

FLORIN ROAD CRASHES



CORRIDOR CRASH SUMMARY (2009-2017)

ALL INJURY CRASHES	192	28	29
FATAL AND SEVERE CRASHES	8	6	2

KEY CHARACTERISTICS

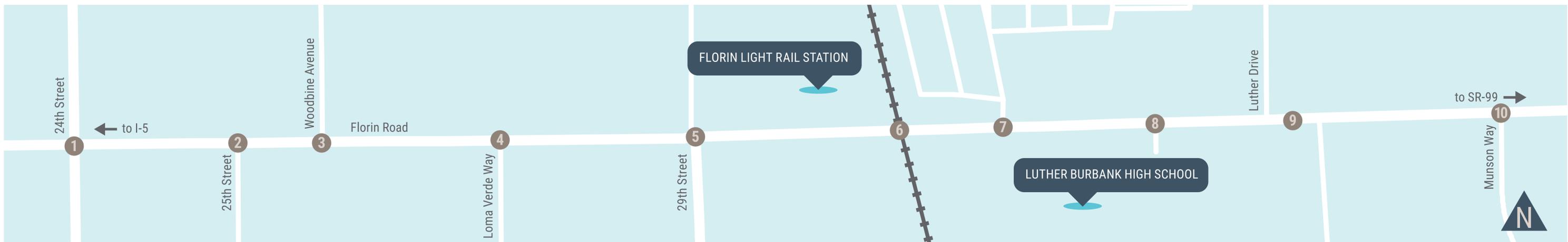
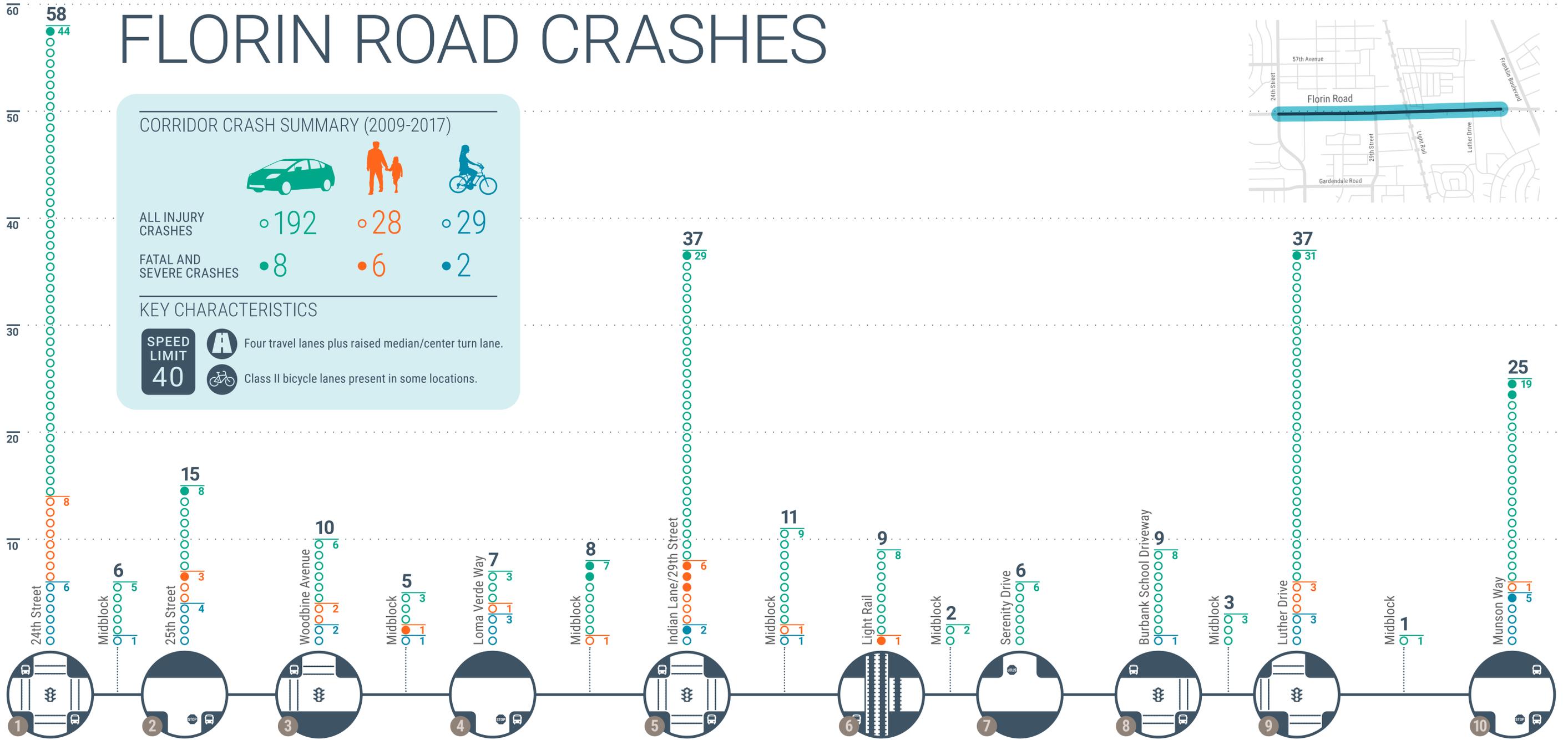
SPEED LIMIT
40



