



# CITYWIDE **SAFE ROUTES** to SCHOOL

*An Active Transportation Community* ★ *City of Rialto is an e3p3 Model City*



## **SRTS Prioritization Memorandum**

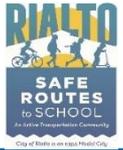
March 2018

# BACKGROUND

1. Walking safety assessment: 29 schools
2. Operational and engineering recommendations
3. Need for methodology to prioritize recommendations
4. Answer: Safe Routes to School Prioritization
5. Goal: City of Rialto can use priority schedule to apply for funding opportunities



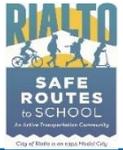
# APPROACH



- 1 Overall School Rank
- 2 Walking Safety Assessment Findings
- 3 Proposed Recommendations
- 4 Roadway Configurations
- 5 Engineering Judgement

**Safe Routes to  
School  
Prioritization**

# SCHOOL RANKING CRITERIA



Free & Reduced Lunch  
%

0-100% of school pop.; 10 pts. maximum

Healthy Fitness  
Zones

0-100% of school pop.; 5 pts. maximum

$\frac{1}{2}$  Mile Student Density

<100 – 300+ students; 5 pts. maximum

School Total  
Enrollment

<500 – 2000+ students; 5 pts. maximum

Collision Analysis  
(Ped/Bike)

0 - >16 collisions; 10 pts. maximum

$\frac{1}{2}$  Mile City Population  
Density

<2,000 – 10,000+ people; 10 pts. maximum

Median Household Income (1/2  
Mile)

<\$10,000 – \$70,000+; 10 pts. maximum

Carless households within school  
area

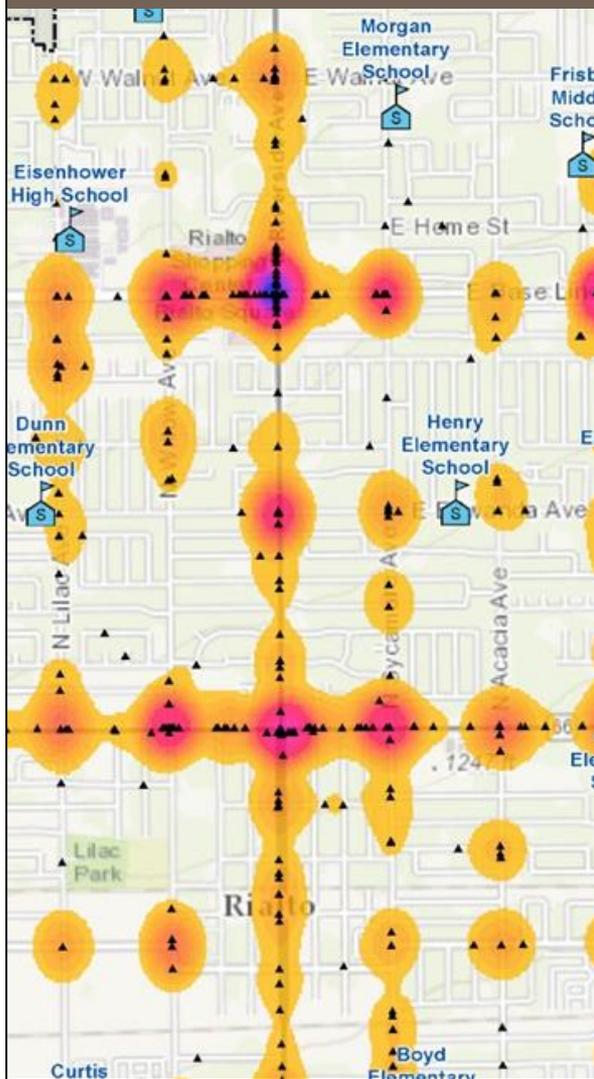
0 - >31 carless households; 5 pts. maximum

