**CORRIDOR-WIDE CRASH TYPES**

### VEHICLE

- **Unsafe Speed**
  - "Unsafe Speed" was cited as the primary violation in nearly half of all crashes.
  - Numbers that are turned on represent a location where crash type has occurred at least three times.

- **Proceeding Straight**
  - 75% of drivers were proceeding straight or stopped at the time of the crash.

- **Rear End**
  - Nearly half of all crashes were rear end.

### PEDESTRIAN

- **Pedestrian Crossing**
  - The majority of people hit while walking were crossing. Half of people were in the crosswalk.

- **Winter Crashes**
  - Over 40% of pedestrian crashes occurred in November, December or January.

- **Senior Victims**
  - 10 of the 28 people hit while walking were age 60 or older.

### BICYCLE

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

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

- **Right Turns**
  - In nearly 40% of bike crashes, the driver was making a right turn.
Reducing the number of driveway entrances/exits through consolidation limits the exposure of bicyclists, pedestrians, and drivers to vehicles.

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.

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.

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.

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.

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.

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.

Pedestrian Refugium
- Pedestrian Safety
- Pedestrian refuge islands provide a protected area for pedestrians at the center of the intersection and simplify crossings by allowing pedestrians to focus on one direction of traffic at a time.

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.

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.

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.

Pedestrian Safety
- Crossings, Pedestrian Safety, Speed, Visibility
- 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.

Caltrans Local Road Safety Manual ID
- Crash Reduction Factor
- Safety Issue Categories
- R36
- S3
- R3
- S12/NS16
- 35%
- 15%
- 25%
- 25-45%
- 40%

R36
- 35%
- S3
- 15%
- NS6/NS17/NS18
- 25-35%
- 59%
- S4
- 40%
- R3
- 25%
- NS3
- 25%
- S12/NS16
- 25-45%
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.

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.

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.

Separated/Buffered Bikeway
- Bike Safety

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