Four travel lanes plus raised median/center turn lane.



Class II bicycle lanes present in some locations.



CORRIDOR-WIDE CRASH TYPES

VEHICLE

Unsafe Speed

"Unsafe Speed" was cited as the primary violation in nearly half of all crashes.

1 2 3 4 5 6
7 8 9 10

Proceeding Straight

75% of drivers were proceeding straight or stopped at the time of the crash.

1 2 3 4 5 6
7 8 9 10

Rear End

Nearly half of all crashes were rear end.

1 2 3 4 5 6
7 8 9 10

PEDESTRIAN

Pedestrian Crossing

The majority of people hit while walking were crossing. Half of people were in the crosswalk.

1 2 3 4 5 6
7 8 9 10

Winter Crashes

Over 40% of pedestrian crashes occurred in November, December or January.

1 2 3 4 5 6
7 8 9 10

Senior Victims

10 of the 28 people hit while walking were age 60 or older.

1 2 3 4 5 6
7 8 9 10

BICYCLE

Wrong Way Riding

The primary violation cited in over 40% of bicycle crashes was "Wrong Side of Road."

1 2 3 4 5 6
7 8 9 10

Broadside

More than half of bicycle crashes were broadside, also called T-Bone.

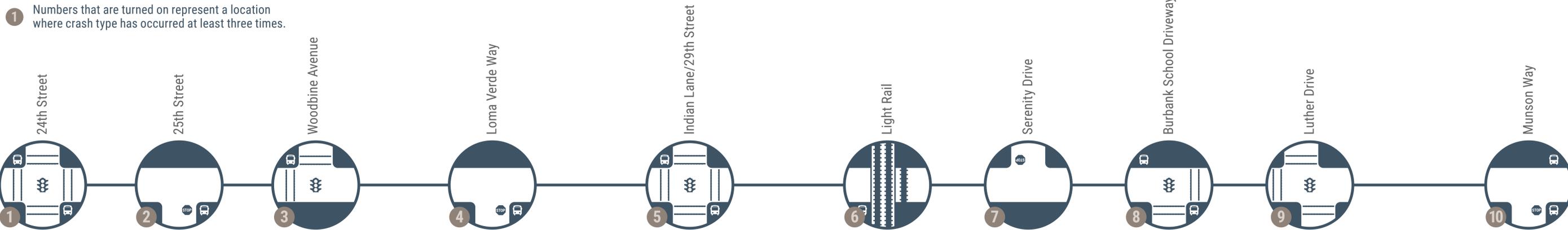
1 2 3 4 5 6
7 8 9 10

Right Turns

In nearly 40% of bike crashes, the driver was making a right turn.

