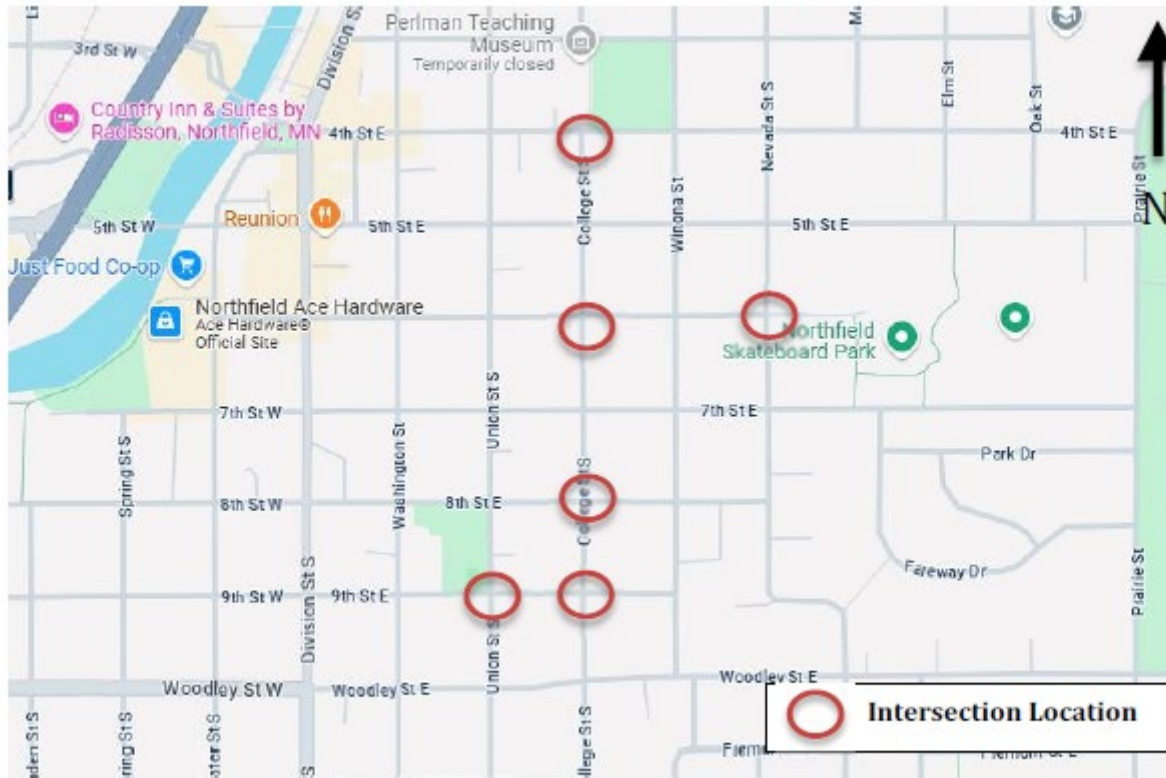




# Northfield City Council

Uncontrolled Intersection Study  
August 19, 2025

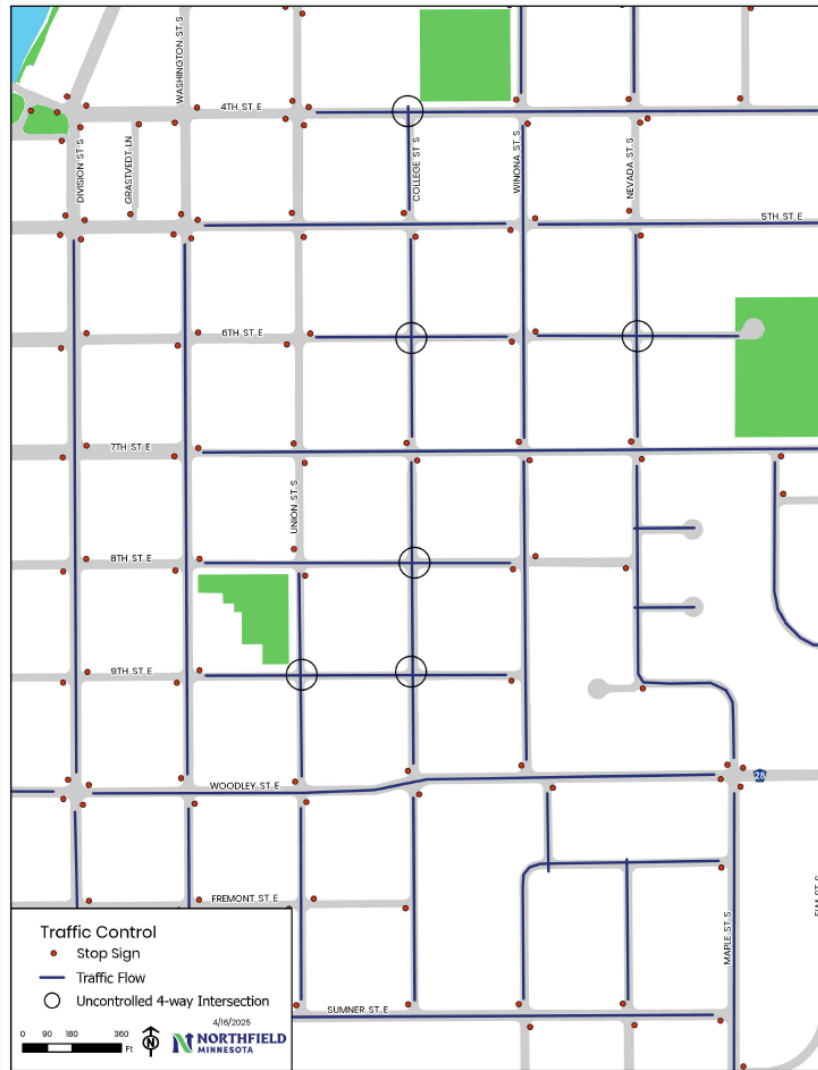
Figure 1: Project Location Map



Source: Google Maps



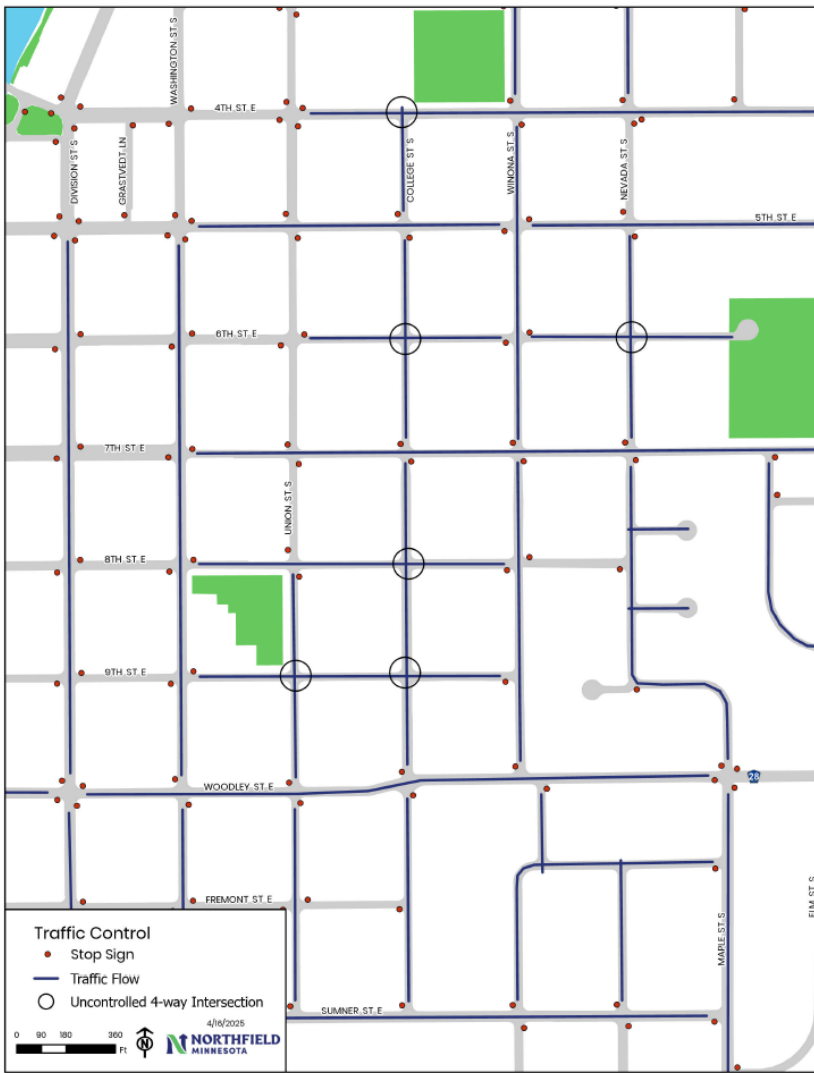
Uncontrolled  
Study  
Location



## Traffic Control in Areas East of Division Street



## Traffic Control in Areas of West of Division st



# New Guidance MUTCD



