



Eau Claire Area School District

2022 School Zone Speed Study

Chippewa Valley Safe Routes to School Partnership





Prepared for:

Eau Claire Area School District and
City of Eau Claire

Prepared by:

West Central Wisconsin
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ECASD SRTS Vision Statement

The Eau Claire Area School District and the City of Eau Claire are national leaders with an innovative Safe Routes to School program. Safe and enjoyable environments for walking and biking to and from school are available at all schools. To allow walking and biking as viable options for students, the School District and City collaborate with other community stakeholders in enhancing and increasing interconnected walking/biking systems to and at the schools. Safe walking, biking, and driving habits; a family-oriented SRTS environment; and developments that incorporate SRTS initiatives are common in the City.



Chippewa Valley SRTS Partnership

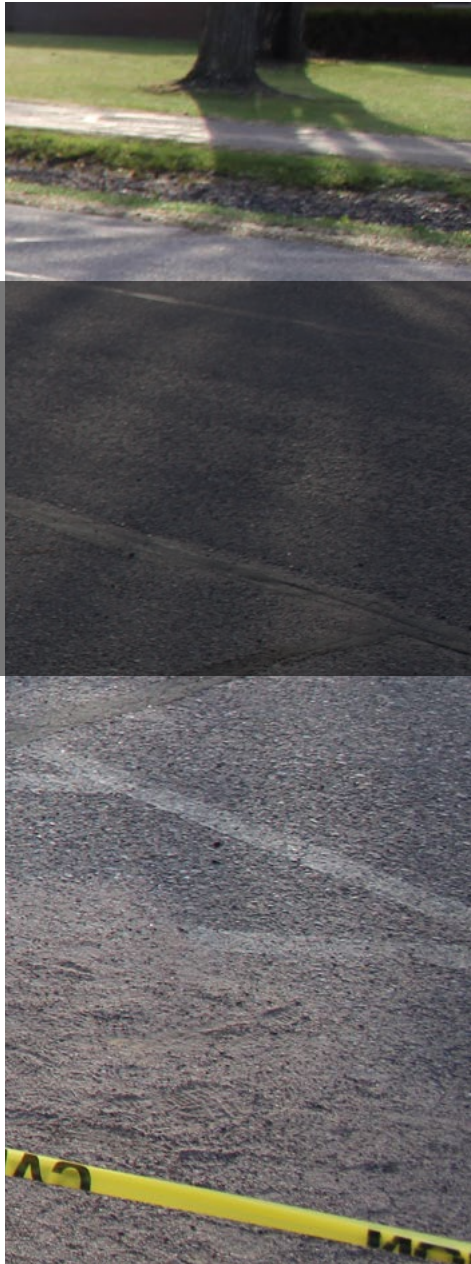
Eau Claire Area School District
Chippewa Falls Area Unified School District
School District of Altoona
West Central Wisconsin Regional Planning Commission



Making it safer and easier for kids to walk and bike to school in the Chippewa Valley



Introduction



Introduction

Speeding is defined as exceeding the posted speed limit or driving too fast for conditions. Speeding is a primary crash causation across the globe and is the number one road safety problem in many countries as it contributes to as many as 1/3 of all fatal crashes. In the United States, 13,000 fatalities per year are caused by speeding-related crashes, according to the National Highway Traffic Safety Administration (NHTSA). Between January 2017 to December 2021, there have been a total of 9 fatal crashes in the City of Eau Claire.

Posted speed limits are one of the most frequently used methods of managing travel speeds and is the responsibility of state and local governments. However, selecting limits can cause conflict between a community. Residents of communities often want lower speed limits as it promotes higher quality of life, and increased security for pedestrians and cyclists. On the other hand, vehicle users sometimes seek higher limits to minimize travel time. Therefore, the goal of setting an appropriate speed limit is finding the balance between increased safety and retaining reasonable mobility.

School Zone Speed Limits

Reduced speed limits should be considered for school zones during the hours when children are going to and from school. In many cases, this also includes when crossing-guards are present. School-aged pedestrian activity should be the primary basis for implementing reduced school zone limits.



Chippewa Valley Safe Routes to School Partnership

According to the Federal Highway Administration (FHWA), school zone speed limits should be based on an engineering study and traffic investigation. The investigation looks at factors such as existing traffic control, whether school cross walks are present, the type and volume of vehicular traffic, the ages and volume of school children likely to be present, and the location of children likely to be present. In an engineering study, the following are the factors considered:

- » Fencing around school property;
- » Number and size of gaps in traffic for school-age pedestrians to cross the street;
- » Presence of crossing guards;
- » Average pedestrian demand per appropriate gap;
- » Student enrollment at school
- » Location of school property; and
- » Presence of sidewalks

Background

In 2018, the Eau Claire Area School District (ECASD) completed a Safe Routes to School Plan. During the planning process, parents were asked to complete a survey that allowed them to express their concerns about allowing their child to walk or bike to/from school. Of the 1,313 surveys returned, 40 percent of responses indicated that speed of traffic along designated routes is a concern. Speed of traffic was in the top three reasons why parents do not allow their child to walk or bike to/from school. As to be expected, parents also responded that if these issues were fixed, they would be more likely to let their children walk or bike (38 percent). The table on the right breaks down the percent of parents that find speeding an issue and solution by each school (except South Middle School) in the district.

	Schools	Issue	Solution
60%+	DeLong	43%	51%
	Flynn	45%	56%
	Lakeshore	42%	62%
50-60%	Locust Lane	41%	17%
	Longfellow	59%	32%
40-50%	Manz	48%	30%
	Meadowview	42%	28%
	Memorial	23%	30%
60%+	Montessori	46%	32%
	North	31%	37%
	Northwoods	50%	50%
50-60%	Northstar	35%	53%
	Putnam Heights	33%	37%
40-50%	Robbins	48%	41%
	Roosevelt	47%	46%
	Sam Davey	34%	53%
	Sherman	37%	40%



Purpose

Of all the morning and afternoon commuters, children who walk or bike to/from school are the most vulnerable. As indicated in the previous section, parents' concerns about traffic speed are not without reason. In the City of Eau Claire, over a five-year time period (2012-2016), there were 220 total reported crashes involving a pedestrian or bicyclist. Of the 220 crashes, 45 involved school-age children between 5 and 18 years of age, 21 occurred on a school day between 6:30am-4:30pm. This information is shown on the right.

Procedure

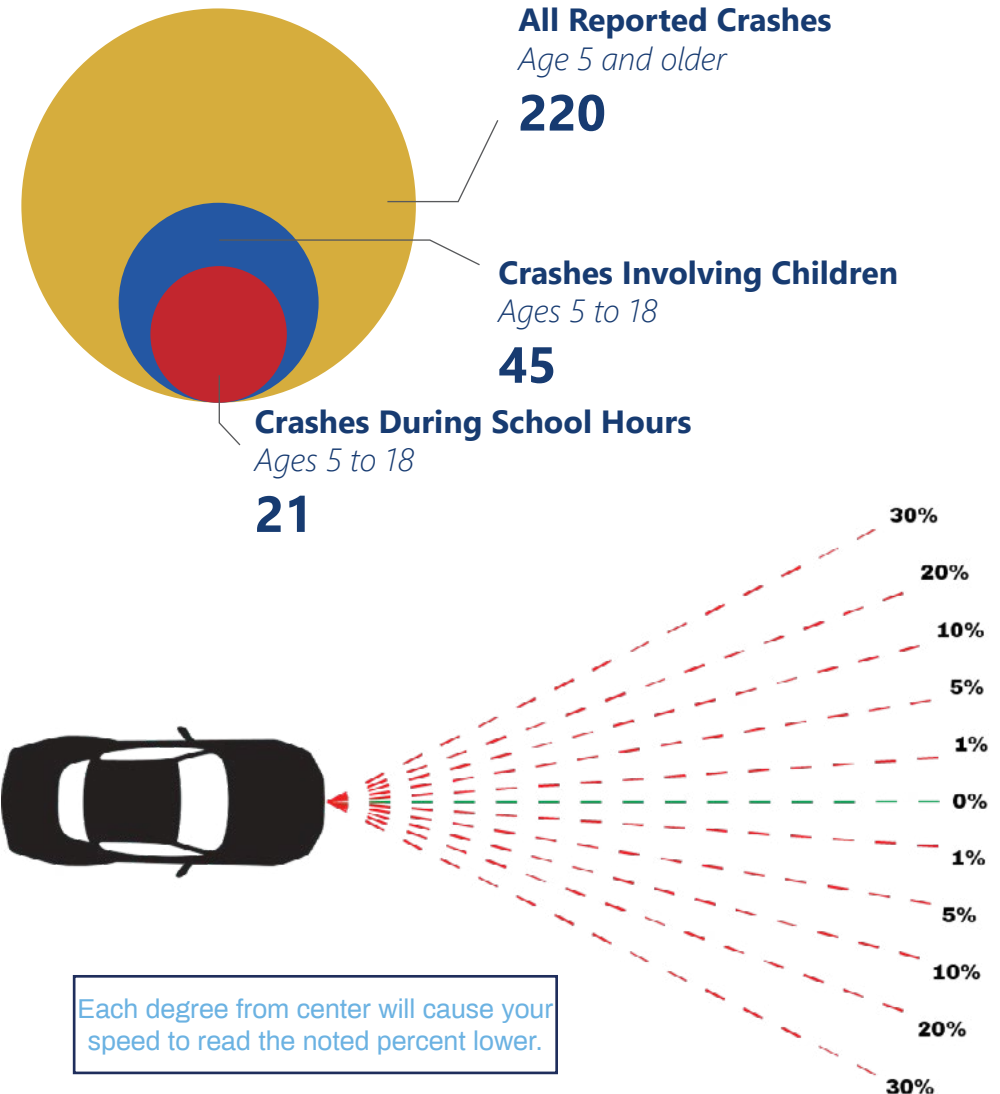
In Fall of 2021, the West Central Wisconsin Regional Planning Commission (WCWRPC) purchased two speed detecting radar devices. With these devices, staff can conduct studies and collect data about speeds travelled by commuters. These devices are able to monitor constant and instant speed of vehicles and can measure up to 1/2 mile for cars. The larger the object, the greater the reflected signal and therefore the longer the range.

When collecting data, it is important to take into consideration COSINE error, which is a mathematical function that allows one to calculate the exact speed versus angle at which it was measured. The measured speed will always read lower than the actual speed if you move away from the center line of the intended object. The graphic on the right shows these percent errors for a given angle between the radar beam and the moving object. For this study, the error was added to get the actual measured speed when needed.

All data was collected at a time when students and/or crossing guards were present (drop off and pick up times). This is generally about 30 minutes before and after school start and release times. Most of the elementary schools in the ECASD have adult crossing guards at busy intersections. All elementary schools in the district

CRASHES INVOLVING PEDESTRIANS OR BICYCLISTS

2012 through 2016



Chippewa Valley Safe Routes to School Partnership

also have a student safety patrol program in which fifth-graders help other students cross in high-traffic areas. Middle schools and high schools do not have crossing-guards.

For this study, there were criteria followed as to which vehicles were monitored.

- » Vehicles need to be traveling a constant speed (i.e. not speeding up or slowing down);
- » No buses, utility vehicles, motorcycles or any other type of motorists. Only automobiles.
- » Vehicles were only monitored traveling one direction and always in an area where they were entering or in a school zone.

It is important to note that traffic volumes vary widely from school to school. Some schools are located in areas along streets with higher traffic volumes than others. Also, the schools in the district release and start at varying times. The start times are as early as 7:30am and as late as 8:45am. Dismissal times range from 2:51pm to 3:45pm. This means that normal rush hour traffic is going to fluctuate from school to school. After data was collected, they were entered into a spreadsheet to find the average speed travelled.

Results

Out of 824 vehicles that were monitored, only 24 were traveling

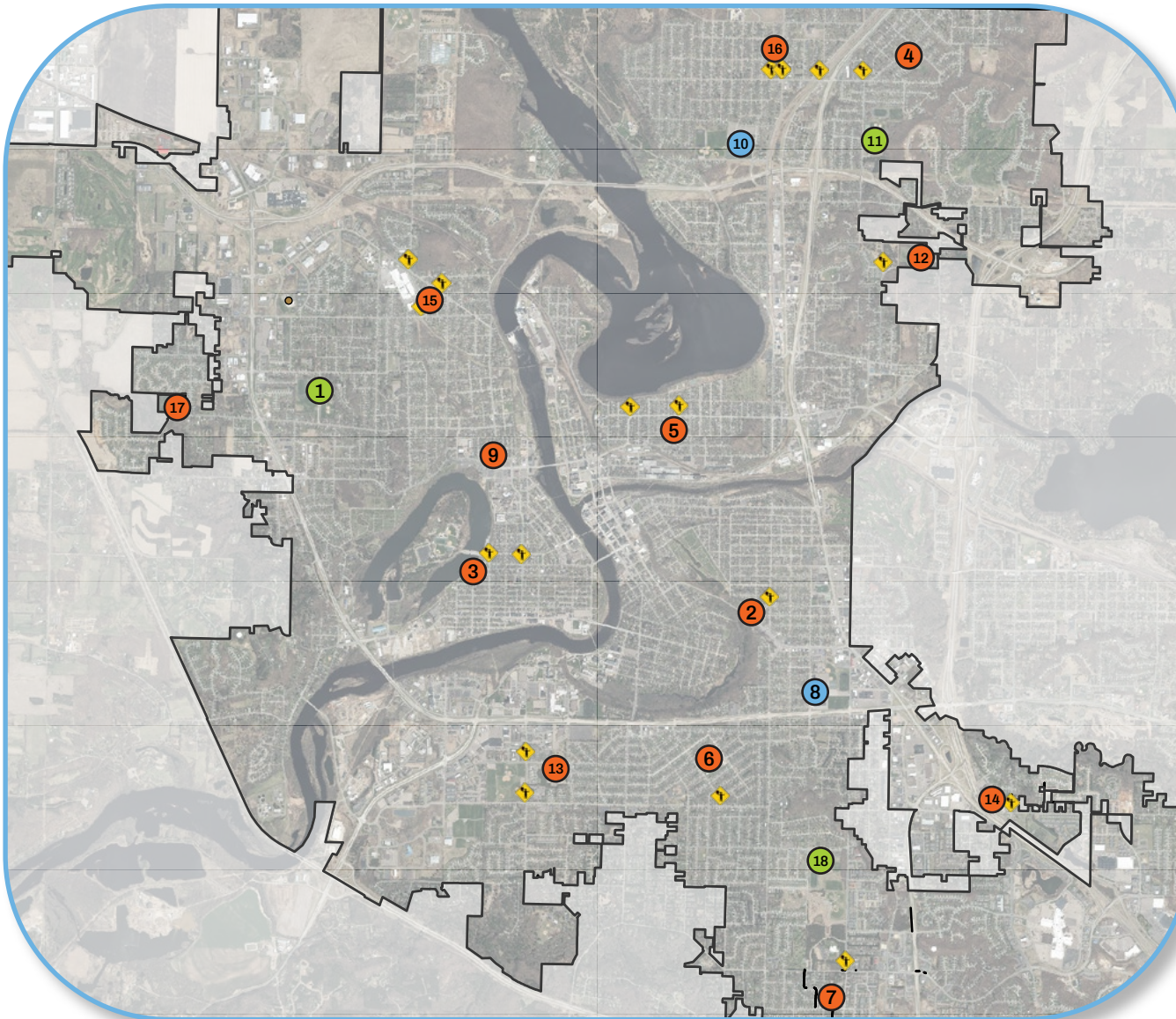
15 miles and hour or less. This comes out to just **3 percent** of vehicles in the City of Eau Claire that were passing while passing through a school zone while students or crossing guards were present.

School	Average Speed Traveled
DeLong	27
Flynn	27.5
Lakeshore	30.7
Locust Lane	28.3
Longfellow	27.6
Manz	20
Meadowview	24
Memorial	25
Montessori Charter	20.5
North	26.7
Northstar	27.9
Northwoods	28.6
Putnam Heights	24
Robbins	27.4
Roosevelt	25
Sam Davey	24.8
Sherman	21.6
South	28
District Average	26.1



School Locations

1. Delong Middle School
2. Flynn Elementary School
3. Lakeshore Elementary School
4. Locust Lane Elementary School
5. Longfellow Elementary School
6. Manz Elementary School
7. Meadowview Elementary School
8. Memorial High School
9. Monessori Charter School
10. North High School
11. Northstar Middle School
12. Northwoods Elementary School
13. Putnam Heights Elementary School
14. Robbins Elementary School
15. Roosevelt Elementary School
16. Sam Davey Elementary School
17. Sherman Elementary School
18. South Middle School



Adult Crossing Guard Location



Elementary Schools



Middle Schools



High Schools



Existing Conditions



Existing Conditions

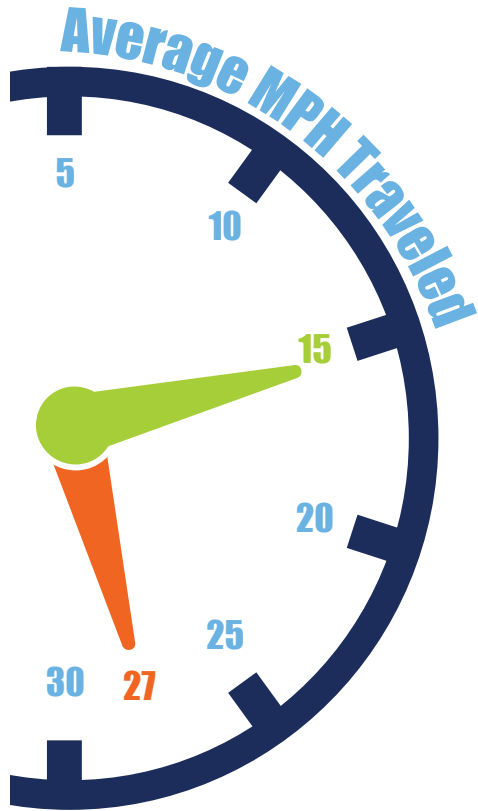
As stated in the previous section, it was found that only **3 percent** of vehicles that were passing through a school zone while students or crossing guards were present were traveling at or below the required 15 mile per hour speed limit.

On the following pages, you will find a variety of data for each school in ECASD. There are three things shown for each school. 1) A bar graph of all the vehicle speeds collected, 2) A speedometer showing the difference between the speed vehicles should be traveling (15mph) and the average speed travelled, and 3) the braking distance for a car traveling 15mph compared to the average speed travelled. The braking distance is the distance it takes for a car to come to a complete stop with a 2 second reaction time.