1 2 3 4 5 6
7 8 9 10

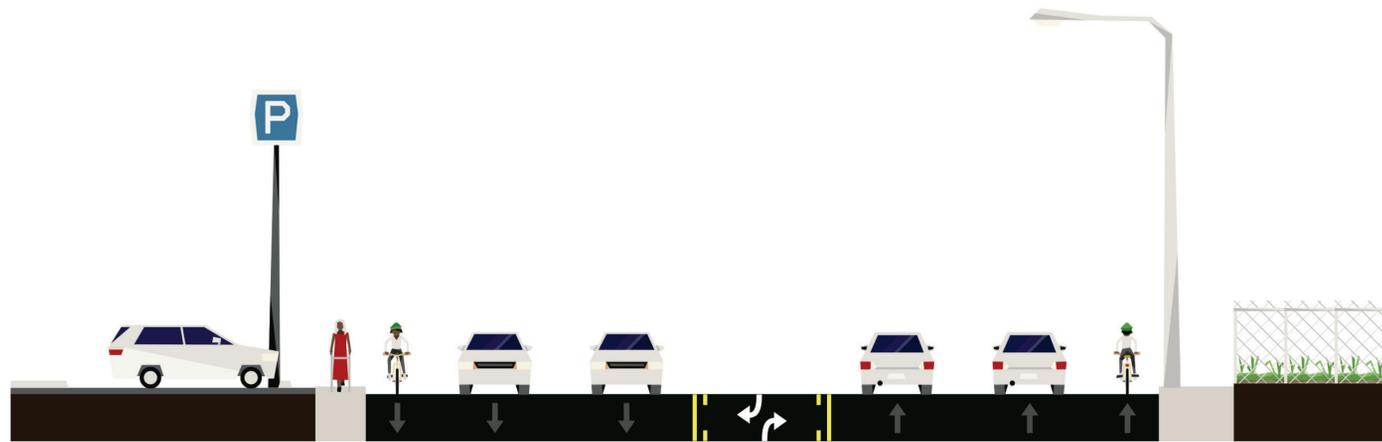
1 Numbers that are turned on represent a location where crash type has occurred at least three times.



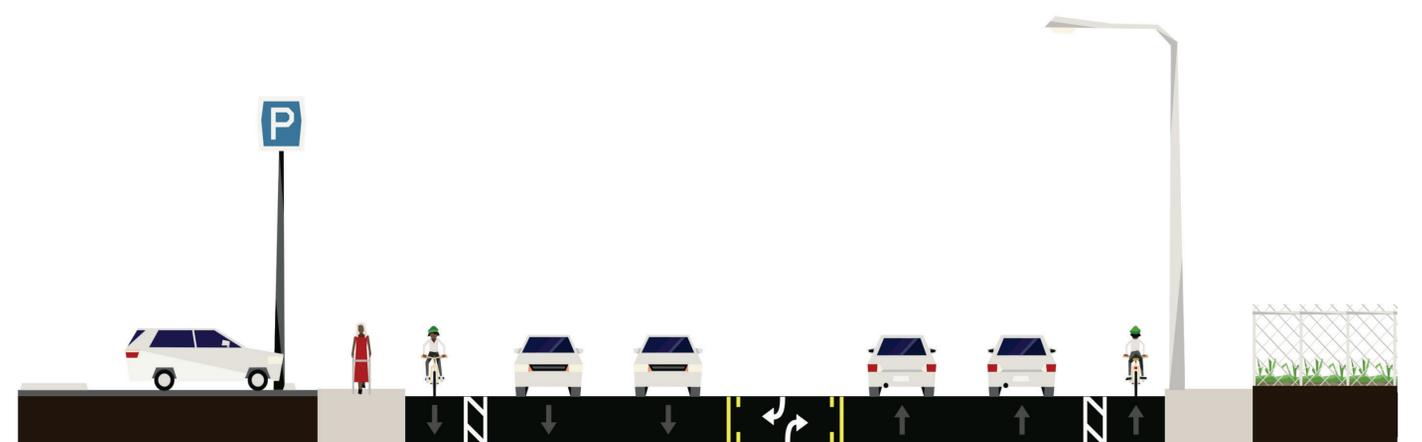
FLORIN ROAD CORRIDOR-WIDE RECOMMENDATIONS

SPEED LIMIT
40

(XXX) Distance Between Crosswalks With Improvements
XXX Existing Distance Between Crosswalks
..... On-Street Bicycle Lane



