



# Local Roadway Safety Plan

Stakeholder Meeting #2

August 30, 2023

11:00 am



A street scene with traffic lights and cars, overlaid with a semi-transparent red banner containing the word 'Introduction'. The scene shows a multi-lane road with several vehicles, including a white car in the left lane and a dark SUV in the center. In the background, there are buildings, trees, and a clear blue sky with some clouds. A traffic light pole is visible on the right side of the road, with a sign that reads 'NO U TURN' and a left-turn arrow. A speed limit sign for 35 is also visible on the right. The overall image has a slightly desaturated, reddish tint due to the overlay.

# Introduction

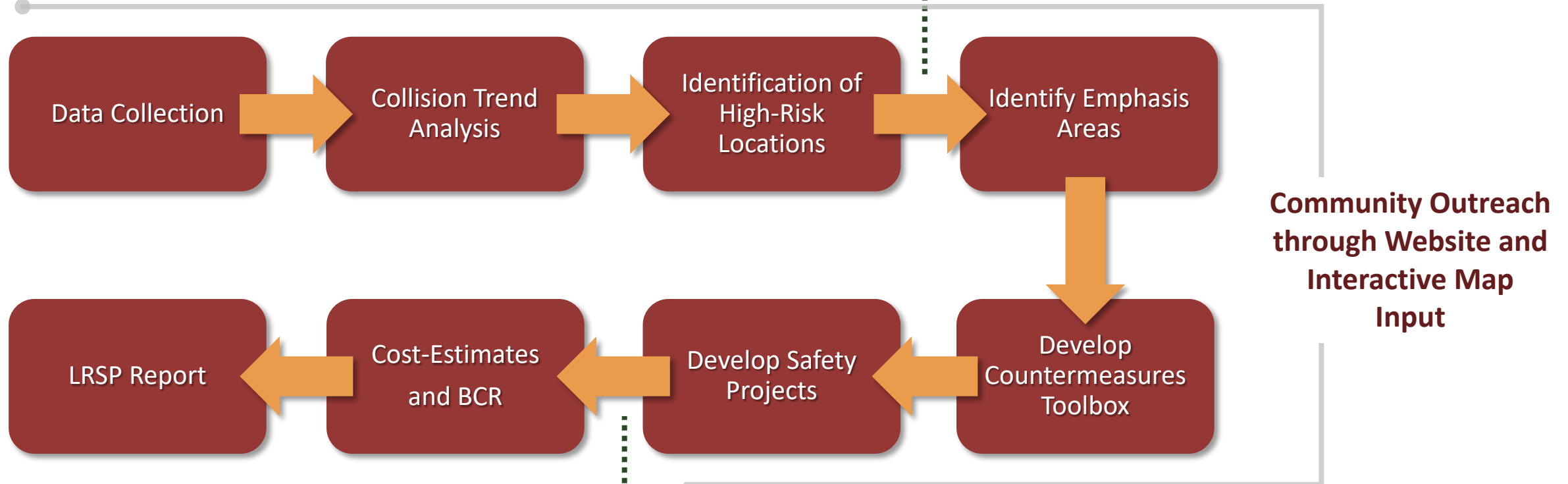
# Agenda

- Introductions
- Project Status and Milestones
- Community Survey Results
- Collision Analysis Findings
- Emphasis Areas
- Draft Engineering & Non-Engineering Countermeasures
- Draft Safety Projects
- Implementation/Next Steps



# Project Status and Milestones

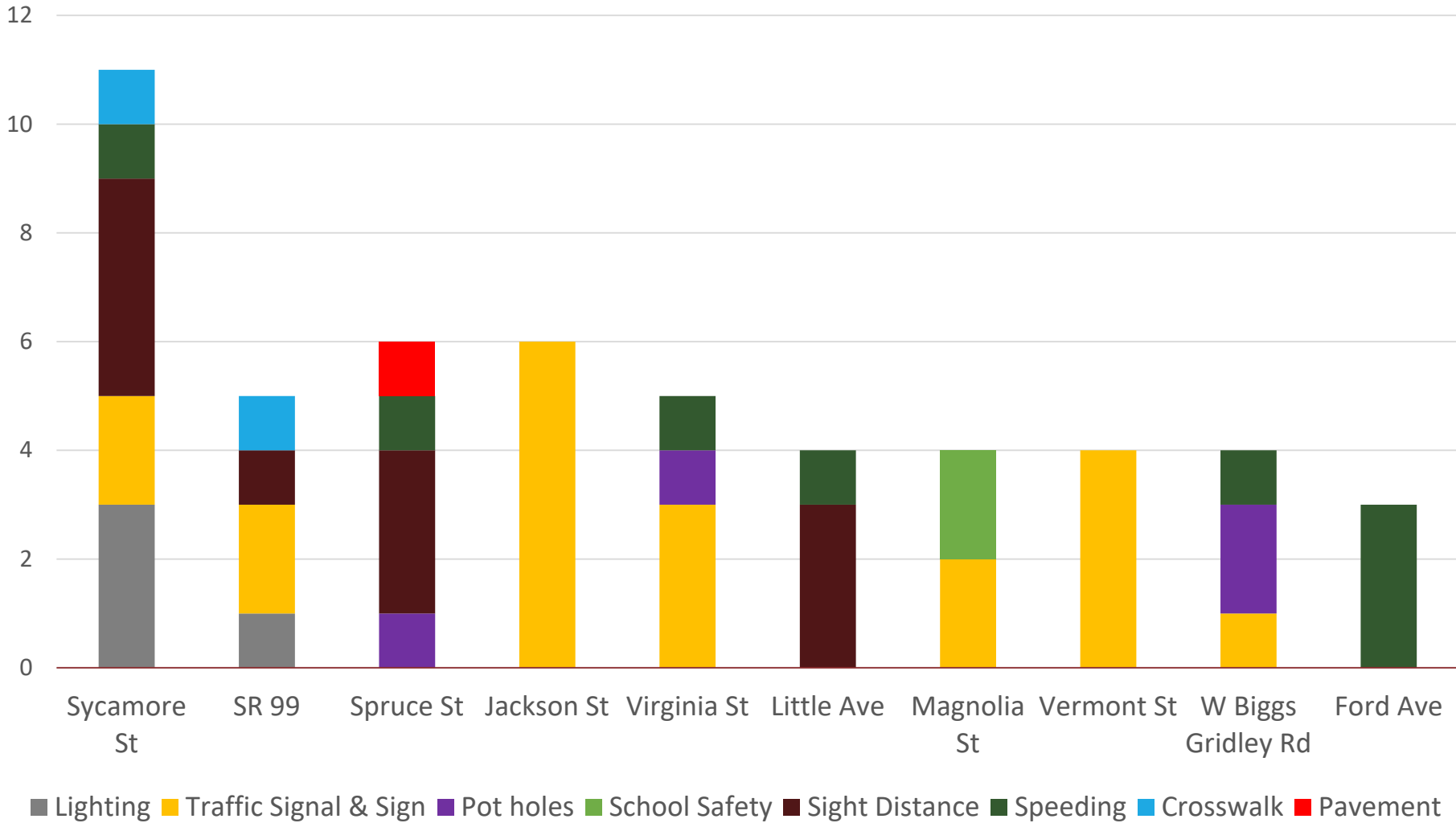
1<sup>st</sup> Stakeholder Meeting  
– June 28, 2023



