



PEDESTRIAN SAFETY WEBINAR

February 21, 2019

Pedestrian Advisory Committee

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AGENDA

- Introductions
- Vision Zero
- Initial Safe Streets Analysis Results
- Intro to Low-Stress Walk Network
- Next Steps

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VISION ZERO

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WHAT IS VISION ZERO?



- Comprehensive travel safety program
- Goals:
 - **Reduce the number of traffic-related fatalities and serious injuries to zero.**
 - Reduce other types of collisions for people using all modes of travel.
 - Improve travel conditions for people walking and bicycling by addressing travel comfort and security.

- Intro video: <https://vimeo.com/247190014>

"Traffic collisions are preventable, and even one fatality is too many."

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VISION ZERO

4 E's



Education/Encouragement



Enforcement



Engineering



Evaluation

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VISION ZERO: COMMUNITY-WIDE EDUCATION

Community-wide education
through social media



"Craig Towler lost both his legs – and nearly his life – on July 4, 2016, in Boulder due to an impaired driver. Craig, and the city, ask that you never, ever drive impaired." [ow.ly/mxn130kJDe2](https://www.ly/mxn130kJDe2) #VisionZero

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VISION ZERO: COMMUNITY-WIDE EDUCATION

Education through traditional media



Community Newsletter



Inside Boulder News



Utility Bill Insert

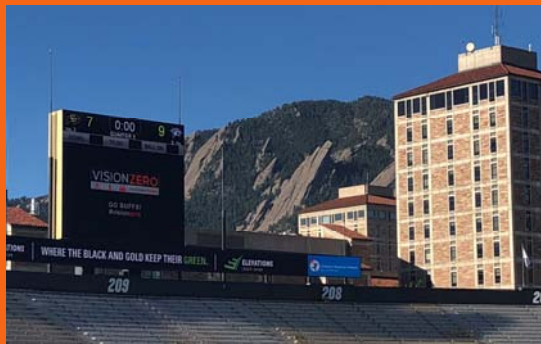


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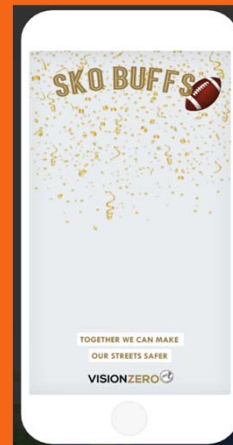


VISION ZERO: STUDENT EDUCATION

Partnership with CU to reach student population



Vision Zero video CU football games



Snapchat filters

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VISION ZERO: NEIGHBORHOOD SPEED MANAGEMENT PROGRAM



Neighborhood Speed Management Program Website:
boulder.colorado.gov/transportation/nsmp

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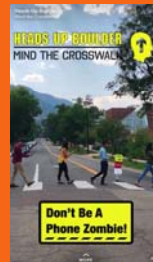
VISION ZERO: HEADS UP CROSSWALK SAFETY CAMPAIGN



Bus Advertisement



Enforcement



Snapchat filters



Outreach



Decals

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VISION ZERO: SAFE ROUTES TO SCHOOL PROGRAM




Safety Improvements




Bike Education

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VISION ZERO: LIGHTEN UP BOULDER



- Free Pedestrian and Bike Lights (through events and community partners)
- Education through social media




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VISION ZERO: BICYCLE-FRIENDLY DRIVER COURSE

Bicycle-Friendly Driver Program

Become a certified Bicycle-Friendly Driver!

No matter how we get around, we're all people and safety is a shared responsibility. Help make Colorado's roads safer and more courteous.

The 1.5 interactive course covers:

- Common crashes between motorists and bicyclists and how to avoid them
- Laws and responsibilities for both motorists and bicyclists
- How to navigate on-street bicycle infrastructure
- Why sharing the road is the safest option for both motorists and bicyclists

All levels of motorists and bicyclists have shared that they benefited from attending the course. Upon successful completion, participants will receive a Bicycle-Friendly Driver certificate and sticker to display on their vehicle.

