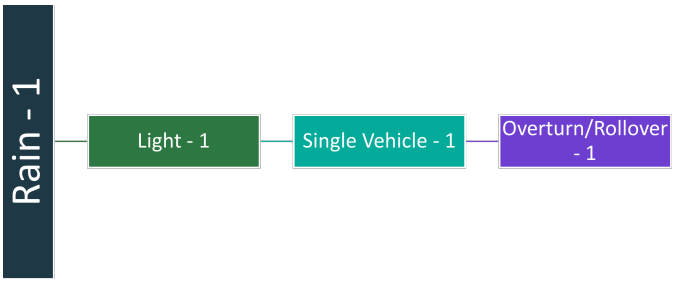
Potential Countermeasures

Enhance roadway delineation and edge line visibility; consider speed awareness and pavement marking improvements; and evaluate roadside recovery conditions to reduce the severity of run-off-road crashes.





Weather/Light/FHE	Inj-B	Total
Rain	**1**	**1**
Light	**1**	**1**
Single Vehicle	1	1
Overturn/Rollover	1	1
Total	**1**	**1**



East 9th Street & P Street Intersection: HIN #11

Location Description

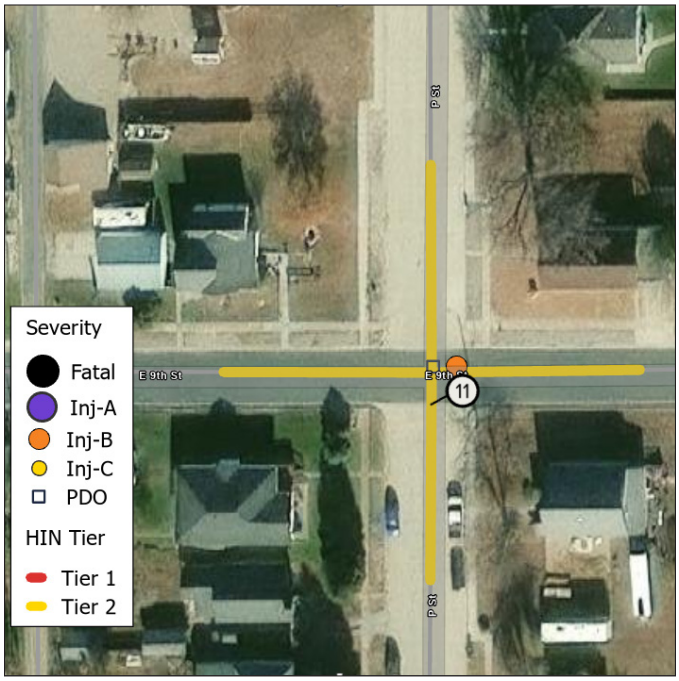
Residential intersection along a key school route east of Main Street, with parent pickup/drop-off traffic and school bus traffic. Stop control is present on the north-south approach, and sidewalks are only available on the north side of the street.

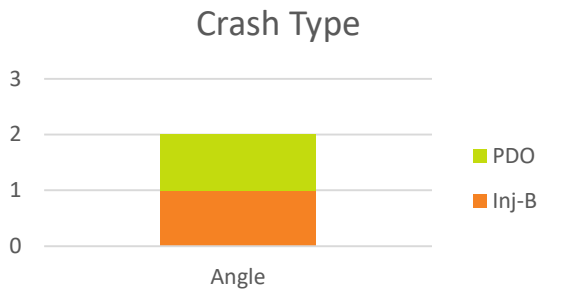
Key Pattern

Angle crashes during clear, conditions suggest driver awareness and compliance challenges, particularly along east-west movement where school-related traffic is concentrated.

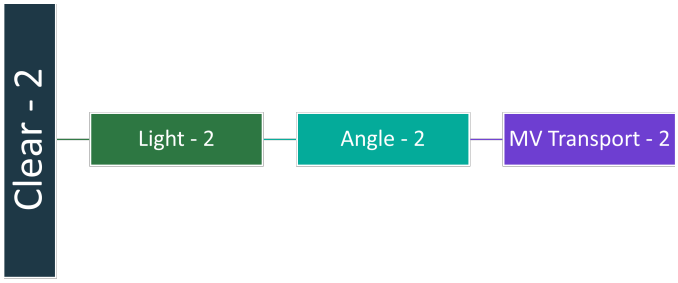
Potential Countermeasures

Reinforce stop control visibility and compliance with enhanced signage and pavement markings; consider daylighting near corners, school-route signage, and targeted speed awareness treatments. Address sidewalk gaps to improve pedestrian safety and reduce roadway exposure along the corridor.