- MnDOT is updating the states MUTCD to conform to federal update
- Should be done in 2026

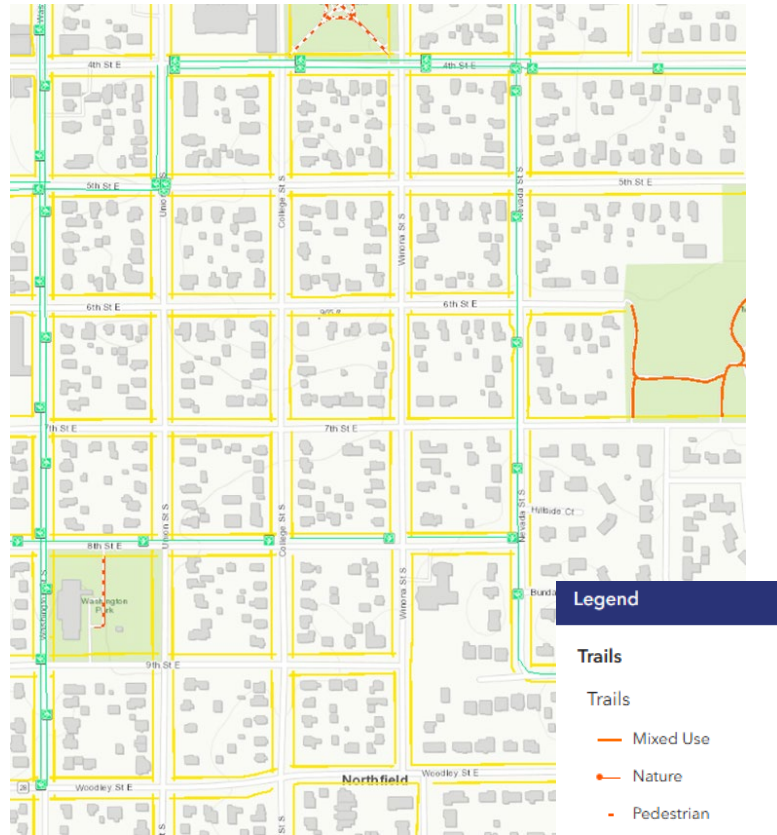
# New Guidance MUTCD

## Uncontrolled Intersections



- Intersection sight distance is adequate on approaches
- No marked crosswalks or bike lanes
- All approaches are single lane
- Two or more reported crashes in 12-months, that yield would help
- Combined, vehicle, pedestrian, bike volume averages less than 1800 units per day or 140 peak hour
- Angle of intersection
- Functional Class

- Speed limit is 30 mph
- Two-lane undivided roadways
- Functionally classified as local streets, except 4<sup>th</sup> Street
- Marked pedestrian crosswalks at 4<sup>th</sup> Street and College Street
- Surrounding land use is largely residential
- Bikeways on 4<sup>th</sup> Street, Nevada Street, and 8<sup>th</sup> Street