"As a driver, motorcyclist and bicyclist, I learned a lot from this class. This is really important information for everyone to know."

Participant

These courses are provided at no cost to partners through a grant awarded to Boulder County by the Regional Air Quality Council.

Find out more about Bicycle-Friendly Driver at bicyclecolorado.org or contact Mo at maureen@bicyclecolorado.org to schedule a course.



- Next training is on March 5 from 6-7:30 p.m.
- Sign up [here](#). More info on bicyclecolorado.gov

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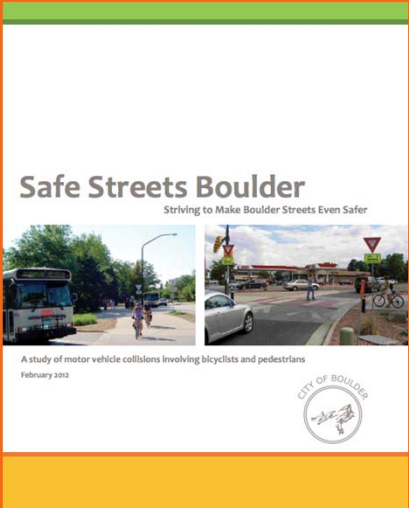
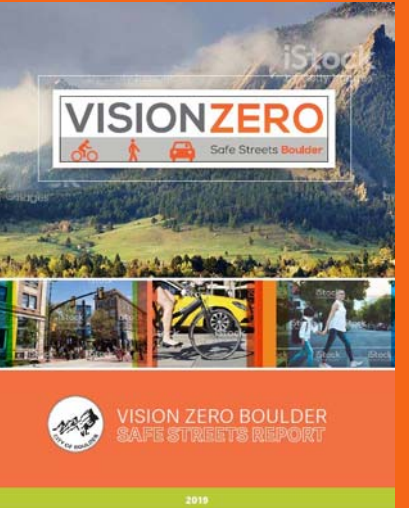
VISION ZERO: ENGINEERING PROJECTS

- 141 mitigation tactics in 83 locations



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 **VISION ZERO: BOULDER SAFE STREETS REPORT**

		
<p>2012 (data 2009-11)</p>	<p>2016 (data 2012-14)</p>	<p>2019 (data 2015-17)</p>

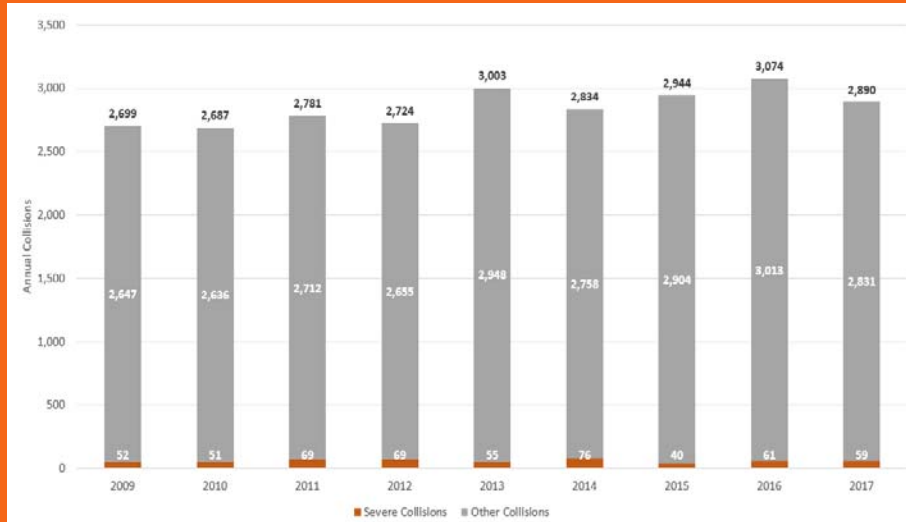
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INITIAL SAFE STREETS ANALYSIS RESULTS