# of Schools within  $\frac{1}{4}$   
mile

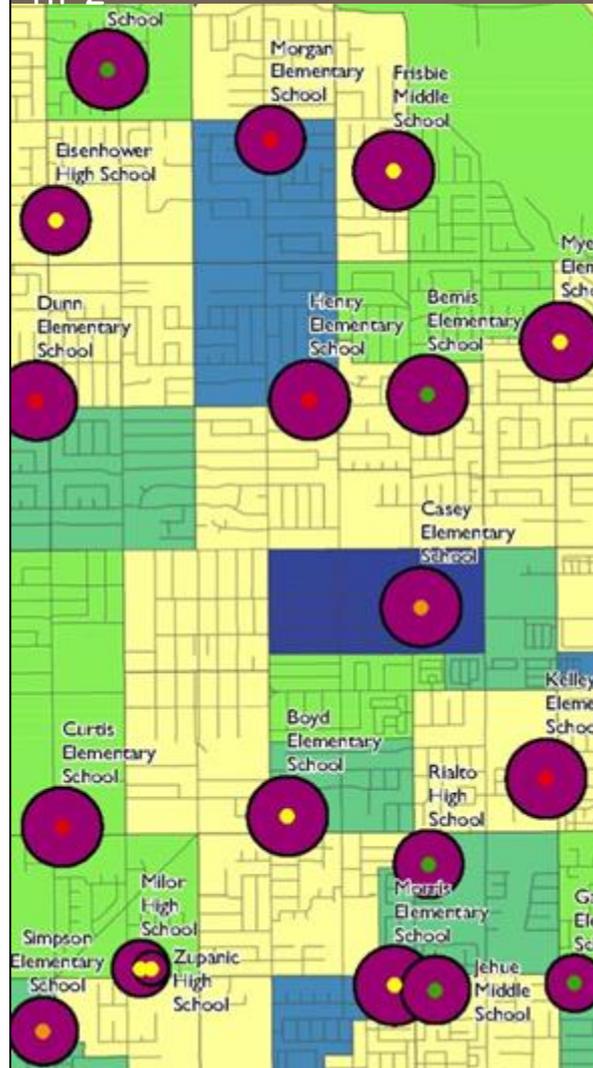
0 - >3 schools; 10 pts. maximum

# NEEDS IDENTIFICATION

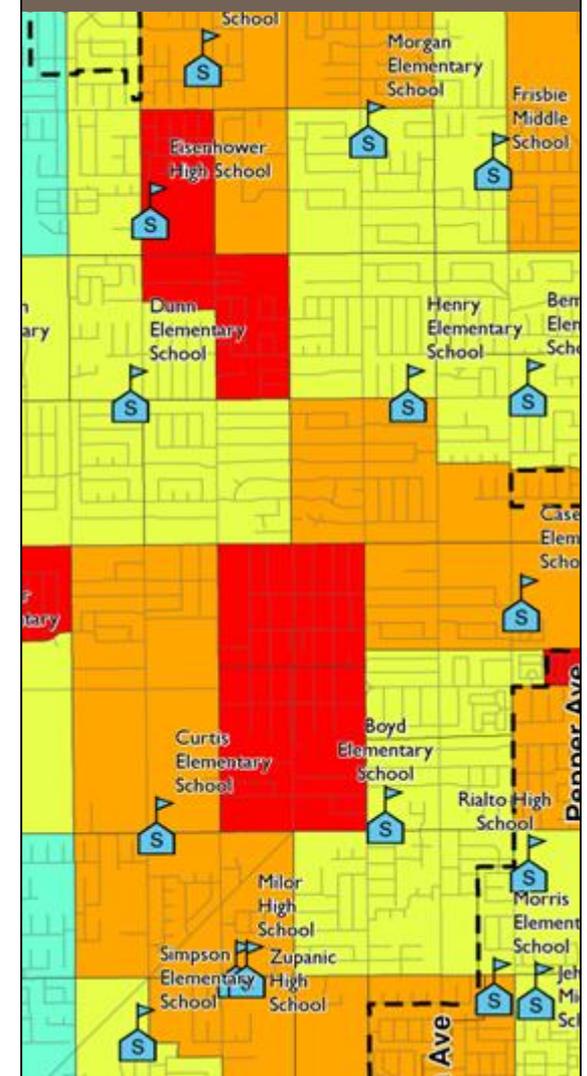
## Collision Analysis



## FRL, Carless House, HFZ

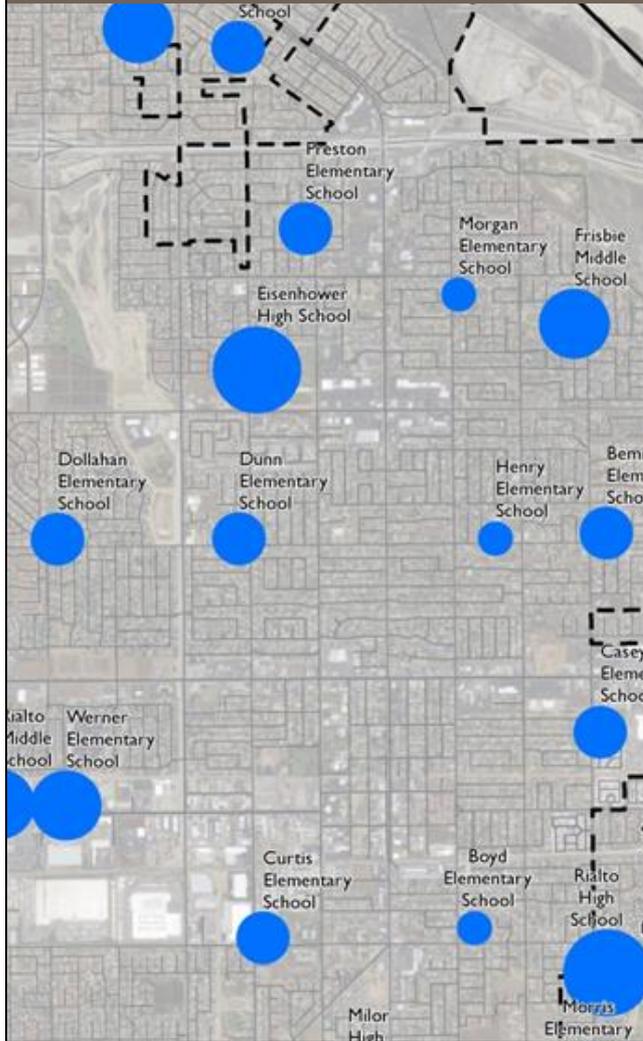


## Median Income



# NEEDS IDENTIFICATION

## School Enrollment



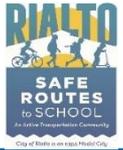
## Student Density



## Speed Limit Analysis



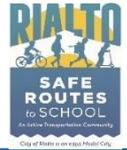
# SCHOOL RANKING RESULTS



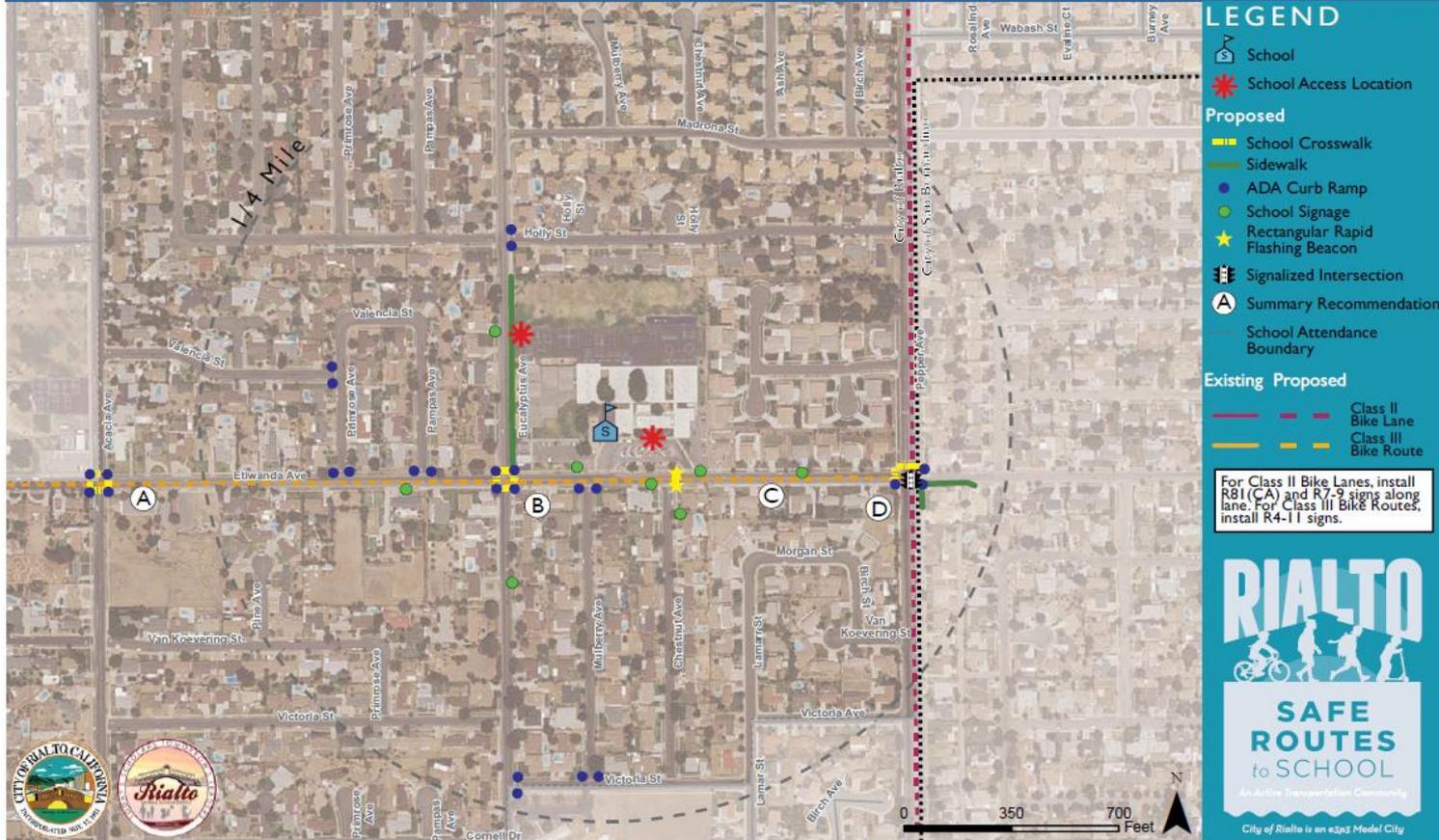
School Name	School Rank
Morgan Elementary School	1
Boyd Elementary School	2
Milor High School	3
Zupanic High School	4
Curtis Elementary School	5
Bemis Elementary School	6
Eisenhower High School	7
Casey Elementary School	8
Rialto High School	9
Simpson Elementary School	10
Morris Elementary School	11
Dunn Elementary School	12
Werner Elementary School	13
Henry Elementary School	14
Rialto Middle School	15