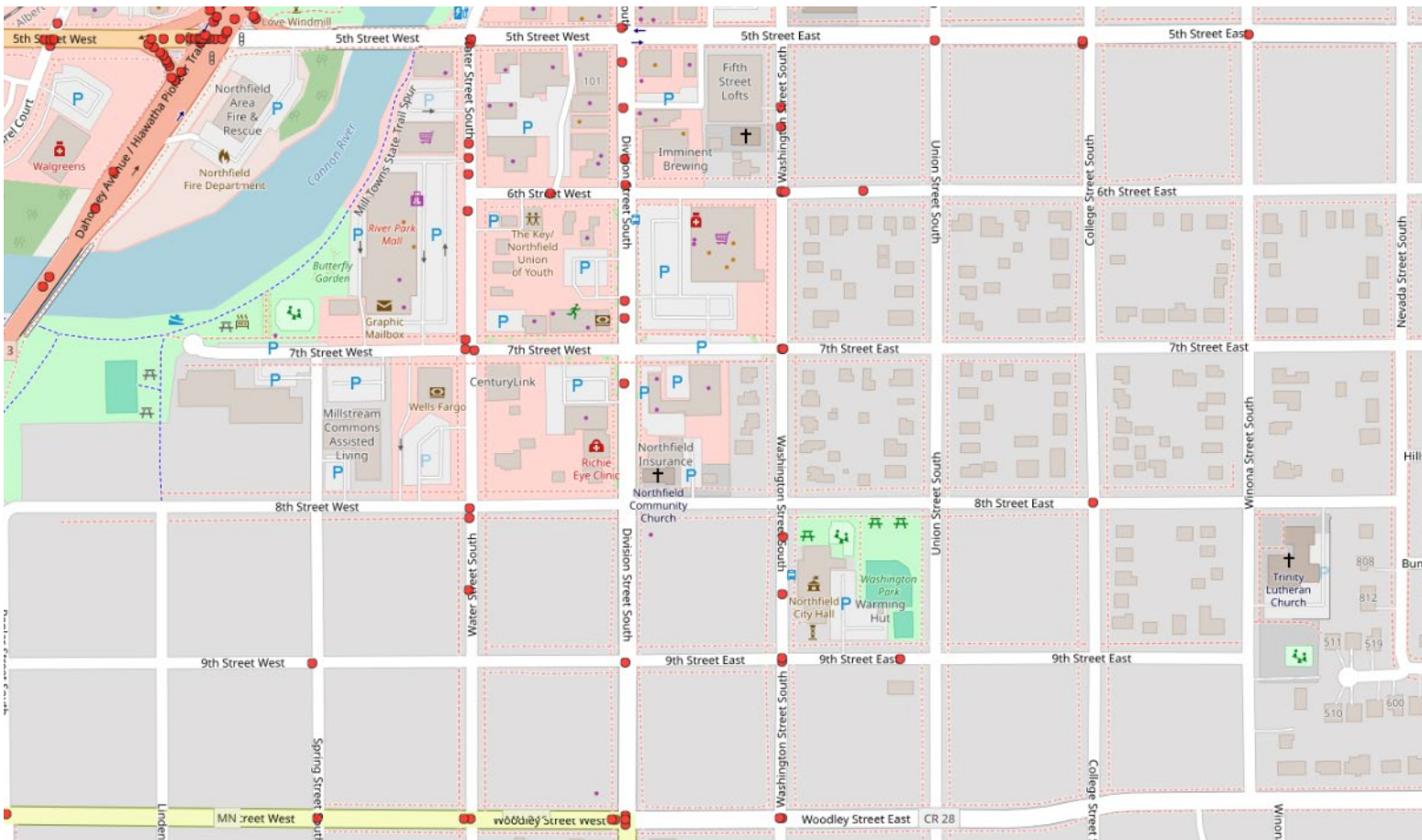
## Existing Condition of Study Locations



