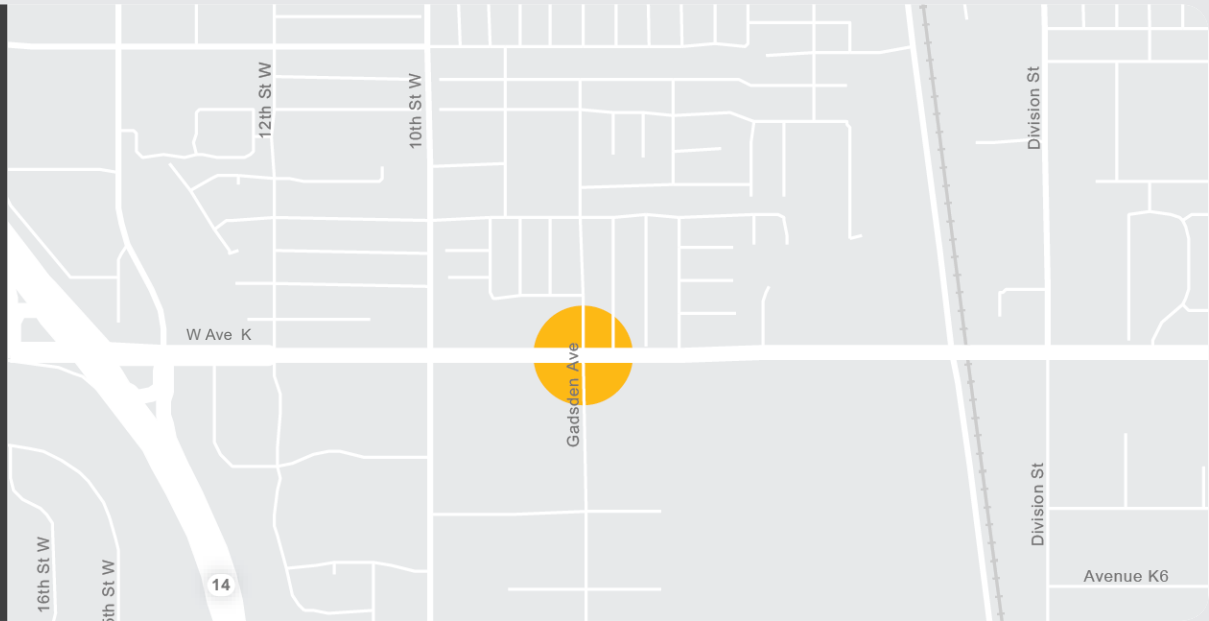
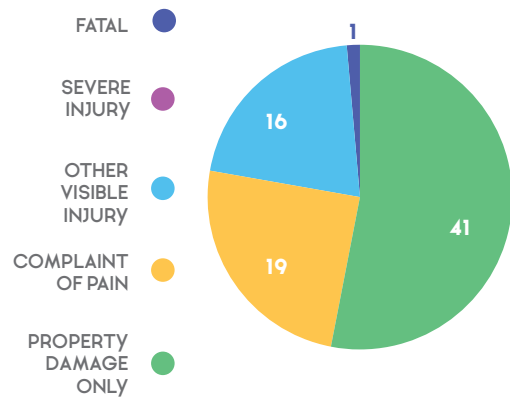


## EXISTING CONDITIONS

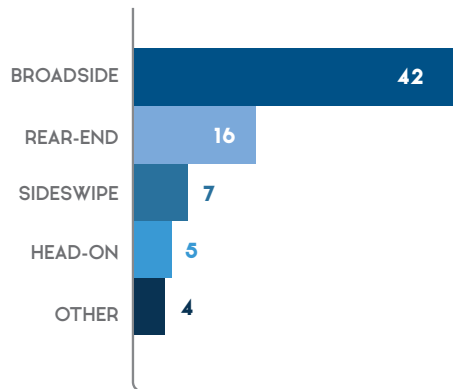
- SIGNALIZED INTERSECTION
- AVENUE K HAS 6 LANES PLUS TURN LANES
- GADSDEN AVENUE HAS 2 LANES, WITH A TURN LANE ON ONE APPROACH
- A FRONTAGE ROAD PARALLELS AVENUE K, INTERSECTION GADSDEN AVENUE IMMEDIATELY NORTH OF THIS INTERSECTION
- YELLOW SCHOOL CONTINENTAL CROSSWALKS
- COUNTDOWN SIGNALS
- PROTECTED/PERMISSIVE LEFT TURNS ON AVENUE K