Weather/Light/FHE	Inj-B	PDO	Total
Clear	**1**	**1**	**2**
Light	**1**	**1**	**2**
Angle	1	1	2
MV Transport	1	1	2
Total	**1**	**1**	**2**



East 10th Street & P Street Intersection: HIN #12

Location Description

Residential intersection along East 10th Street, a key east-west corridor serving hospital access, school routes, and East City Park. The intersection operates without stop control, with higher traffic volumes and more continuous flow along East 10th Street.

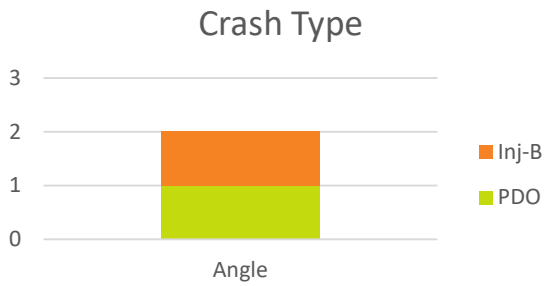
Key Pattern

Angle crashes during daylight conditions (clear and cloudy) indicate right-of-way ambiguity and driver awareness challenges at an uncontrolled intersection with multiple overlapping uses, including school travel and park access.

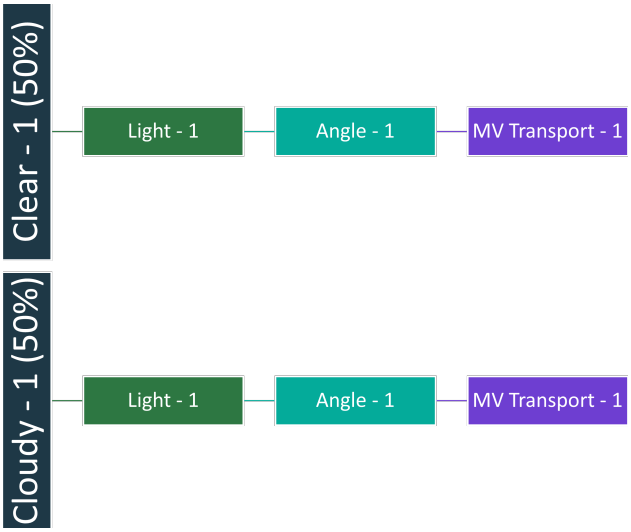
Potential Countermeasures

Consider installation of stop control or alternative intersection control based on warrant analysis; enhance visibility with advance warning signage and pavement markings; implement daylighting at corners to improve sight lines. Evaluate speed awareness treatments and school-route signage to reinforce driver expectancy and reduce conflict potential.





Weather/Light/FHE	PDO	Inj-B	Total
Clear		**1**	**1**
Light		**1**	**1**
Angle		1	1
MV Transport		1	1
Cloudy	**1**		**1**
Light	**1**		**1**
Angle	1		1
MV Transport	1		1
Total	**1**	**1**	**2**



East 11th Street & Main Street Intersection: HIN #13

Location Description

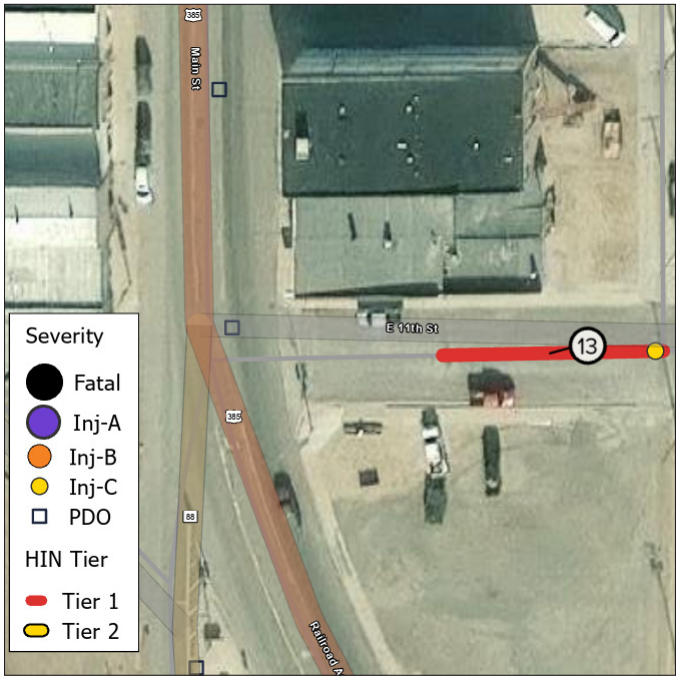
Intersection of East 11th Street and Main Street (US-385), with East 11th serving as the primary access route to the hospital. The westbound approach on East 11th is stop controlled. On-street parking is permitted on both sides of East 11th near the intersection, and buildings located at the right-of-way line limit visibility. Main Street curves to the southeast just south of the intersection, further affecting sight distance.