- Minimal crash data available from MnDOT and MnDPS. One recent resident reported crash
  - **8<sup>th</sup> Street and College Street:** One angle crash (Possible Injury)
  - **9<sup>th</sup> Street and Union Street:** One angle crash (Property Damage Only)
  - **9<sup>th</sup> Street and College Street:** One angle crash recently reported on July 7, 2025
- Not all crashes reported, especially property damage only crashes



Crashes



# Crash History 2020-2025

- **Sight Distance triangle depends on speed and the type of traffic control**

- AASHTO
- 140' on each leg for uncontrolled intersections at 30 mph
- Do not want any significant visual obstructions within this triangle impacting sightlines (houses, fences that cannot see through, large trees with branches lower down, bushes)
- Tree trunks, power poles, signs may be acceptable

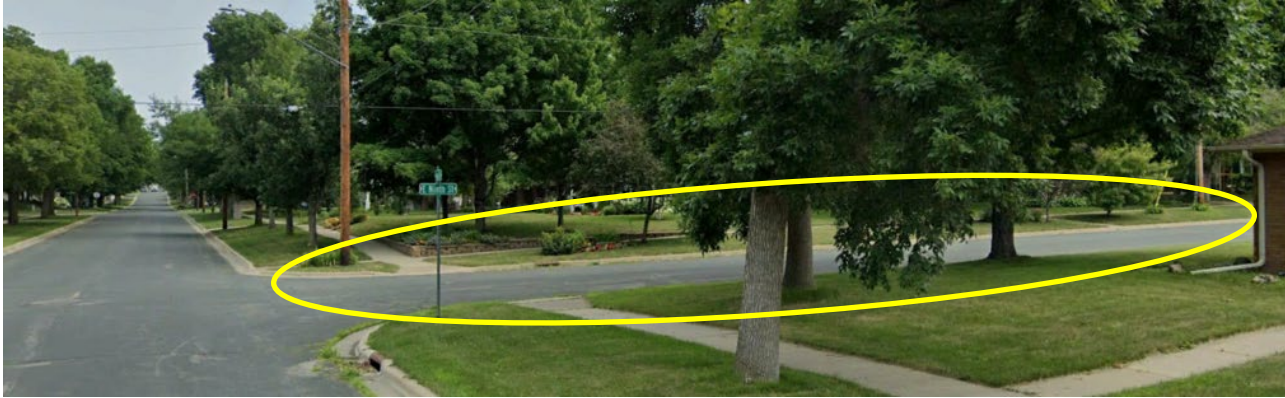
- **Traffic Safety Visibility Triangle**

- City Code
- 35' on intersection corners
- Do not want any obstructions within this triangle impacting sightlines