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ALL REPORTED COLLISIONS BY YEAR (2009-17)

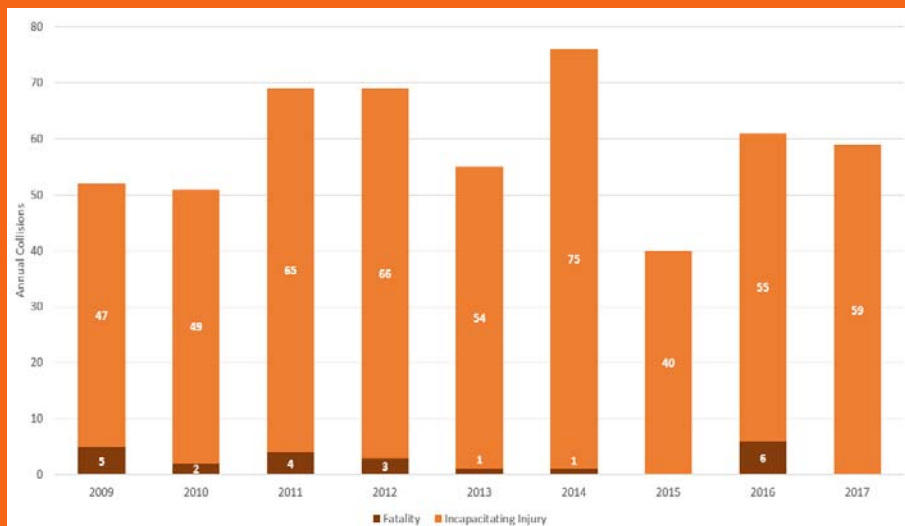


Trend/Summary:

- Total # of collisions has been growing by about 1% since 2009
- Average 8 collisions per day
- One out of every 50 collisions is severe (serious injury or fatal)

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ALL SEVERE COLLISIONS BY YEAR (2009-17) (SERIOUS INJURIES AND FATALITIES)



Trend:

- No upward / downward trend
- Fatalities vary

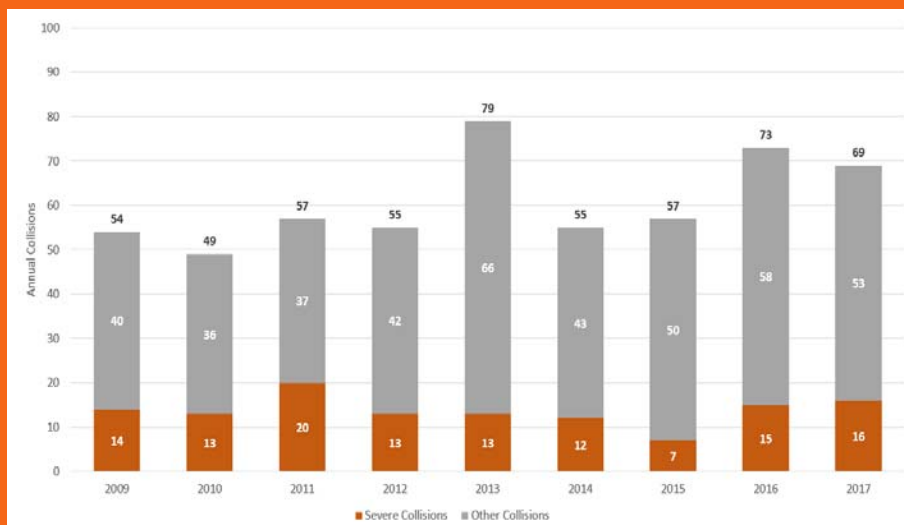
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WHEN ARE COLLISIONS OCCURRING?