School Name	School Rank
Jehue Middle School	16
Frisbie Middle School	17
Preston Elementary School	18
Garcia Elementary School	19
Kelley Elementary School	20
Myers Elementary School	21
Kolb Middle School	22
Dollahan Elementary School	23
Fitzgerald Elementary School	24
Carter High School	25
Hughbanks Elementary School	26
Trapp Elementary School	27
Kucera Middle School	28
Kordyak Elementary School	29

# SEGMENT ROUTING



## BEMIS ELEMENTARY SCHOOL - ENGINEERING & OPERATIONAL IMPROVEMENTS MAP



- ### LEGEND
- School
  - School Access Location
  - Proposed**
  - School Crosswalk
  - Sidewalk
  - ADA Curb Ramp
  - School Signage
  - Rectangular Rapid Flashing Beacon
  - Signalized Intersection
  - Summary Recommendation
  - School Attendance Boundary
  - Existing Proposed**
  - Class II Bike Lane
  - Class III Bike Route

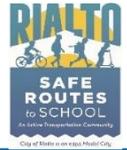
For Class II Bike Lanes, install R81 (CA) and R7-9 signs along lane. For Class III Bike Routes, install R4-11 signs.

### Draft Engineering & Operational Improvement Callouts

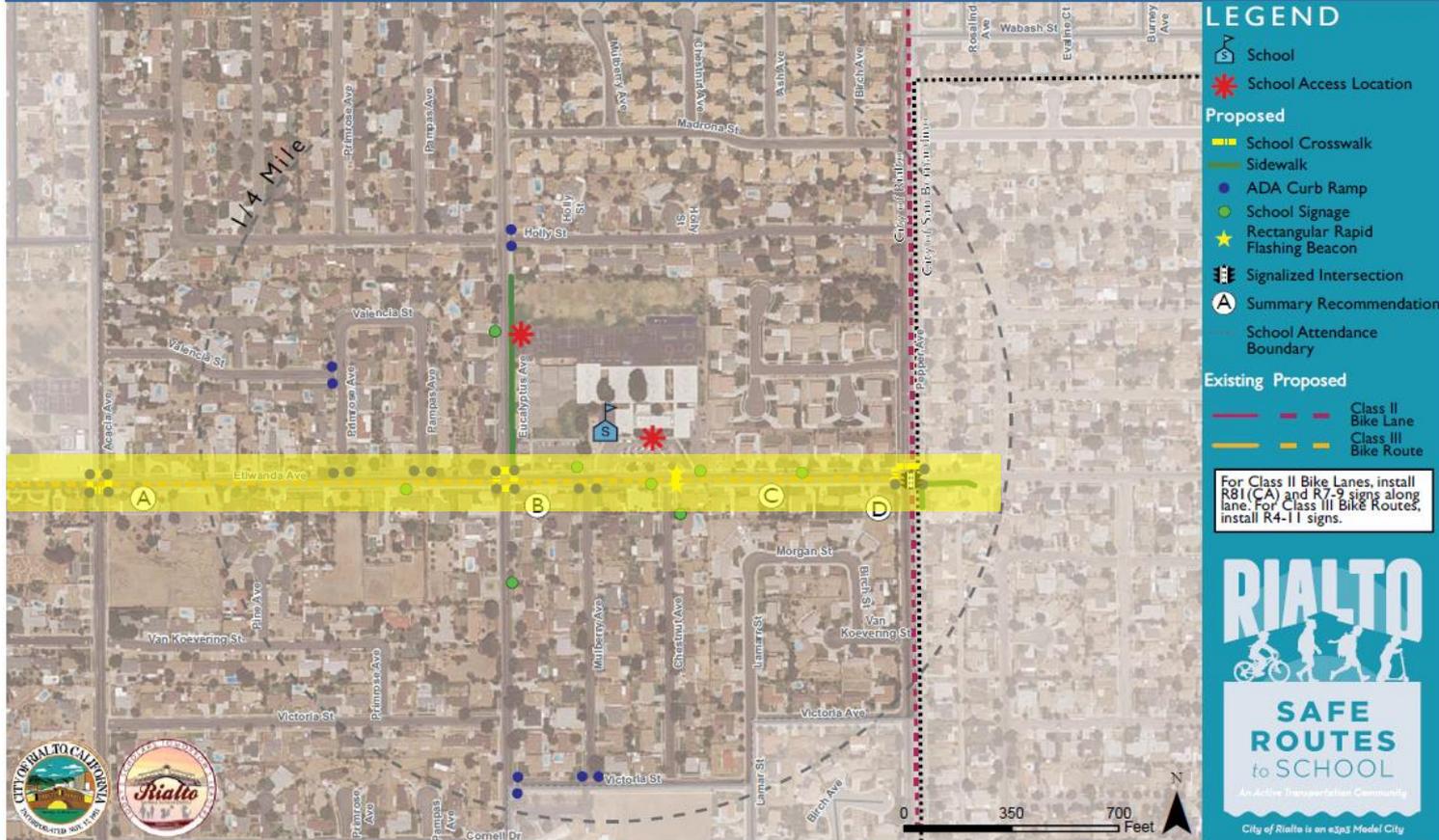
- A** Install bulbouts and curb ramps at all corners of intersection. Install sharrows and R4-11 signs along Etiwanda Avenue to designate existing Class III Bike Route per Etiwanda Corridor Plan. Restripe all existing crosswalks with high visibility paint (ladder style).
  - B** Install curb ramps at each corner of the intersection. Restripe all crosswalks with high visibility paint (ladder style). Install SW24-1(CA) Assembly A 500 ft from all approaches at Eucalyptus Avenue and Etiwanda Avenue.
  - C** Install R1-5 sign for eastbound and westbound traffic. Install yield lines for eastbound and westbound traffic. Remove and replace existing (not functioning) in road flashers with RRFB's for eastbound and westbound traffic, with advanced warning. Install W16-6P with S1-1 on Chestnut Avenue.
  - D** Install traffic signal at intersection, pending passed signal warrant. Install curb ramps at intersection. Restripe existing crosswalks with high visibility paint (ladder style). Install sidewalk leading to southeast corner of intersection.
- Install curb ramps at various locations.
- General Note:** Stop lines within the school zone to be restriped and placed a minimum of 4 ft before the crosswalk at controlled intersections.