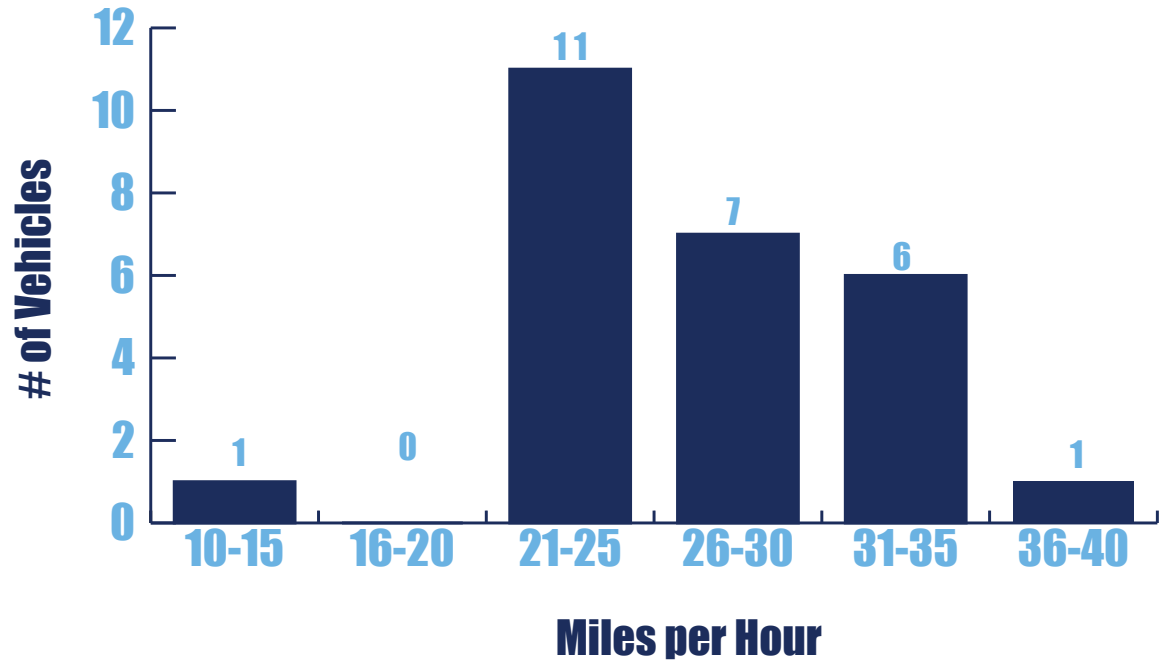


Delong Middle School

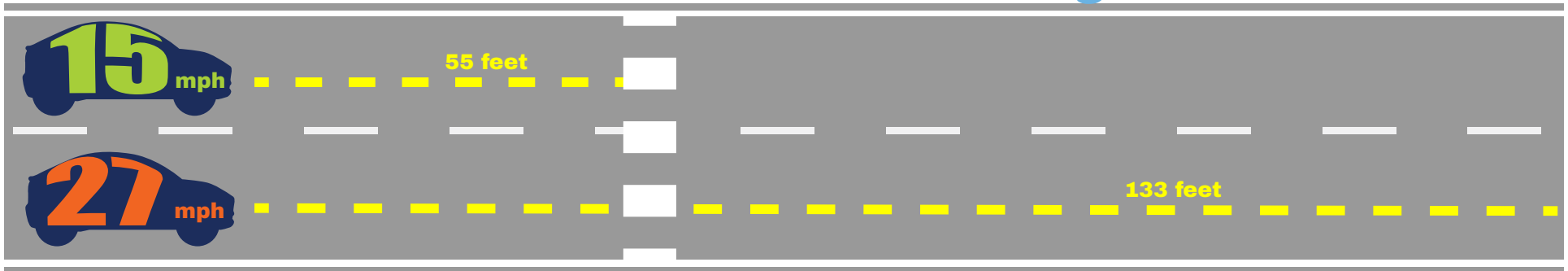


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance

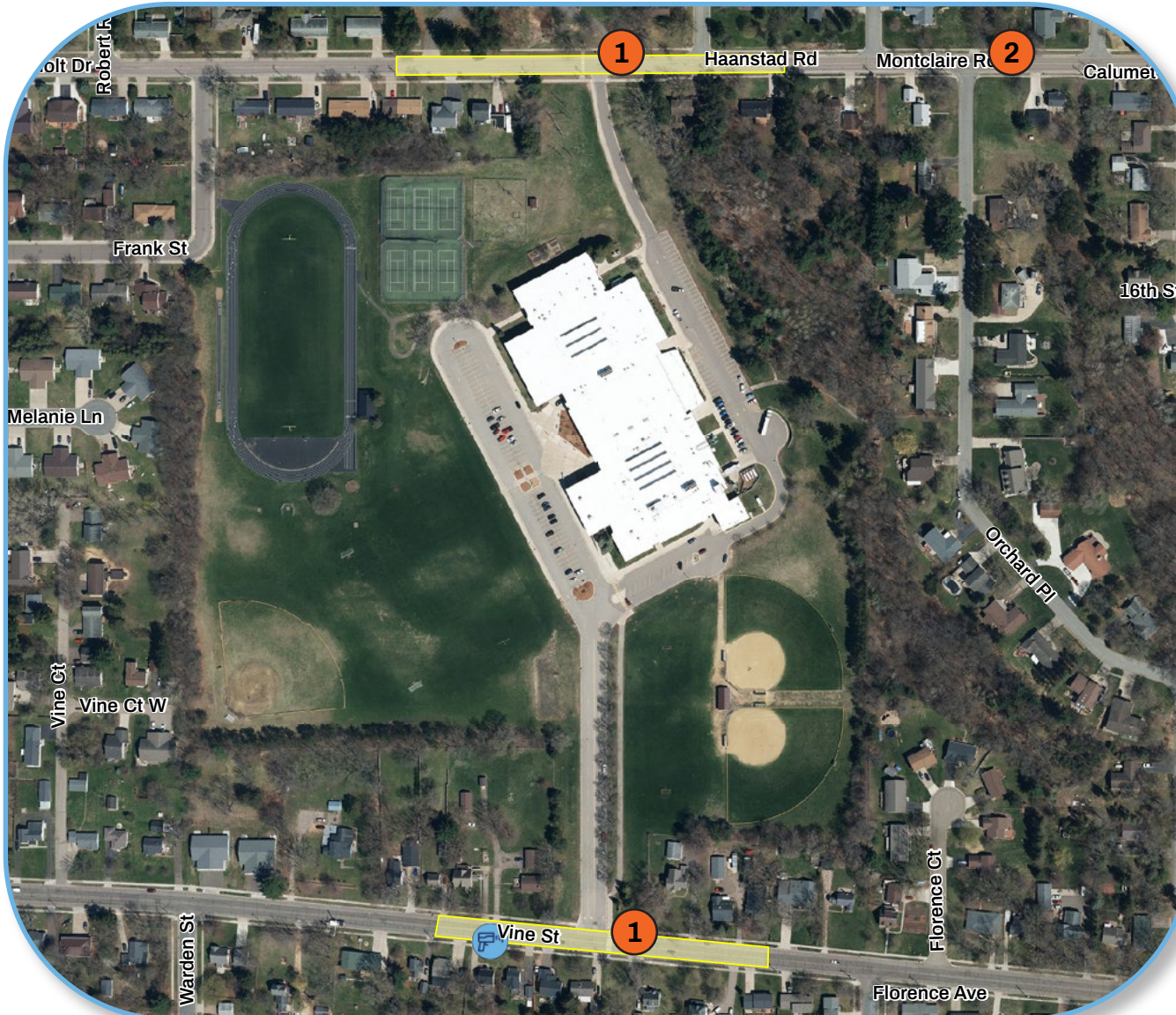


*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: Vine St.



 School Zone



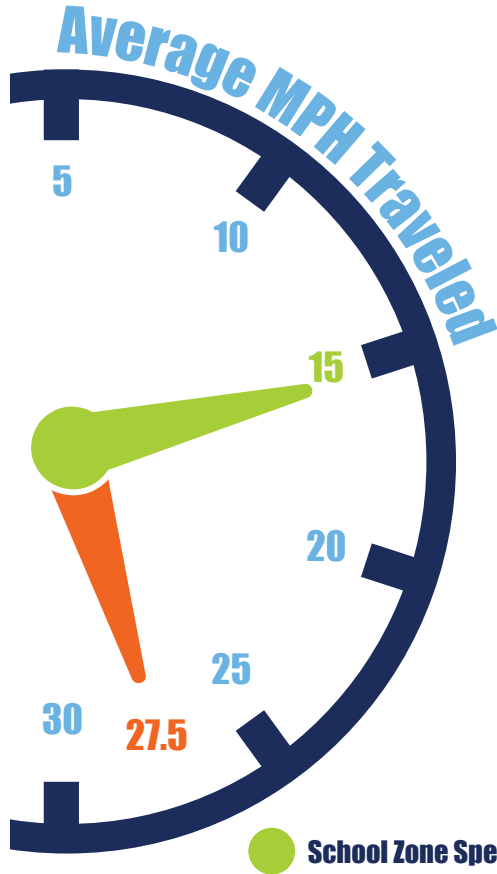
Study Location

Traffic Calming Strategies to Explore

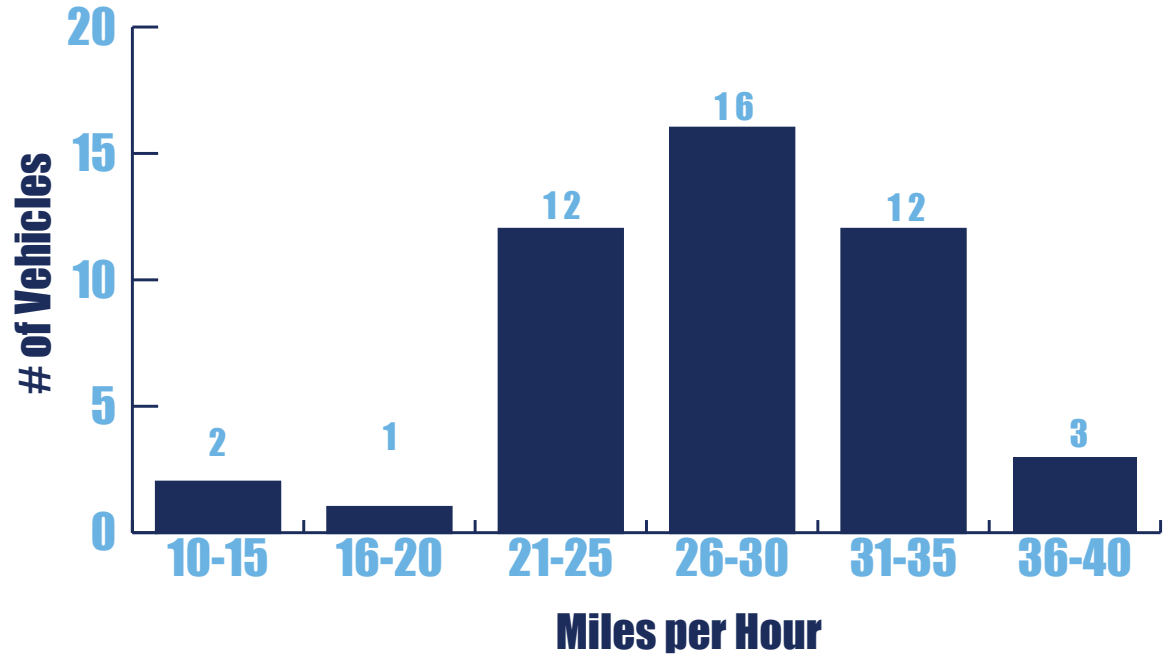
1. Bumpouts - The crossings on Vine St. and on Moholt Dr. are uncontrolled and on high traffic streets. Bumpouts create narrower driving lanes and a shorter crossing for pedestrians.
2. Extend school zone - Moholt Dr. has a very large hill. Vehicles traveling westward do not see school zone sign until on the crest of the hill (Mont Claire Rd.) Relocating the school zone sign to the east of Mont Claire Rd. would allow for more reaction time to the slower speed zone.
3. Flashing School Zone signs - Upgrading school zone signs to flashing with amber lights would help motorist better decipher when the speed limit is in effect.
4. Reduce speed limits - the speed limits on Vine and Moholt are both 30 mph. Reduce the speed limits to 25 mph.



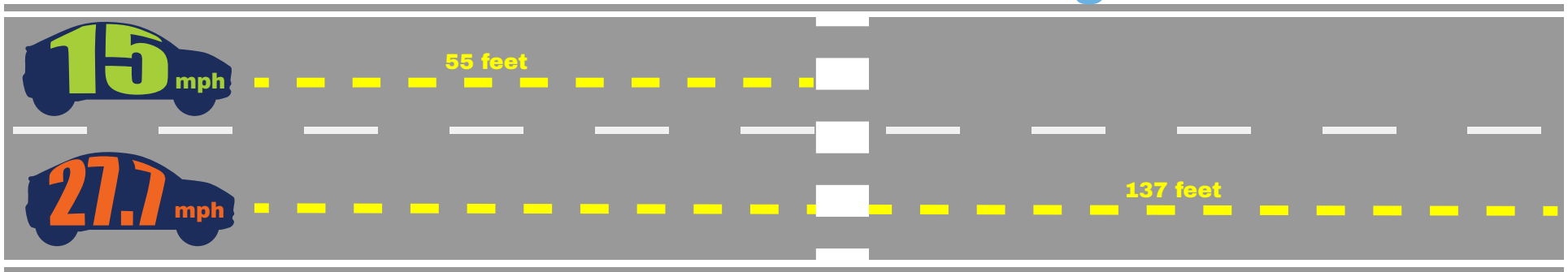
Flynn Elementary School



Vehicle Speeds



Braking Distance

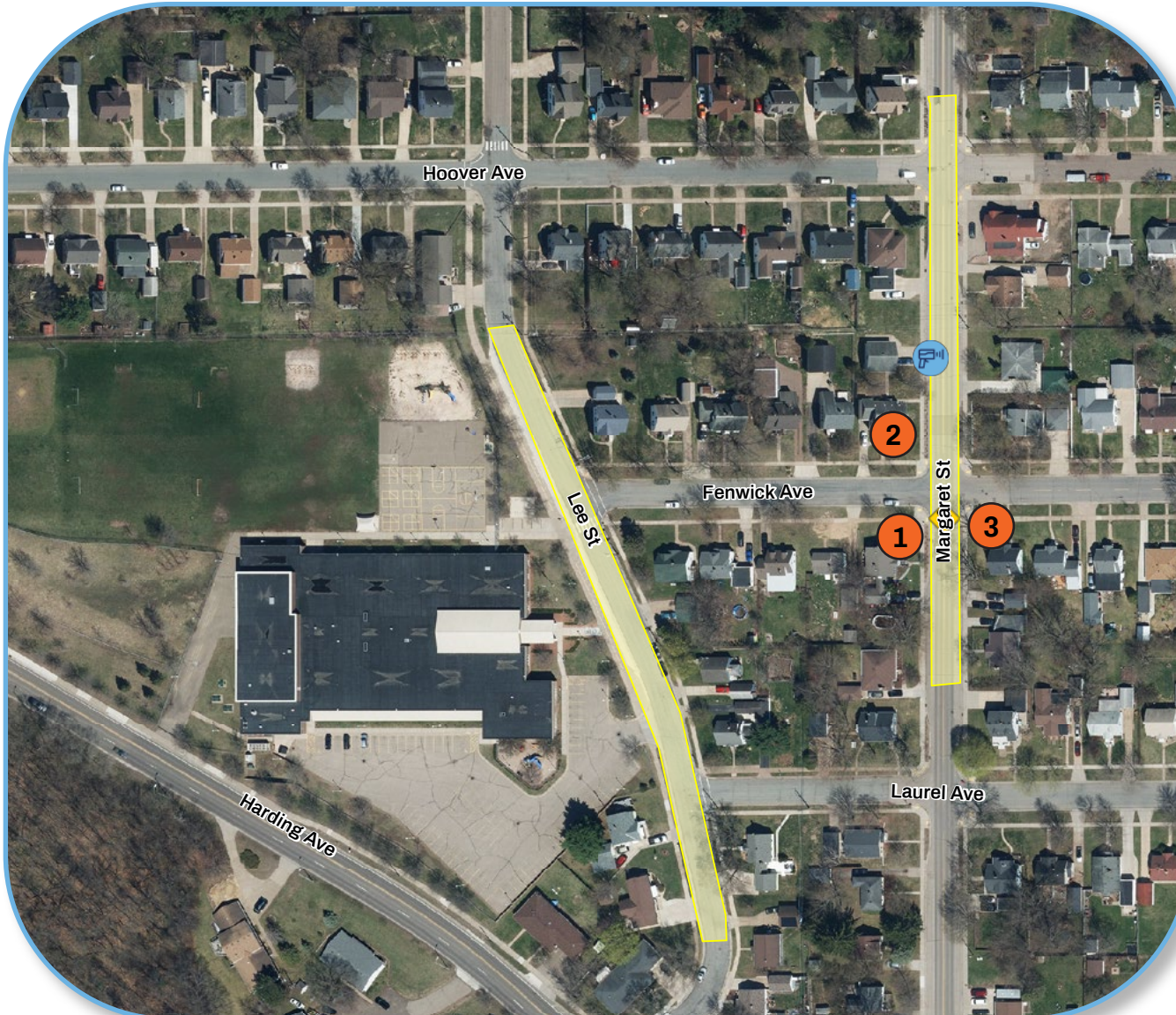


*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
25

Location: Margaret St.



Traffic Calming Strategies to Explore

1. Extend curb concrete - visually narrowing the lane width by extending the concrete towards the center of the road does not physically narrow street widths, but gives the perception that the road is narrower than it actually is.
2. Install flashing pedestrian crossing signs at Fenwick and Margaret - This is where the adult crossing guard for the school is located. These flashing signs could be activated only during times when students are going to and from school.
3. Use safety green traffic cones to narrow lane width at Margaret and Fenwick - This will cause drivers to slow their vehicles to fit between the narrowed lane.