What You See Today

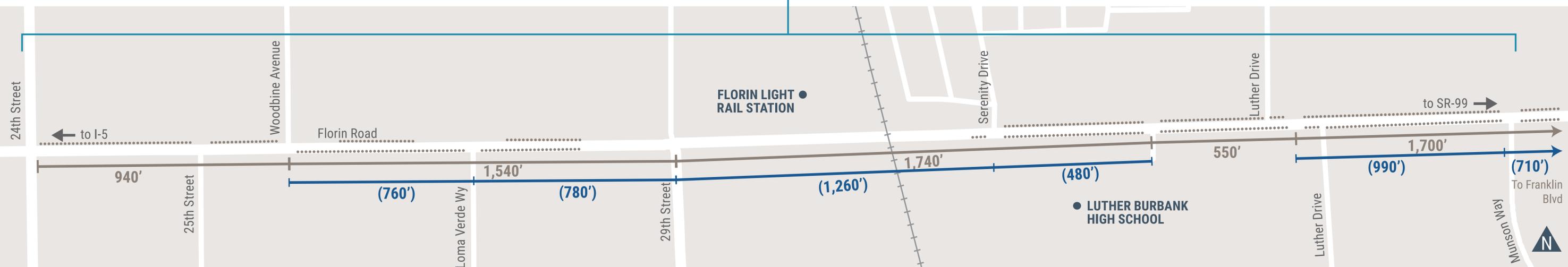


What's Proposed

Source: StreetMix (CC BY-SA 4.0, <https://creativecommons.org/licenses/by-sa/4.0/>)

Corridor-Wide Recommendations

- Narrow Lanes
- Separated/Buffered Bikeway
- Pedestrian Scale Lighting
- Consolidate Driveways
- Widen Sidewalk
- Landscape Buffer
- Slow Green Wave
- Bicycle Conflict Zone Markings
- Protected Left Turns
- Advanced Dilemma-Zone Detection