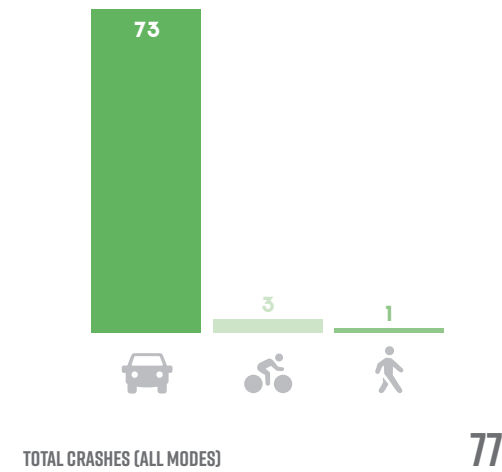
## CRASH SEVERITY



## VEHICLE CRASH TYPES



## CRASHES BY MODE



Crash data analysis years: 2013-2017

### COUNTERMEASURE OBJECTIVES

- REDUCE BROADSIDE CRASHES
- REDUCE LEFT TURN CRASHES



### SHORT-TERM

CMID	Project Description	Cost
S3	Improve Signal Timing with Extended Clearance Time (Based on MUTCD Guidelines and roadway speed)	\$600

### MID-TERM

CMID	Project Description	Cost
S2	Improve signal hardware: lenses, back-plates, mounting, size, and number	\$15,302
S6	Provide protected left turn phase (left turn lane already exists) - Convert from protected/permmissive to protected on Avenue K	\$150,000

### LONG-TERM

CMID	Project Description	Cost
N/A		

### OTHER COSTS

Project Description	Cost
Mobilization	\$16,590
Traffic Control	\$16,590
Contingency	\$39,816
Environmental	\$16,600
PS&E	\$24,900
Appraisals, Acquisitions, and Utilities	\$0
Construction Engineering	\$24,900