 School Zone

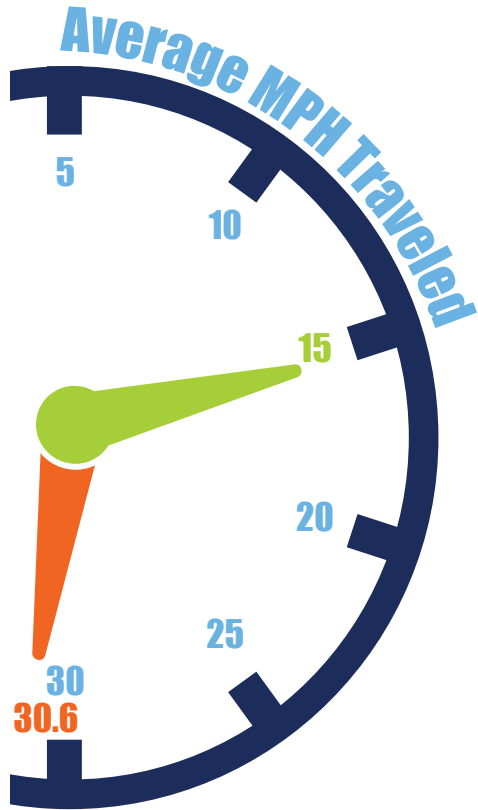
 Study Location



Lakeshore Elementary School

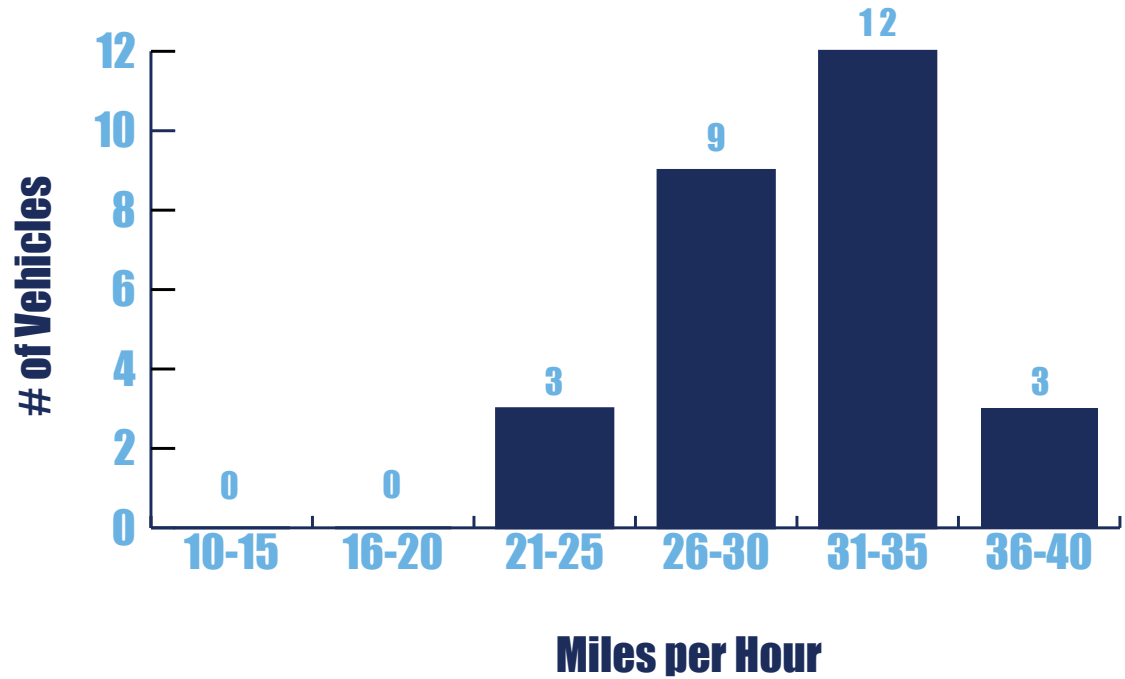


**LAKESHORE
ELEMENTARY**

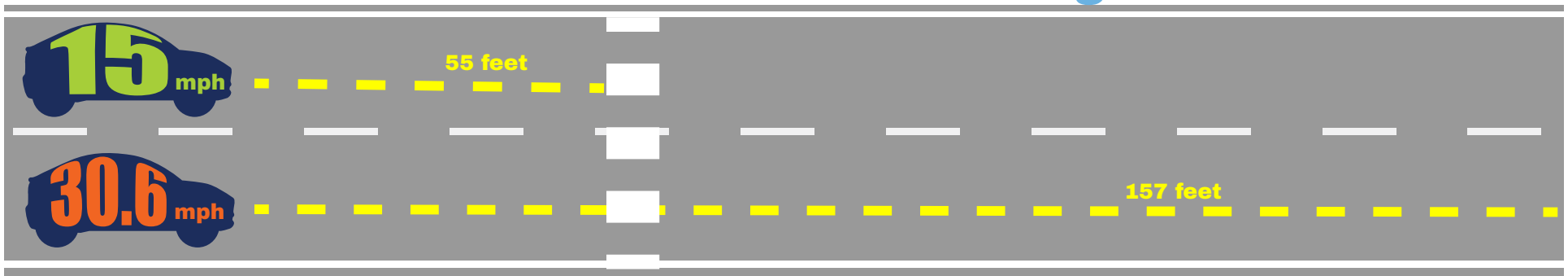


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance

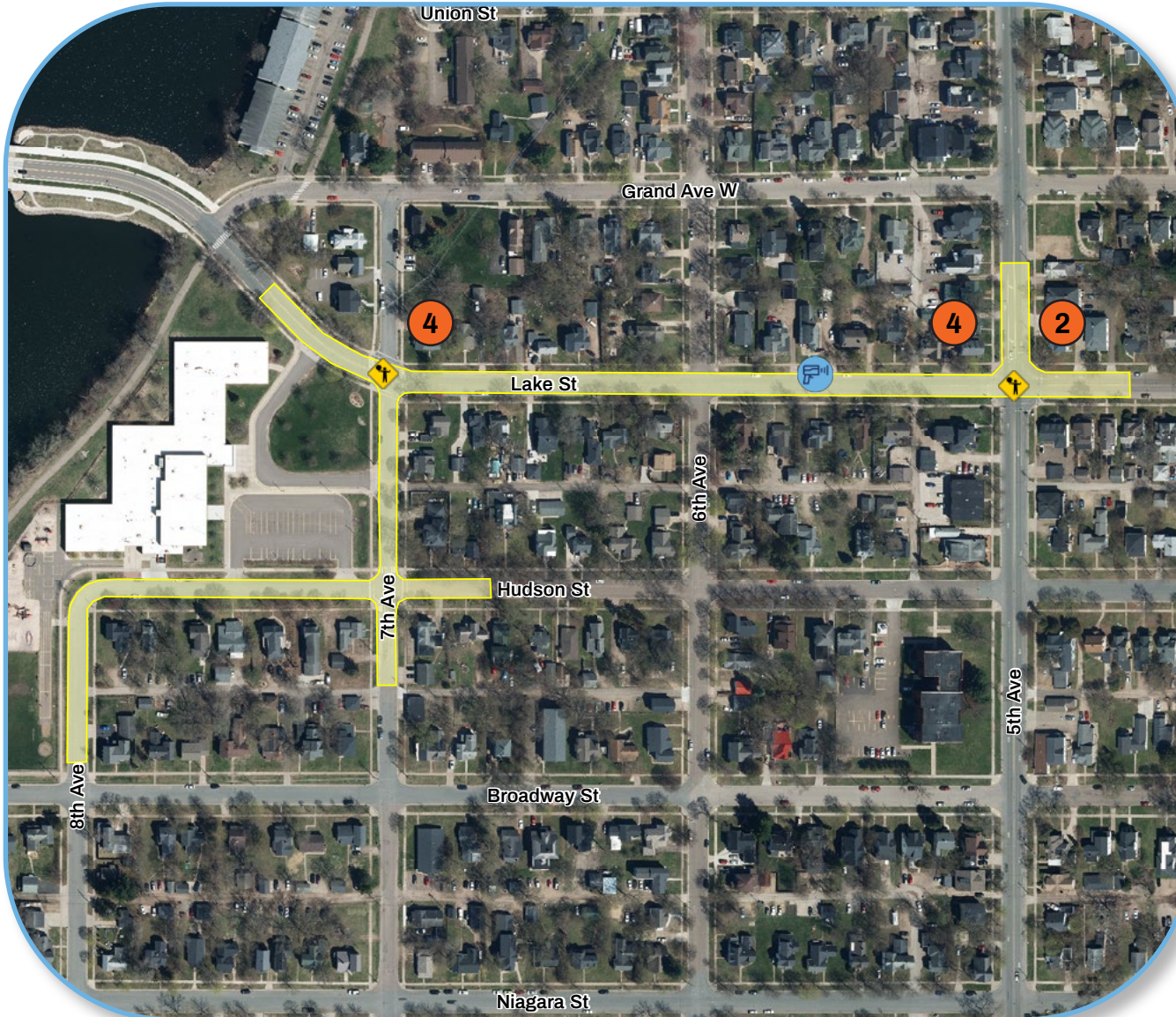


*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
25

Location: Lake St.



Traffic Calming Strategies to Explore

1. Reduce Speed Limit - Reducing the speed limit on 5th from 30 to 25 mph would lower the degree at which cars need to slow down for the school zone limit of 15 mph.
2. Install new pedestrian and bicyclist friendly traffic control on Lake and 5th. Options include
 - » Roundabout
3. Install flashing School Zone signs - These would flash only in the morning and afternoon when children are most likely to be traveling to and from school.
4. Extend school zone south of 5th.
5. Install bumpouts at:
 - » 7th and Lake
 - » 5th and Lake

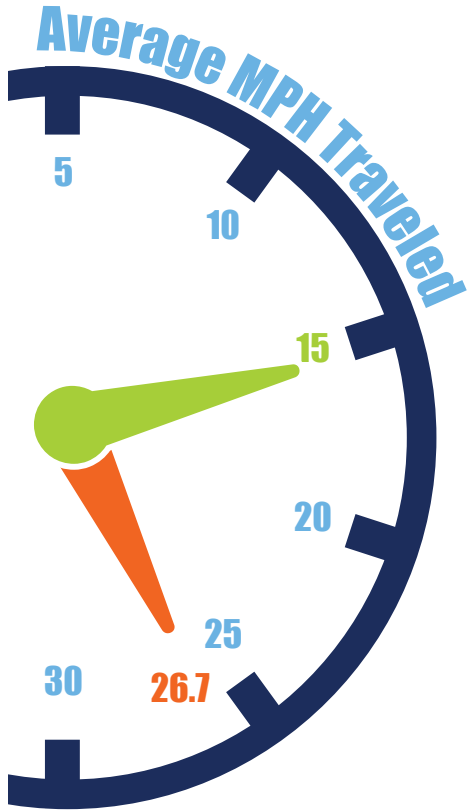
 School Zone



Study Location

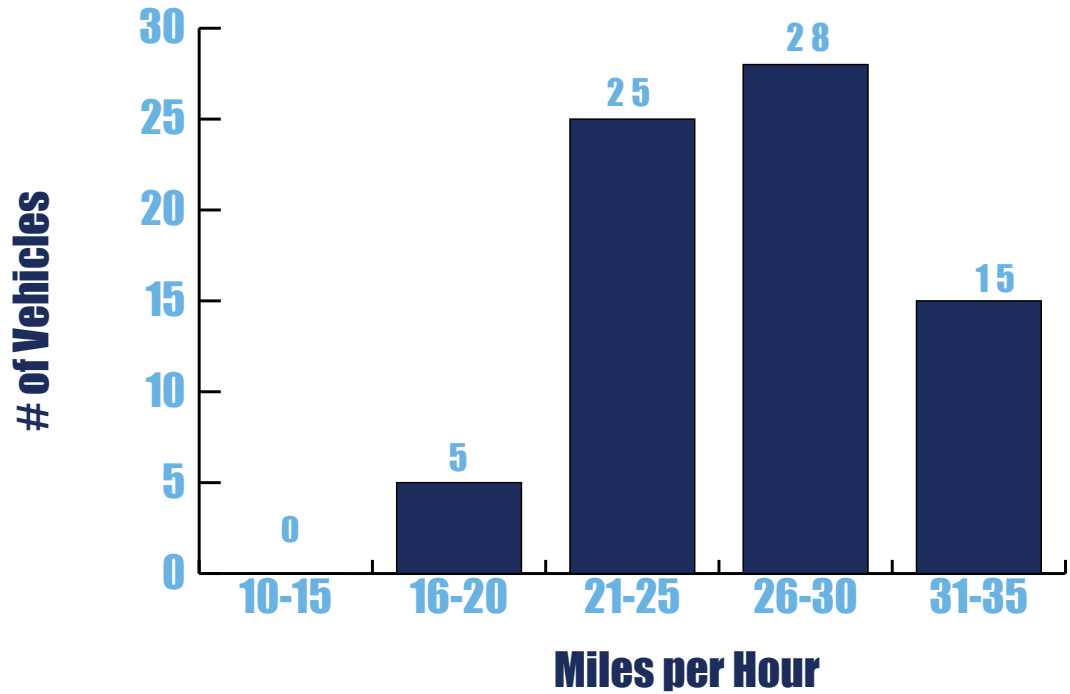


Locust Lane Elementary School

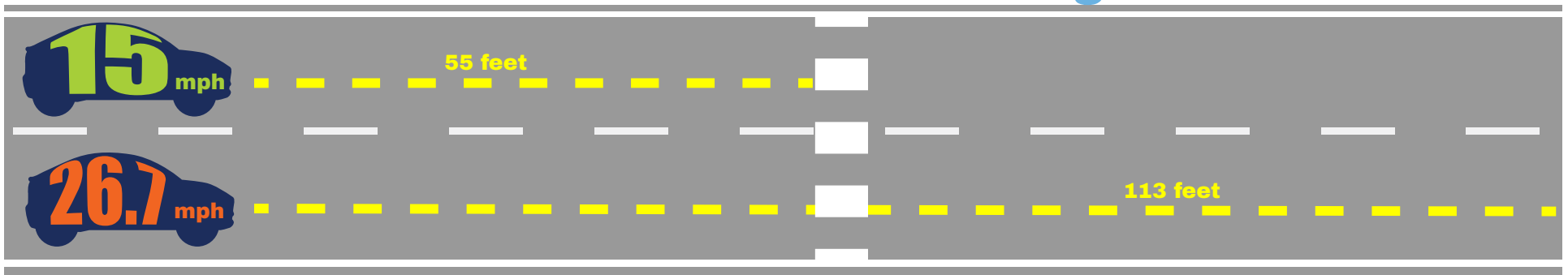


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance



*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: Locust Ln.



Traffic Calming Strategies to Explore

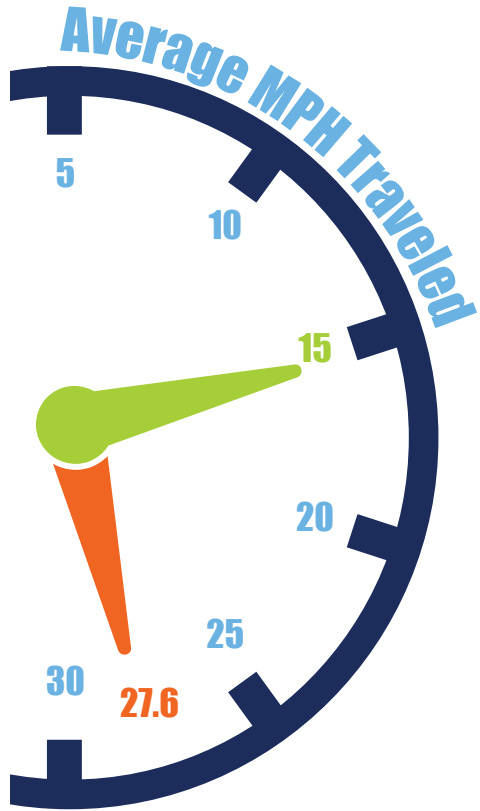
1. Reduce speed limit - The speed limit on Locust is 30 mph. Decreasing the speed to 25 mph will decrease the amount needed to slow down to 15 mph.
2. Install bumpouts or pedestrian refuges - There are two pedestrian crossings in front of the school that are used often by students. Also at the Locust and Porter crossing
3. Visually narrow driving lanes - Options include:
 - » Painting fog lines/parking lanes
 - » Extending curb concrete
4. Install bike lanes along Locust.

 School Zone

 Study Location

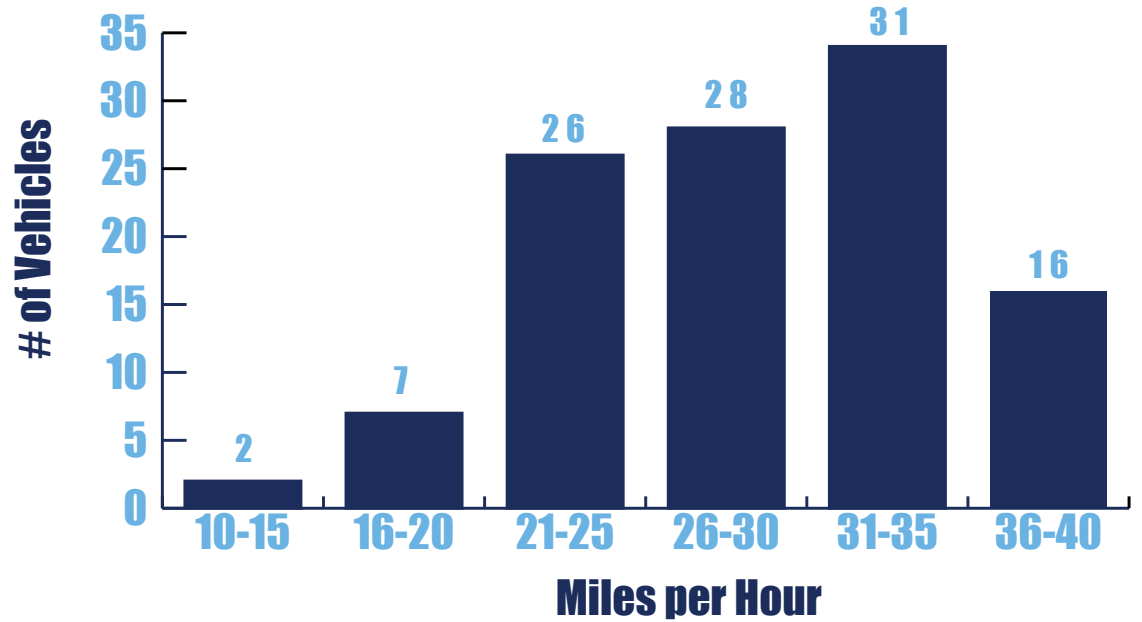


Longfellow Elementary School

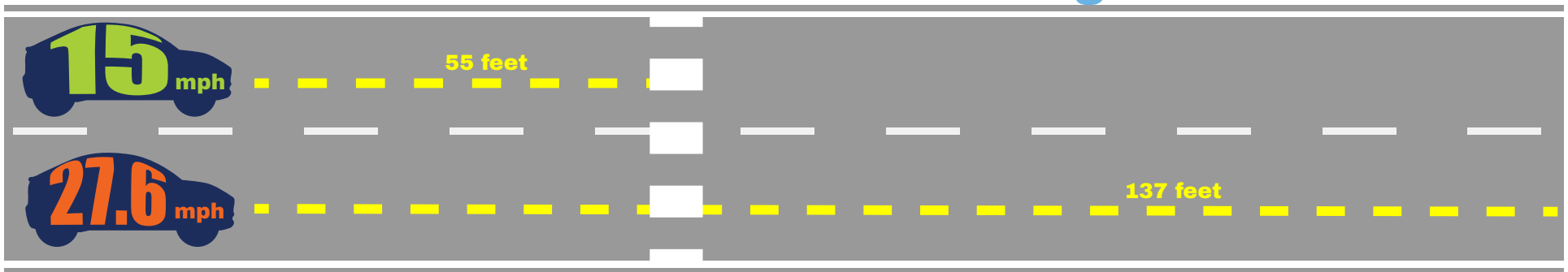


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance



*with a 2 second reaction/perception time



 School Zone

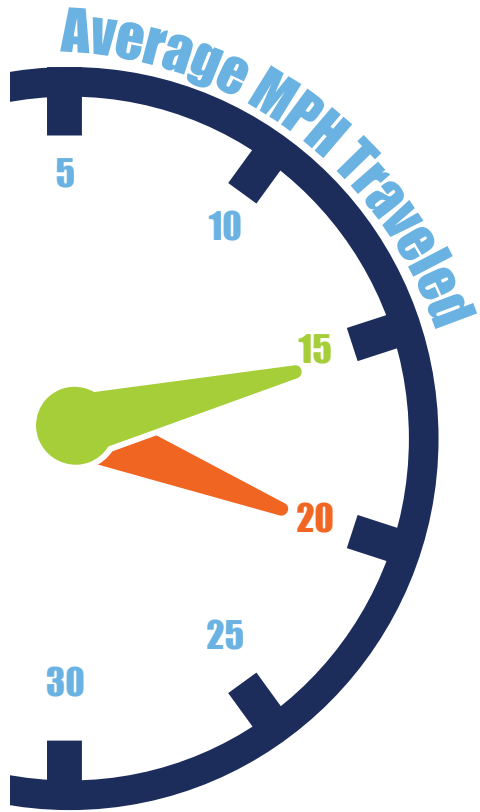
 Study Location

Traffic Calming Strategies to Explore

1. Extend School Zone - The school zone for east-bound traffic starts on the school's property. Extending the school zone west of Centre would allow for greater awareness of the school's proximity to the road.
2. Reduce speed limit - The speed limit on Birch is 30 mph. Decreasing the speed to 25 mph will decrease the amount needed to slow down to 15 mph.
3. Install pedestrian refuge medians - Just like the one on Birch at Balcom, pedestrian refuge medians would allow for more attention to be drawn to pedestrian crossings while also giving a place for pedestrians to safely cross.
4. Extend curb lines - By extending the curb out towards the middle of the road, this visually narrows the road without physically changing the width of the driving lane.
5. Flashing School Zone Signs - Timed school zone signs would warn drivers that the school zone speed limit is in effect.