**Sight  
Triangles**

- Acceptable view for sight distance triangle

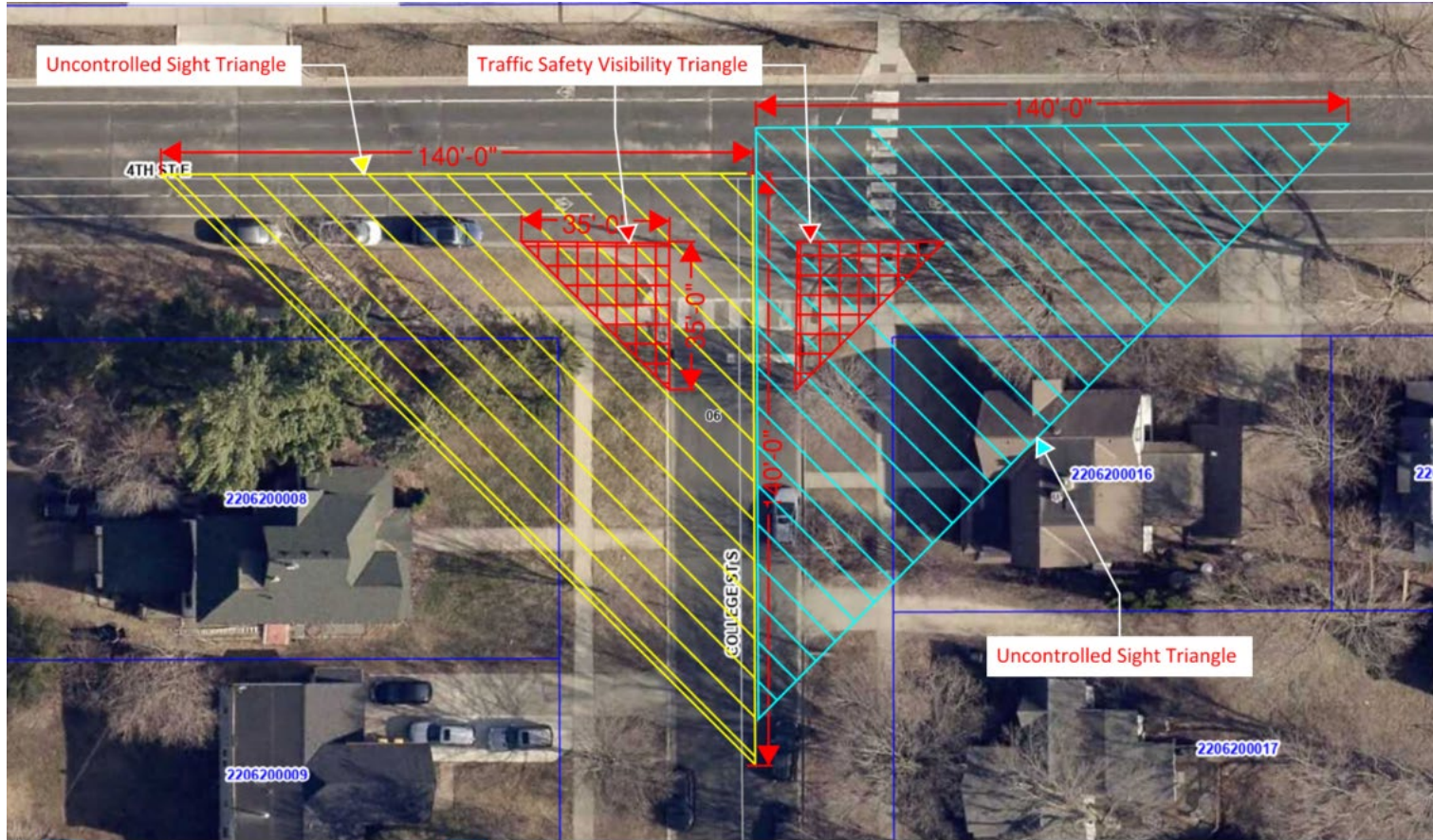


- Unacceptable view for sight distance triangle



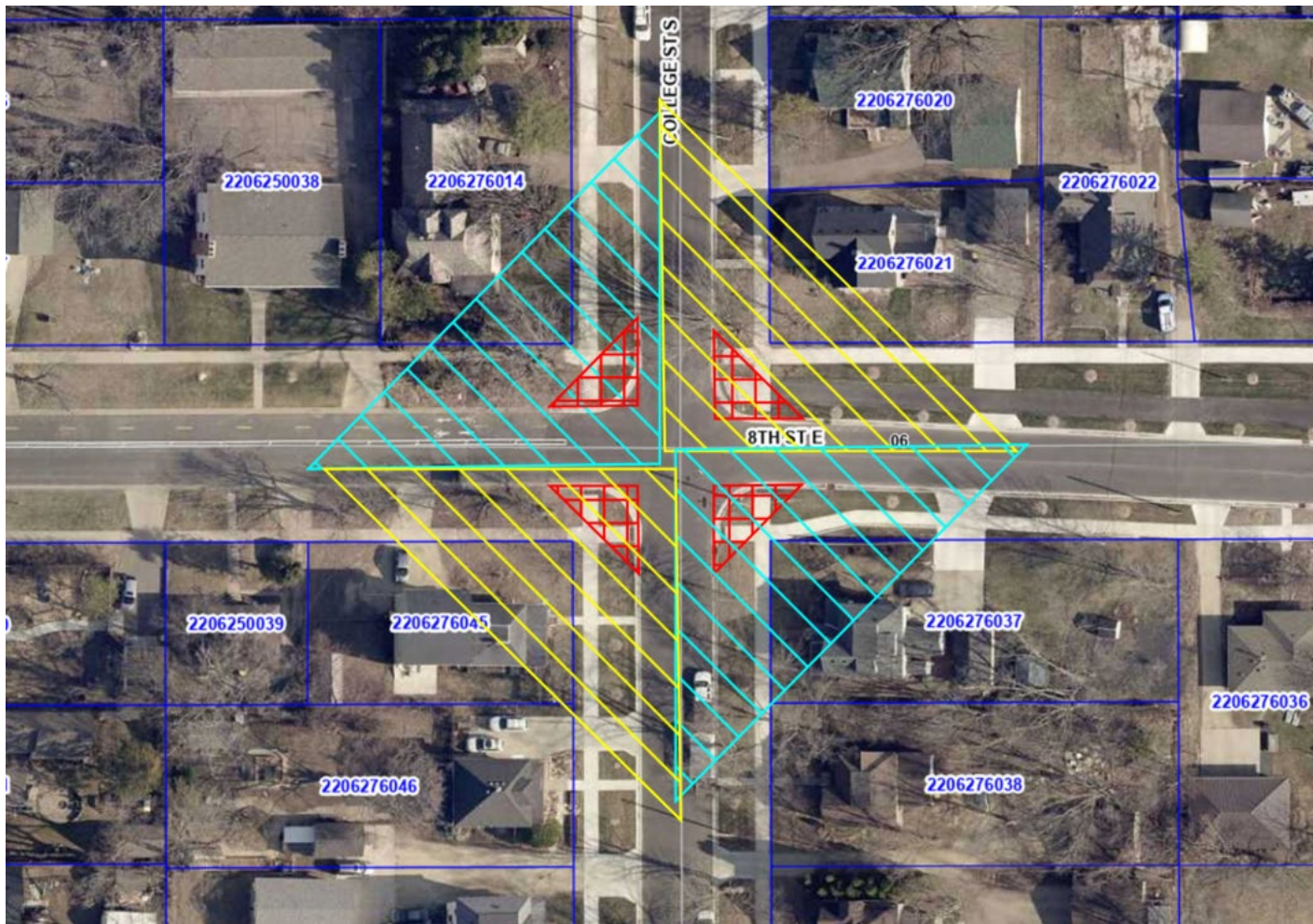
Sight  
Triangles





Sight  
Triangle  
Analysis  
(Example:  
College  
and 4<sup>th</sup>)





Sight  
Triangle  
Analysis  
(Example:  
College  
and 8<sup>th</sup>)

- Number and angle of approaches
- Functional classification
- Land uses adjacent to the intersection
- Approach speeds
- Sight distance available on each approach
- Vehicular, bicycle, and pedestrian traffic volumes on all approaches
  - Less than 1,000/day or 80/peak hour: Uncontrolled
  - Less than 1,800/day or 140/peak hour: Yield controlled
  - Greater than above: Stop controlled
- **Reported crash history**
  - Two or more reported crashes in 12-month period: Yield controlled
  - Three or more reported crashes in 12-month period: Stop controlled
- **Driver yielding behavior**