- More common in **August, September and October**
- More common on **weekdays** than during the weekend
- Occur more often in the afternoon **between 12:00 p.m. and 5 p.m.**

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PEDESTRIAN COLLISIONS BY YEAR (2009-17)



Trend:

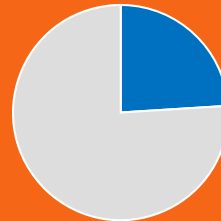
- Total number is increasing at a rate of 2 per year
- No upward / downward trend in severe

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PEDESTRIAN COLLISIONS (2015-17)



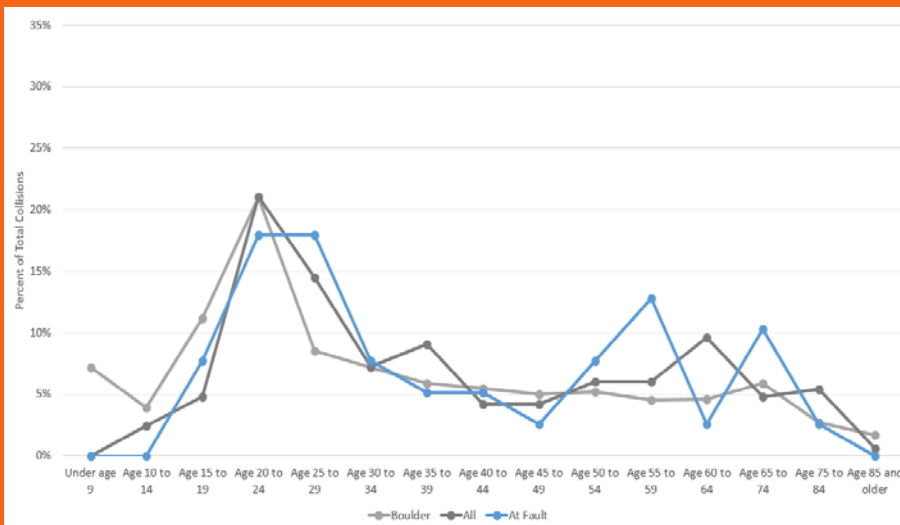
2% of total collisions involve pedestrians (avg: 67 per year)



24% of total severe collisions involve pedestrians (avg: 13 per year)

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AGE OF PEDESTRIANS INVOLVED IN COLLISIONS (2015-17)



• 50% of ped collisions involve peds ages:

- 15-29
- 45-49
- 65-74

• Ages overrepresented in ped collisions are:

- 25-29
- 35-39
- 50-64
- 75-84

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QUESTION TO PARTICIPANTS:

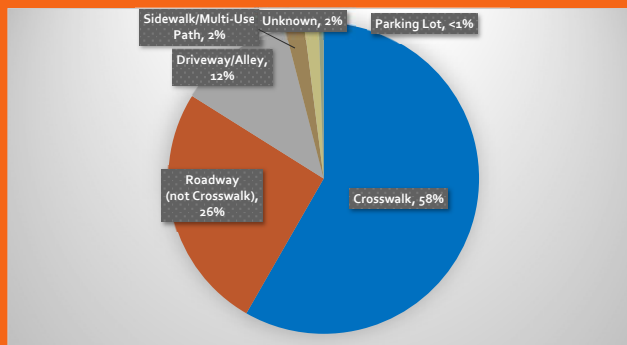
Where do you think most pedestrian collisions occur?