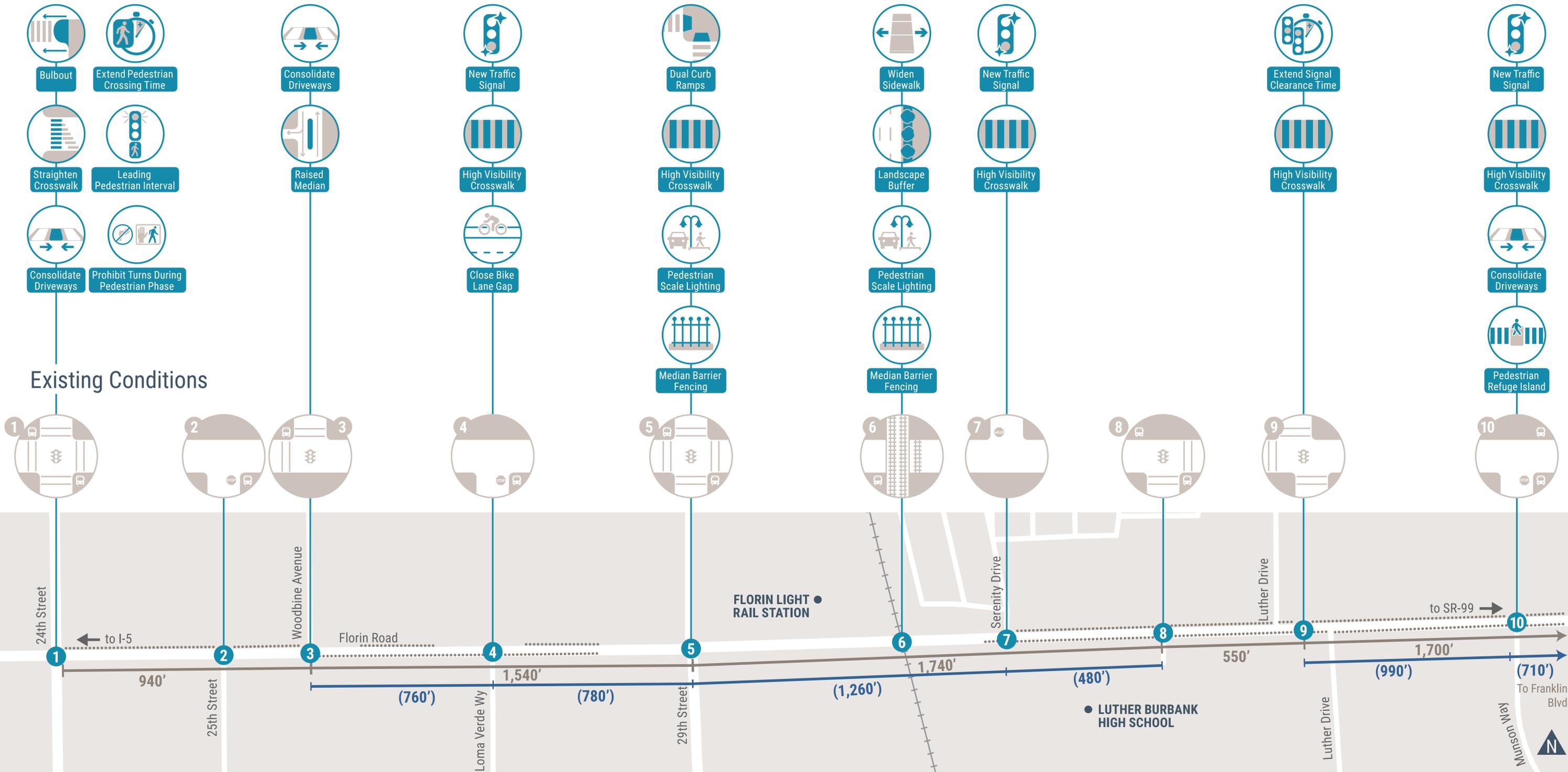


FLORIN ROAD RECOMMENDATIONS

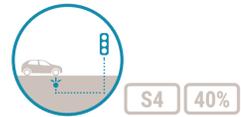
SPEED LIMIT
40

(XXX) Distance Between Crosswalks With Improvements
 XXX Existing Distance Between Crosswalks
 On-Street Bicycle Lane

Location-Specific Recommendations



FLORIN ROAD IMPROVEMENTS



S4 40%

Advanced Dilemma-Zone Detection

Signals/Signage

Advanced dilemma-zone detection enhances safety at signalized intersections by modifying traffic control signal timing on the fly to reduce the number of drivers that may have difficulty deciding whether to stop or proceed during a yellow phase. This may reduce rear-end crashes associated with unsafe stopping and angle crashes due to red light running.



Bicycle Conflict Zone Markings

Bike Safety

Green pavement within a bicycle lane to increase visibility of bicyclists and to reinforce bicycle priority. The green pavement is used as a spot treatment in conflict areas such as driveways.



Bulbout

Crossings, Pedestrian Safety, Speed, Visibility

Raised devices, usually constructed from concrete, landscaping, or paint and plastic materials, that narrow the roadway to reduce speeds of turning vehicles, improve sight lines, and shorten pedestrian crossing distances.



R36 35%

Close Bike Lane Gap

Bike Safety

Closing gaps between bicycle lanes increases the amount of dedicated facilities bicyclists can use, reducing mixing of bicyclists and drivers and increasing network connectivity and visibility of bicyclists in the roadway.



Consolidate Driveways

Bike Safety, Pedestrian Safety, Visibility

Reducing the number of driveway entrances/exits through consolidation limits the exposure of bicyclists, pedestrians, and drivers to vehicles entering or exiting driveways, reducing conflicts.



Dual Curb Ramps

Pedestrian Safety

Dual curb ramps improve ADA accessibility at all intersection approaches so that pedestrians with mobility challenges, or those pushing carts or strollers, can safely enter and exit all crosswalks.



S3 15%

Extend Pedestrian Crossing Time

Crossings, Pedestrian Safety

Increases time for pedestrian walk phases, and can better accommodate vulnerable populations such as children and the elderly.