COST ESTIMATES

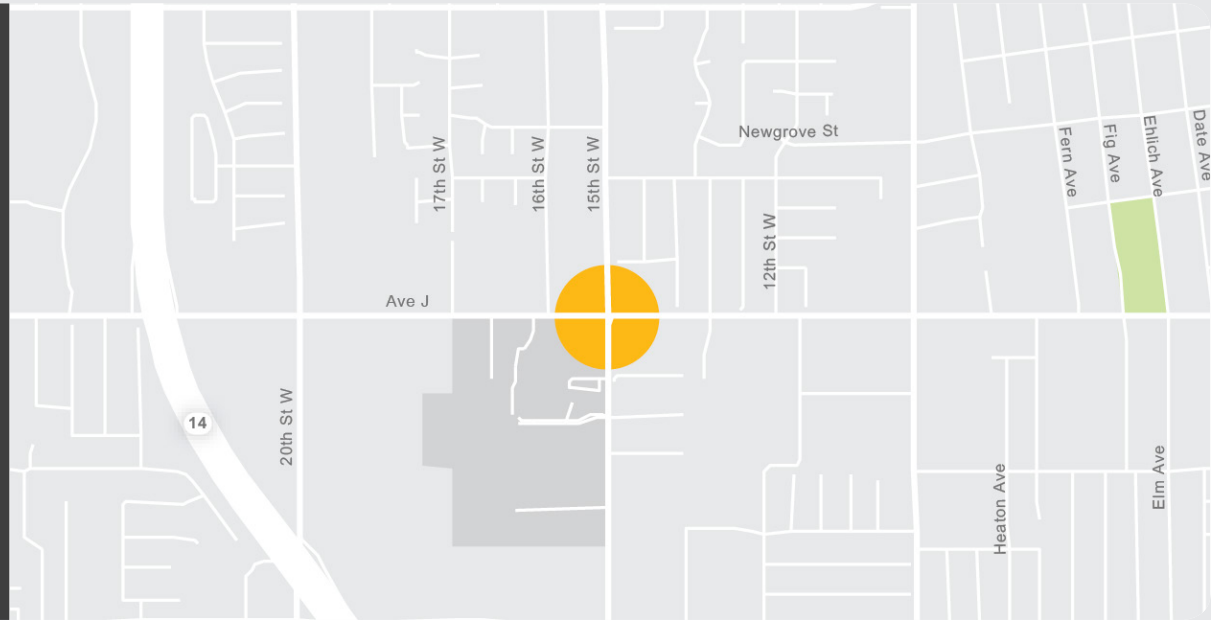
**\$305,299**

EXPECTED BENEFIT/COST RATIO\*

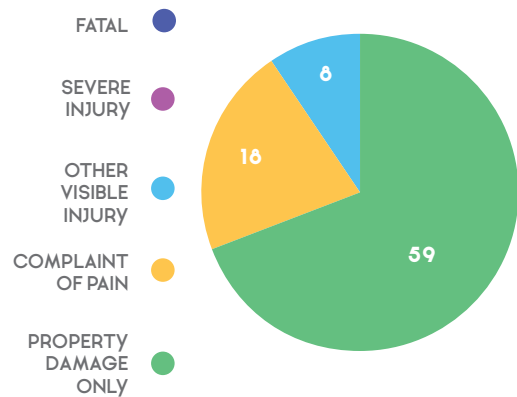
**25.9**

### EXISTING CONDITIONS

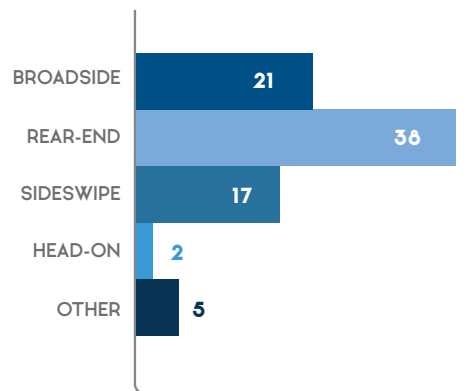
- SIGNALIZED INTERSECTION
- AVENUE J HAS 4 LANES PLUS TURN LANES
- 15TH STREET WEST HAS 2 LANES PLUS TURN LANES TO THE NORTH, AND 3 LANES PLUS TURN LANES TO THE SOUTH
- A BUFFERED BIKE FACILITY RUNS ON 15TH STREET WEST NORTH OF THIS INTERSECTION
- STANDARD CROSSWALKS
- PROTECTED LEFTS ON AVENUE J
- PROTECTED/PERMISSIVE LEFT TURNS ON 15TH STREET WEST