**Specific  
MUTCD  
Guidance**

# Evaluation Summary



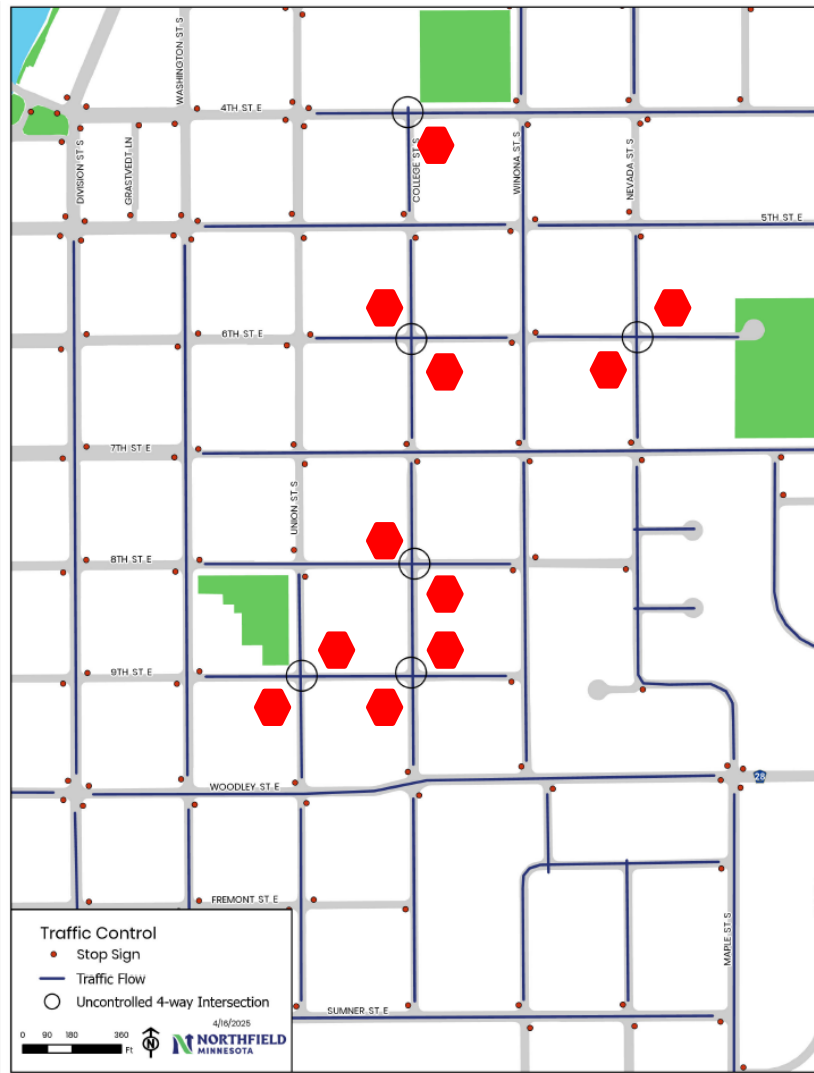
Intersection	Current Traffic Control	Crash	Volume (ADT) – includes peds					Peak Hour Volume	Sight Distance Obstruction
			SB	WB	NB	EB	Total		
4th St & College St	Two-Way Stop	0	9	241	229	356	835	76	Yes
6th St & College St	Uncontrolled	0	94	117	96	101	408	37	Yes
6th St & Nevada St	Uncontrolled	0	167	63	217	55	502	43	Yes
8th St & College St	Uncontrolled	1	88	62	99	72	321	32	Yes
9th St & Union St	Uncontrolled	1	213	97	169	100	579	68	Yes
9th St & College St	Uncontrolled	1	87	60	106	50	303	35	Yes



# Recommendations



Intersection	Current Traffic Control	Proposed Traffic Control	Direction	Reason
4th St & College St	Two-Way Stop (Stop on College)	Two-way Stop (Stop on College)	NB stop	Consistency, bike lanes, parking lane, crosswalks, sightlines
6th St & College St	Uncontrolled	Two-way Stop	N-S stop	Sightlines, consistency
6th St & Nevada St	Uncontrolled	Two-way Stop	E-W stop	Sightlines, bikeway, consistency
8th St & College St	Uncontrolled	Two-way Stop	N-S stop	Sightlines, bikeway, consistency
9th St & Union St	Uncontrolled	Two-way Stop	E-W stop	Sightlines, consistency
9th St & College St	Uncontrolled	Two-way Stop	E-W stop	Sightlines, consistency



# Proposed Changes for Traffic Control East of Division Street

# Discussion