Community Outreach  
through Website and  
Interactive Map  
Input

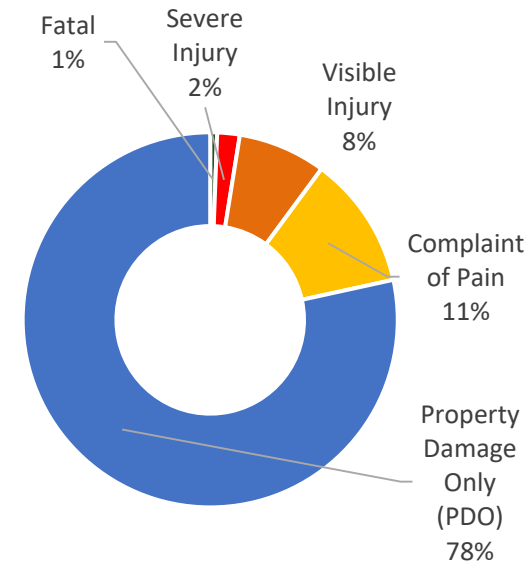
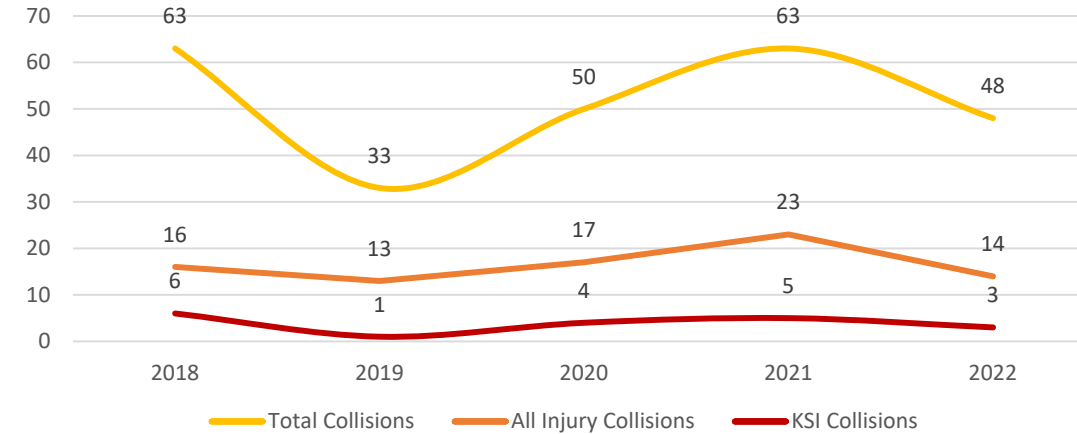
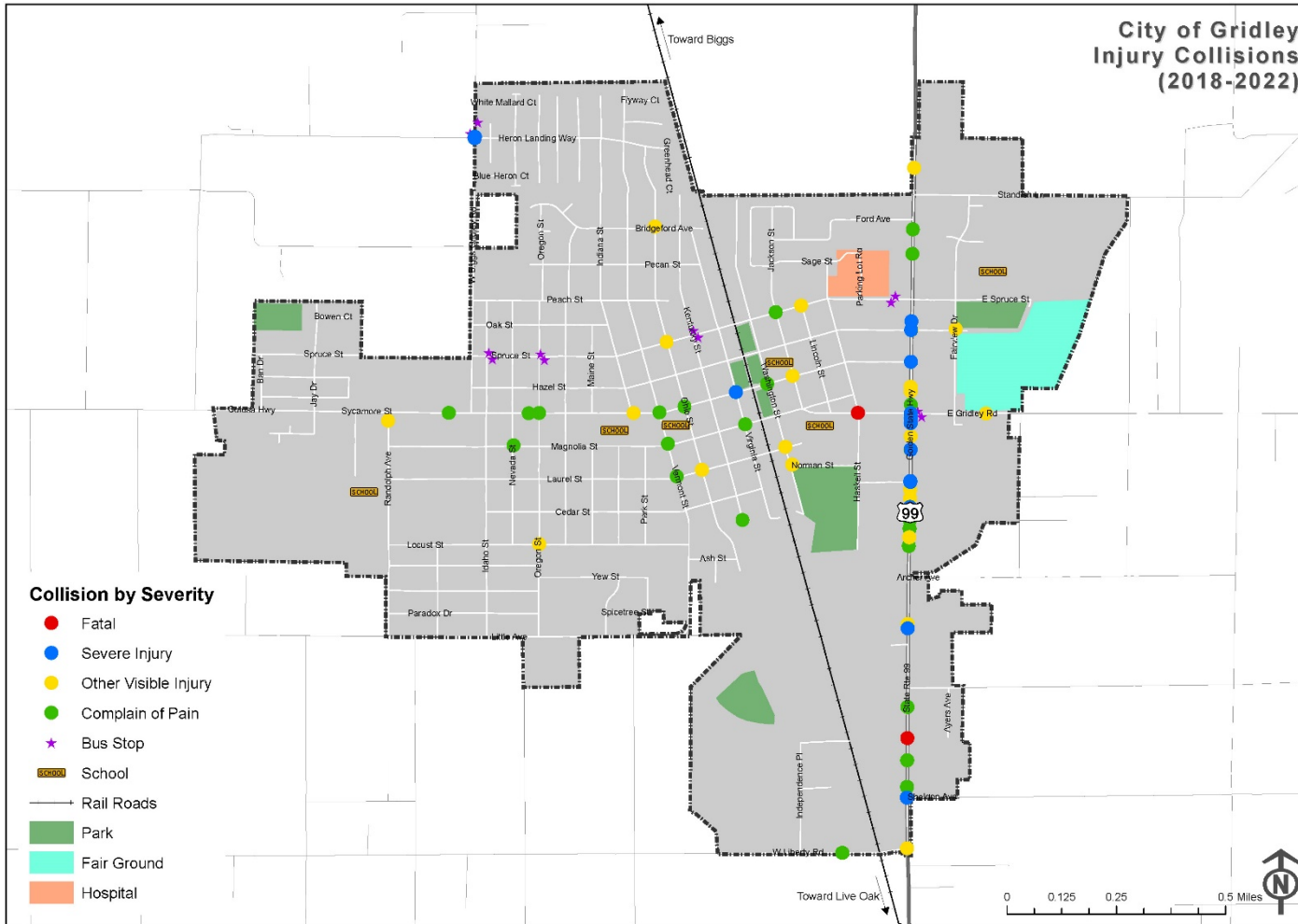
2<sup>nd</sup> Stakeholder Meeting  
-August 30, 2023

# Community Traffic Safety Survey



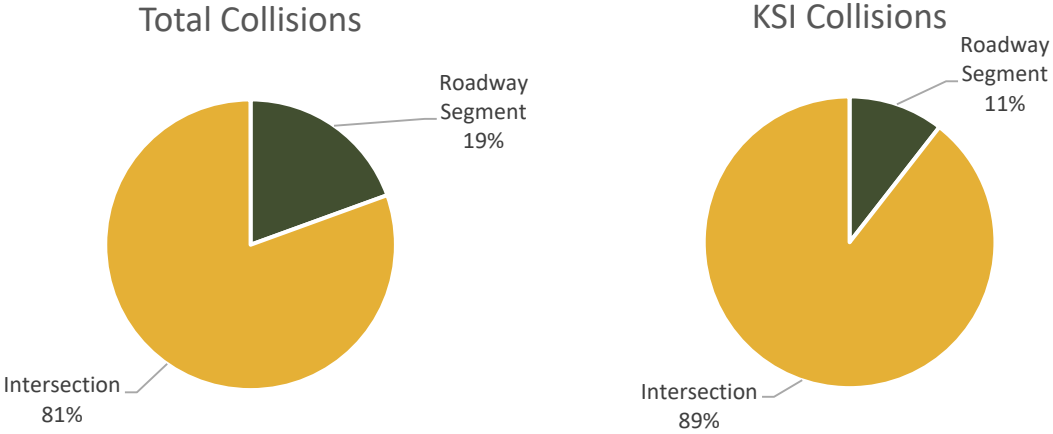
- **75 comments** received through interactive map portal and website feedback form
- **Sycamore Street** received most comments
- **Disregard traffic signal or stop sign and insufficient sight distance at intersections** were the top two with most comments received

# Collision Analysis Findings

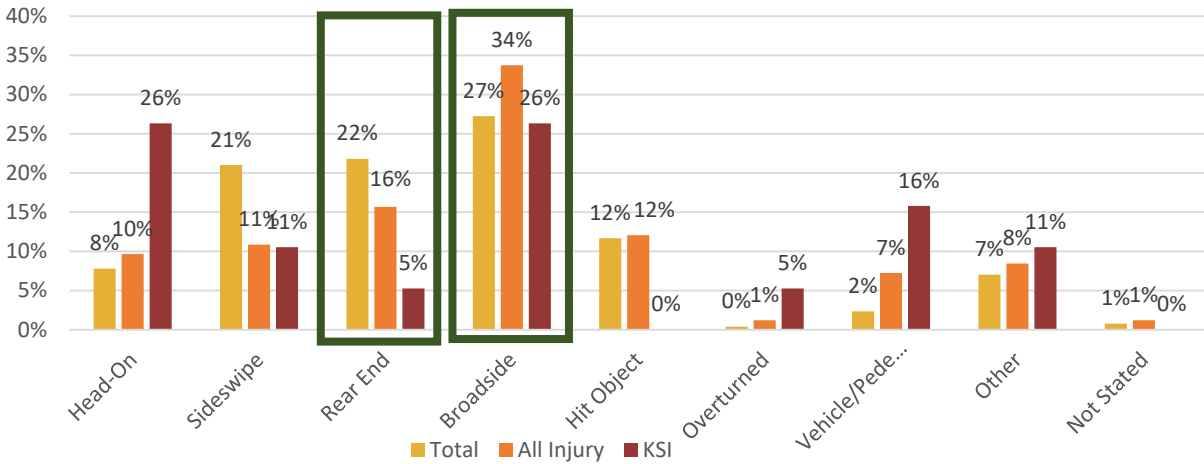


- 257 collisions between 2018-2022
- 174 property damage only (PDO collisions)
- 19 fatal and severe injury (F+SI/KSI collisions)