April 28, 2017

# SEGMENT ROUTING



## BEMIS ELEMENTARY SCHOOL - ENGINEERING & OPERATIONAL IMPROVEMENTS MAP



### LEGEND

- School
- School Access Location
- Proposed**
- School Crosswalk
- Sidewalk
- ADA Curb Ramp
- School Signage
- Rectangular Rapid Flashing Beacon
- Signalized Intersection
- Summary Recommendation
- School Attendance Boundary
- Existing Proposed**
- Class II Bike Lane
- Class III Bike Route

For Class II Bike Lanes, install R81 (CA) and R7-9 signs along lane. For Class III Bike Routes, install R4-11 signs.

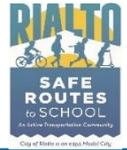
City of Rialto is an eSIPS Model City

### Draft Engineering & Operational Improvement Callouts

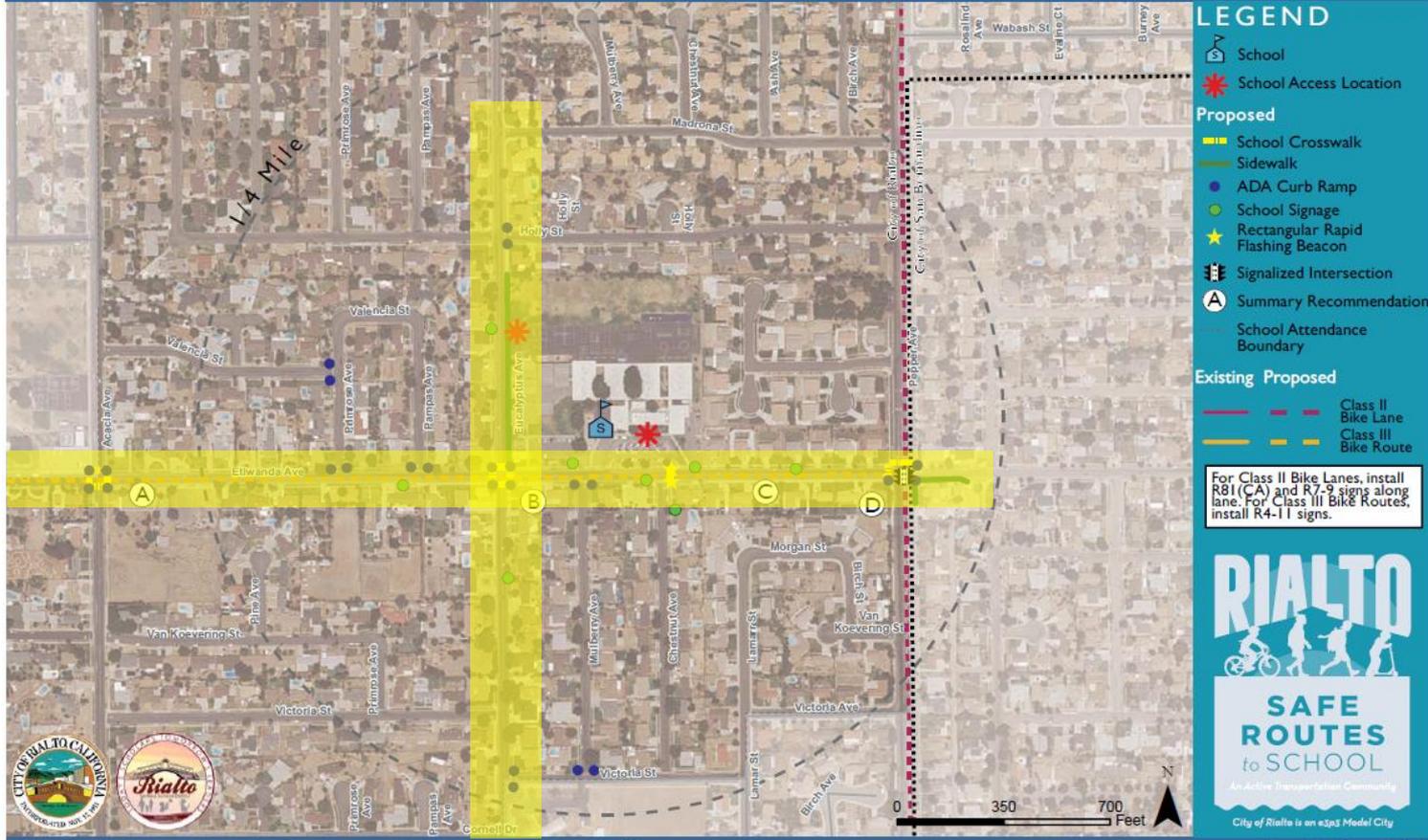
April 28, 2017

- A** Install bulbouts and curb ramps at all corners of intersection. Install sharrows and R4-11 signs along Etiwanda Avenue to designate existing Class III Bike Route per Etiwanda Corridor Plan. Restripe all existing crosswalks with high visibility paint (ladder style).
  - B** Install curb ramps at each corner of the intersection. Restripe all crosswalks with high visibility paint (ladder style). Install SW24-1(CA) Assembly A 500 ft from all approaches at Eucalyptus Avenue and Etiwanda Avenue.
  - C** Install R1-5 sign for eastbound and westbound traffic. Install yield lines for eastbound and westbound traffic. Remove and replace existing (not functioning) in road flashers with RRFB's for eastbound and westbound traffic, with advanced warning. Install W16-6P with S1-1 on Chestnut Avenue.
  - D** Install traffic signal at intersection, pending passed signal warrant. Install curb ramps at intersection. Restripe existing crosswalks with high visibility paint (ladder style). Install sidewalk leading to southeast corner of intersection.
- Install curb ramps at various locations.
- General Note:** Stop lines within the school zone to be restriped and placed a minimum of 4 ft before the crosswalk at controlled intersections.