- Crosswalks
- Driveways/alleys
- Parking lots
- Roadways
- Sidewalks/multi-use paths

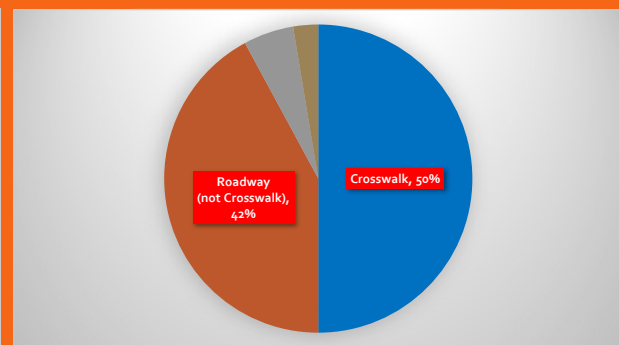
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LOCATION OF PEDESTRIAN COLLISIONS (3-YEAR TOTAL, 2015-17)

Location of All Pedestrian Collisions



Location of Severe Pedestrian Collisions



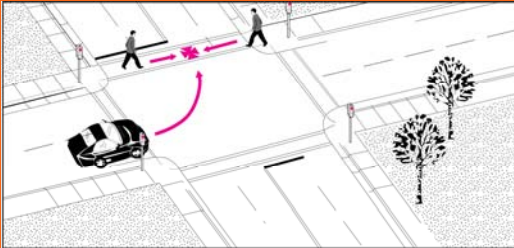
- 58% of total ped collisions occur in crosswalks, 1 out of 6 is severe
(where a sidewalk crosses an intersection, driveway or at a mid-block crosswalk)
- 26% in roadway, 1 out of 3 severe
(in a roadway means not in an intersection, but could be close to intersection)

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TYPES OF PEDESTRIAN COLLISIONS

Turning vehicles

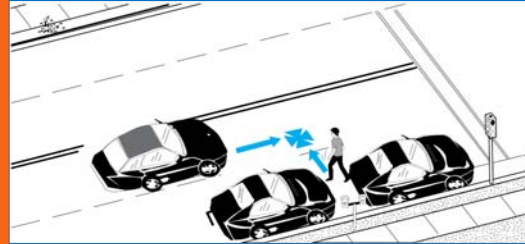
- 4.1% of all ped collisions involve a ped crossing a roadway when a vehicle is turning
- 1 out of 6 is severe (= 12 severe collisions)
- Left turning cars (9 out of 12)
- Right turning cars (3 out of 12)



Example: left turning car

Pedestrian dash/dart-out

- 18% of all ped collisions involve a pedestrian walking or running out into the roadway
- 1 out of 3 is severe (= 10 severe collisions)
- Pedestrian dash out (running) between two parked cars (8 out of 10)
- Pedestrian dart out (view is blocked) (2 out of 10)



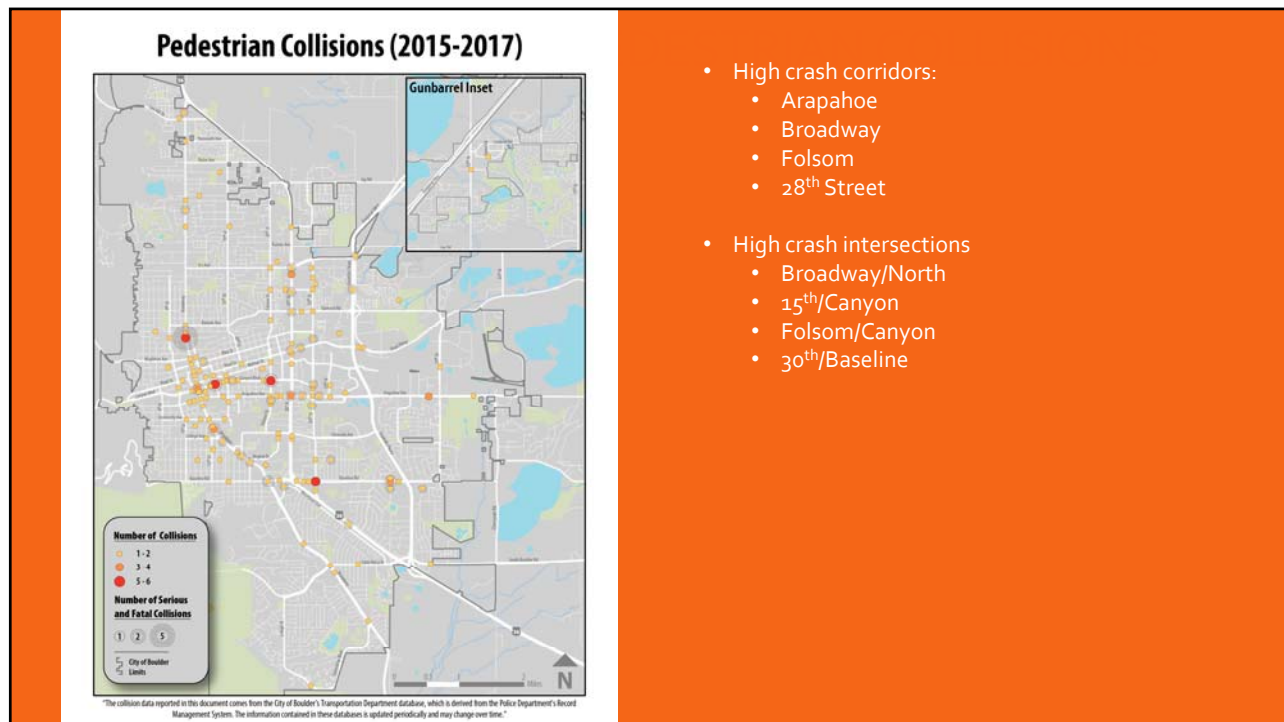
Example: Pedestrian dashing out between two parked cars