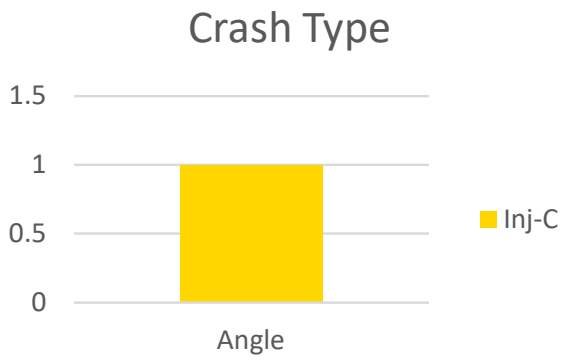
Key Pattern

A daylight angle crash east of the intersection reflects visibility constraints and driver expectancy challenges, particularly for westbound vehicles approaching Main Street from a stop-controlled position with limited sight lines.

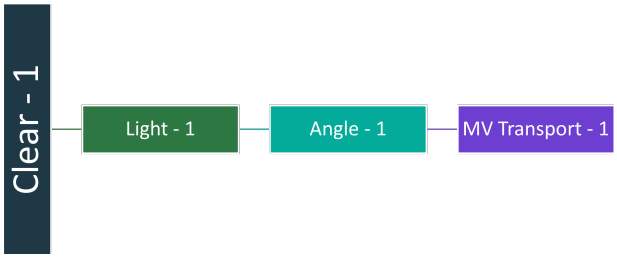
Potential Countermeasures

Improve intersection visibility through parking setback (daylighting) near the corner; enhance stop control with upgraded signage and pavement markings; consider advance warning or intersection visibility treatments on Main Street. Evaluate geometric and operational conditions to improve driver awareness and reduce conflict at this skewed, constrained intersection.





Weather/Light/FHE	Inj-C	Total
Clear	**1**	**1**
Light	**1**	**1**
Angle	1	1
MV Transport	1	1
Total	**1**	**1**



A3.4 Crash Trees for Different Modes or Severity Levels

The following pages contain crash trees for all of the crashes in Bridgeport, all injury and KSI crashes, and all crashes involving vulnerable roadway users.

Crash trees reveal the details involved during a crash, including weather, lighting of the roadway, crash type, and first harmful event.

The crash trees illustrate common weak links at crash locations, which help to inform priorities and countermeasures.