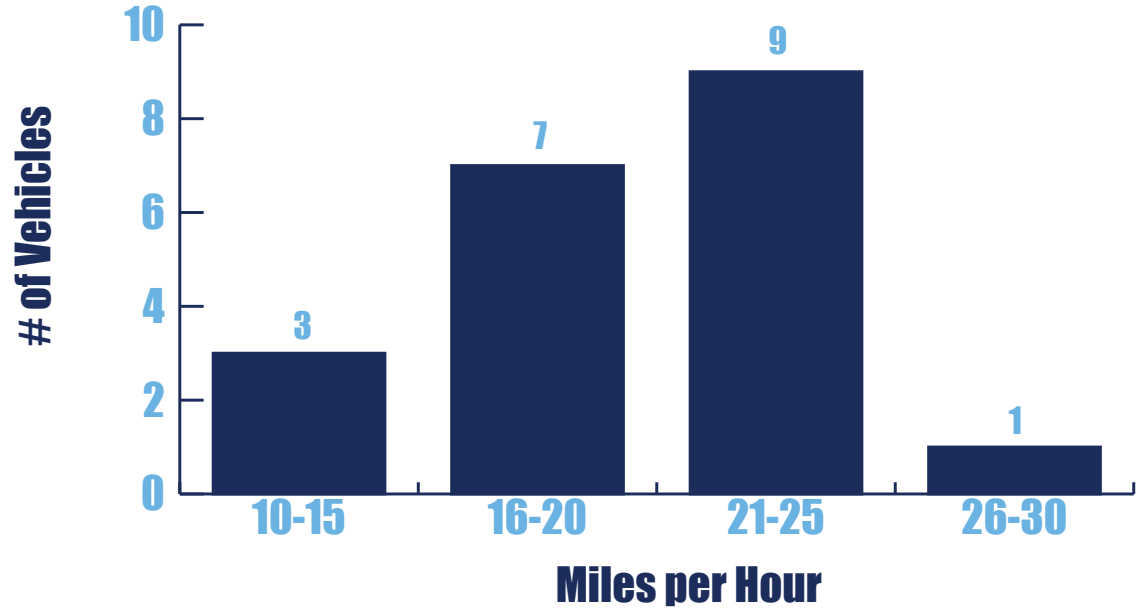


Manz Elementary School

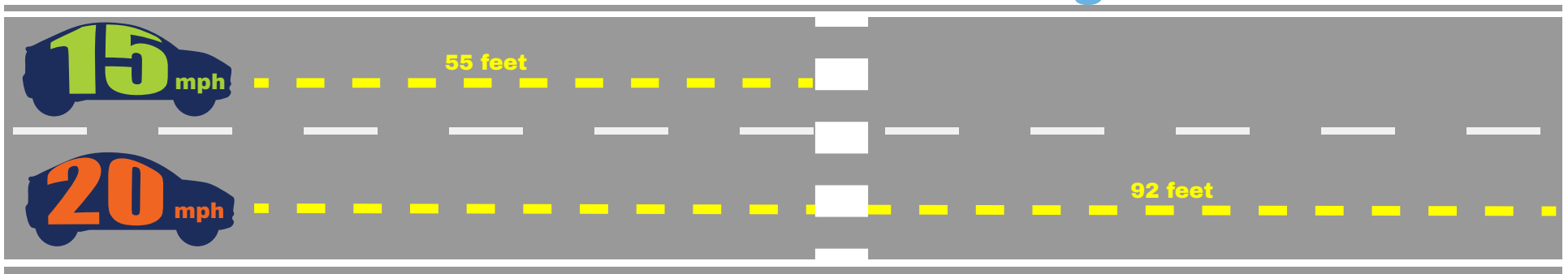


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance



*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
25

Location: Fillmore Ave.



Traffic Calming Strategies to Explore

1. Add traffic controls at all intersections adjacent to school.
2. Install bumpouts at:
 - » Eisenhower and Taft
 - » May and Taft

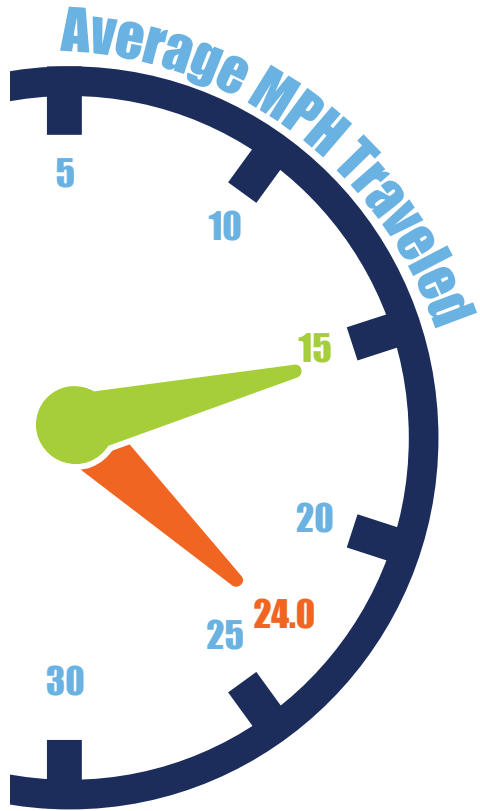
 School Zone



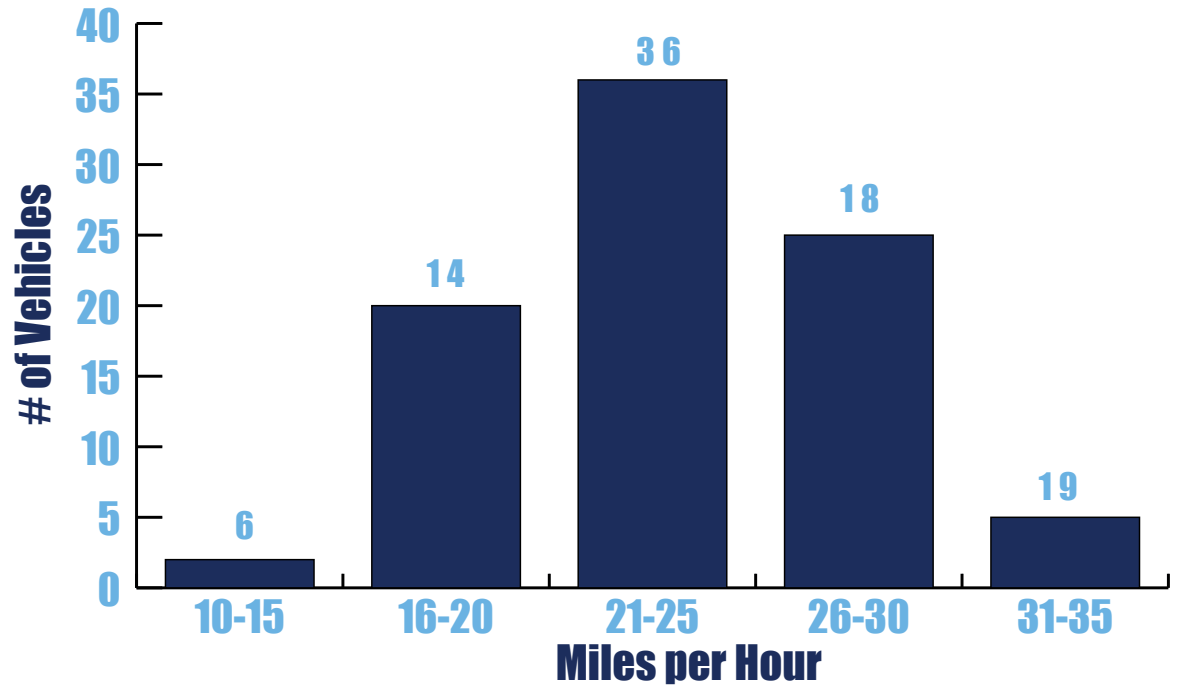
Study Location



Meadowview Elementary School

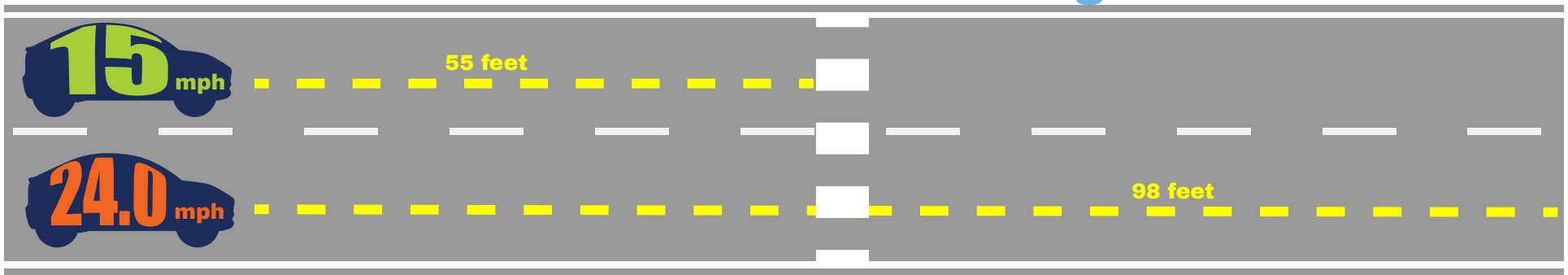


Vehicle Speeds



● School Zone Speed Limit ● Average MPH Traveled

Braking Distance

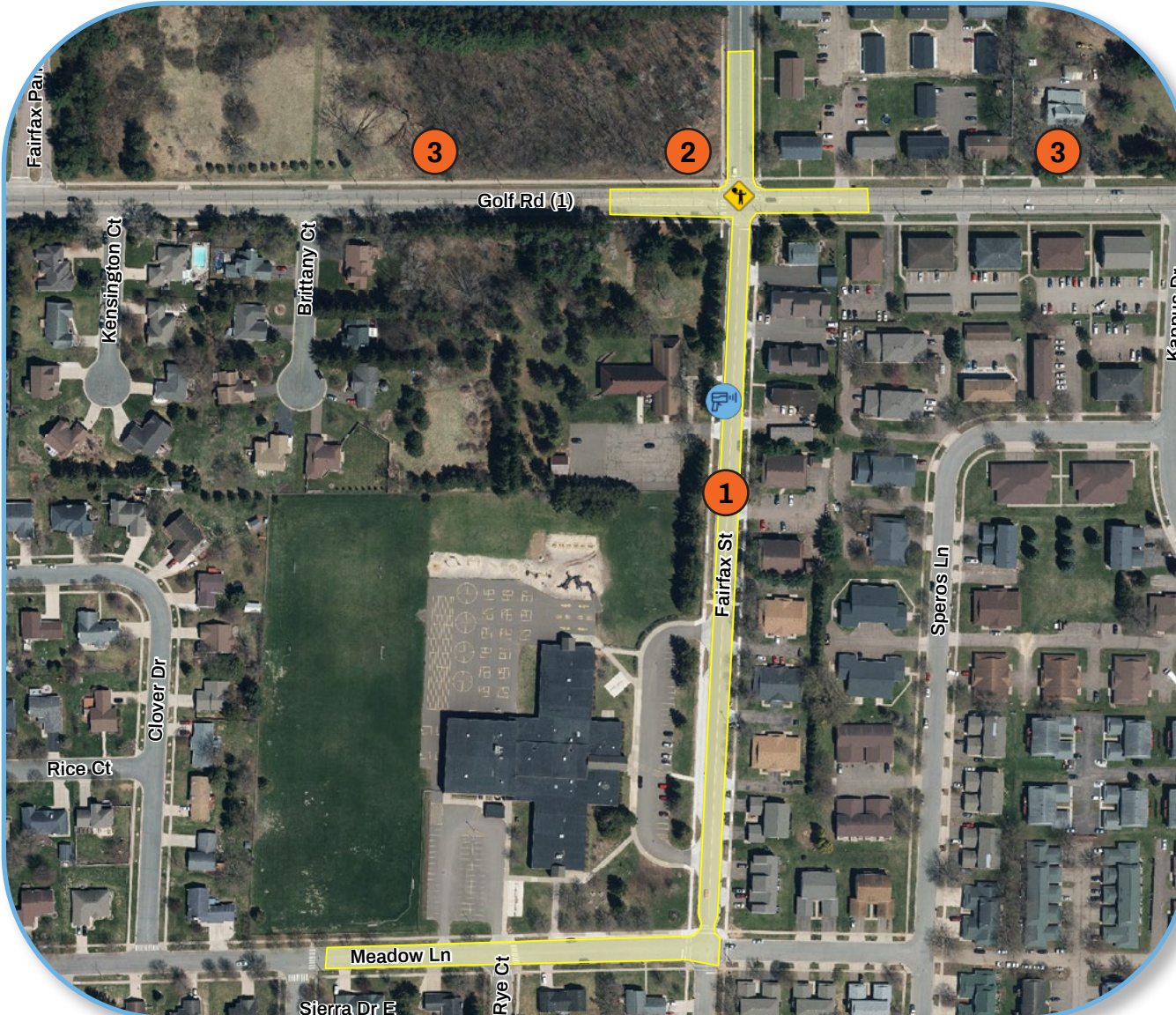


*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: Fairfax St.



 **School Zone**

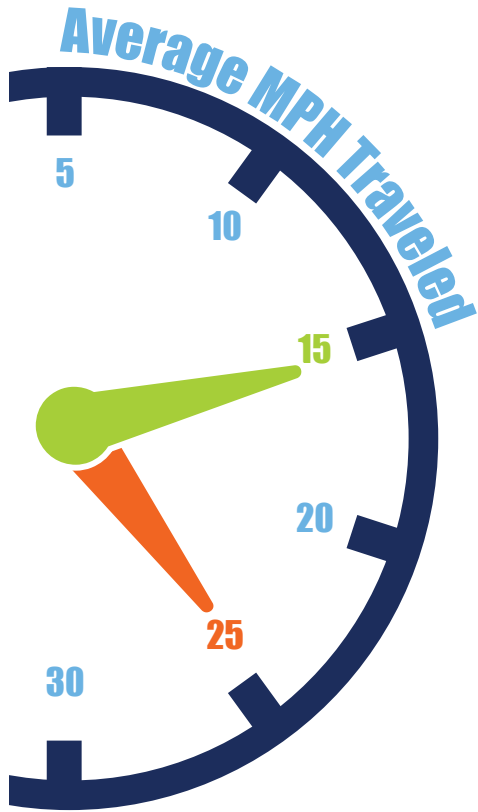
 **Study Location**

Traffic Calming Strategies to Explore

1. Paint parking lanes - These will visually narrow the driving lanes and slow traffic.
2. Research other traffic control options at Golf and Fairfax such as a roundabout
3. Extend School Zone along Golf - Extending the school zone will make expand the distance traffic needs to be traveling 15 mph

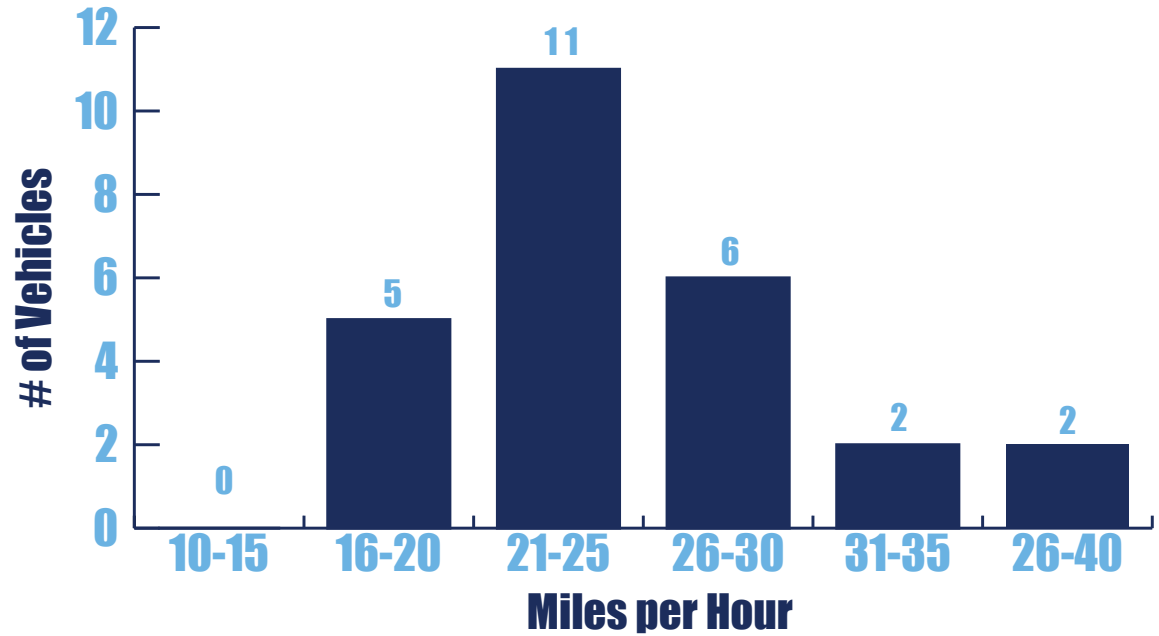


Memorial High School

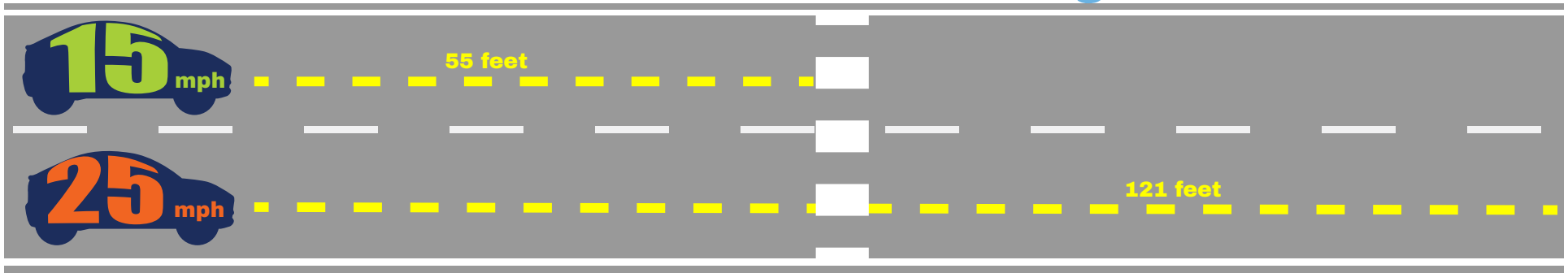


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance



*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
25

Location: Keith St.



Traffic Calming Strategies to Explore

1. Install flashing school zone signs
2. Paint lane width reduction medians at various locations along Keith:
 - » At Rist and Keith
 - » At Benton and Keith
 - » At Donald and Keith
3. Designate a pedestrian crossing at Fairfax and high school parking lot entrance.