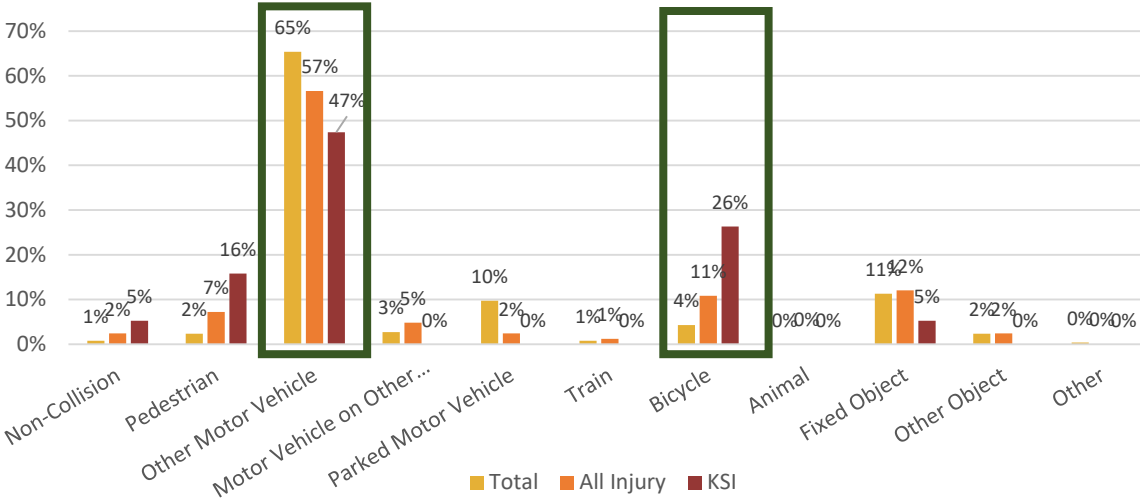
# Collision Analysis Findings



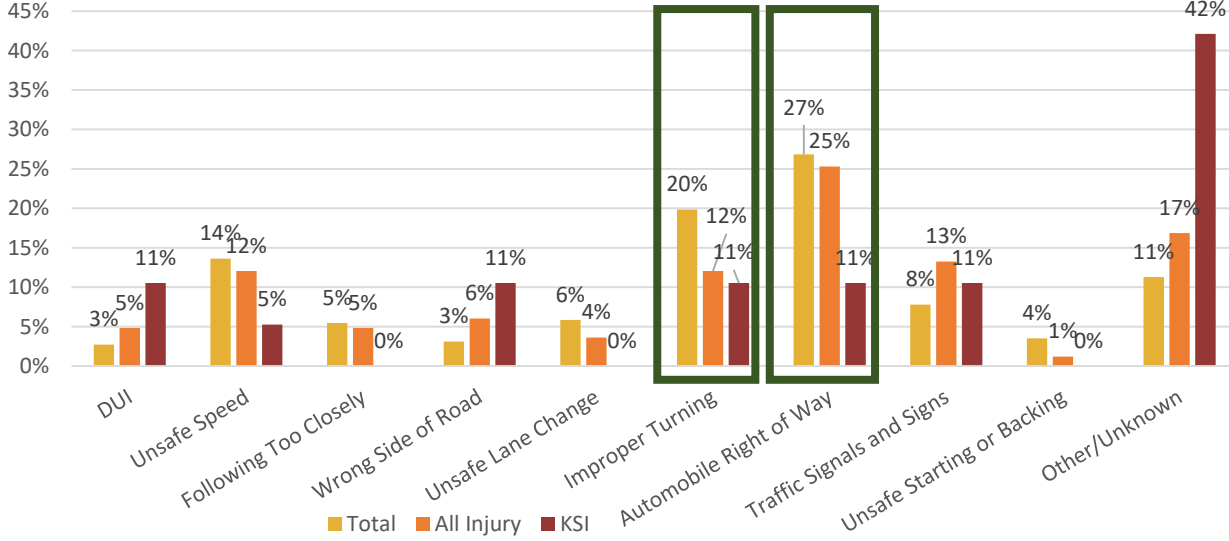
## Collision Type



## Collisions by Motor Vehicle Involved With



## Primary Violation Categories

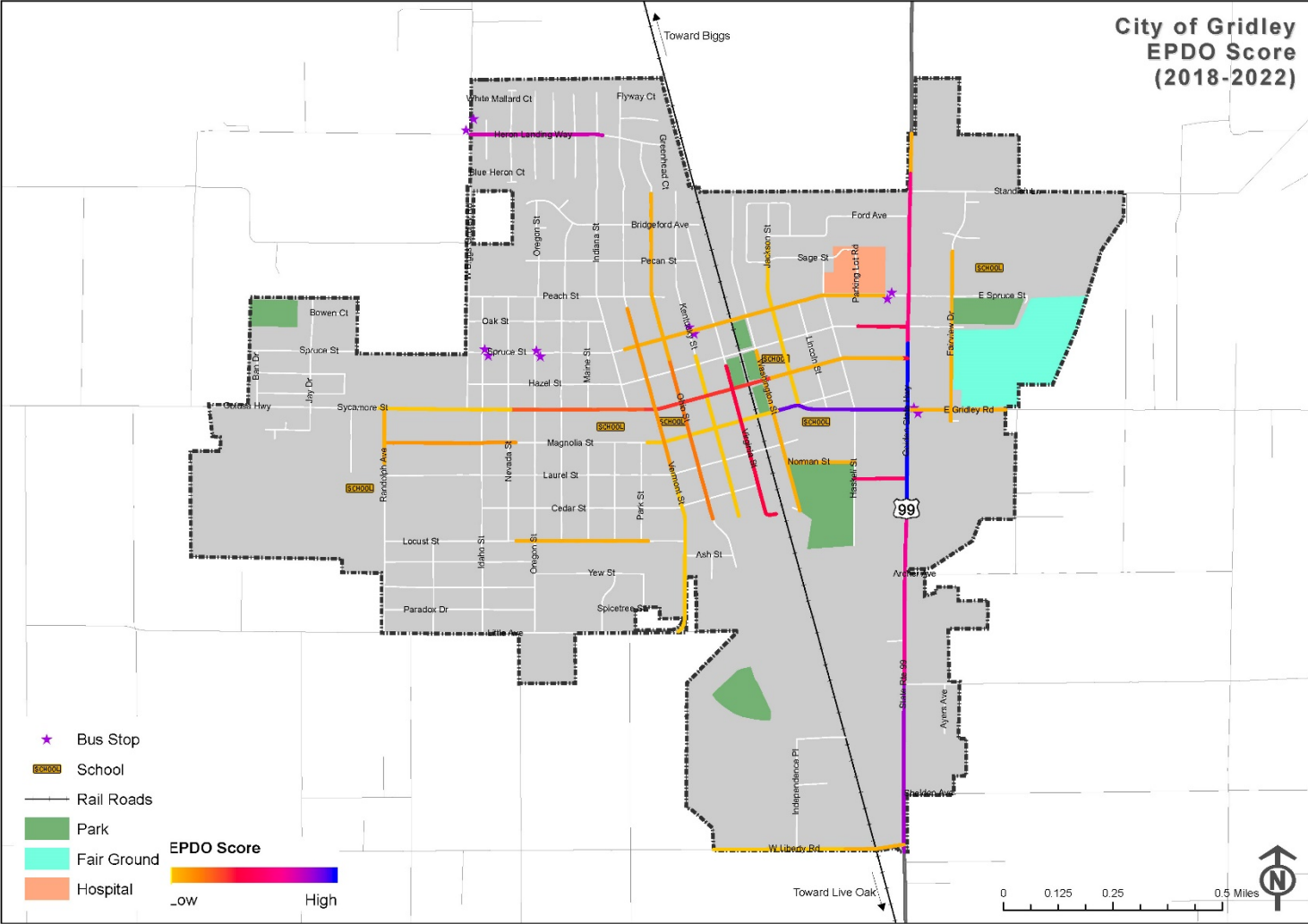


# Equivalent Property Damage Only (EPDO) Score

Collision Severity	EPDO Score
Fatal and Severe Injury Combined	165
Visible Injury	11
Complaint of Pain	6
Property Damage Only (PDO)	1

EPDO Score =  
 (165 x # of Fatal Collisions) +  
 (165 x # of Severe Injury Collisions) +  
 (11 x # of Other Visible Injury Collisions) +  
 (6 x # of Complaint of Pain Collisions) +  
 (1 x # of PDO Collisions)