# SEGMENT ROUTING

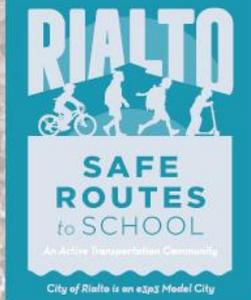


## BEMIS ELEMENTARY SCHOOL - ENGINEERING & OPERATIONAL IMPROVEMENTS MAP



- ### LEGEND
- School
  - School Access Location
  - Proposed**
  - School Crosswalk
  - Sidewalk
  - ADA Curb Ramp
  - School Signage
  - Rectangular Rapid Flashing Beacon
  - Signalized Intersection
  - Summary Recommendation
  - School Attendance Boundary
  - Existing Proposed**
  - Class II Bike Lane
  - Class III Bike Route

For Class II Bike Lanes, install R81 (CA) and R7-9 signs along lane. For Class III Bike Routes, install R4-11 signs.

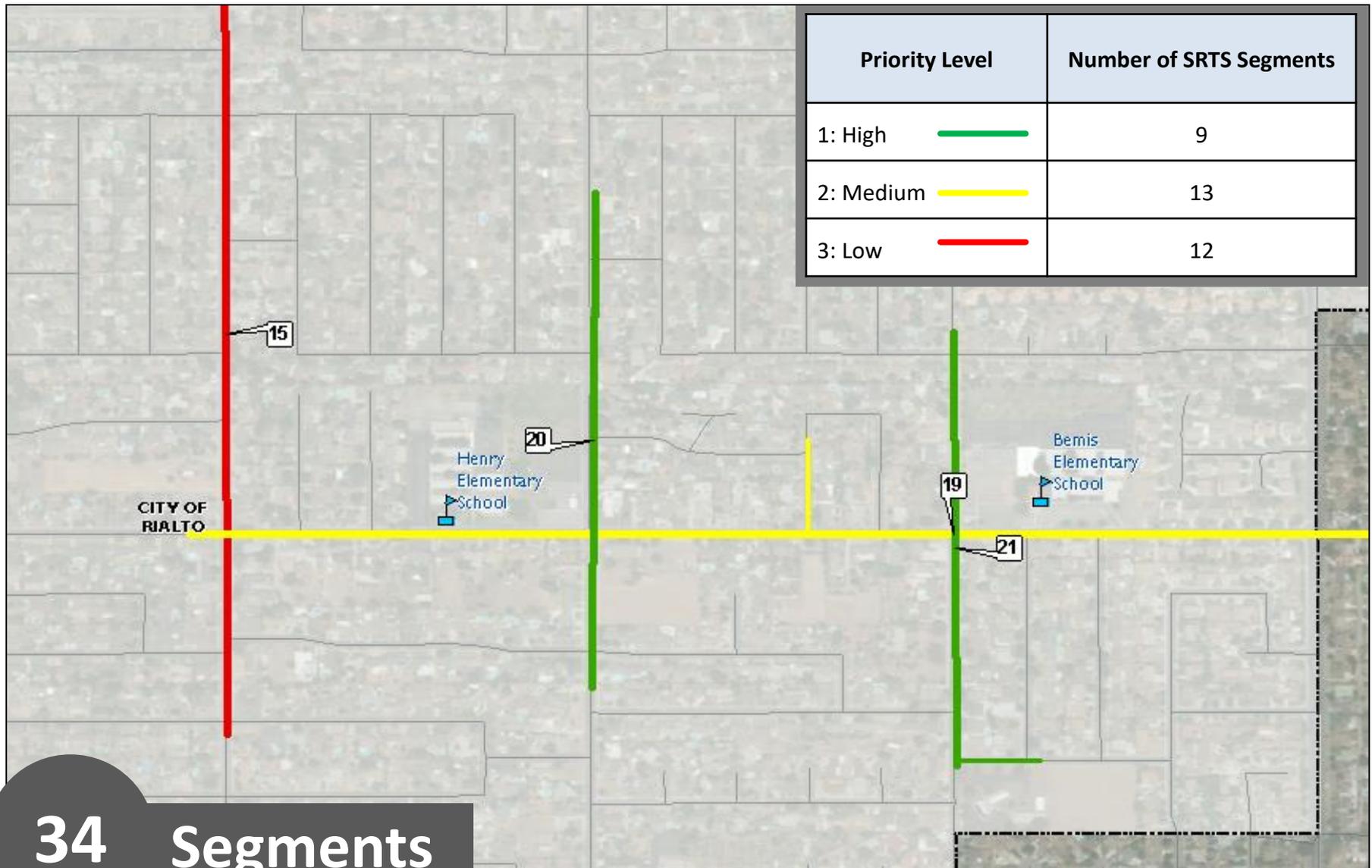
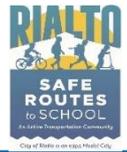


### Draft Engineering & Operational Improvement Callouts

April 28, 2017

- A** Install bulbouts and curb ramps at all corners of intersection. Install sharrow and R4-11 signs along Etiwanda Avenue to designate existing Class III Bike Route per Etiwanda Corridor Plan. Restripe all existing crosswalks with high visibility paint (ladder style).
  - B** Install curb ramps at each corner of the intersection. Restripe all crosswalks with high visibility paint (ladder style). Install SW24-1(CA) Assembly A 500 ft from all approaches at Eucalyptus Avenue and Etiwanda Avenue.
  - C** Install R1-5 sign for eastbound and westbound traffic. Install yield lines for eastbound and westbound traffic. Remove and replace existing (not functioning) in road flashers with RRFB's for eastbound and westbound traffic, with advanced warning. Install W16-6P with S1-1 on Chestnut Avenue.
  - D** Install traffic signal at intersection, pending passed signal warrant. Install curb ramps at intersection. Restripe existing crosswalks with high visibility paint (ladder style). Install sidewalk leading to southeast corner of intersection.
- Install curb ramps at various locations.
- General Note: Stop lines within the school zone to be restriped and placed a minimum of 4 ft before the crosswalk at controlled intersections.