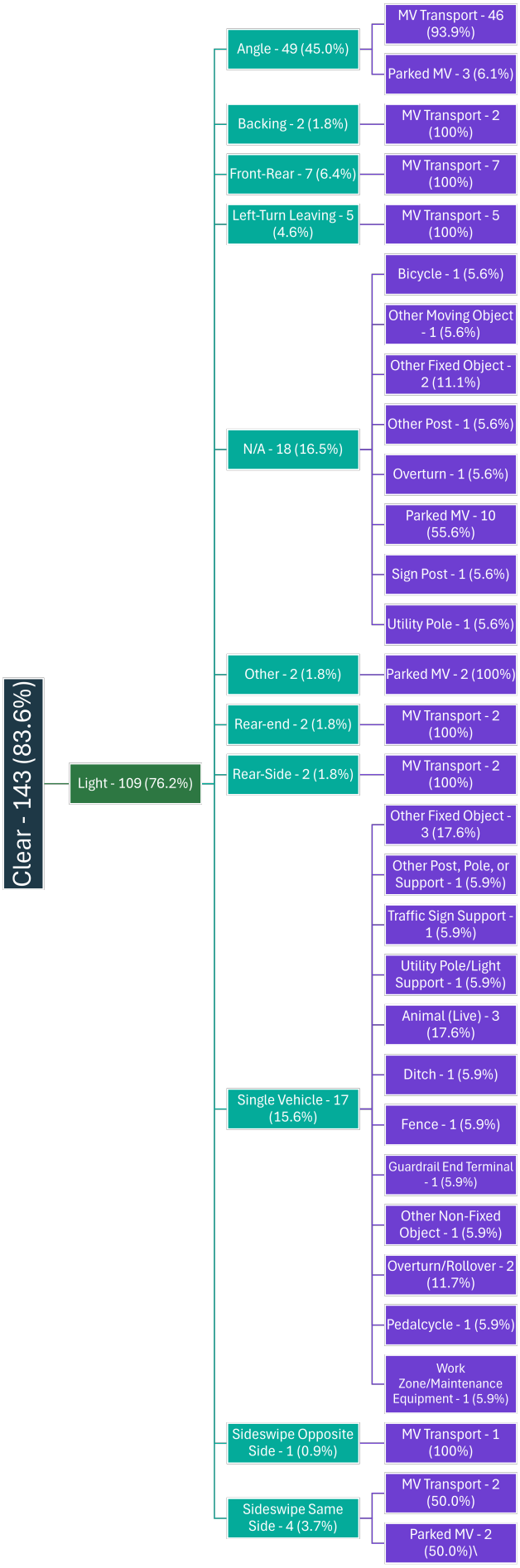
A3.4.1 All Crashes Clear and Lit

Clear, well-lit conditions account for the majority of crashes (83.6%), indicating that visibility is not the primary issue.

Within these conditions, angle crashes dominate (45.0%), followed by single-vehicle crashes (15.6%) and a notable share of non-collision/other or parking-related incidents.

Most crashes involve motor vehicles in transport, with limited involvement of bicyclists or other modes.

The pattern suggests that driver behavior—such as failure to yield, turning conflicts, and speed—rather than environmental factors, is the key contributor to crashes under these conditions.