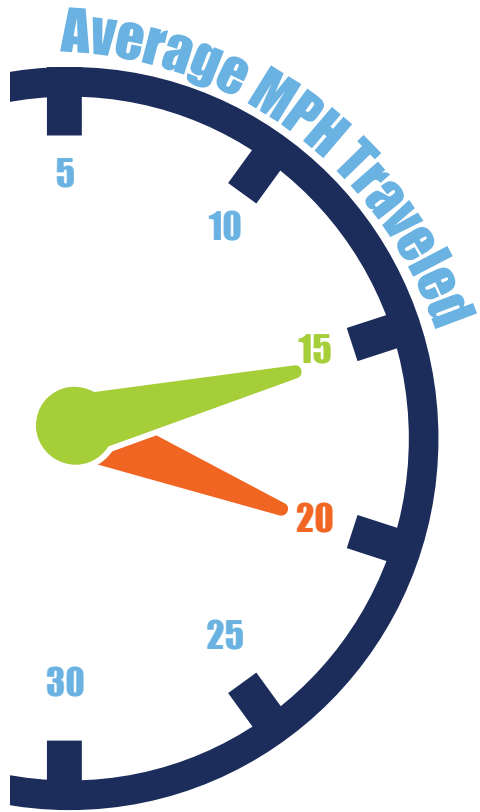
 School Zone



Study Location

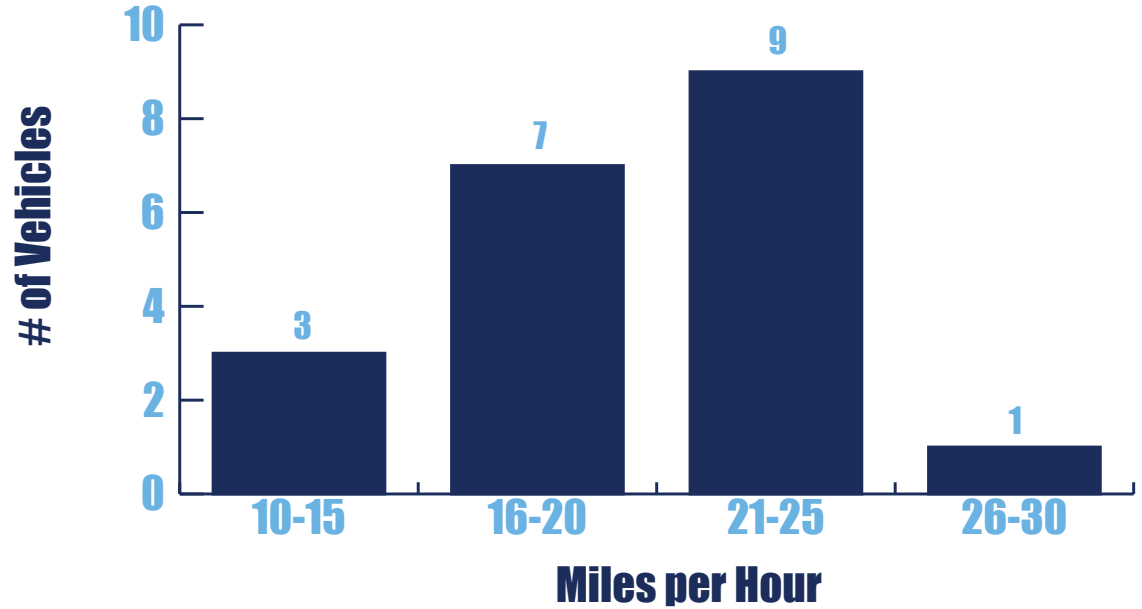


Montessori Charter Elementary School

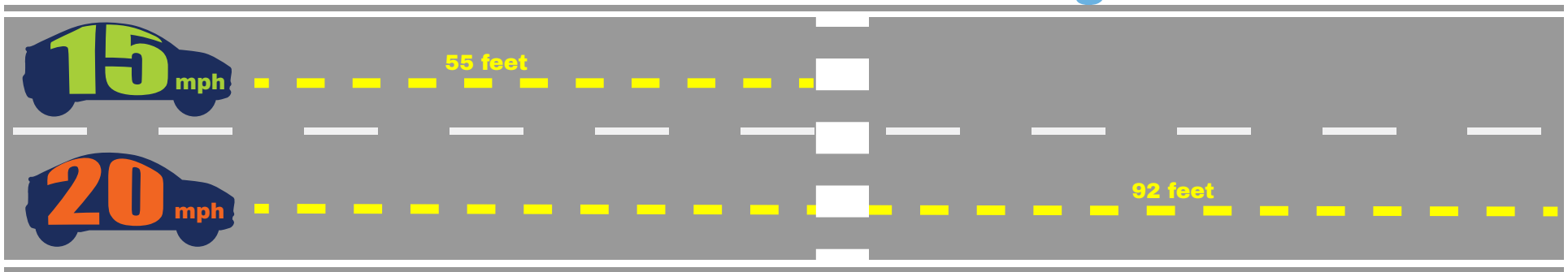


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance



*with a 2 second reaction/perception time



Traffic Calming Strategies to Explore

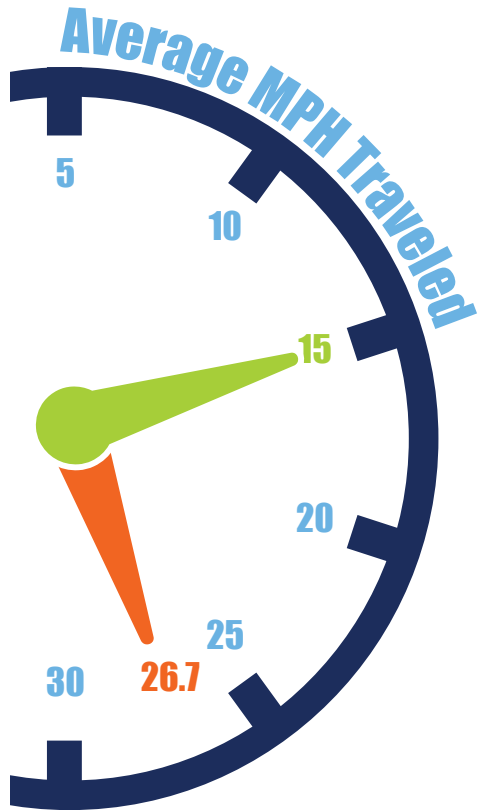
1. Install bumpouts at various locations:
 - » Cameron and Whipple
 - » Cameron and Babcock

 School Zone

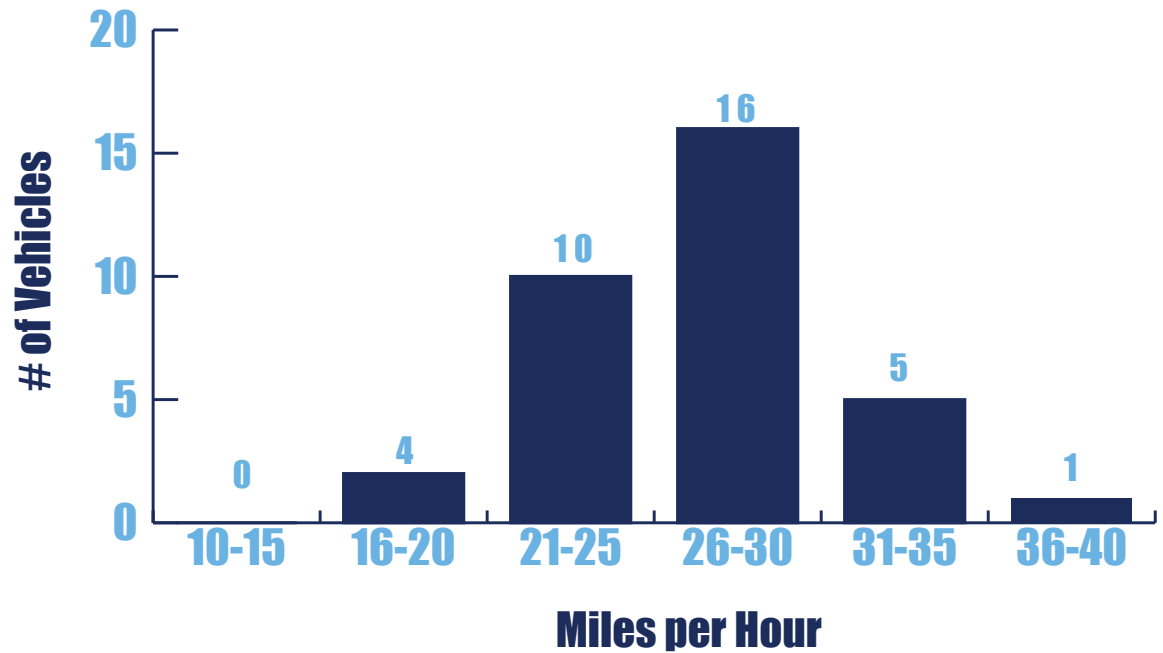
 Study Location



North High School

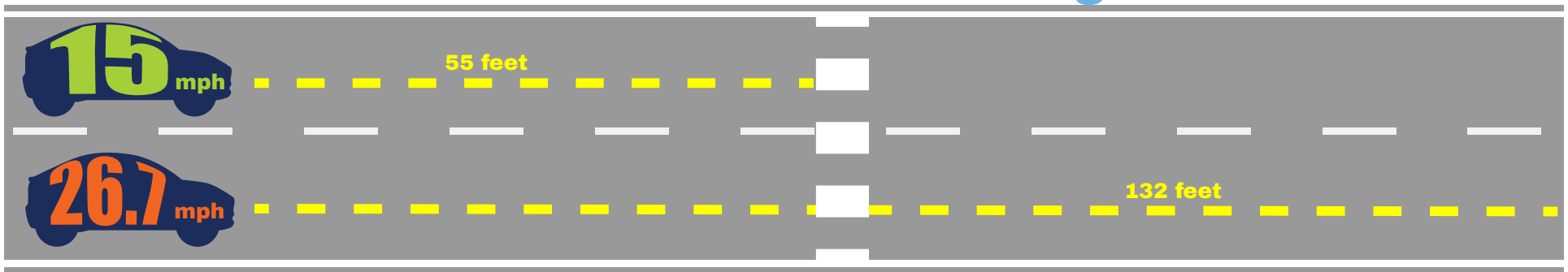


Vehicle Speeds



● School Zone Speed Limit ● Average MPH Traveled

Braking Distance



*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: **Piedmont Rd.**



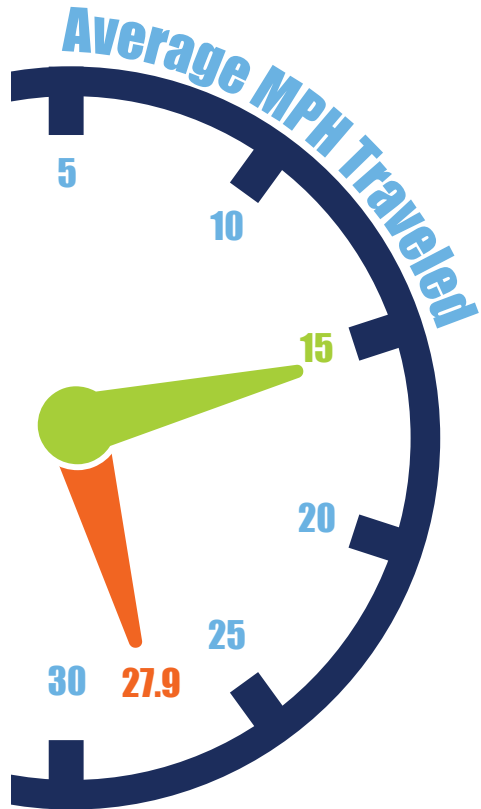
Traffic Calming Strategies to Explore

1. Extend school zone - The school zone sign for eastbound Piedmont traffic starts after the school property line. This should be extended west past the property line.
2. Install pedestrian refuge median - this gives pedestrians a safe space to cross in areas with high traffic volumes and speeds.
3. Reduce speed limits - The speed limit on Piedmont is 30 mph. Reducing the speed limit to 25 would decrease the amount needed to slow down to the desired 15 mph school zone limit.

 **School Zone**

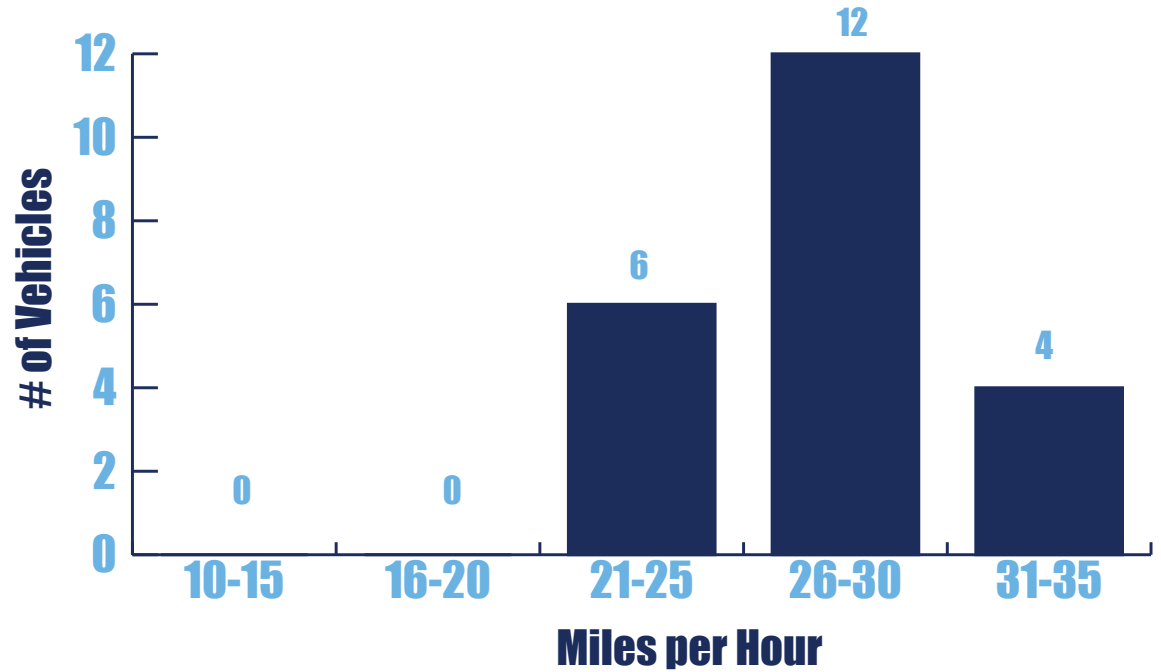


Study Location

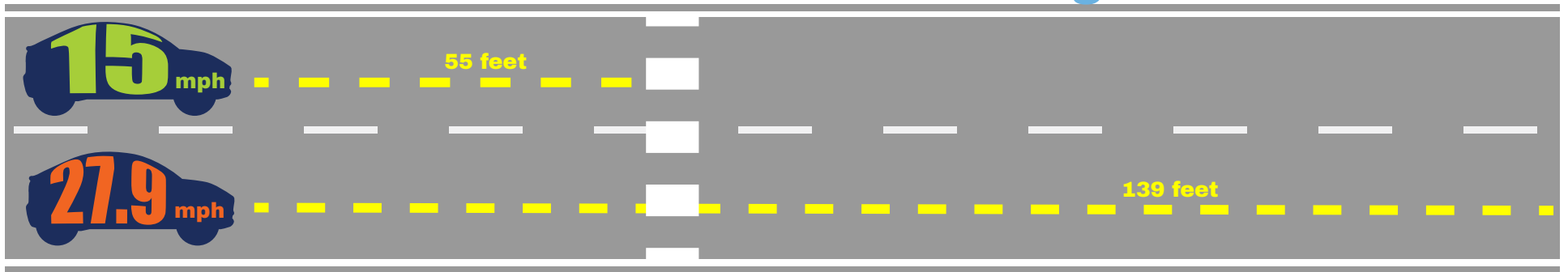


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance



*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: Abbe Hill Dr.



 School Zone



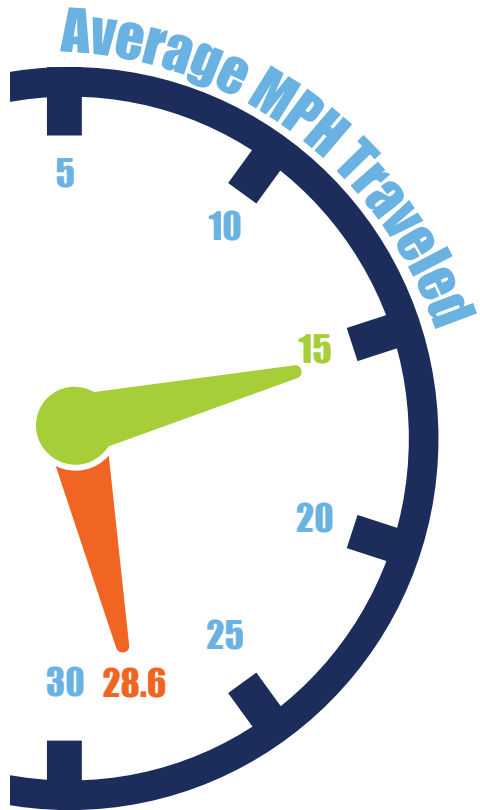
Study Location

Traffic Calming Strategies to Explore

1. Lower speed limit - Reducing the speed limit on Abbe Hill from 30 mph to 25 mph would reduce the amount a vehicle would need to slow to meet the required 15 mph.
2. Narrow lanes near uncontrolled crossings - Options include:
 - » Pedestrian refuge islands
 - » Bumpouts
 - » Paint fog lines
 - » Install bike lanes
3. Sharpen turn radius at school exit.