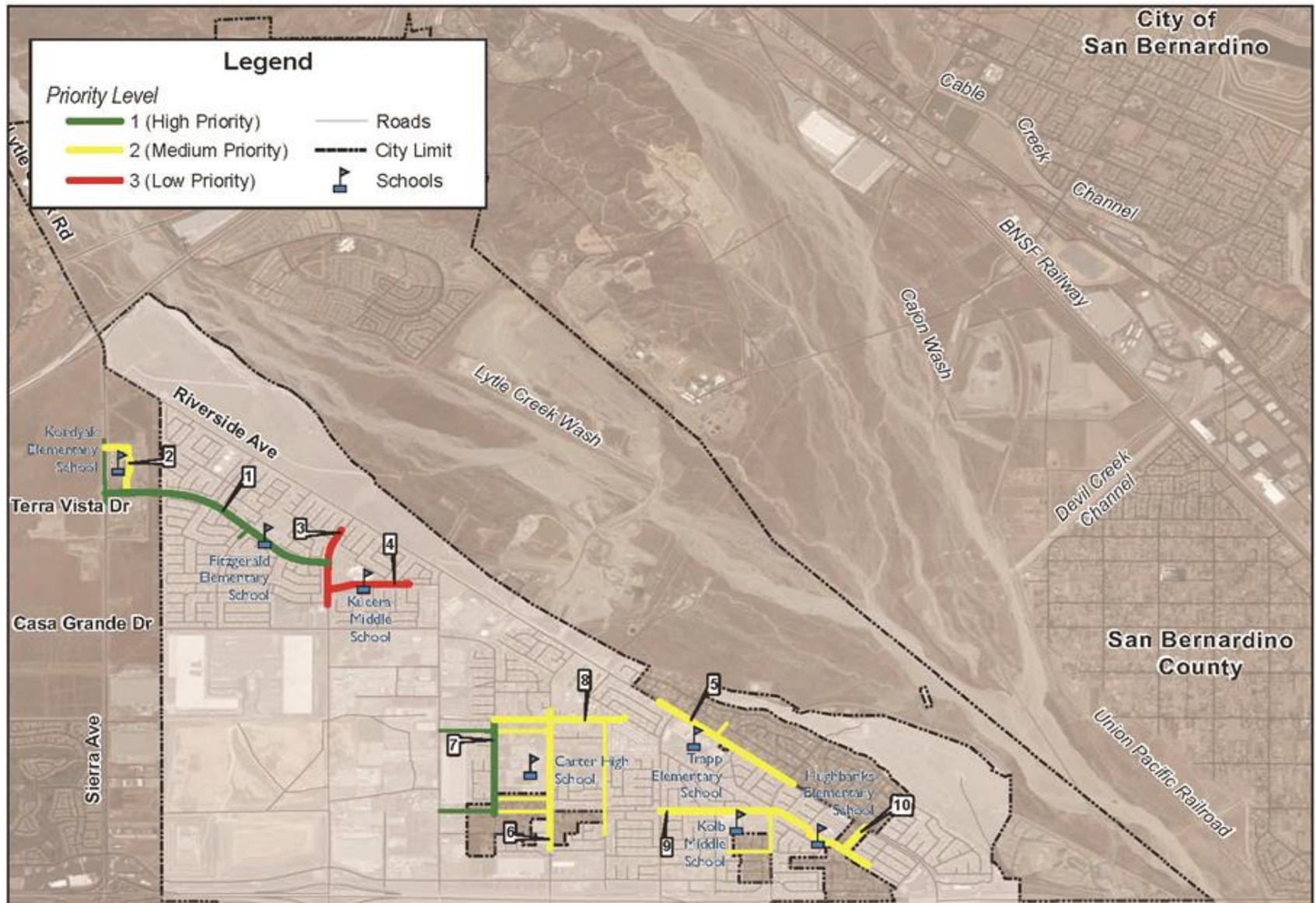
# PRIORITY ESTABLISHED



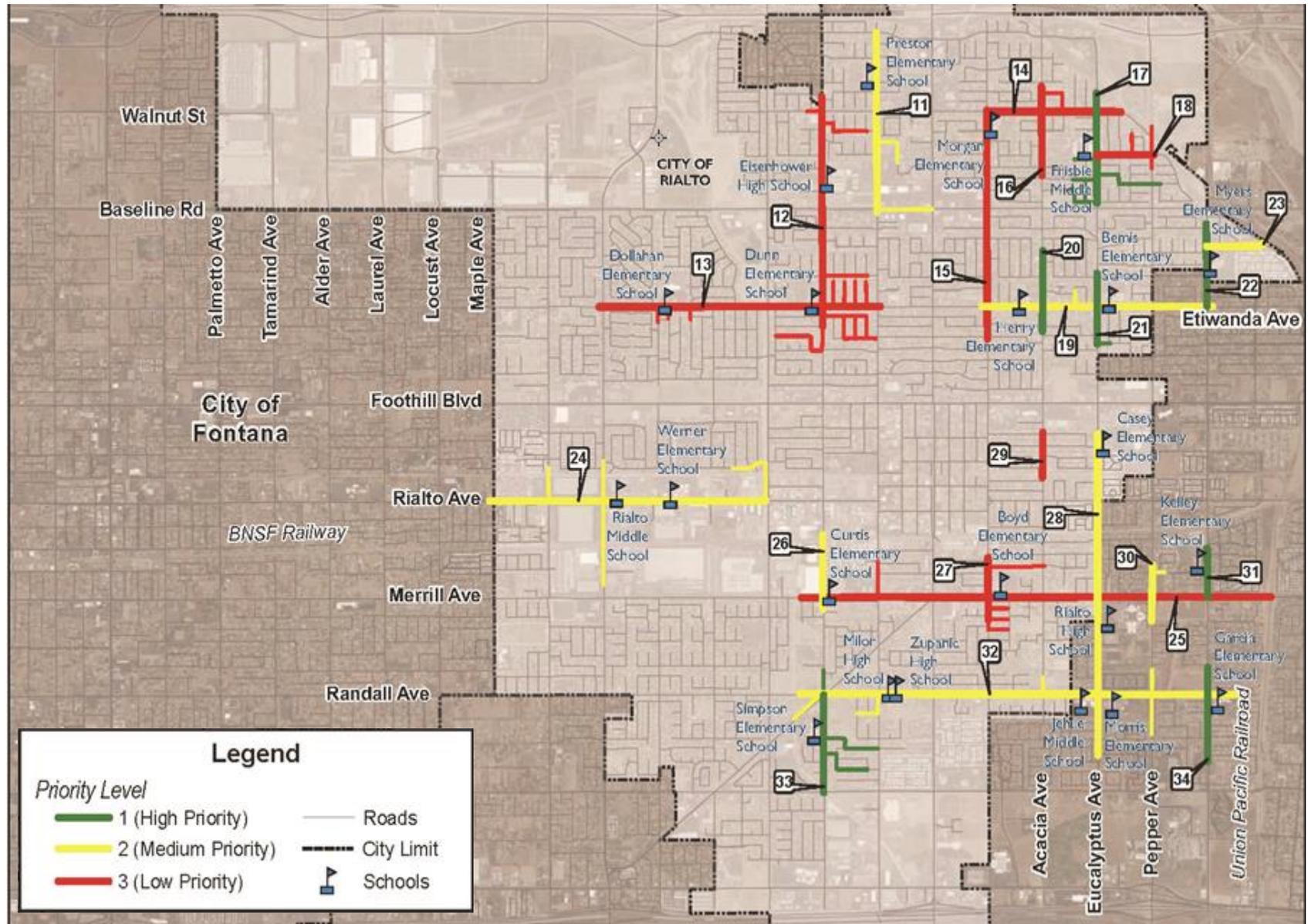
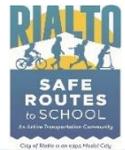
Priority Level	Number of SRTS Segments
1: High 	9
2: Medium 	13
3: Low 	12