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QUESTION TO PARTICIPANTS:

At which specific locations do you think pedestrian collisions happen most?

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SPEED AND IMPAIRMENT

Speed-related collisions:

- Speed was an **influential factor** causing severe injury or
- The vehicle traveled over the posted speed limit
- No speed-related collisions involving pedestrians occurred in 2015-17

Impaired collisions:



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ACTION PLAN

- 50+ action items total
- Near-term action items include:
 - Protected Left-Turns
 - Pedestrian Head Starts
 - Signing and Striping

ELIMINATE SEVERE INJURY COLLISIONS (GOAL #1)

VISIONZERO

Vision Zero goes beyond the traditional means of traffic engineering and employs a safe systems approach that is both responsive and proactive. Through crash analysis, we identify high crash locations and determine crash countermeasures to eliminate severe crash types. The areas below identify the major focus areas where severe crashes are occurring and what we are doing to eliminate them.

Action	4 E's*	Timeframe	Partners**	Performance Metric(s)
Address high severe injury locations				
1. Implement specific countermeasures at high crash locations (ped, bikes, vehicles)	E, E, E, E	Ongoing	Transportation, PD	Target: # of intersections identified % of intersections addressed
2. Create a severe crash review team to address severe crashes	E, E, E, E	Ongoing	Transportation, CMO, COMM, PD	Response team deployed
3. Vision Zero capital improvement projects (Highway Safety Improvement Program)	E, E, E, E	2019	Transportation	3 projects constructed in 2019 - Colorado/Regent; Baseline/29th; Broadway/Rayleigh
Address pedestrian-related crashes				
4. Proactively implement new signal timing practices at identified intersections to improve pedestrian safety, example, pedestrian head start (PH)	E, E, E	Ongoing	Transportation	Target: # of intersections identified % of intersections addressed
5. Provide pedestrian/motorist education on common types of crashes that involve pedestrians, including Heads Up Boulder and Lighten Up Boulder programs	E, E, E	Ongoing	Transportation	# of classes & participants # of people reached through outreach events and social media engagement # of lights distributed
6. Review and refine Pedestrian Crossing Treatment Guidelines	E, E, E	2019-20	Transportation, PD	Revised guideline and improvements to # crosswalks
Address bicycle-related crashes				
7. Develop a plan to proactively install green pavement markings in advance and through select intersections	E, E, E	2019-20	Transportation	# of intersections identified % of intersections addressed
8. Continuously improve routine maintenance practices for bicycle and	E, E, E, E	Ongoing	Transportation, COMM	Maintenance practices refined and # of complaints reduced from 2018 (baseline)

*4 E's Key: Engineering, Education, Enforcement, Evaluation, Funding

**Partners Key at end of document

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QUESTION TO PARTICIPANTS:

What other pedestrian safety questions would you like answered?