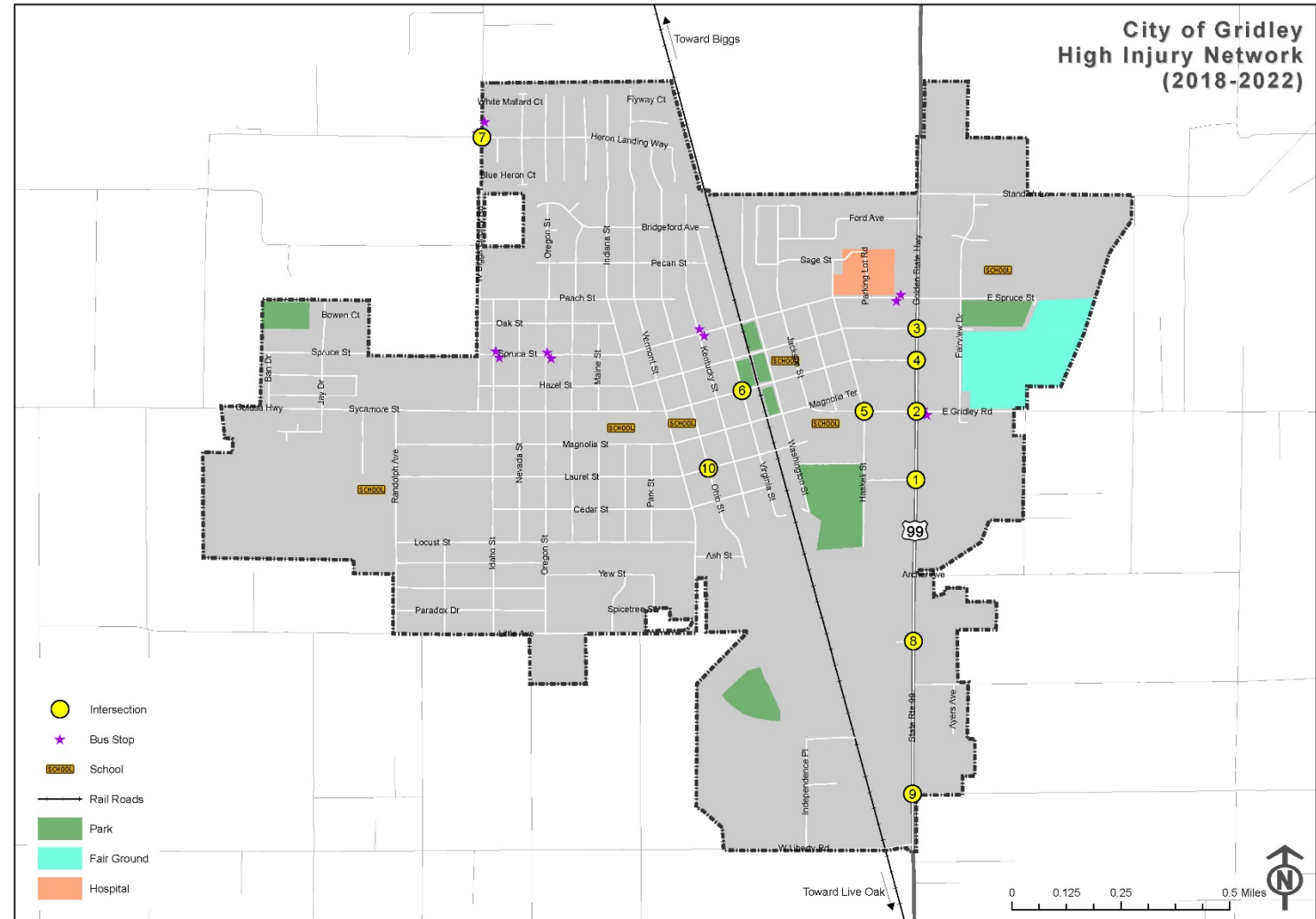
(Source: Local Roadway Safety Manual 2022, Caltrans)





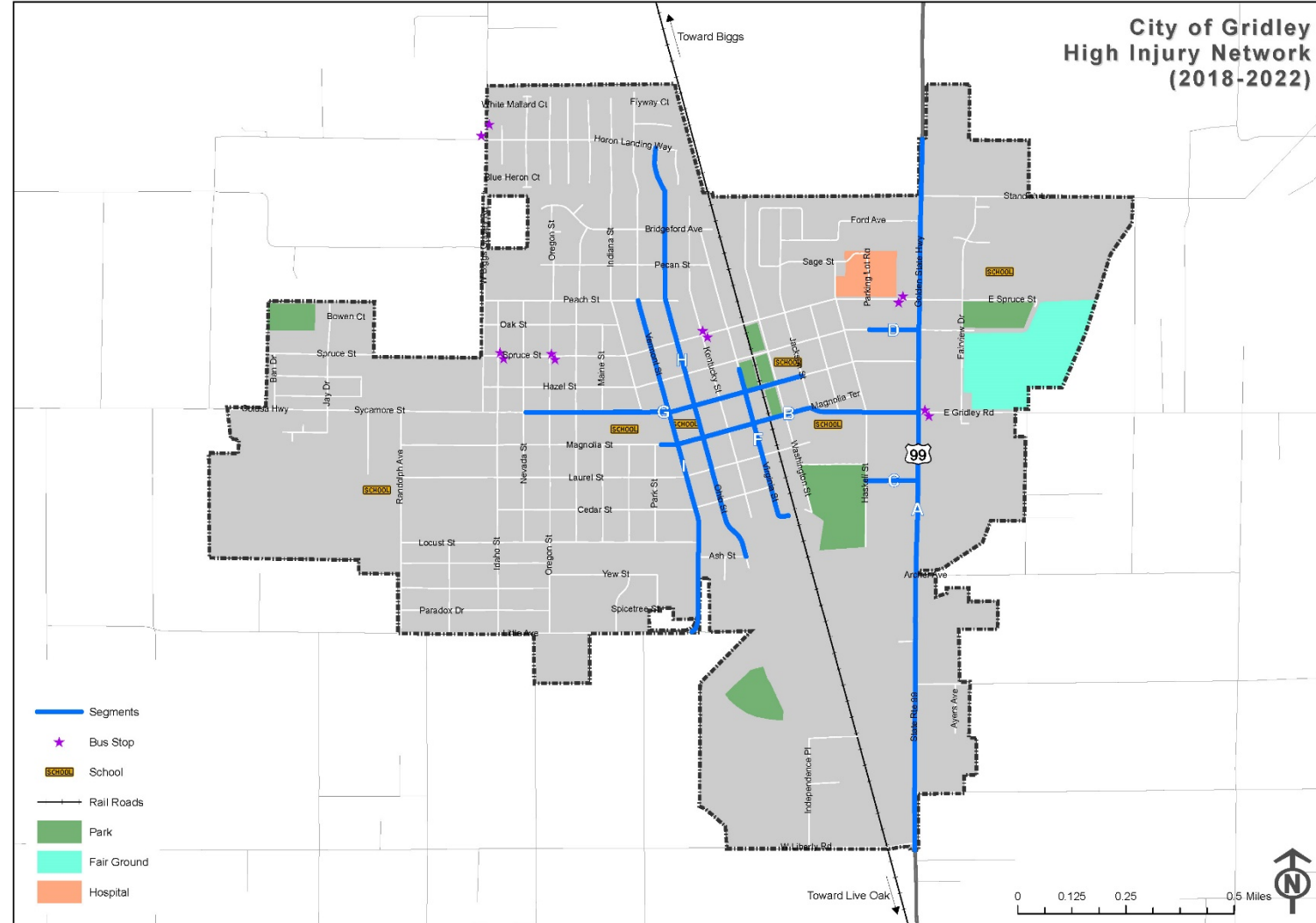
# High-Injury Intersections

ID	Intersection	Total Injury Collisions	KSI Collisions	Severity Weight
1	SR 99 and Cherry St	10	4	711
2	SR 99 and Magnolia St/E Gridley St	7	2	380
3	SR 99 and Hazel St	3	1	182
4	SR 99 and Sycamore St	2	1	176
5	Magnolia St and Haskell St	1	1	165
6	Sycamore St and Virginia St	1	1	165
7	Heron Landing Way and W Biggs Gridley Rd	1	1	165
8	SR 99 and Evelyn Dr	1	1	165
9	SR 99 and Sheldon Ave	1	1	165
10	Laurel St and Ohio St	2	0	22



# High-Injury Corridors

ID	Corridor	Total Injury Collisions	Length (miles)	Severity Weight
A	SR 99: Within City Limits	17	1.6	1245
B	Magnolia St: SR 99 to Park St	6	0.62	210
C	Cherry St: SR 99 to Haskell St	3	0.12	182
D	Hazel St: SR 99 to Haskell St	2	0.17	171
F	Virginia St: Hazel St to 350 ft. south of Cedar St	1	0.45	165
G	Sycamore St: Jackson St to Nevada St	8	0.6	207
H	Ohio St: Heron Landing Way to Ash St	3	1	33
I	Vermont St: Peach St to South City Limit	3	0.8	23



# Top Emphasis Areas

- Improve Intersection safety
- Address Broadside collisions
- Address Rear-end collisions
- Address Nighttime collisions
- Address Pedestrian and Bicycle collisions
- Address collisions on SR 99

Objective:			
Reduce the number of KSI collisions at intersections.			
	Strategy	Performance Measure	Agencies/ Organizations
Education	Conduct public information and education campaign for intersection safety laws regarding traffic signals, stop signs, and turning left or right.	Number of education campaigns or residents reached.	City/Police Department
Enforcement	Targeted enforcement at high-injury intersections to monitor right-of-way violations, traffic signal and sign violations that occur at intersections.	Decrease in number of citations and/or warnings issued over time due to increased driver compliance.	Police Department
Engineering	<ul style="list-style-type: none"> <li>• S01/NS01, Add lighting</li> <li>• S02, Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number</li> <li>• S03, Improve signal timing</li> <li>• S09, Install raised pavement markers</li> <li>• S16/NS04/NS05, Convert intersection to roundabout</li> <li>• NS06, Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs</li> <li>• NS07, Upgrade intersection pavement markings</li> <li>• NS08, Install Flashing Beacons at Stop-Controlled Intersections</li> <li>• NS09, Install flashing beacons as advance warning (Non-Signalized Intersection) (NS.I.)</li> <li>• NS10, Install transverse rumble strips on approaches</li> <li>• NS11, Improve sight distance to intersection (Clear Sight Triangles)</li> <li>• NS13, Install splitter-islands on the minor road approaches</li> <li>• NS14, Install raised median on approaches</li> <li>• NS19PB, Install raised medians (refuge islands)</li> <li>• Automated Red-light Enforcement</li> </ul>	Number of intersections improved.	City
EMS	S05, Install emergency vehicle pre-emption systems Improve resource of deployment for emergency responses to collision sites. Ensure emergency routes are clear and well defined	EMS vehicle response time.	City/Fire Department & EMS Response Teams