**34** Segments

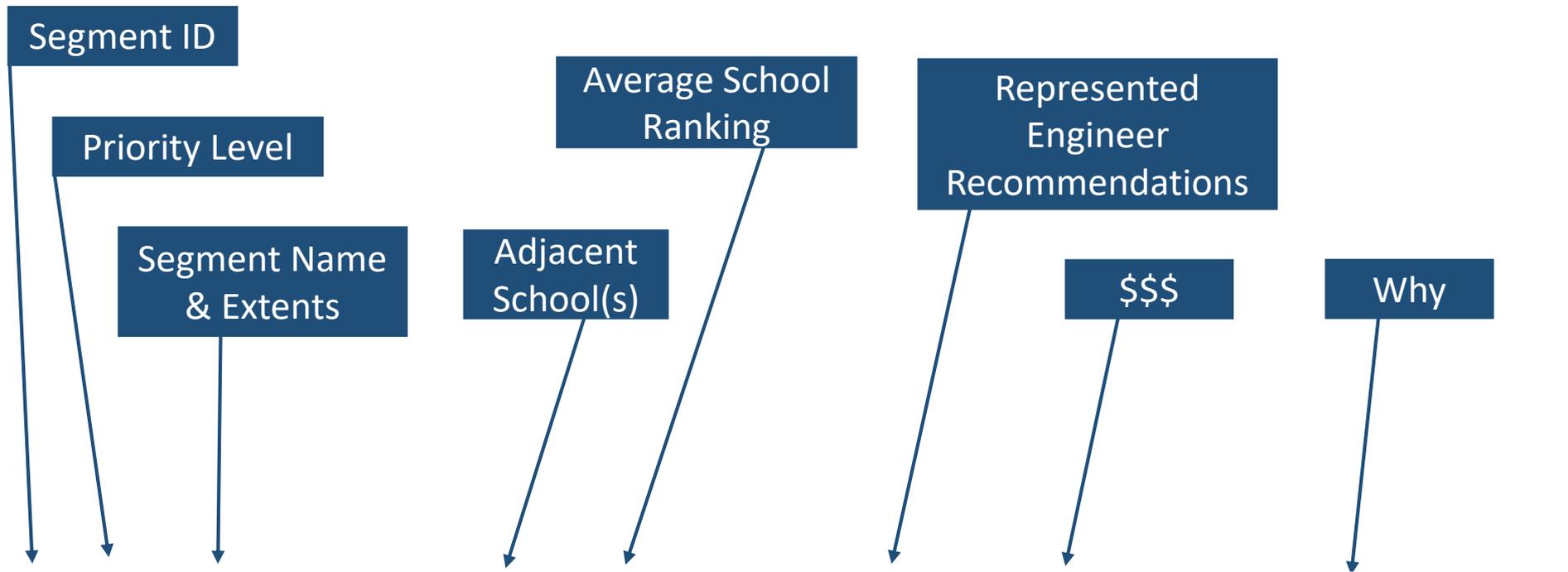
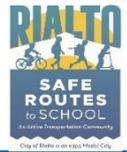
# PRIORITY ESTABLISHED



# PRIORITY ESTABLISHED



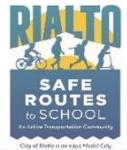
# PRIORITIZATION BREAKDOWN



**Table 4: SRTS Segment Prioritization Breakdown**

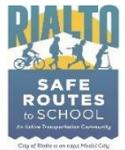
Segment ID #	Priority Level	Segment (Major Road)	Segment Extent	Primary School	Secondary School(s)	Average School Rank	Length (miles)	Recommended Improvements	Cost Estimate	Justification
1	I: High	West Terra Vista Drive	Sierra Avenue - Alder Avenue	Fitzgerald Elementary	Kordyak Elementary	39.29%	1.58	School signage, RRFB's, Class II Bike Lane extension, crosswalk alterations/additions, ADA curb ramp additions, pavement marking refurbish, Speed feedback units	\$ 187,643	Located in area with a higher socio-economic status and adverse health indicators - lower priority average school ranking. Provides connectivity between neighborhoods, schools along a 35mph zone. High demand corridor for pedestrians, bike, vehicle/school bus traffic. Captures higher need recommendations and makes connections to built-out segments.
17	I: High	N. Eucalyptus Avenue	E. Walnut Avenue - E. Margarita Road	Frisbie Middle	N/A	57.14%	1.43	Sidewalk additions, ADA curb ramps, school signage, crosswalk alterations/additions, and school pavement marking alterations.	\$ 572,961	Higher density population and higher concentration of walkers. Segment makes connection with neighborhoods. Recommends improvements to decrease pedestrian exposure. Collision prone segment.
21	I: High	N. Eucalyptus Avenue	E. Holly Street - E. Victoria Street	Bemis Elementary	N/A	62.86%	0.46	Sidewalk additions, ADA curb ramps, bulb outs.	\$ 92,193	Collision prone segment. Higher average school ranking (lower socio-economic status, health indicators, and access to vehicles). High pedestrian exposure to vehicles.
31	I: High	Meridian Avenue	Mill Street - Birch Street	Kelley Elementary	N/A	52.86%	0.25	Bulb out installation, crosswalk alterations/additions, sidewalk additions, speed feedback unit, school signage, pedestrian push button modification.	\$ 162,275	School located along high volume vehicle corridors, with medium/high volumes of pedestrians - high pedestrian exposure. A higher density population served with lower socio-economic status and health indicators.