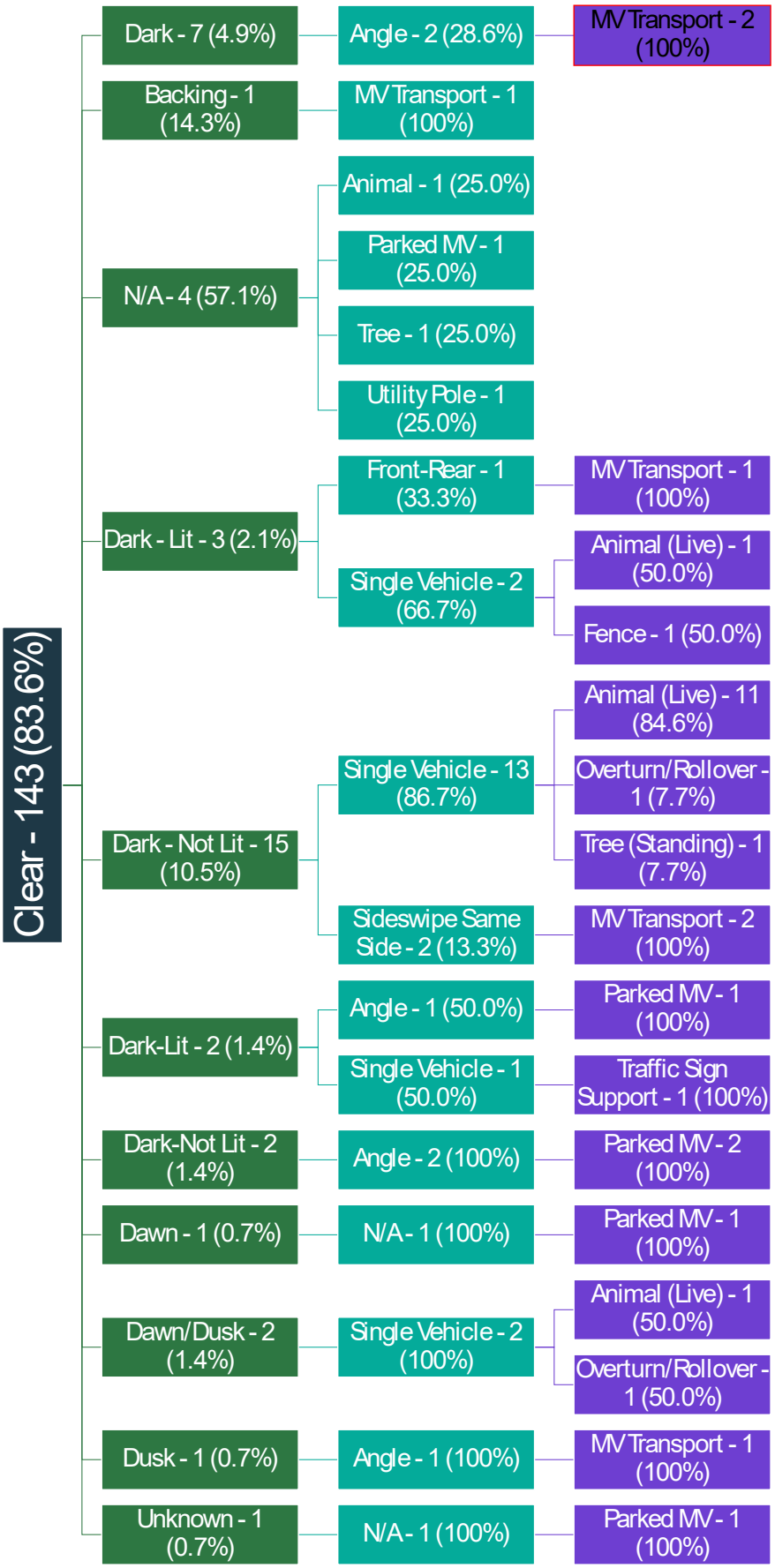


A3.4.1 All Crashes (Cont.) Clear and Not Lit

Crashes in clear but unlit conditions are less frequent but show a strong tendency toward single-vehicle incidents (particularly in fully dark, unlit areas), often involving roadside objects or animals.

Where multi-vehicle crashes occur, they are primarily angle or front-rear types involving motor vehicles.

The pattern suggests reduced visibility contributes to roadway departure and hazard detection issues, especially outside of well-lit areas.