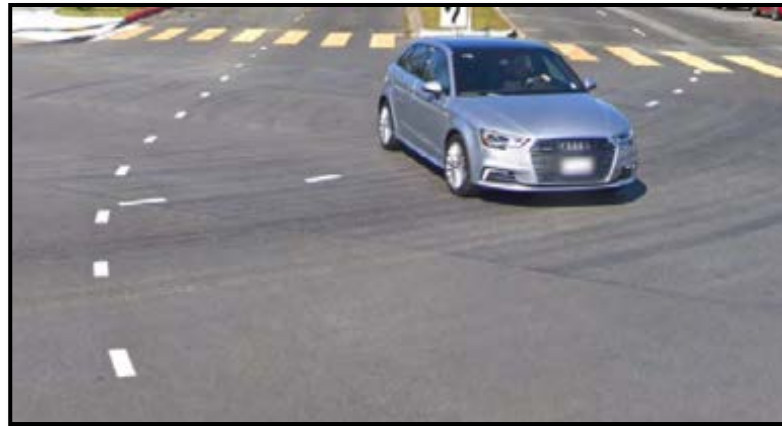
# Signalized Intersection Improvements



*S02- Improve Signal Hardware (lenses, back-plates with retroreflective borders, mounting, size, and number )*



*S03- Improve Signal Timings (coordination, phases, red, yellow, or operation)*



*S09- Install raised pavement markings and striping (Through Intersection)*

# Un-signalized Intersection Improvements



*NS01- Add intersection lighting*



*NS02- Convert to all-way STOP control (from 2-way or Yield control)(Warrant Study needed)*



*NS06- Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs*



*NS03- Install Signal (If Warranted)*

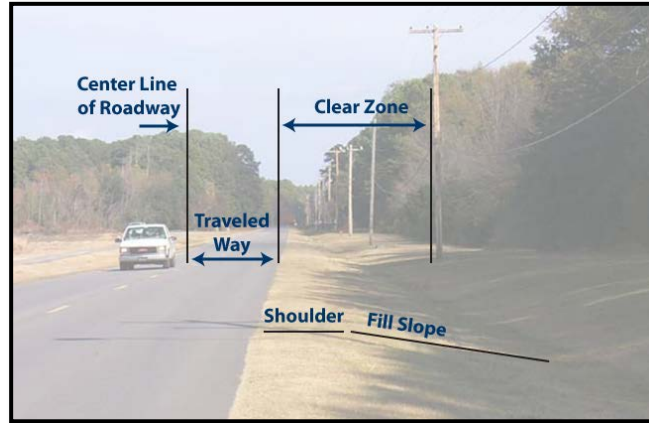


*NS11- Improve sight distance to intersection (Clear Sight Triangles)*

# Roadway Segment Improvements



*R01- Add Segment Lighting*



*R02 - Remove or relocate fixed objects outside of Clear Recovery Zone*



*R22 - Install/Upgrade signs with new fluorescent sheeting (regulatory or warning)*

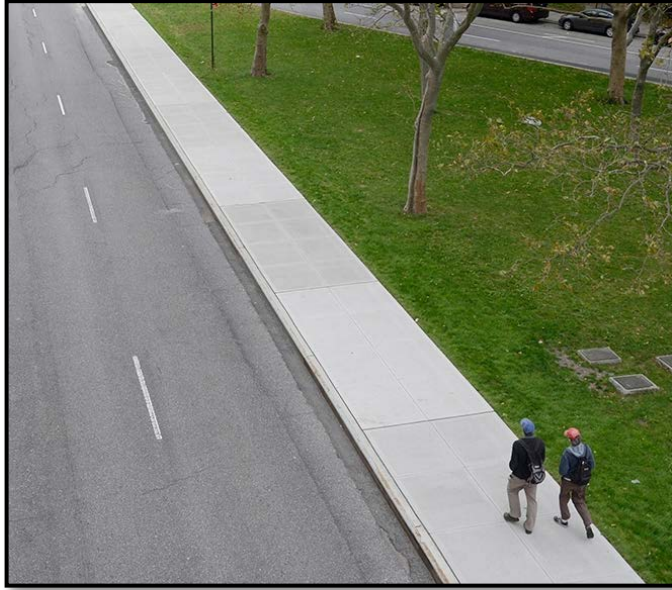


*R27- Install delineators, reflectors, and/or object markers*



*R28 - Install edge-lines and centerlines*

# Roadway Segment Improvements



*R34PB - Install sidewalk/pathway (to avoid walking along roadway)*



*R35PB - Install/upgrade pedestrian crossing (with enhanced safety features)*

# Draft Safety Projects

Project 1: Safety at Signalized Intersections

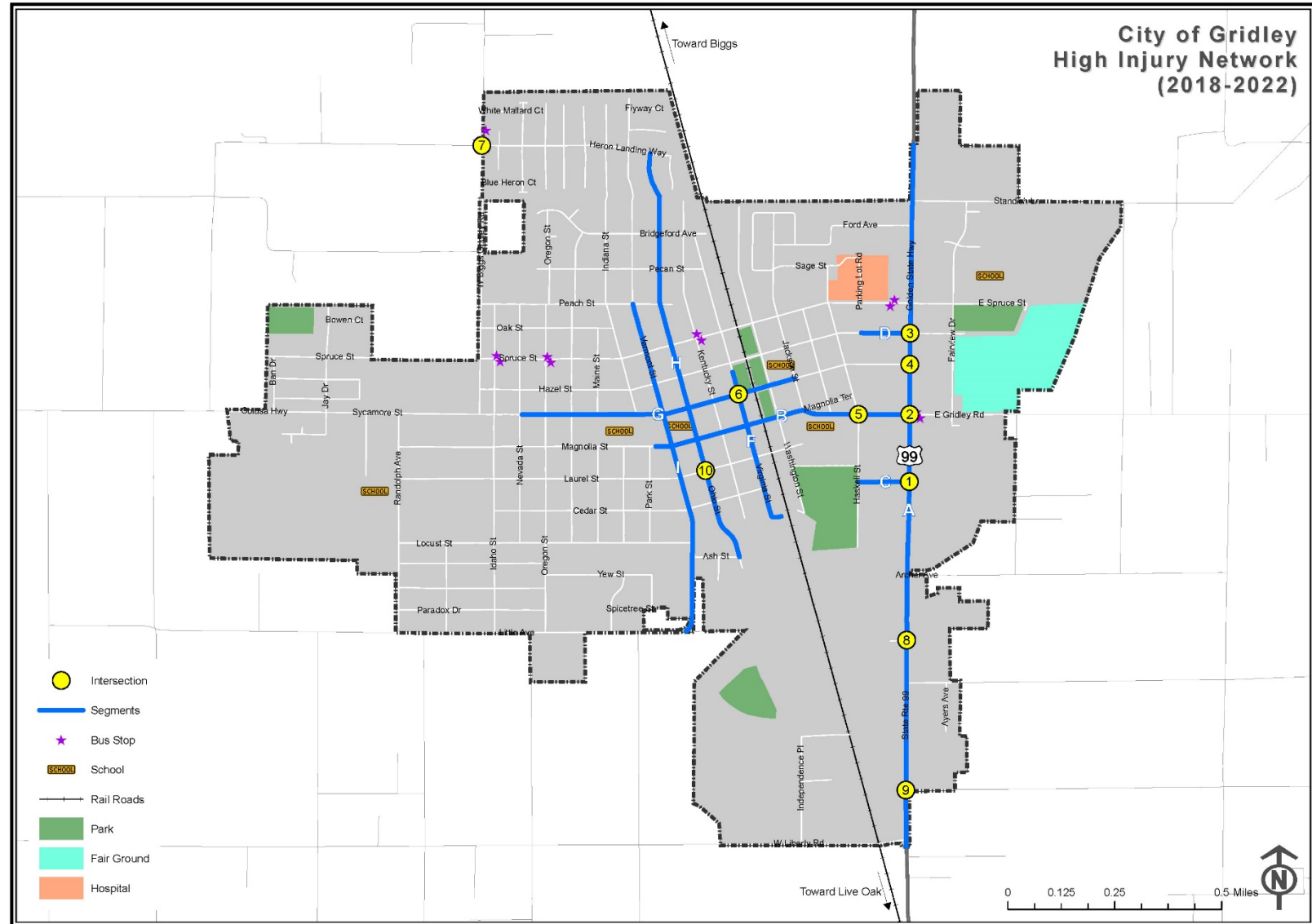
Project 2: Safety at Unsignalized Intersections