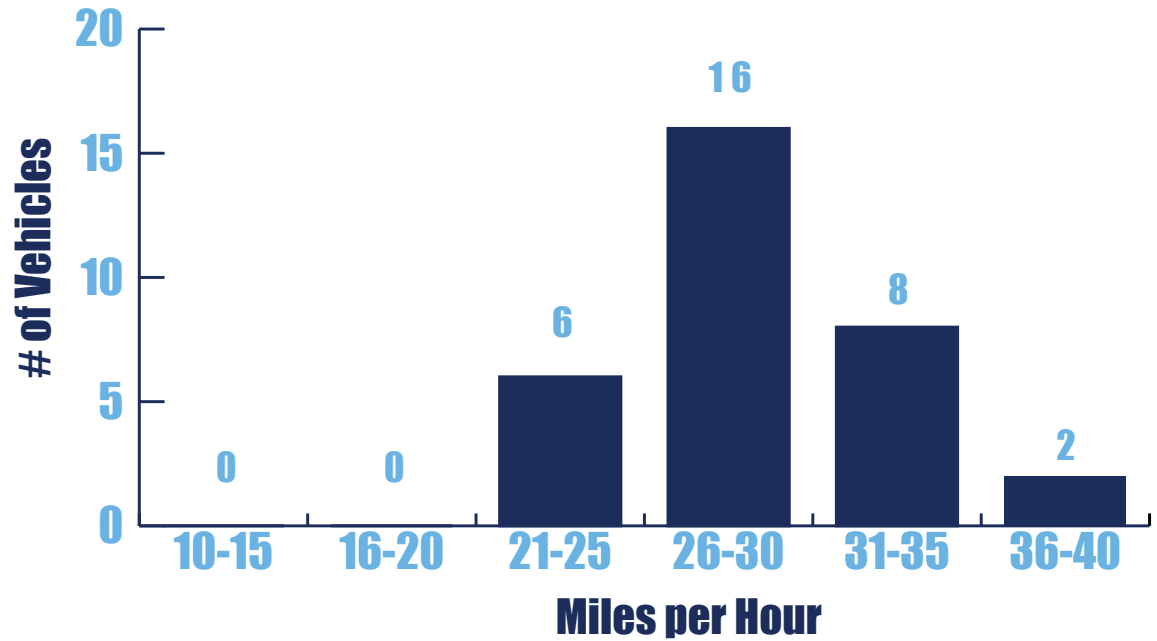


Northwoods Elementary School

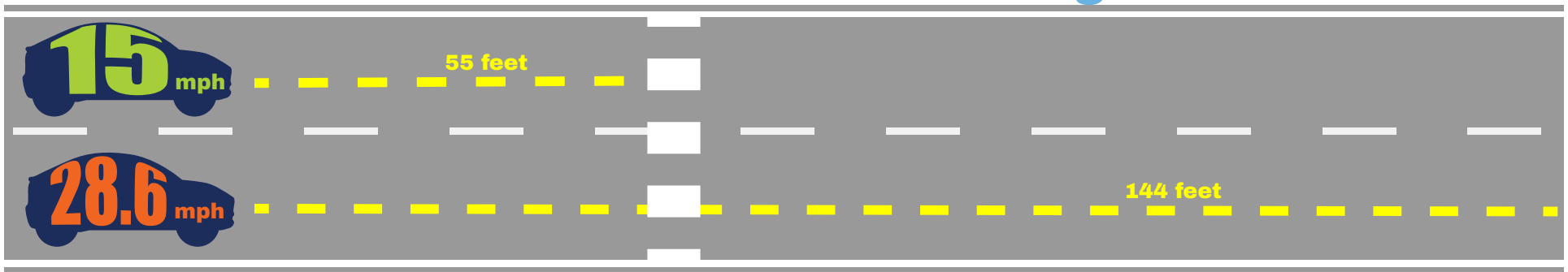


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance

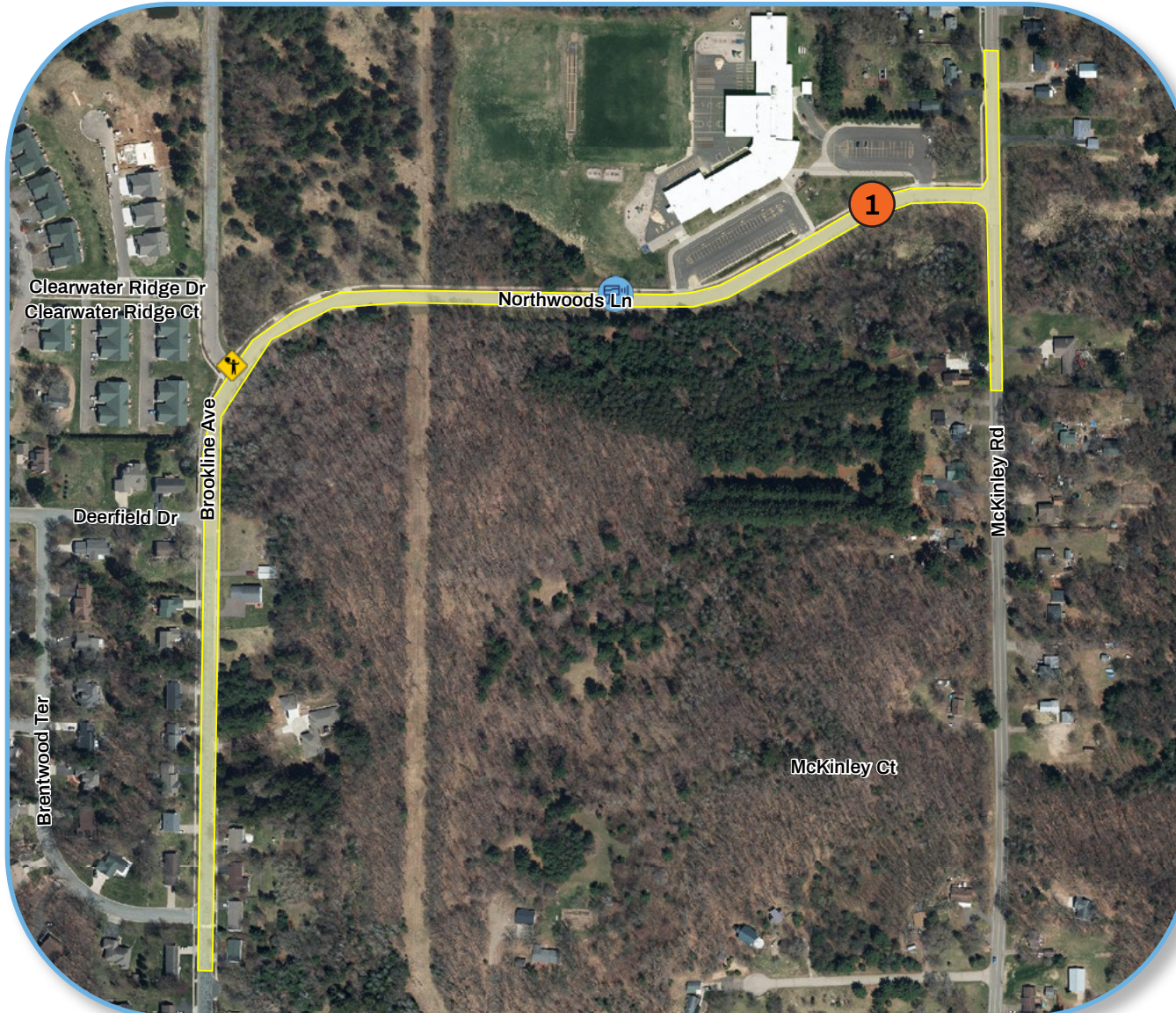


*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
25

Location: Northwoods Ln.



Traffic Calming Strategies to Explore

1. Add pavement treatments to narrow lanes - On Northwoods, there are no street markings. Painting center lines and fog lines will help to narrow the street lanes.

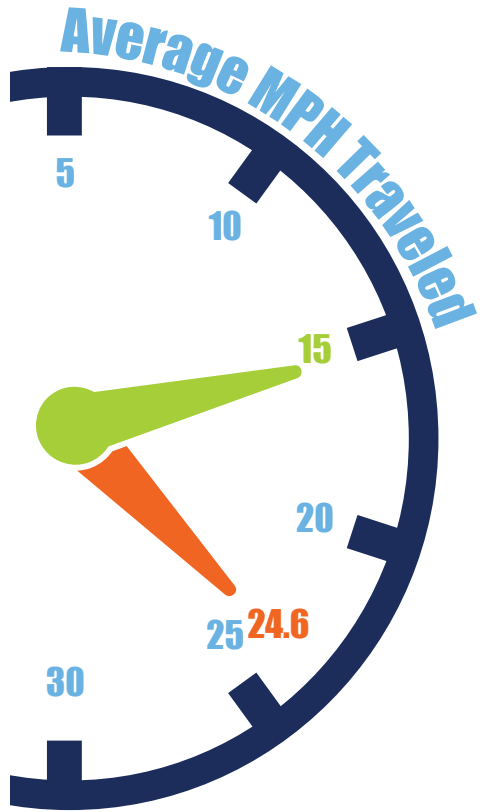
 School Zone



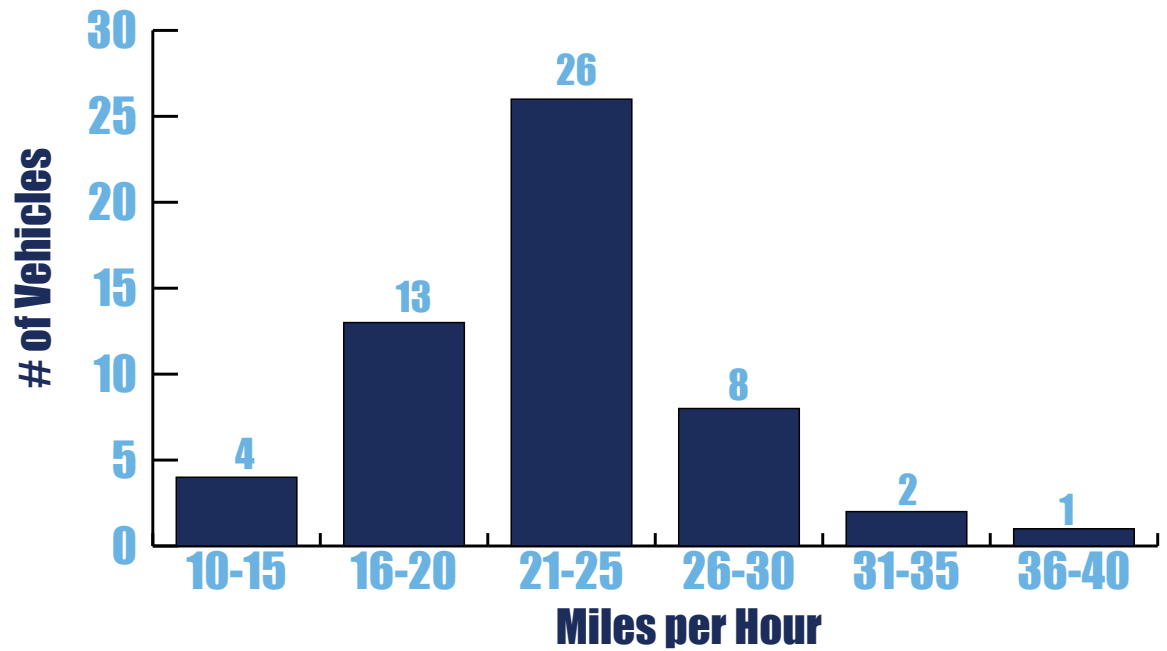
Study Location



Putnam Heights Elementary School

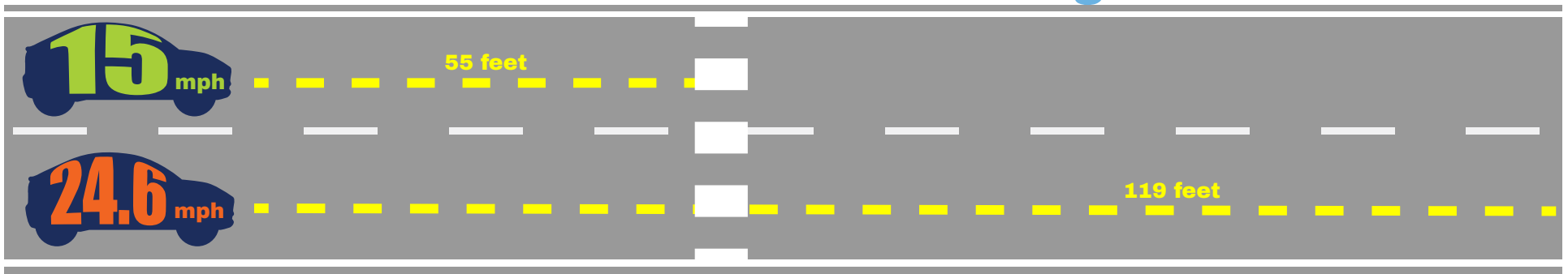


Vehicle Speeds



● School Zone Speed Limit ● Average MPH Traveled

Braking Distance

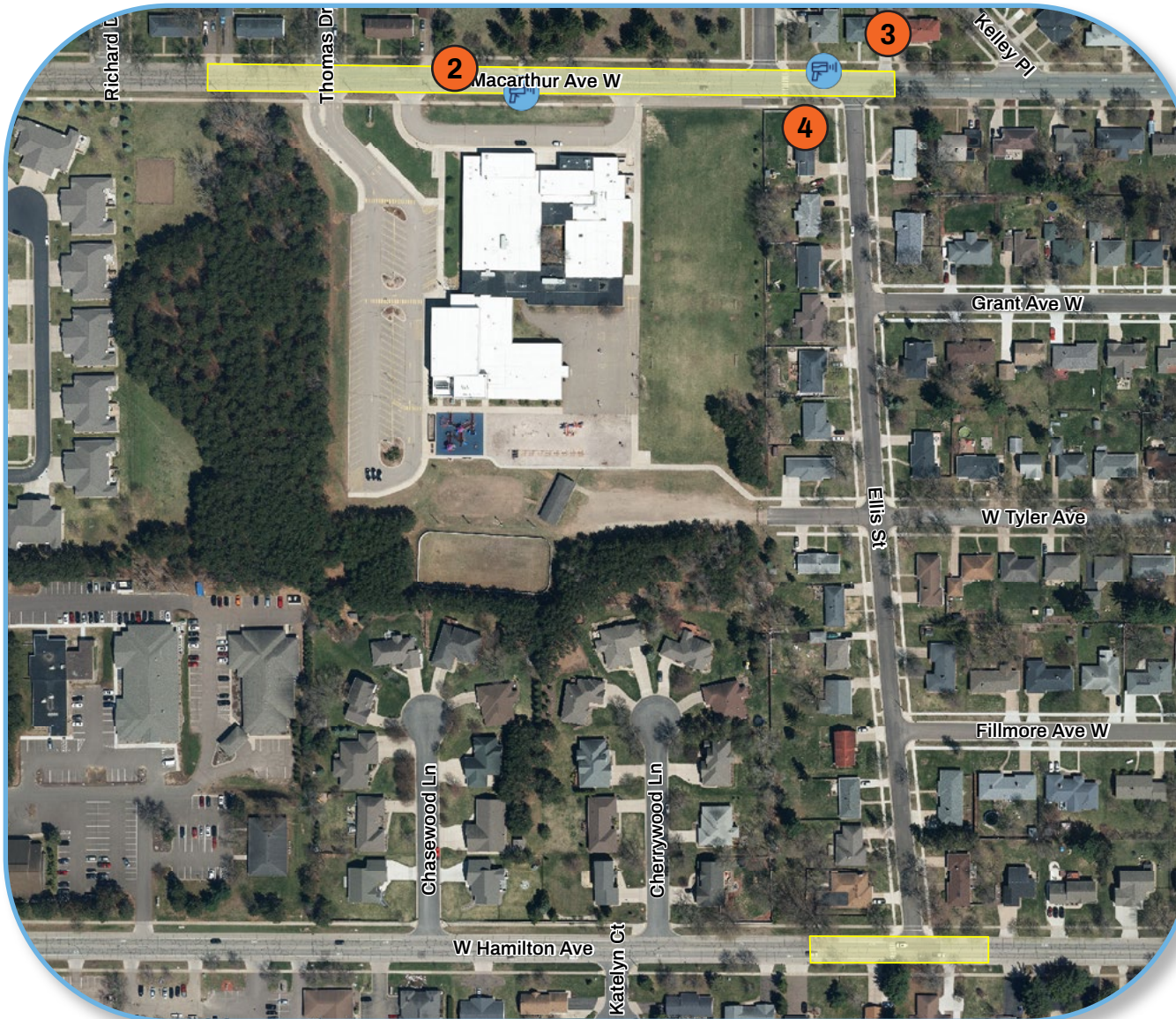


*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: MacArthur Ave.



School Zone



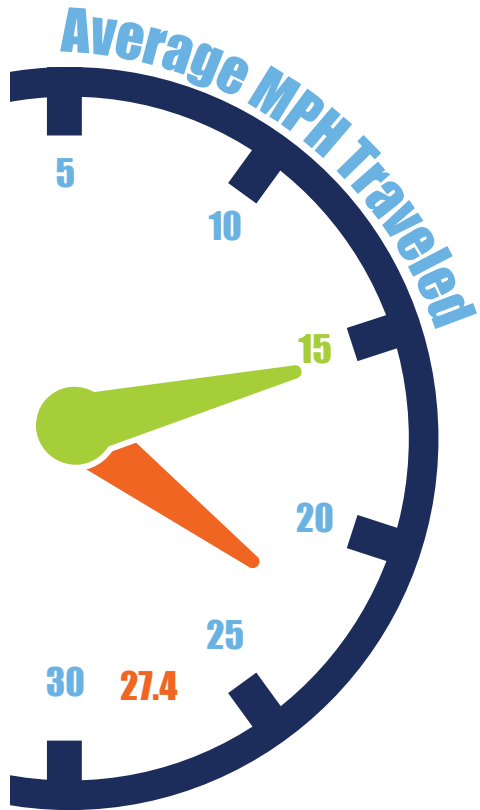
Study Location

Traffic Calming Strategies to Explore

1. Reduce MacArthur speed limit - Reducing the speed limit on MacArthur from 30 mph to 25 mph would reduce the amount of speed a vehicle would need to slow to meet the required 15 mph.
2. Extend curb pavement into the street - Extending the curb so that the street pavement starts where the student safety patrol sets the cones will visually narrow the driving lane without physically reducing the amount of space a vehicle has to pass through the MacArthur bumpout.
3. Install bike lanes - Along MacArthur, there are sharrows. However, a designated bike lane would create a safer space for bikes and also narrow lane width, which would slow down vehicles.
4. Add bumpout on MacArthur between Ellis and Ellis.

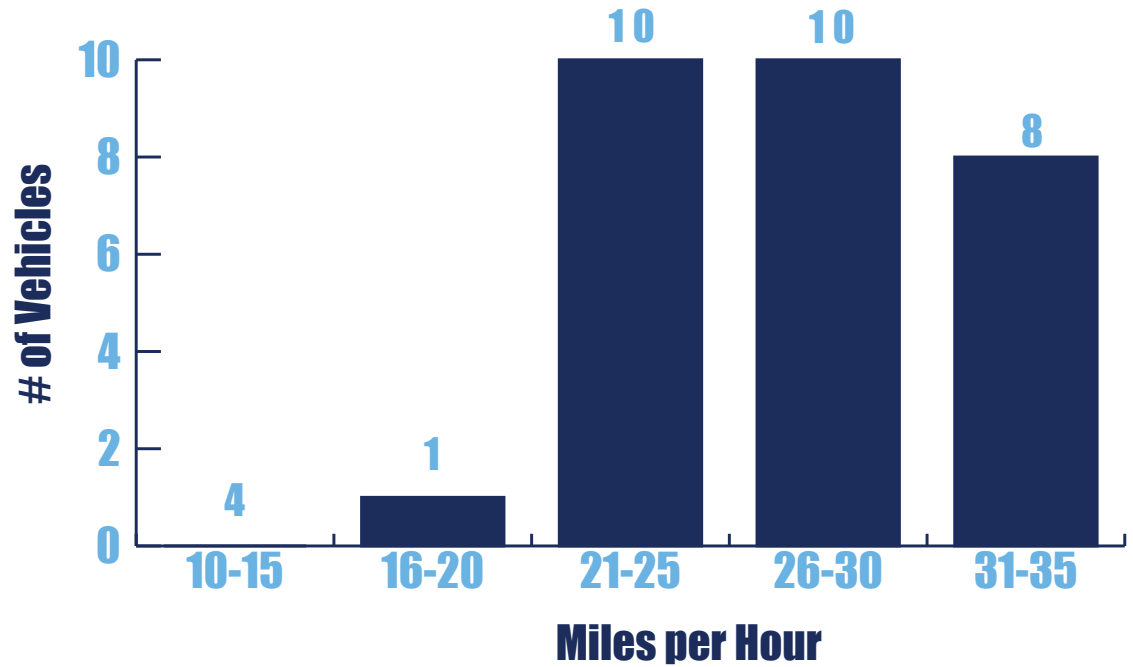


Robbins Elementary School

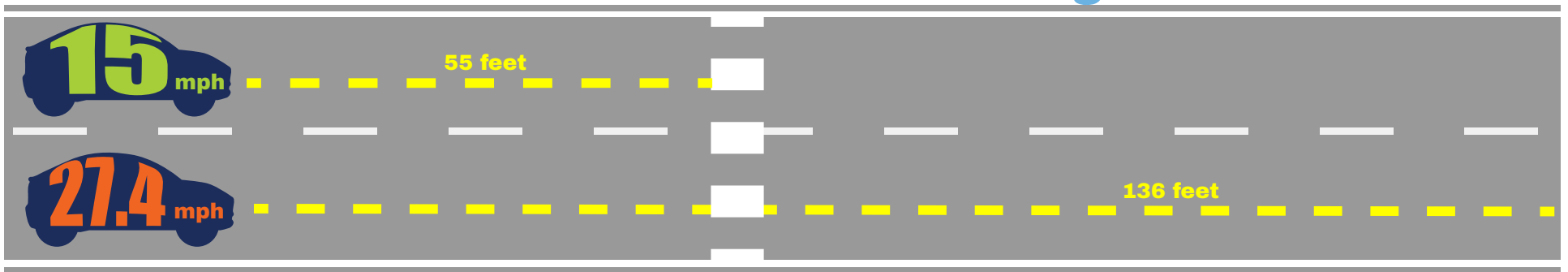


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance



*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
25

Location: Pine Lodge Rd.