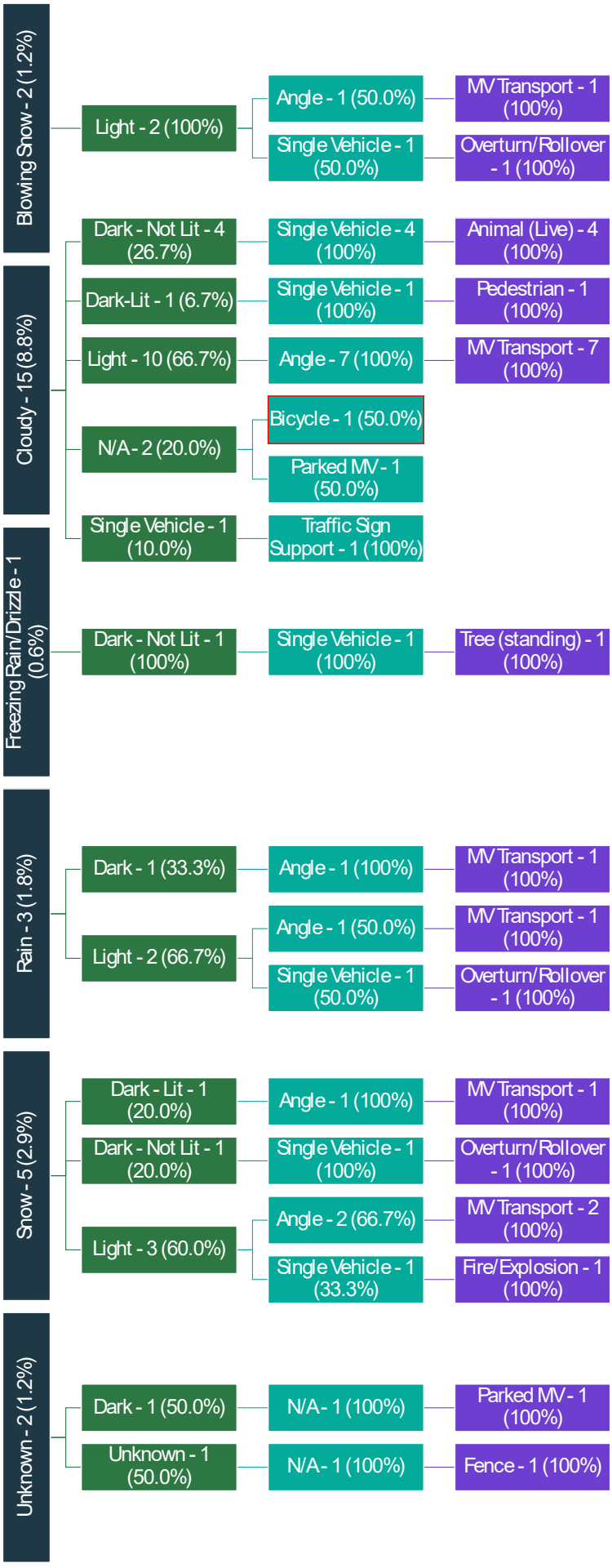


A3.4.1 All Crashes (Cont.)
Non-Clear Weather

Crashes during non-clear weather are relatively limited but more varied in type, with a mix of angle, single-vehicle, and occasional pedestrian or bicycle involvement.

Many crashes still involve motor vehicles, though environmental factors like wet, icy, or reduced-visibility conditions contribute to loss of control (e.g., overturn/rollover) and conflicts.

These patterns indicate that weather-related surface conditions and visibility reductions play a key role, particularly in increasing single-vehicle and run-off-road crash risk.



A3.4.2 Injury Crashes

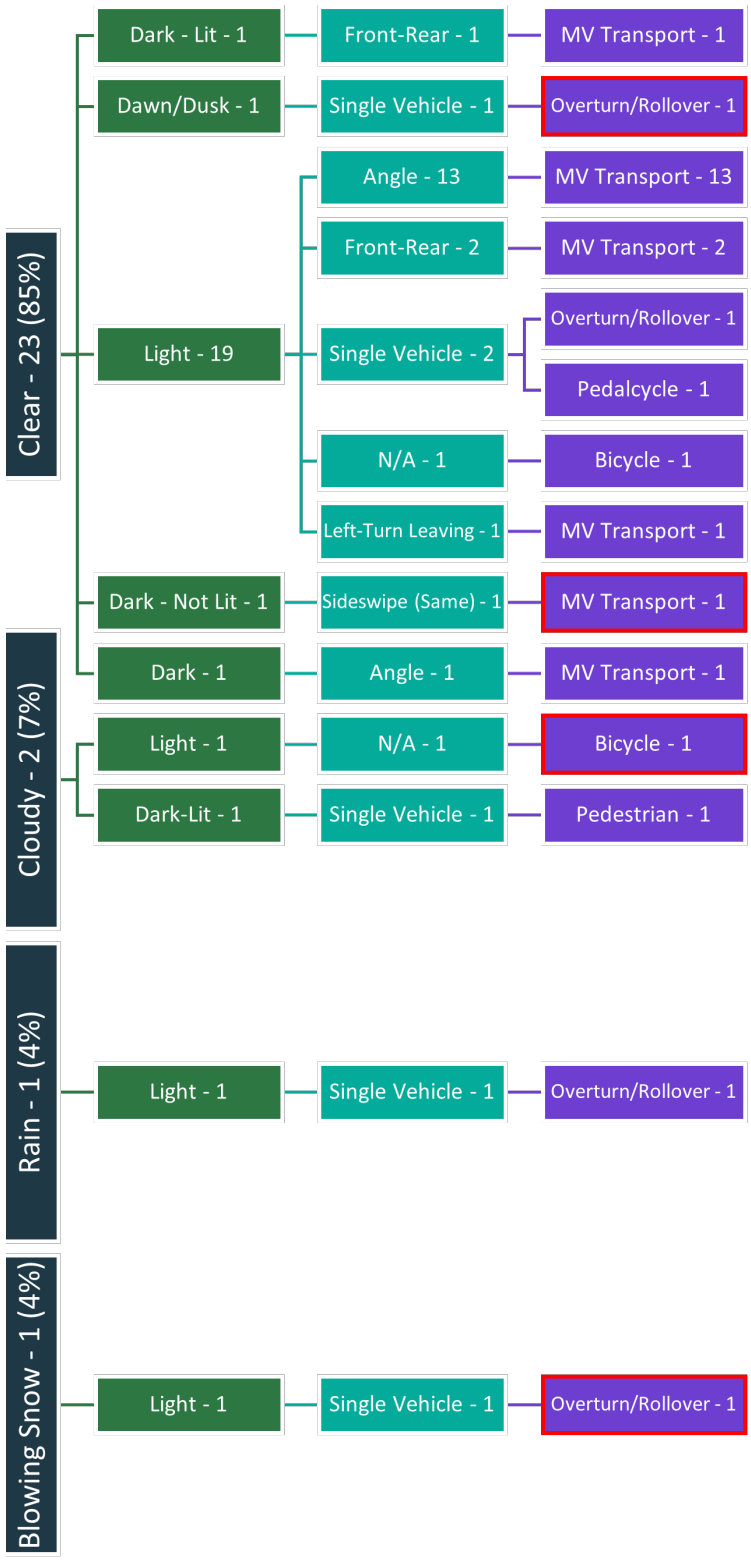
Injury crashes are most common under clear conditions (85.5%), with the majority occurring during daylight.