Project 3: Safety at Unsignalized Intersections

Project 4: Safety on Roadway Segments

Project 5: Safety on Roadway Segments

Project 6: Safety on Roadway Segments





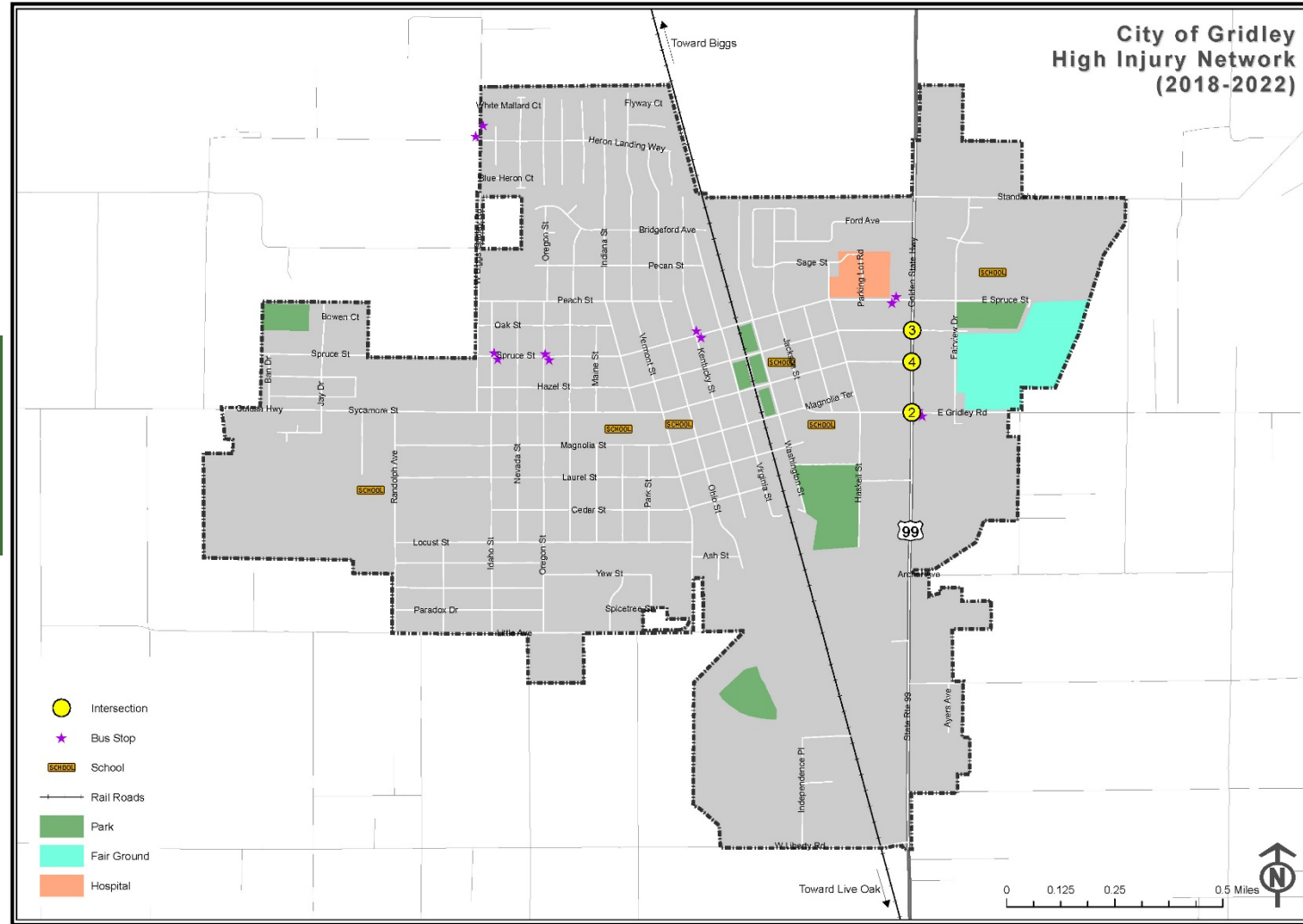
# Project 1: Safety at Signalized Intersections

#	Location	CM 1	CM 2	CM3
2	SR 99 and Magnolia St/E Gridley St	S02	S03	S09
3	SR 99 and Hazel St	S02	S03	S09
4	SR 99 and Sycamore St	S02	S03	S09

**S02** - Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number

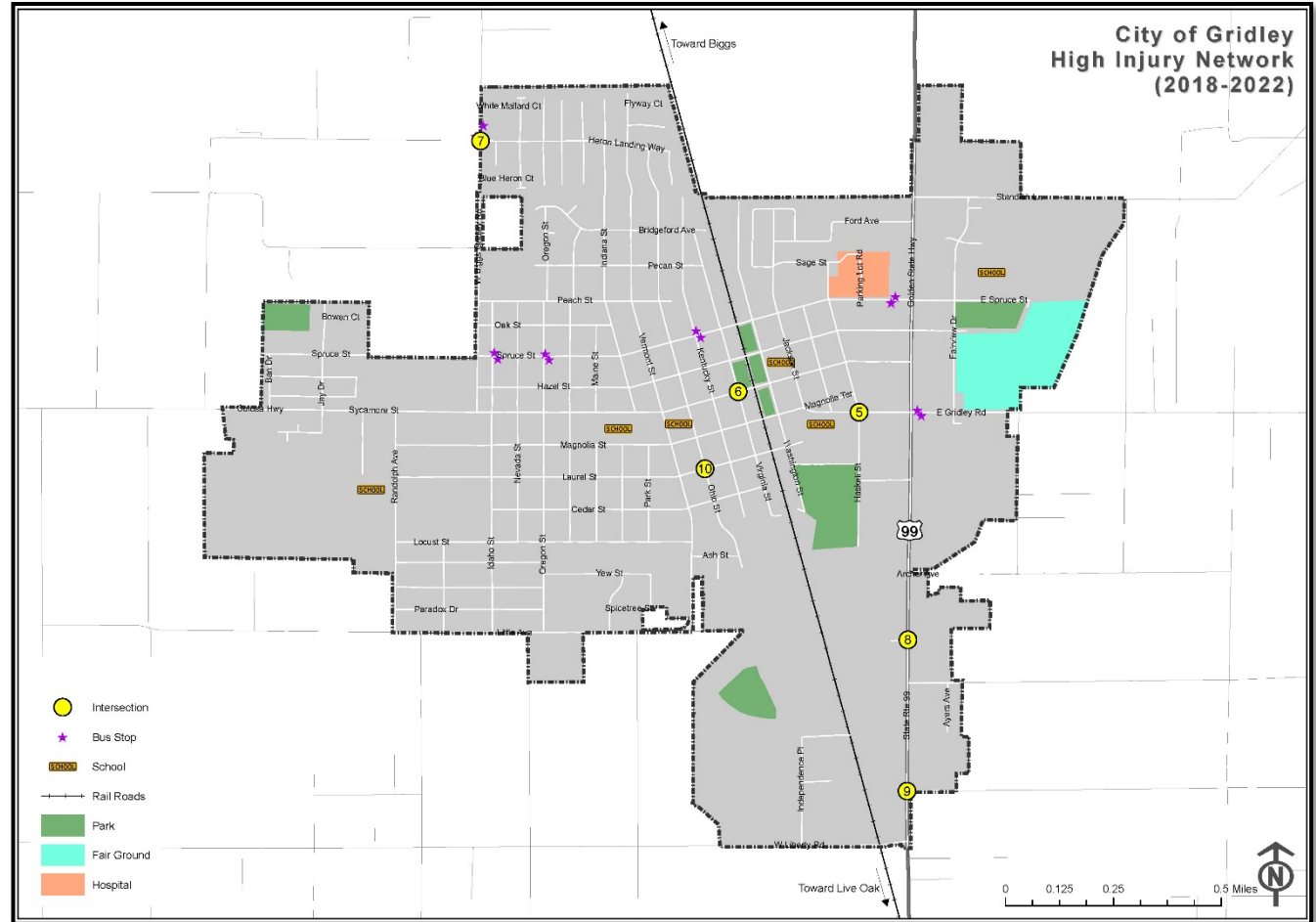
**S03** – Improve signal timing (coordination, phases, red, yellow, or operation)

**S09** – Install raised pavement markers and striping



# Project 2: Safety at Unsignalized Intersections

#	Location	CM 1	CM 2	CM3
5	Magnolia St and Haskell St	NS01	NS02	
6	Sycamore St and Virginia St	NS01	NS02	NS06
7	Heron Landing Way and W Biggs Gridley Rd	NS01	NS02	NS06
8	SR 99 and Evelyn Dr	NS01		NS06
9	SR 99 and Sheldon Ave			NS06
10	Laurel St and Ohio St		NS02	
*	Jackson St and Ford Ave		NS02	NS06
*	SR 99 and Obermeyer Ave	NS01		
*	Virginia St and Pecan St			NS06
*	Kentucky St and Bridgefords Ave			NS06
*	Vermont St and Pecan St			NS06
*	Vermont St and Sycamore St		NS02	
*	Oregon St and Oak St		NS02	NS06
*	Sycamore St and W Biggs Gridley Rd		NS02	
*	Ohio St and Pecan St			NS06
*	Indiana St and Pecan St			NS06