S3 15%

Extend Signal Clearance Time

Signals/Signage

Extending yellow and all red time allows drivers and bicyclists to safely cross through a signalized intersection before conflicting traffic movements are permitted to enter the intersection.



NS6/NS17/NS18 25-35%

High Visibility Crosswalk

Crossings, Pedestrian Safety, Visibility

A crosswalk designed to be more visible to approaching drivers, striped with ladder markings using high-visibility material such as thermoplastic tape instead of paint.



Landscape Buffer

Pedestrian Safety

Separating drivers from bicyclists and pedestrians using landscaping provides more space between the modes and can produce a traffic calming effect by encouraging drivers to drive at slower speeds, lowering the risk of collision.



59%

Leading Pedestrian Interval

Crossings, Pedestrian Safety, Visibility

Traffic signals timed to allow pedestrians a short head start in crossing an intersection to minimize conflicts with turning vehicles and improve pedestrian visibility.



R3 25%

Median Barrier Fencing

Crossings, Pedestrian Safety

Pedestrian median barriers restrict pedestrians from crossing the median at locations where nearby crossings are available and midblock crossings may have poor sight lines or insufficient safety enhancements for the conditions.



Narrow Lanes

Speed

A reduction in lane width, to 11 feet, produces a traffic calming effect by encouraging drivers to travel at slower speeds, lowering the risk of collision with bicyclists, pedestrians, and other drivers.



NS3 25%

New Traffic Signal

Signals/Signage

New traffic signals help organize travel of all modes at an intersection, limiting interactions between vehicles, pedestrians, and bicyclists with conflicting movements. New signals can have a traffic calming effect on long, high-speed straightaways.



S12/NS16 25-45%

Pedestrian Refuge Island

Crossings, Pedestrian Safety, Speed, Visibility

Pedestrian refuge islands provide a protected area for pedestrians at the center of the roadway. They reduce the exposure time for pedestrians crossing the intersection and simplify crossings by allowing pedestrians to focus on one direction of traffic at a time.

FLORIN ROAD IMPROVEMENTS



S1/NS1/R1 35-40%

Pedestrian Scale Lighting

📌 Crossings, Pedestrian Safety, Visibility

Appropriate quality and placement of lighting can enhance an environment as well as increase comfort and safety. Pedestrian-scale lighting is lower in height than standard streetlighting and is spaced closer together.



Prohibit Turn During Pedestrian Phase

📌 Bike Safety, Crossings, Pedestrian Safety, Signals/Signage

Restricts left or right turns during the pedestrian crossing phase at locations where a turning vehicle may conflict with pedestrians in the crosswalk. This restriction may be displayed with a blank-out sign.



S6/S17 30-55%

Protected Left Turns

📌 Signals/Signage

Protected left turns provide an exclusive phase for left-turning vehicles to enter an intersection separate from conflicting vehicle or pedestrian movements.



S13/NS12/R9 25-45%

Raised Median

📌 Crossings, Pedestrian Safety, Speed

Curbed sections in the center of the roadway that are physically separated from vehicular traffic. Raised medians can also help control access to and from side streets and driveways, reducing conflict points.



R36 35%

Separated/Buffered Bikeway

📌 Bike Safety

Wide sidewalks can provide a more comfortable space for pedestrians. They are particularly helpful at important for locations with high volumes of pedestrians, and for providing space to accommodate people in wheelchairs.



Slow Green Wave

📌 Signals/Signage, Speed

A series of traffic signals coordinated to allow for slower vehicle travel speeds through several intersections along a corridor. Coordinating signals for slower travel speeds gives bicyclists and pedestrians more time to cross safely and encourages drivers to travel at slower speeds.



Straighten Crosswalk

📌 Crossings, Pedestrian Safety, Visibility

Straightening crosswalks improves sight lines, making pedestrians more visible to oncoming drivers, and may shorten the crossing distance, reducing the length of time required for pedestrians to cross an intersection.



Widen Sidewalk

📌 Pedestrian Safety

Wide sidewalks can provide a more comfortable space for pedestrians. They are particularly helpful at important for locations with high volumes of pedestrians, and for providing space to accommodate people in wheelchairs.