Angle crashes dominate (over half of injury crashes), followed by smaller numbers of front-rear and single-vehicle crashes.

Most involve motor vehicles, though there are notable instances of bicycle and pedestrian involvement, indicating conflicts with vulnerable users.

Under darker or non-clear conditions (cloudy, rain, snow), injury crashes are less frequent but more likely to involve single-vehicle overturn/rollover events or isolated conflicts with pedestrians and bicyclists.

Overall, the pattern suggests that intersection-related conflicts (especially angle crashes) are the primary driver of injury crashes, while environmental factors contribute more to loss-of-control incidents.



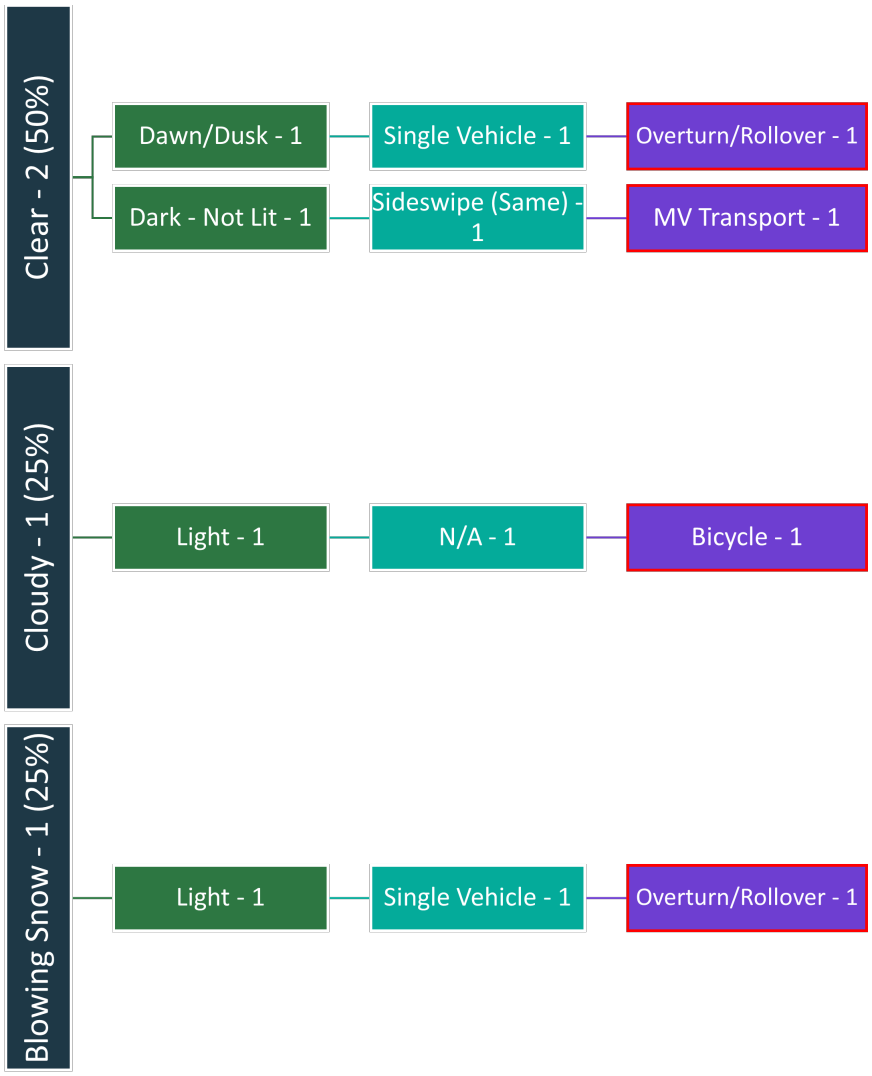
A3.4.3 KSI Crashes

KSI crashes are very limited in number but show a clear pattern toward severe, loss-of-control events.