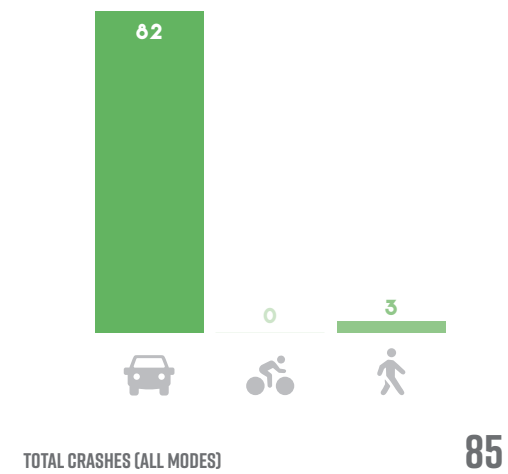
### CRASH SEVERITY



### VEHICLE CRASH TYPES



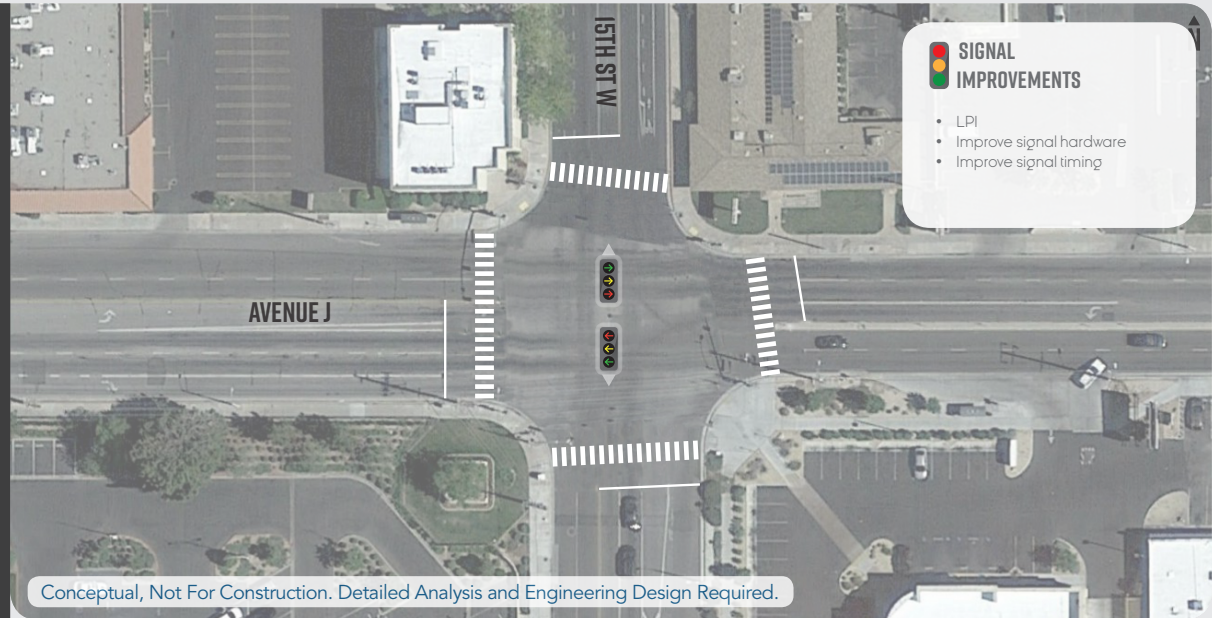
### CRASHES BY MODE



Crash data analysis years: 2013-2017

COUNTERMEASURE OBJECTIVES

- REDUCE REAR-END CRASHES
- REDUCE PEDESTRIAN CRASHES
- REDUCE LEFT TURN CRASHES
- REDUCE UNSAFE SPEED CRASHES



SHORT-TERM

CMID	Project Description	Cost
S3	Improve Signal Timing with Leading Pedestrian Interval (This option will be considered, but must be verified that coordinated signal timing can accommodate)	\$500
S3	Improve Signal Timing with Extended Clearance Time (Based on MUTCD Guidelines and roadway speed)	\$600
S3	Improve Signal Timing with Extended Pedestrian Crossing Times (Based on MUTCD Guidelines and crossing distance)	(incl. above)

MID-TERM

CMID	Project Description	Cost
S2	Improve signal hardware: lenses, back-plates, mounting, size, and number	\$16,395
S20	Install pedestrian crossing - Upgrade to Continental Crosswalks	\$9,240
S21	Install advance stop bar before crosswalk	\$1,440
S6	Provide protected left turn phase (left turn lane already exists) - Convert from protected/permmissive to protected on 15th Street West	\$150,000

LONG-TERM

CMID	Project Description	Cost
N/A		

OTHER COSTS

Project Description	Cost
Mobilization	\$17,818
Traffic Control	\$17,818
Contingency	\$42,762
Environmental	\$17,900
PS&E	\$26,800
Appraisals, Acquisitions, and Utilities	\$0
Construction Engineering	\$26,800

COST ESTIMATES

**\$328,072**

EXPECTED BENEFIT/COST RATIO\*

**25.9**

● Systemic Improvement ● Location-specific Improvement ● Evaluate Proposed Improvement for Implementation

\*B/C ratio reflects projects for Locations 3, 11 and 12