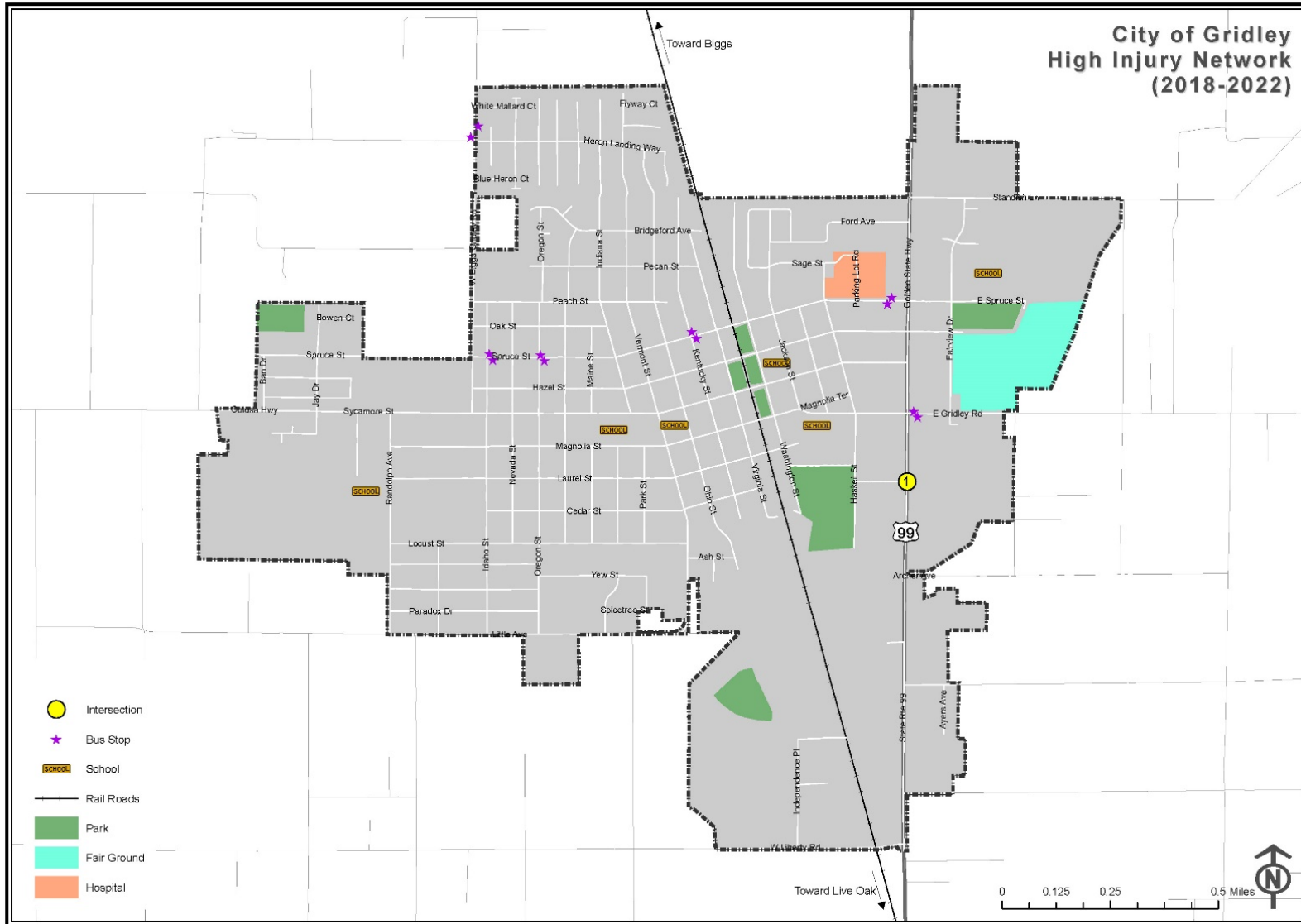


NS01 - Add intersection lighting (NS.I.)  
 NS02 - Convert to all-way STOP control (from 2-way or Yield control)(Warrant Study needed)  
 NS06 - Install/upgrade larger or additional stop signs or intersection warning/regulatory signs  
 \*Locations identified from Community Survey

# Project 3: Safety at Unsignalized Intersections

#	Location	CM 1	CM 2
1	SR 99 and Cherry St	NS03	
*	Obermeyer Ave and Ayers Ave		NS11
*	SR 99 and Obermeyer Ave		NS11
*	Sycamore St and Haskell St		NS11
*	Little Ave and Losser Ave		NS11
*	Indiana St and Spruce St		NS11
*	California St and Spruce St		NS11
*	Sycamore St and Idaho St		NS11
*	Oregon St and Oak St		NS11

**NS03** - Install Signals (subject to Signal Warrant Study)  
**NS11** - Improve sight distance to intersection (Clear Sight Triangles)  
 \*Locations are identified from the community survey comments.



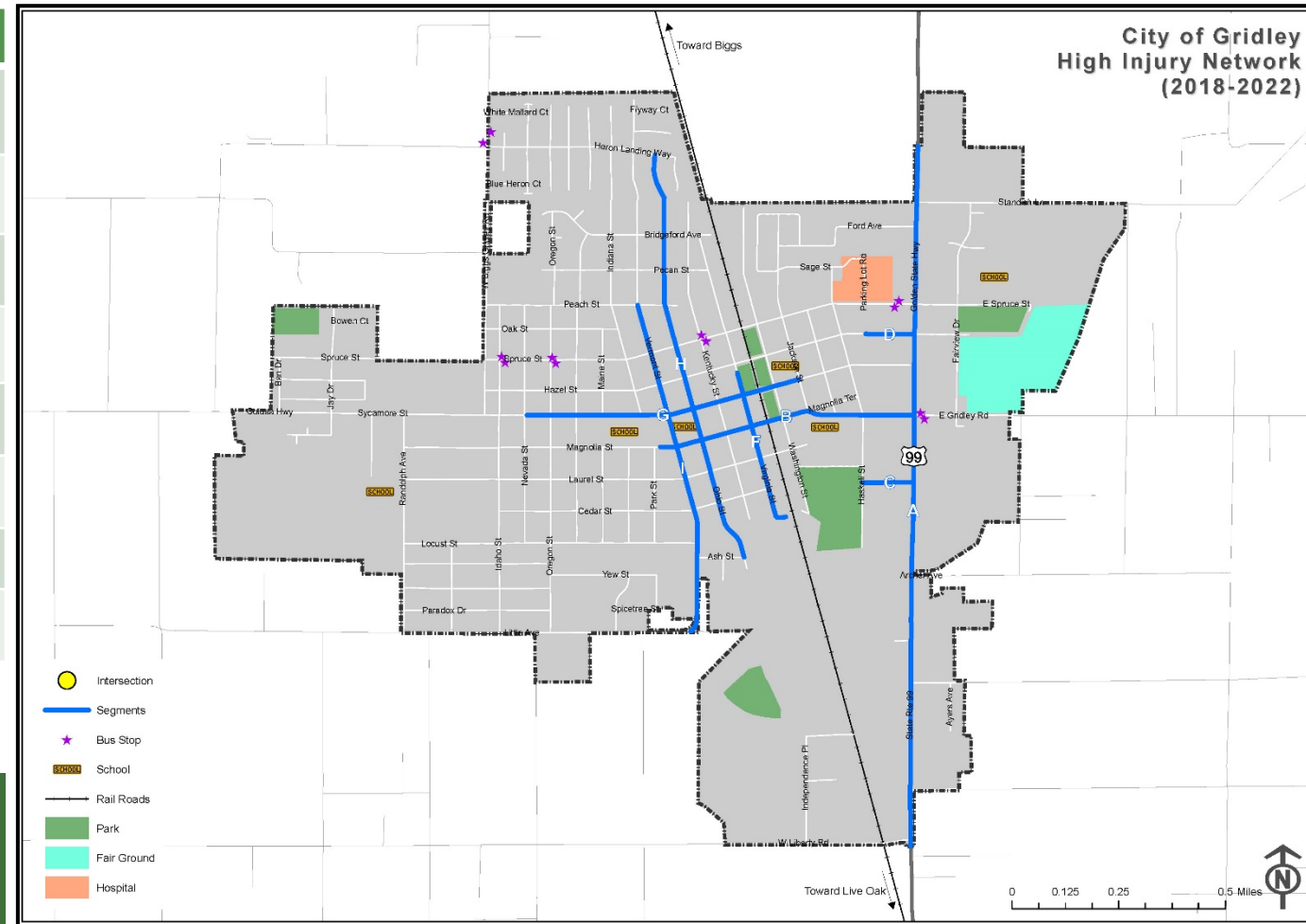
# Project 4: Safety on Roadway Segments

#	Location	CM1	CM2	CM3
A	SR 99: Within City Limits	R01	R22	R27
B	Magnolia St: SR 99 to Park St	R01	R22	R27
C	Cherry St: SR 99 to Haskell St	R01	R22	R27
D	Hazel St: SR 99 to Haskell St	R01	R22	R27
F	Virginia St: Hazel St to 350 ft. south of Cedar St	R01	R22	
G	Sycamore St: Jackson St to Nevada St	R01	R22	R27
H	Ohio St: Heron Landing Way to Ash St	R01	R22	R27
I	Vermont St: Peach St to South City Limit	R01	R22	R27