 School Zone

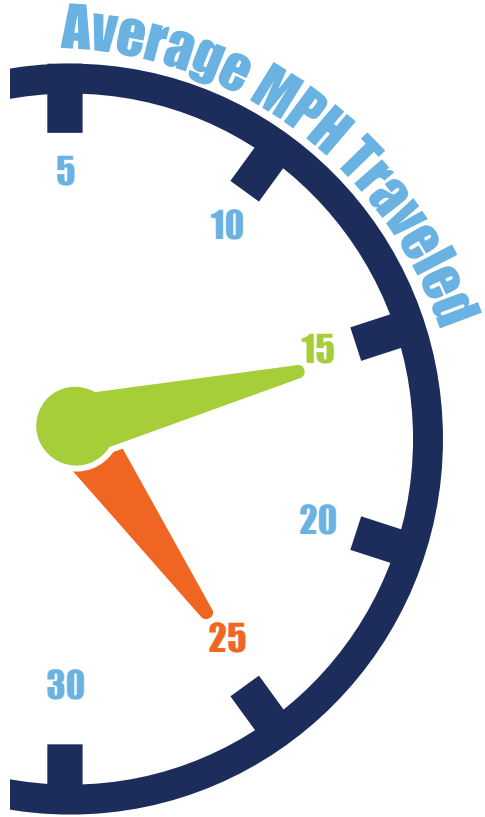
 Study Location

Traffic Calming Strategies to Explore

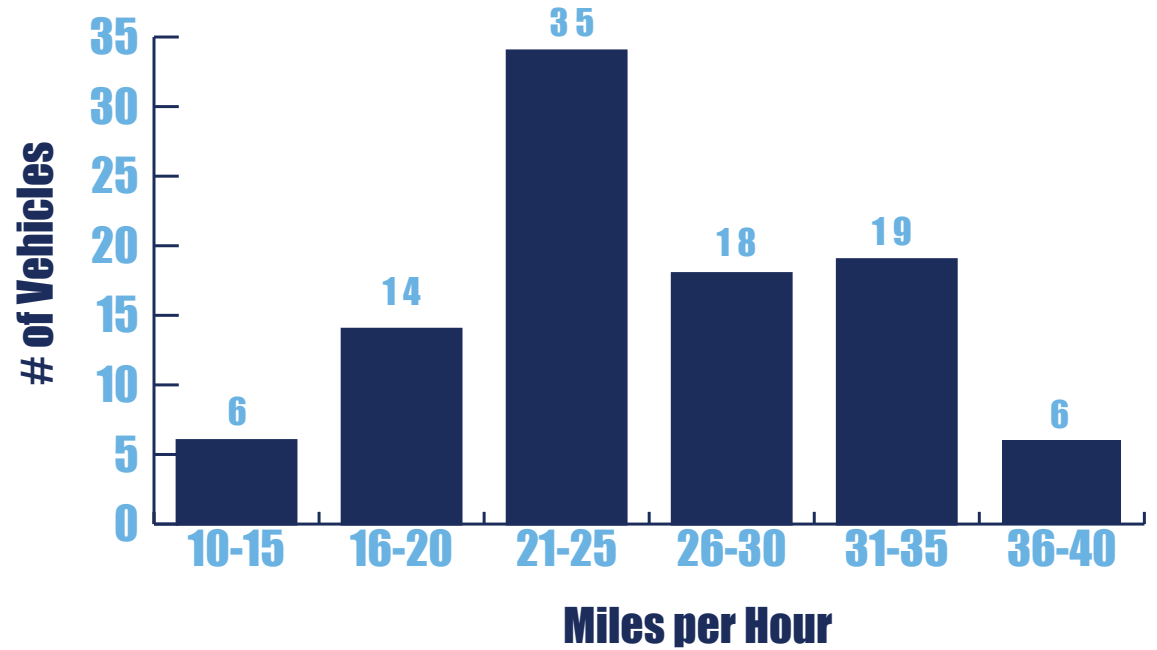
1. Narrow Driving Lanes along Pine Lodge
- During drop off and pick up times, there is natural traffic calming with parents parked along the roadside. To create a more permanent solution, painting parking lanes, installing bike lanes, or narrowing the roadway would help slow traffic.
2. Explore new intersection design at Hamilton and Pine Lodge - As shown in Appendix A., a roundabout or traffic circle would be an option for a different intersection design. While traffic doesn't stop completely roundabouts allow for no more than 18 mph when built correctly. They also provide a safe space for pedestrians and bicyclists, separate from vehicles.



Roosevelt Elementary School

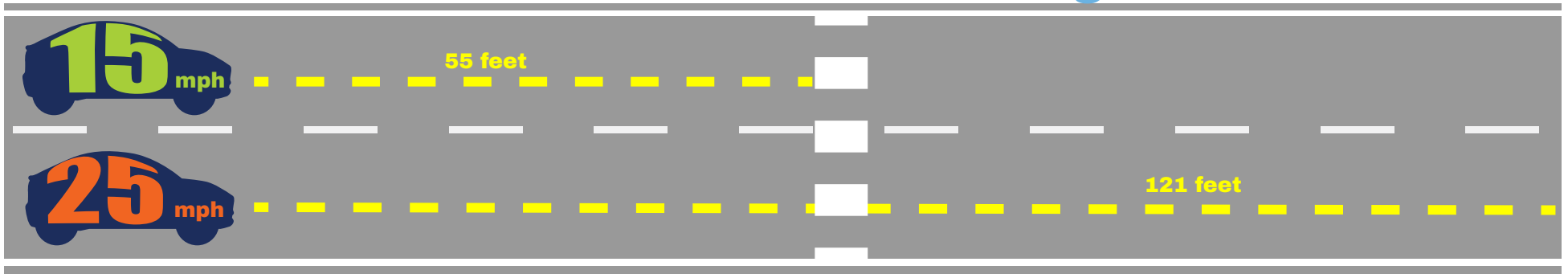


Vehicle Speeds



● School Zone Speed Limit ● Average MPH Traveled

Braking Distance



*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: Folsom St. and Truax Blvd.



School Zone



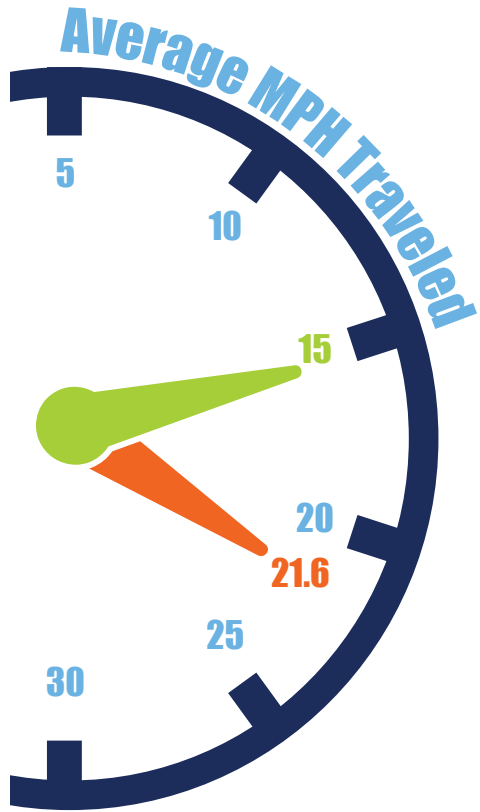
Study Location

Traffic Calming Strategies to Explore

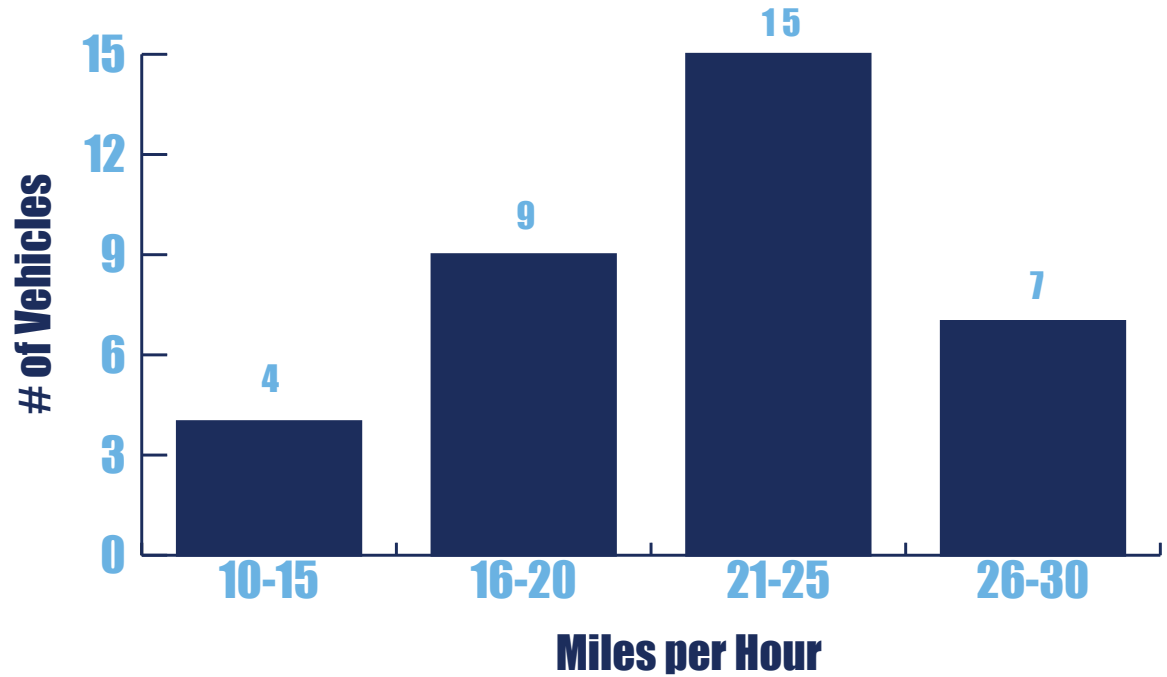
1. Narrow driving lanes at pedestrian crossing locations - Temporarily, cones can be used to narrow the lanes in places that are used by pedestrians and bicyclists. Long term, adding bike lanes, extending the curb, or painting parking lanes will narrow the lanes.
2. Reduce speed limits on Truax and Folsom - As of 2022, the speed limits along both Truax and Folsom is 30 mph. Reduce the speed limit to 25 to change the amount vehicles need to slow down to meet the 15 mph requirement.
3. Install pedestrian refuge island or bumpouts at adult crossing guard locations on Truax and Fairfax.



Sam Davey Elementary School

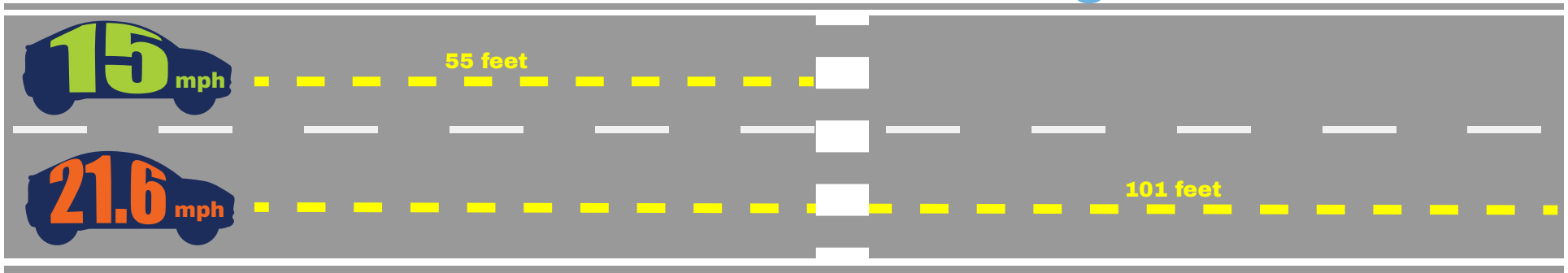


Vehicle Speeds



● School Zone Speed Limit ● Average MPH Traveled

Braking Distance



*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: Eddy Ln.



Traffic Calming Strategies to Explore

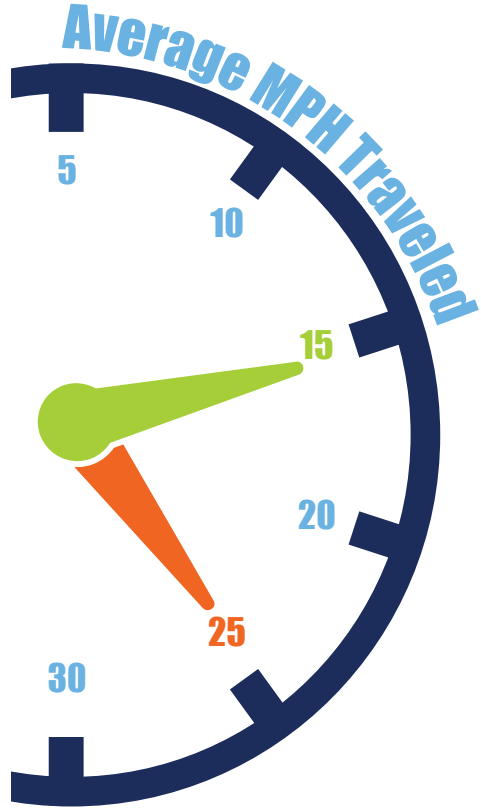
1. Reduce road width by installing bumpouts on Starr at beginning of school property.
2. Install bumpouts at Eddy and Mercury.
3. Reduce speed limit - The speed limit along both Eddy and Starr is 30 mph. Reduce the speed limit to 25 to change the amount vehicles need to slow down to meet the 15 mph requirement.

 **School Zone**

 **Study Location**

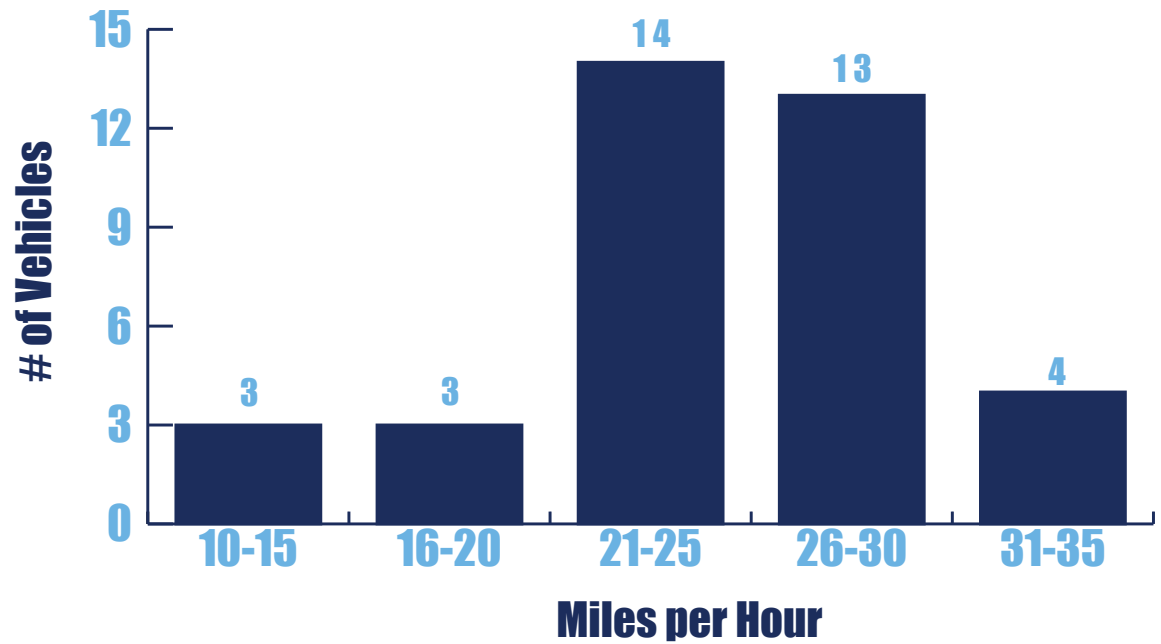


Sherman Elementary School

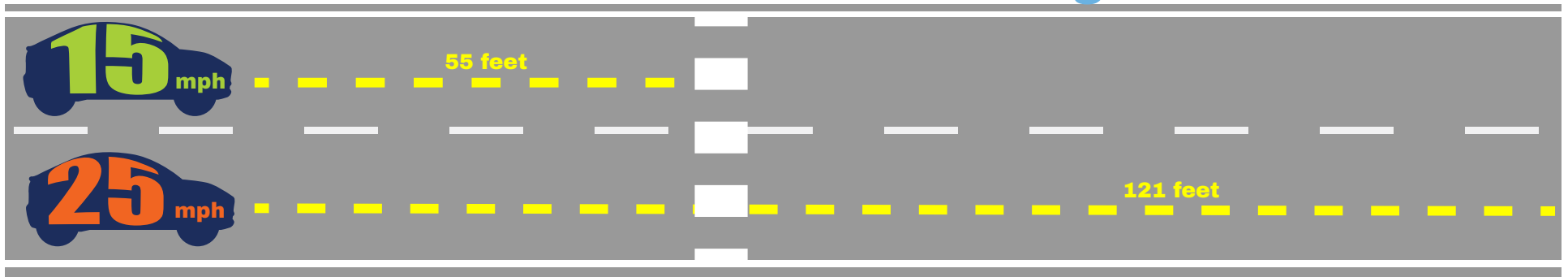


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance



*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: Eddy Ln.

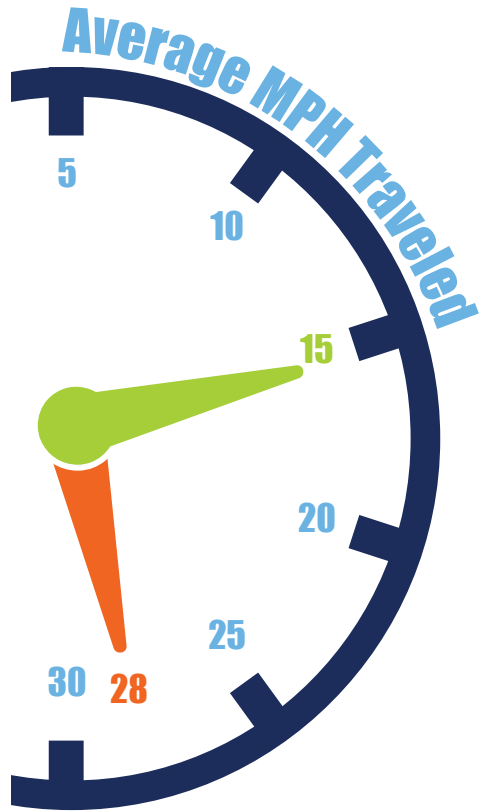


Traffic Calming Strategies to Explore

1. Install speed reader sign on Vine - This sign would notify vehicles of their current speed.
2. Install bumpouts at Vine crossing - this is an uncontrolled crossing near the school. This would shorten the distance needed to cross the busy intersection, decrease the amount of time pedestrians spend in the roadway, and narrow driving lanes to slow traffic.
3. Reduce speed limit - The speed limit along both Eddy and Starr is 30 mph. Reduce the speed limit to 25 to change the amount vehicles need to slow down to meet the 15 mph requirement.