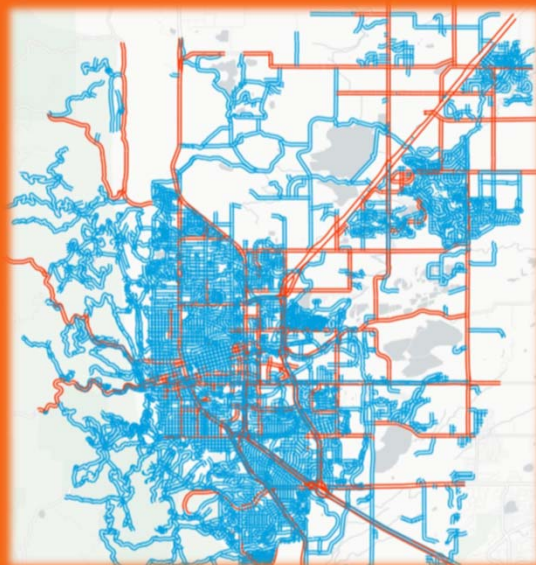
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LOW-STRESS WALK NETWORK

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LOW-STRESS WALK NETWORK PLAN

- **Reflect comfort** to support identification of improvement projects
- Emulate Low-/High-Stress assessment of bike facilities
- Separate methodology for segments and crossings
- Use available data for key factors
- Update/improve over time



Low-/High-Stress Bike Map

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LEVEL OF COMFORT



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PRELIMINARY FACTORS

Segments

- Presence of Sidewalk and Type
- Number of Travel Lanes
- Posted Speed Limit
- Commercial Driveway Curb Cuts

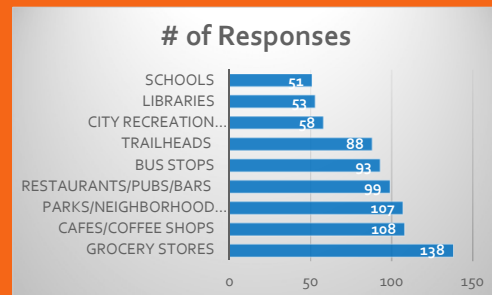
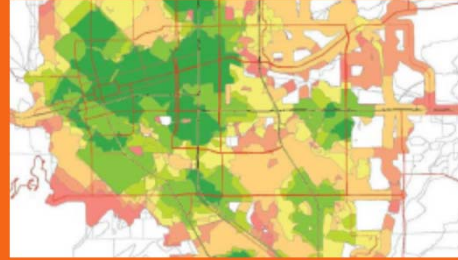
Crossings

- Marked/Unmarked
- Treatment (signal, stop sign, etc.)
- Crossing Distance/# of Travel Lanes
- Maximum Posted Speed at Intersection

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15-MINUTE NEIGHBORHOOD

- Access/walkability scores
- Question of the Month
Walkable Destinations
- Low-Stress Facilities



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NEXT STEPS

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NEXT STEPS

Safe Streets Report

- Final report Q2 2019

Low-Stress Walk Network

- Finalize comfort methodology and apply 15-min neighborhood Q1 2019
- Identify projects Q2 2019

Pedestrian Plan

- March TBD: Walkabout #4
- Wed, March 20: Pedestrian Advisory Committee Meeting #4
- Thu, Mar 21: TMP Open House
- Thu, Apr 4: What's Up Boulder Open House

Questions?

Amy Lewin: lewina@bouldercolorado.gov

Michelle Melonakis: melonakism@bouldercolorado.gov

THANK YOU!