Half occur in clear conditions, including a single-vehicle overturn/rollover and a sideswipe crash involving motor vehicles during low-light periods.

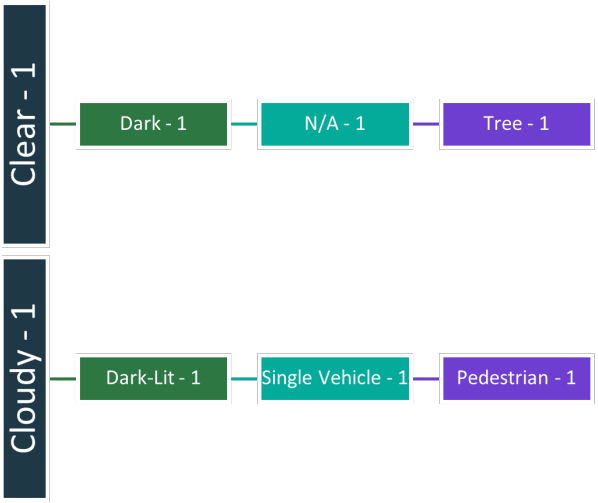
The remaining crashes occur in adverse conditions (cloudy and blowing snow), each involving either a bicyclist or a single-vehicle overturn/rollover.

Overall, KSI crashes are split between vehicle-related conflicts and high-severity single-vehicle incidents, with environmental conditions (darkness or winter weather) and vulnerable road users playing a notable role despite the small sample size.



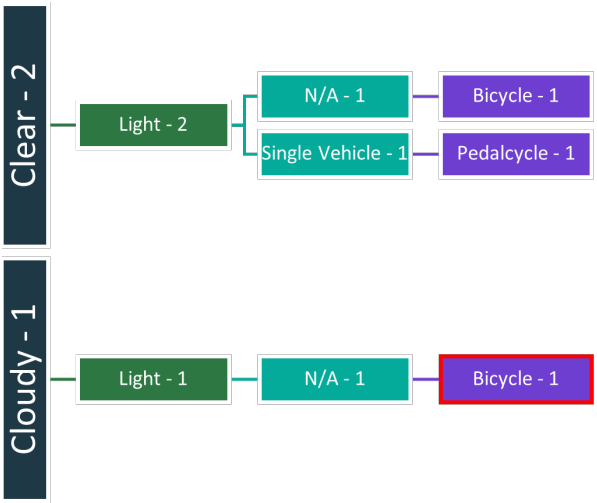
A3.4.4 Vulnerable Road Users - Pedestrians

Pedestrian-involved crashes are very limited but occur under low-light conditions (dark or dark-lit environments). The crashes include a single-vehicle conflict involving a pedestrian and a separate non-collision event, suggesting visibility and driver awareness are key factors. These patterns highlight the importance of lighting, visibility enhancements, and pedestrian-focused safety treatments.



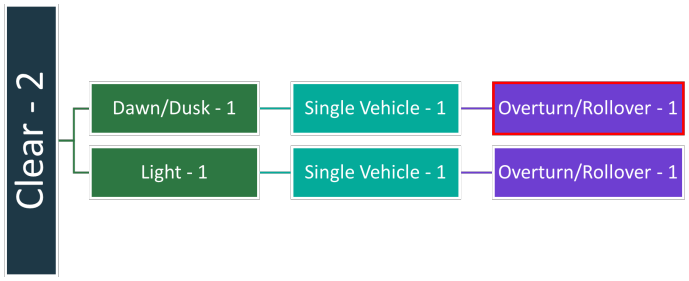
A3.4.5 Vulnerable Road Users - Bicycles/Pedalcycles

Bicycle and pedalcycle crashes occur primarily during daylight conditions, with a mix of single-vehicle and unspecified crash types. While overall volumes are low, the presence of both bicyclists and pedalcyclists indicates exposure along roadways where motor vehicles are present. These patterns suggest a need for dedicated space, improved crossings, and increased driver awareness.



A3.4.6 Vulnerable Road Users - Motorcycles

Motorcycle crashes are exclusively single-vehicle overturn/rollover events occurring in clear conditions, both during daylight and dawn/dusk. This pattern points to loss-of-control as the primary issue, potentially related to speed, roadway geometry, or surface conditions. Targeted strategies may include curve warning treatments, speed management, and rider awareness.



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