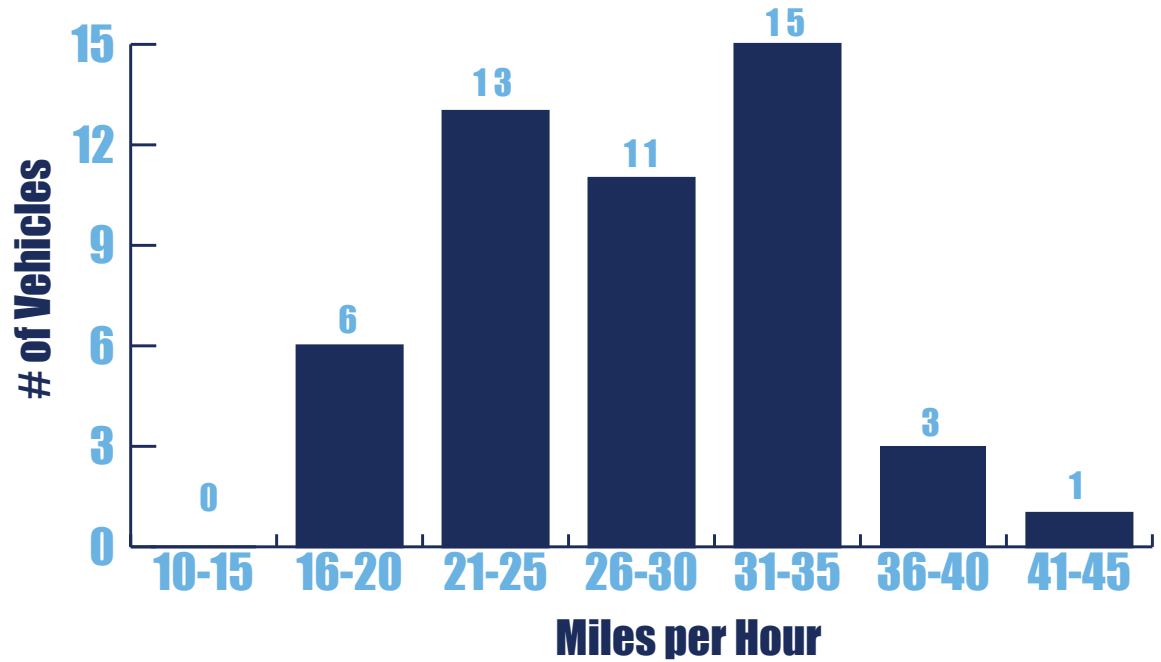
 School Zone

 Study Location

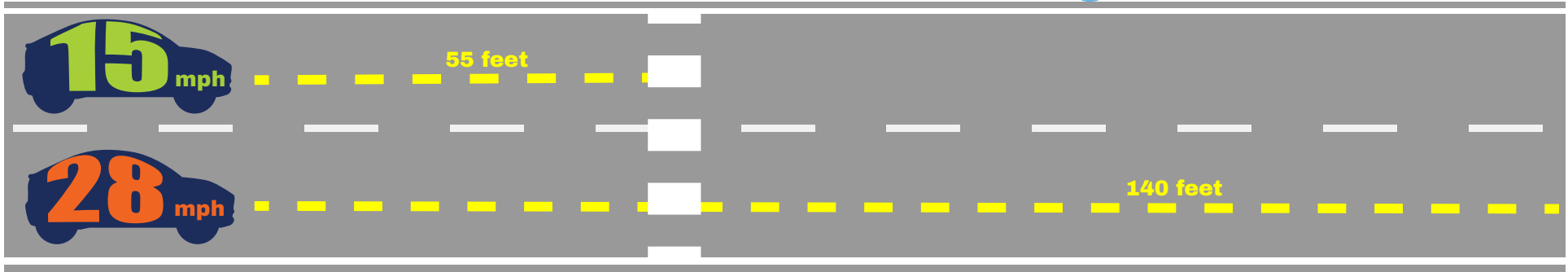


● School Zone Speed Limit ● Average MPH Traveled

Vehicle Speeds



Braking Distance

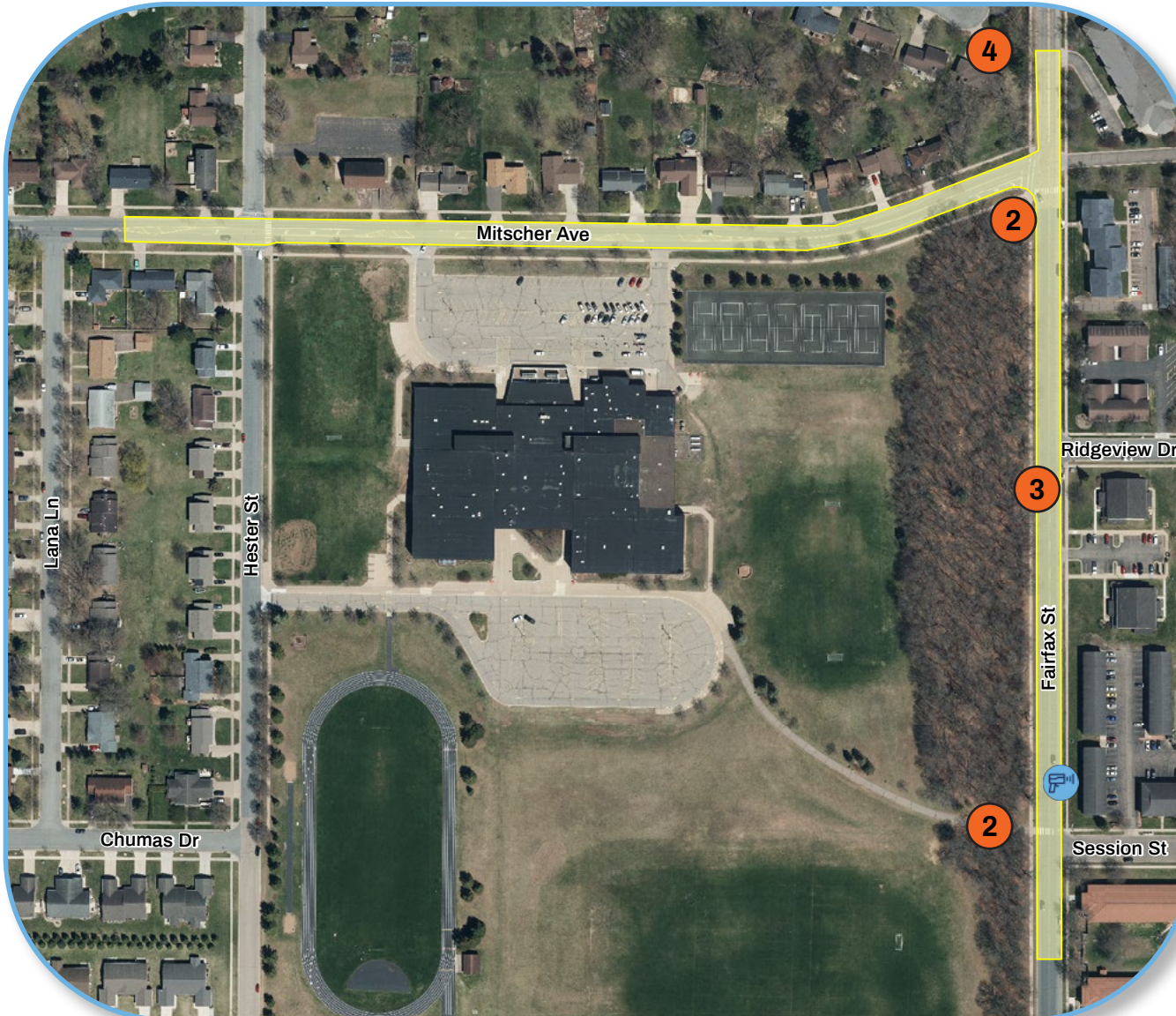


*with a 2 second reaction/perception time

Speed Limit

SPEED
LIMIT
30

Location: Fairfax St.



Traffic Calming Strategies to Explore

1. Reduce speed limit on Fairfax - R
The speed limit along Fairfax is 30 mph. Reduce the speed limit to 25 to decrease the amount vehicles need to slow down to meet the 15 mph requirement.
2. Install bumpouts - Parents drop off and pick up students at the crossing on Fairfax and at Mitscher. Installing bumpouts would reduce the amount of time pedestrians are exposed to vehicle traffic, and also narrow driving lanes to slow traffic.
3. Paint bike lanes along Fairfax - As of 2022, Fairfax has no bicycle facilities. Bike lanes would narrow the street, while also giving a safer space for bikes.
4. Extend school zone over Fairfax hill - The school zone is unexpected for driver traveling south on Fairfax. Extending the school zone to the north would allow for drivers to be more aware of the upcoming school zone.

 School Zone

 Study Location



Traffic Calming Strategies to Explore



Traffic Calming

Traffic calming is a term used to describe a range of methods to slow vehicles as they move through neighborhoods. They benefit pedestrians and bicyclists by creating an environment more compatible with walking and biking. Traffic calming devices can be grouped within the following categories:

- » Bumps, humps, and other raised pavement areas
- » Reducing street area where motor traffic is given priority.
- » Street closures
- » Traffic diversion
- » Surface texture and visual devices
- » Parking treatments

Many of the common traffic calming measures already deployed in the City of Eau Claire are in this section. While not all are active around schools, these could and should be considered at times when streets are being resurfaced, updated, or redesigned. Schools have the highest number of a vulnerable population that rely on biking and walking in the city. If traffic speeds and/or driver habits are even a mild concern or issue, mitigation should and needs to be done. Roundabouts, bumpouts, pedestrian refuge islands, street art, and temporary traffic calming should all be explored to reduce vehicle speeds and create safer spaces for pedestrians and bicyclists.





Roundabouts and Traffic Circles

Roundabouts

A roundabout is a circular, raised island with deflector islands that form a hub for the traffic that flows around it and the streets that shoot off of it. They are usually located at the intersections of a collector and arterial street with one or more crossing roadways. With the counter-clockwise direction, there are no left turns needed. Drivers select gaps between traffic to enter the roundabout from each approaching street without having to completely stop.

Roundabouts are usually less expensive to install and maintain than traffic signals. They reduce crashes 50-90% at intersections previously controlled by traffic signals or stop signs. They also can handle 30% more traffic and eliminate the need to widen roads to increase intersection capacity.

They need to be constructed to accommodate pedestrians and bicyclists with crossing points and medians. Crosswalks should be placed about one car length behind the yield line so that drivers have full view of pedestrians. The design should not permit a motorist to travel faster than 15-20 mph.

As of May 2022, there are 457 roundabouts in the state of Wisconsin. 266 are on state highways and 191 are on local highways. There are 20 in the Chippewa Valley (2 in Altoona, 7 in Chippewa Falls and 11 in Eau Claire)

Currently, no school in ECASD use traffic circles or roundabouts near their schools.



State and MacArthur Traffic Circle

Bumpouts and Curb Extensions



Bumpouts and Curb Extensions

Bumpouts and curb extensions extend the sidewalk or curb line into the street, reducing the street pavement width. By shortening the distance and reducing the amount of time pedestrians are exposed to traffic. They also improve the visibility of pedestrians for motorists.

When they are placed at intersections they discourage vehicles from parking in line of a crosswalk and motorists travel more slowly through the bumpout locations depending on how narrow the roadway becomes. These are highly effective at mid-block crossing locations.

Three elementary schools in Eau Claire (Putnam Heights, Meadowview, and Sam Davey) have bumpouts on streets adjacent to the school, all at mid-block locations. At all of these crossings vehicles slowed down when traveling through the crossing.



Sam Davey Bumpout - Eddy Lane



Pedestrian Refuge Island

Pedestrian Refuge Island

Pedestrian refuge islands are a raised island placed in the center of the street at an intersection or mid-block to help protect pedestrians from motorists. These allow pedestrians to only focus on one direction of traffic at a time.

Where mid-block or intersection crosswalks are to be installed at uncontrolled locations, raised medians are to be strongly considered as a supplement to the crosswalk.

Longfellow Elementary School is located on Birch Street which has heavy traffic and a speed limit of 30 mph. Many students cross at the Birch and Balcom intersection with the adult crossing guard. At that intersection, there is a pedestrian refuge island.

On Eddy Lane, near Locust Lane Elementary School and Northstar Middle School, there is also a pedestrian refuge island at the intersection of Eddy and Locust. While there is no adult crossing guard at this location, this is still a safe crossing for pedestrians.



Birch Pedestrian Refuge Island near Longfellow Elementary School

Curb Pavement Extension



Curb Pavement Extension

Curb pavement extensions is a new idea that visually narrows a road width without physically changing it. In the diagram below, the left hand side is how the Eddy Lane pedestrian refuge island actually looks. On the left side, the curbs are extended a foot on both sides to make the lane look two feet narrower. However, both sides are still 14 feet wide for vehicles to pass through.



Eddy Lane Curb Pavement Extension Example



Street/Asphalt Art

Street Art

Street art can be used as a tool to decrease traffic crashes. Public art comes in a variety of forms including intersection murals, crosswalk art, and painted plazas or sidewalk extensions. Asphalt art frequently include specific roadway safety improvements, although the art itself is often intended to improve safety by increasing visibility of pedestrian spaces.

In April of 2022, Bloomberg Philanthopies published a report that said public art decreased pedestrian involved crashes by 50 percent and overall traffic crashes by 17 percent. It also said that drivers yielded to pedestrians in colorful crosswalks 27 percent more.

The City of Eau Claire recently passed an ordinance allowing street art. Groups such as neighborhood associations, or a group of neighbors can submit an application to the City's engineering department per their guidelines. Maintenance of the painting needs to be maintained by the artist other than routine street maintenance done by the city. Touch-ups or repainting generally need to be done every 2-3 years.

Durham, North Carolina

Before



After





Street Art Locations to Explore



1. Lee and Hoover
2. MacArthur and Putnam Heights ES Entrance
3. Fillmore and May
4. Fillmore and Eisenhower
5. 8th Bumpout

 Street Art Location

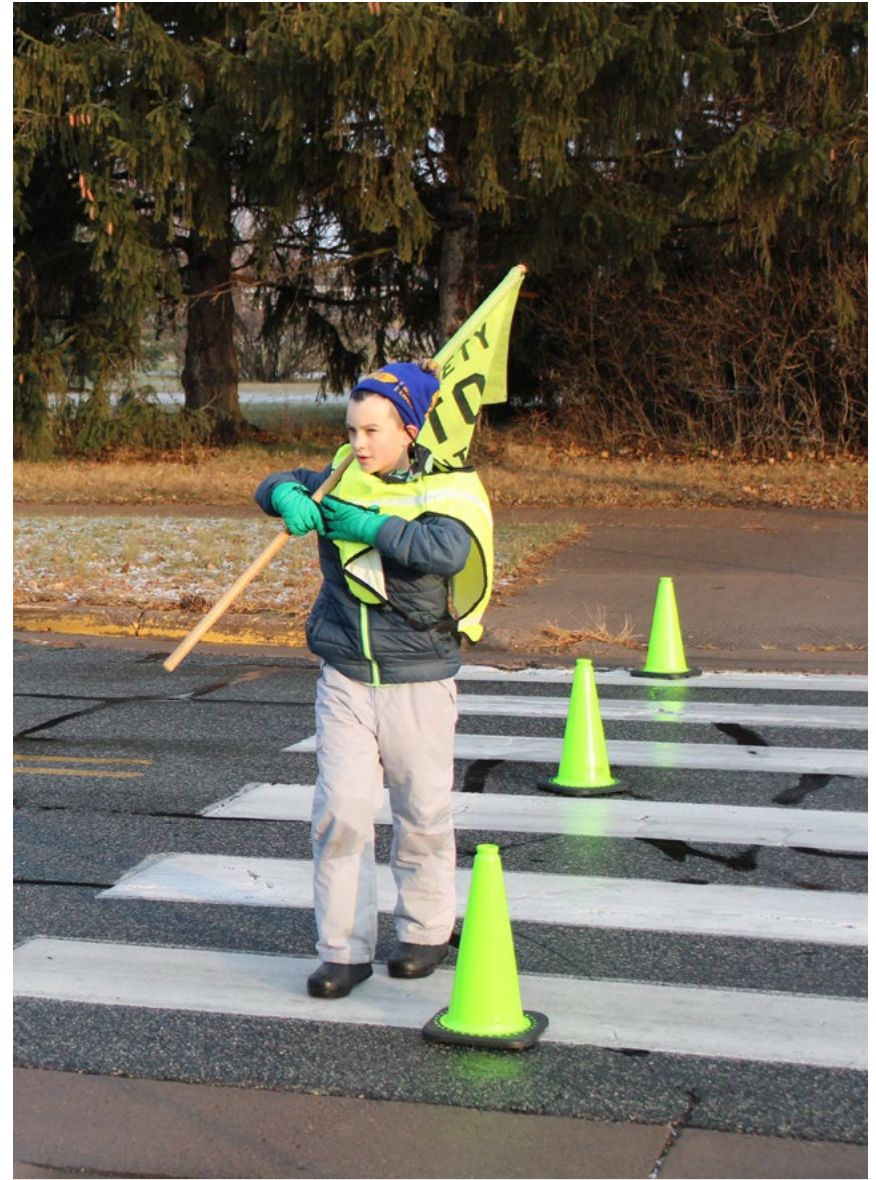


Temporary/Pop-up Traffic Calming

Temporary/Short-term Traffic Calming

Many traffic calming efforts are long-term projects that requires engineering, money and time to plan. Temporary traffic calming is a method used to help catapult permanent traffic calming into place. These are often used to improve a public space through actions that result in reduced speeds, promote awareness of walking and biking, and other safety enhancements. These pop-up projects help to deliver quick, low-cost solutions. These type of projects can range from a one day demonstration to a 1-5 year interim design.

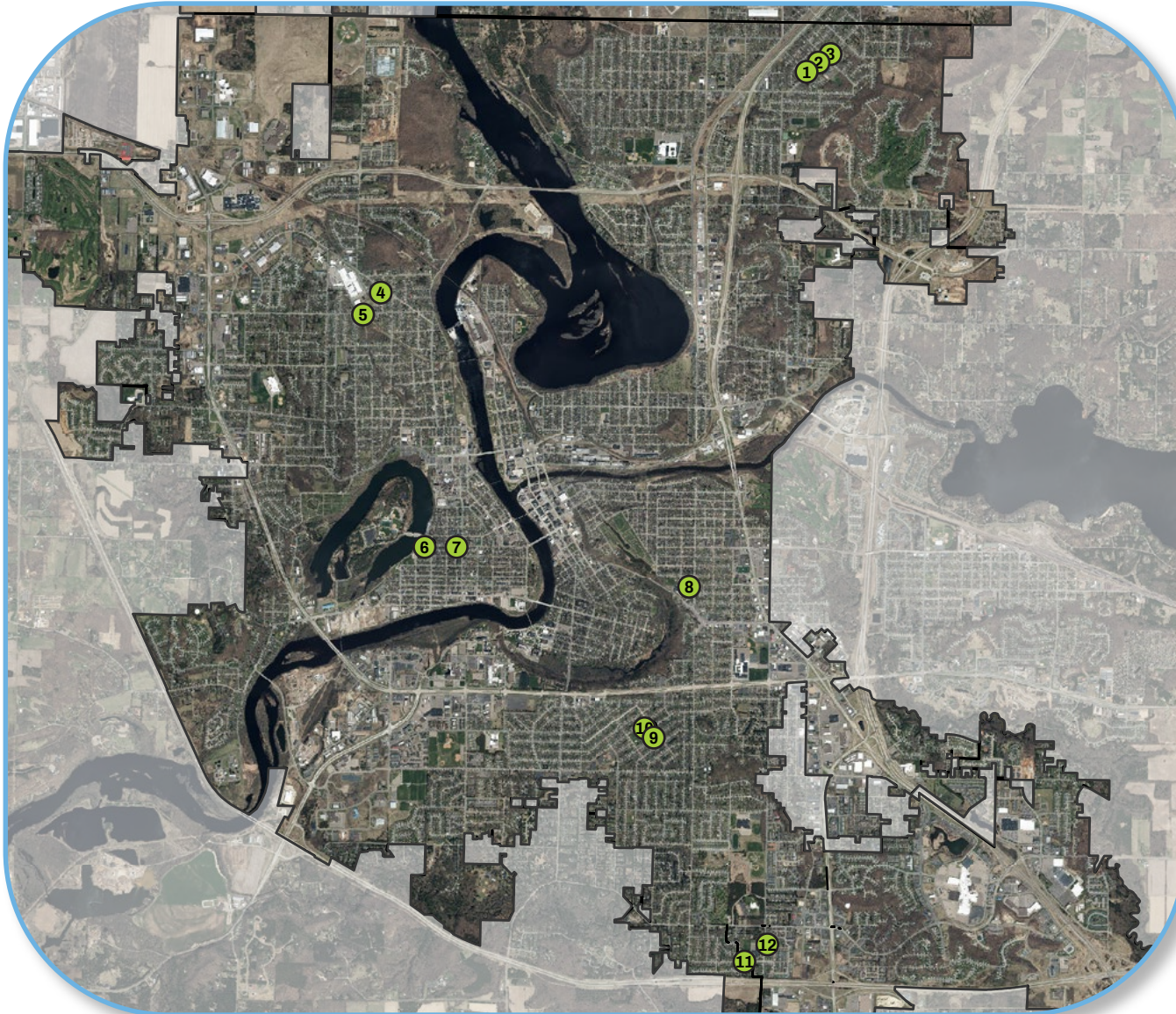
At Putnam Heights Elementary School, the Student Safety Patrol members that are located at the MacArthur bumpout bring three fluorescent-green cones with them to place in the bumpout. They place one in the middle, and two on either side of the driving lanes. They do this only during drop off and pick up times. This method reduces that lane width through the bumpout and requires vehicles to slow down and draw their attention to the crossing.



Putnam Heights Bumpout with cones.



Safety Cone Locations to Explore



1. South Locust Lane ES crossing
2. Middle Locust Lane ES crossing
3. Locust Lane and Potter
4. Truax and 8th
5. Folsom and Bike path
6. Lake and 7th
7. Lake and 5th
8. Margaret and Fenwick
9. Eisenhower and Bradley
10. Eisenhower and Taft
11. Meadowview Bumpout
12. Fairfax Bumpout

 Safety Green Cone Location











EAU CLAIRE
AREA SCHOOL DISTRICT



West Central Wisconsin Regional Planning Commission