# PRIORITIZATION BREAKDOWN



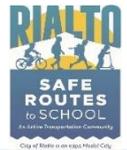
Segment ID #	Priority Level	Segment (Major Road)	Segment Extent	Primary School	Secondary School(s)	Length (miles)	Planning Cost Estimate
<b>High Priority</b>							
1	1: High	West Terra Vista Drive	Sierra Avenue - Alder Avenue	Fitzgerald Elementary	Kordyak Elementary	1.58	\$305,966
17	1: High	N. Eucalyptus Avenue	E. Walnut Avenue - E. Margarita Road	Frisbie Middle	N/A	1.43	\$760,495
21	1: High	N. Eucalyptus Avenue	E. Holly Street - E. Victoria Street	Bemis Elementary	N/A	0.46	\$120,842
31	1: High	Meridian Avenue	Mill Street - Birch Street	Kelley Elementary	N/A	0.25	\$176,430
33	1: High	S. Lilac Avenue	W. Randall Avenue - W. San Bernardino Avenue	Simpson Elementary	Milor High, Zupanic High	1.21	\$218,248
34	1: High	S. Meridian Avenue	Los Robles Avenue - Visconti Drive	Garcia Elementary	Jehue Middle	0.48	\$439,751
7	1: High	Maple Avenue	Summit Avenue - Bohnert Avenue	Carter High	N/A	1.02	\$1,286,944
20	1: High	N. Acacia Avenue	E. Madrona Street - E. Victoria Street	Henry Elementary	Bemis Elementary	0.41	\$100,764
22	1: High	N. Meridian Avenue	E. Etiwanda Avenue - E. Jackson Street	Myers Elementary	N/A	0.42	\$79,303
						<b>Total</b>	<b>\$3,488,743</b>

# PRIORITIZATION BREAKDOWN



Segment ID #	Priority Level	Segment (Major Road)	Segment Extent	Primary School	Secondary School(s)	Length (miles)	Planning Cost Estimate
<b>Medium Priority</b>							
9	2: Medium	N. Apple Avenue	Ayala Drive - W. Willow Avenue	Kolb Middle	Hughbanks Elementary	1.42	\$585,866
28	2: Medium	N. Eucalyptus Avenue	E. 3rd Street - Golden Spike Drive	Rialto High	Casey Elementary, Morris Elementary, Jehue Middle	1.66	\$909,724
32	2: Medium	Randall Avenue	S. Cactus Avenue - Lawrence Garrett Street	Morris Elementary	Rialto High, Zupanic High, Jehue Middle, Garcia Elementary, Simpson	2.8	\$1,002,854
2	2: Medium	Mango Avenue & Segovia Lane	Sierra Avenue - W. Terra Vista Drive	Kordyak Elementary	N/A	0.35	\$7,568
11	2: Medium	Willow Avenue	Easton Street - E. Base Line Road	Preston Elementary	Eisenhower High	1.36	\$280,248
19	2: Medium	Etiwanda Avenue	Sycamore Avenue - Meridian Avenue	Bemis Elementary	Henry Elementary	1.2	\$886,689
24	2: Medium	W. Rialto Avenue	Maple Avenue - Cactus Avenue	Rialto Middle	Werner Elementary	2.43	\$760,511
26	2: Medium	S. Lilac Avenue	W. Carter Street - W. Rialto Avenue	Curtis Elementary	N/A	0.38	\$27,721
30	2: Medium	S. Pepper Avenue	Poplar Street - Park Vista Drive	Kelley Elementary	Rialto High	0.39	\$120,365
5	2: Medium	Riverside Avenue	Peach Street - Cactus Avenue	Trapp Elementary	Kolb Middle	0.86	\$213,190
6	2: Medium	Linden Avenue	N. Ironwood Avenue - W. Norwood Street	Carter High	N/A	1.51	\$1,922,914
8	2: Medium	Summit Avenue	Maple Avenue - N. Apple Avenue	Carter High	N/A	1.22	\$757,213
10	2: Medium	Pecan Avenue	N. Riverside Avenue - Apple Avenue	Hughbanks Elementary	N/A	0.16	\$322,463
<b>Total</b>							<b>\$7,797,326</b>

# PRIORITIZATION BREAKDOWN



Segment ID #	Priority Level	Segment (Major Road)	Segment Extent	Primary School	Secondary School(s)	Length (miles)	Planning Cost Estimate
<b>Low Priority</b>							
13	3: Low	W. Etiwanda Avenue	Cedar Avenue - Willow Avenue	Dollahan Elementary	Dunn Elementary	2.1	\$1,466,786
14	3: Low	E. Walnut Avenue	Sycamore Avenue - Chestnut Avenue	Morgan Elementary	Frisbie Middle	0.79	\$418,094
15	3: Low	N. Sycamore Avenue	Walnut Avenue - Victoria Street	Morgan Elementary	Henry Elementary	1.18	\$377,760
25	3: Low	E. Merrill Avenue/W.			Curtis Elementary,	0.54	\$622,298
<b>Total Segment Length</b>				<b>36.68 Miles</b>			
27	3: Low					0.92	\$848,568
<b>Total Estimated Cost</b>				<b>\$17,292,130</b>			
3	3: Low				Elementary	0.42	\$175,072
12	3: Low	Lilac Avenue	Heather Street - Van Koeving Street	Eisenhower High	Dunn Elementary	2.83	\$1,194,221
16	3: Low	N. Acacia Avenue	E. Heather Street - E. Home Street	Morgan Elementary	Frisbie Middle	0.46	\$60,934
4	3: Low	Buena Vista Drive	Alder Avenue - Carnation Drive	Kucera Middle	Fitzgerald Elementary	0.37	\$259,535
18	3: Low	N. Terrace Road	N. Eucalyptus Avenue - N. Pepper Avenue	Frisbie Middle	N/A	0.58	\$132,414
23	3: Low	Shamrock Drive	N. Meridian Avenue - Terrace Road	Myers Elementary	N/A	0.26	\$410,575
29	3: Low	N. Acacia Avenue	E. 3rd Street - E. Erwin Street	Casey Elementary	N/A	0.23	\$39,804
						<b>Total</b>	<b>\$6,006,061</b>

# NEXT STEPS

- Adoption of recommendations
- Identify grant/funding opportunities