**R01** - Add Segment Lighting

**R22** – Install/Upgrade signs with new fluorescent sheeting (regulatory or warning)

**R27** – Install delineators, reflectors and/or object markers

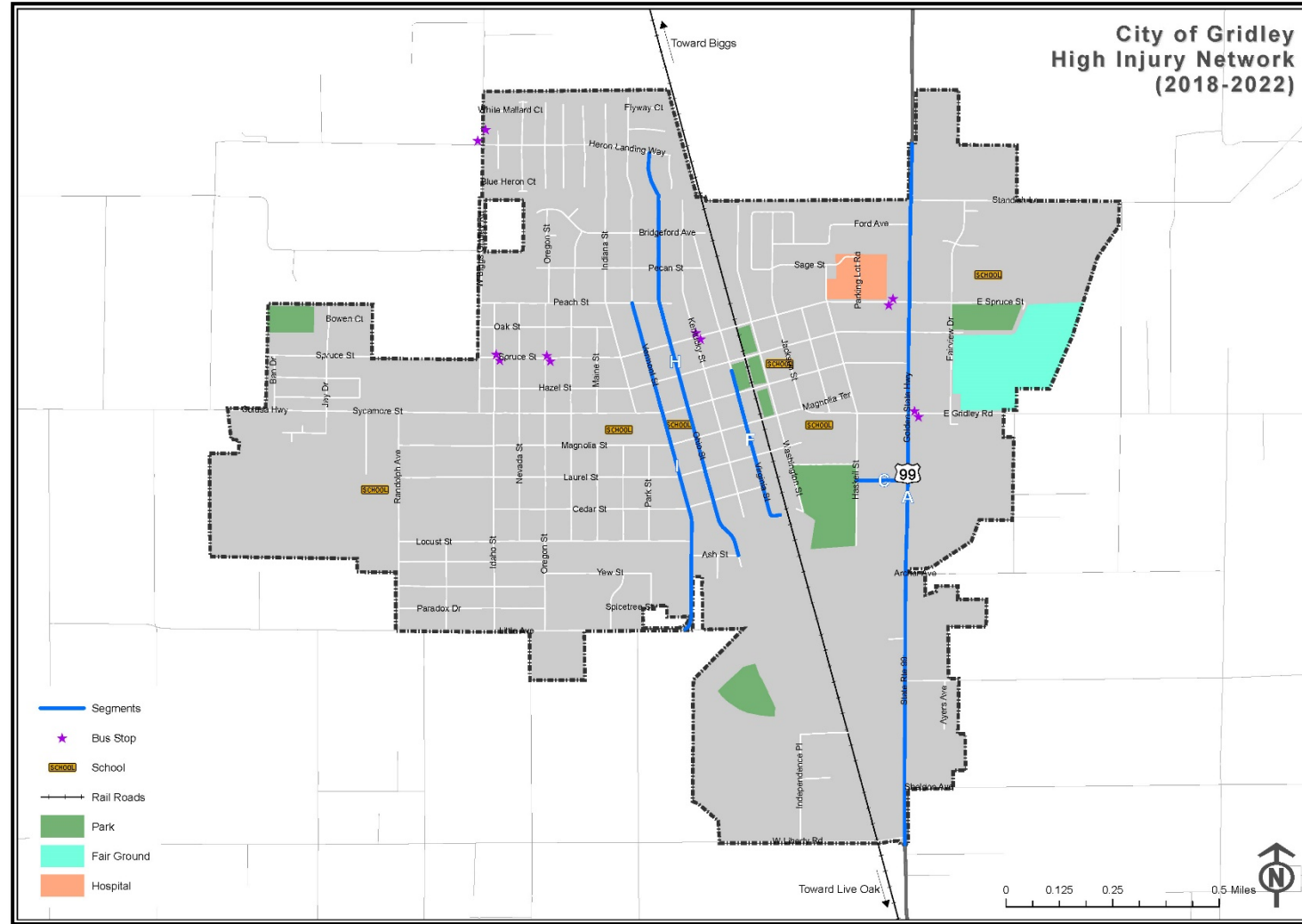


# Project 5: Safety on Roadway Segments

#	Location	CM1	CM2
A	SR 99: Within City Limits	R02	
C	Cherry St: SR 99 to Haskell St	R02	
F	Virginia St: Hazel St to 350 ft. south of Cedar St		R28
H	Ohio St: Heron Landing Way to Ash St	R02	R28
I	Vermont St: Peach St to South City Limit	R02	R28

**R02** - Remove or relocate fixed objects outside of Clear Recovery Zone

**R28** - Install edge-lines and centerlines



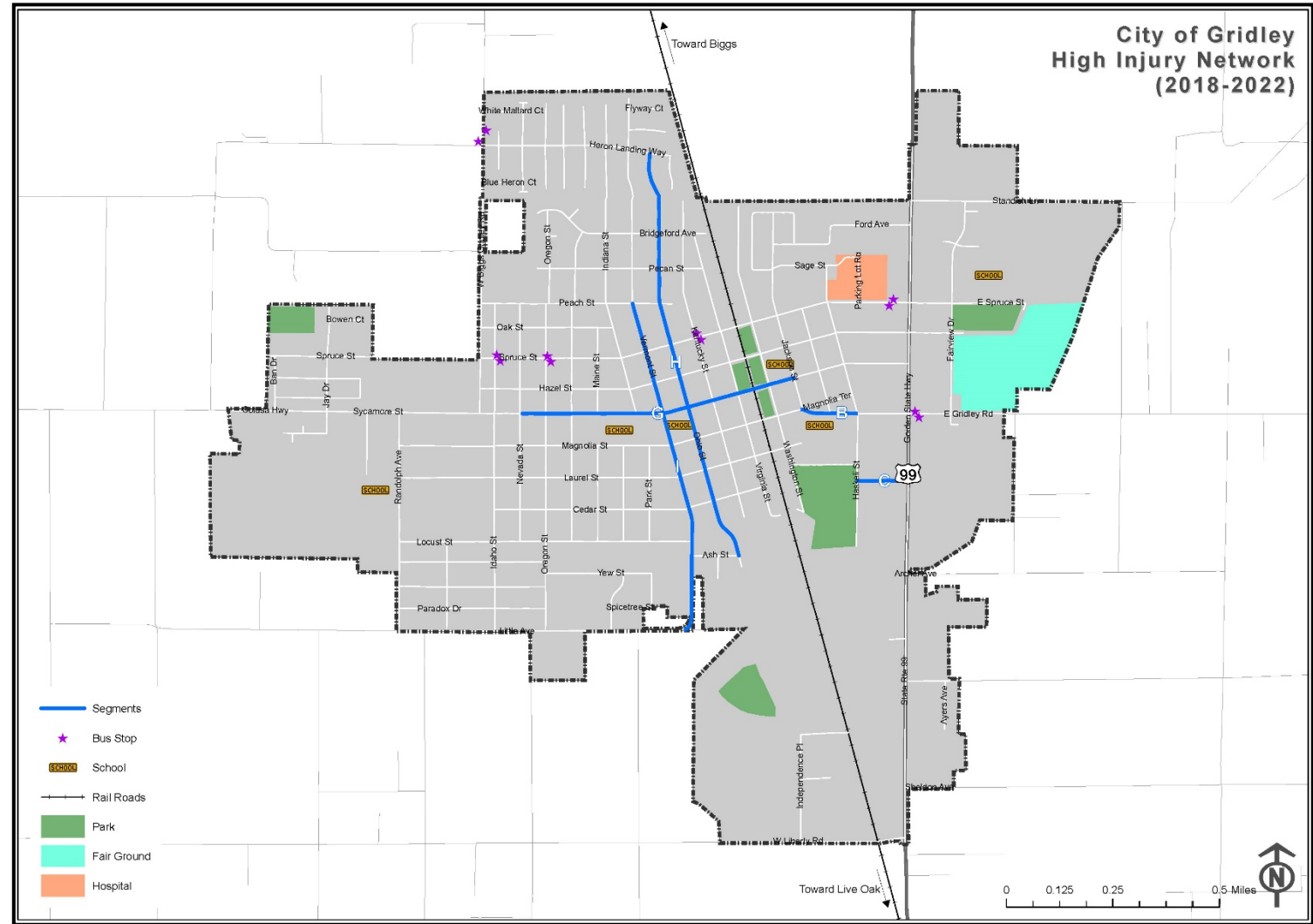
# Project 6: Safety on Roadway Segments

#	Location	CM 1	CM 2
B	Magnolia St: Haskell St to Jackson St		R35PB
C	Cherry St: SR 99 to Haskell St	R34PB	
G	Sycamore St: Jackson St to Nevada St		R35PB
H	Ohio St: Heron Landing Way to Ash St		R35PB
I	Vermont St: Peach St to Little Ave		R35PB
*	E Gridley Road: Fairview Ave and Bonnell Ave	R34PB	
*	Fairview Dr: E Gridley Rd and E Spruce St	R34PB	

**R34PB** - Install sidewalk/pathway (to avoid walking along roadway)

**R35PB** - Install/upgrade pedestrian crossing (with enhanced safety features)

\*TJKM and City Staff Recommendation



# Draft Non Engineering Strategies

- Education

- Conduct public information and education campaign for intersection safety laws, unsafe speeds, distracted driving, improper turning and driving under the influence.
- Conduct bicycle and pedestrian safety campaigns and outreach to raise their awareness of bicycle and pedestrian safety needs through media outlets and social platforms in Gridley every 3-5 years

- Enforcement

- Targeted enforcement at high-risk locations.
- Increase the number of personnel who have completed Advanced Roadside impaired Driving Enforcement (ARIDE) training

- EMS

- Install emergency vehicle pre-emption systems
- Increase the number of EMS/fire control personnel taking Traffic Incident Management Training

- Other

- Prepare a City-wide Traffic Calming Plan

# Discussion





# Next Steps

- Review and Incorporate Feedback
- Cost Estimates and Benefit-Cost Analysis
- Prepare Draft LRSP report
- Present Draft report for review
- Prepare Final LRSP report
- City Council for Adoption

