# Corridor Alternatives

## Transportation Issues to Consider

Development of the corridor alternatives evolved from the following:

- Analysis of Existing and Future operating conditions
- Identification of Safety Issues
- Available right-of-way
- Toolbox of Best Practices
- Input received at the Corridor Study Workshops
- Input received through the online survey

### Plan Goals

The goals of the corridor plan, which were developed at the project workshop include:

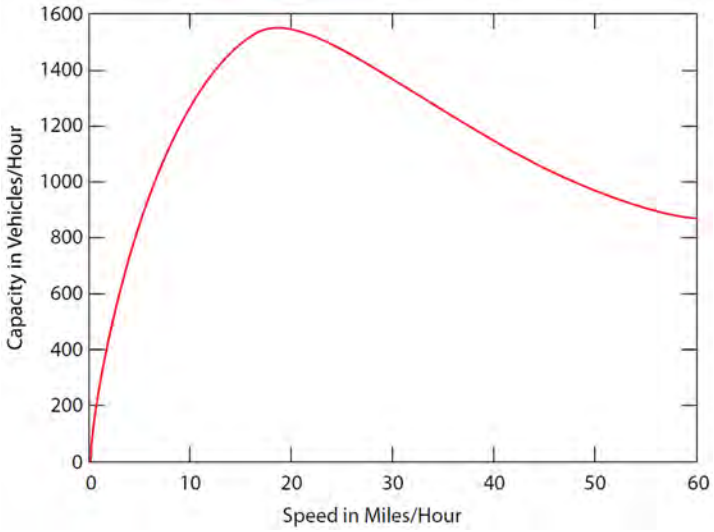
- Increase Safety
- Decrease Speeds
- Maintain Number of Corridor Travel Lanes
- Increase Corridor Efficiency
- Accommodate Bicycle and Pedestrian Modes

### How to Decrease Speeds

A combination of multiple measures is typically required to reduce vehicle speeds on a corridor. These could include some or all of the following:

- Signage, including speed feedback signs
- Narrower Lane Striping
- Police Enforcement
- Warning Lights
- Increase Side Friction from Land use or activity on sidewalks
- Landscaping and Trees
- Avoiding excess unused pavement and wide vehicle travel lanes
- Visual Variety
- Urban design features and interest

Each of the following alternatives strives to include some level of vehicle speed reduction in varying degrees. Any reduction in speeds should provide an increase in traffic safety on the corridor, but not a reduction in vehicle capacity as higher speed roadways generally produce lower capacity conditions than moderate speed facilities.




Capacity vs. Speed

## Alternative Descriptions

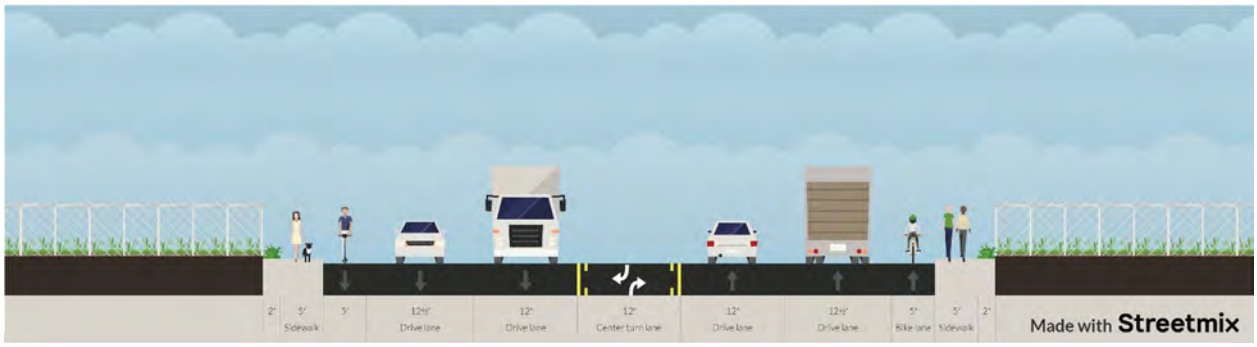
As a result of public input received during the workshop activities and the design considerations discussed above, three (3) alternatives were developed for the Niblick Road corridor:

***Alternative A – Enhance Existing Striping***

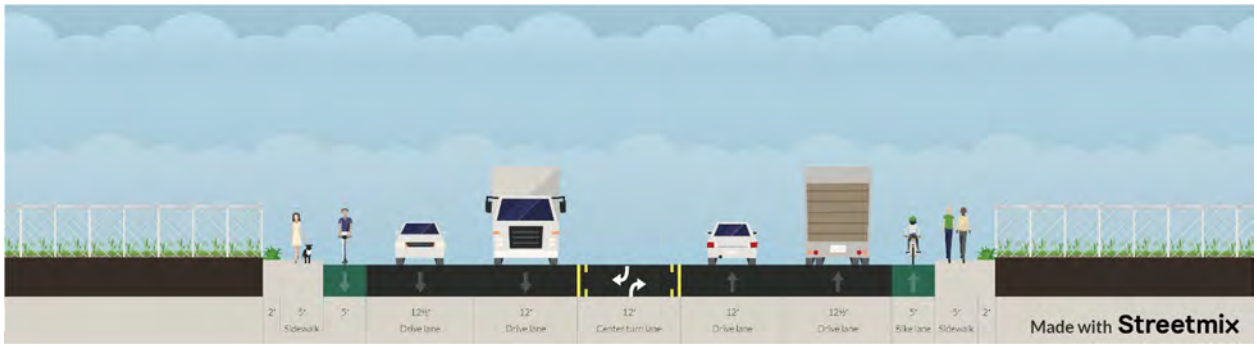
***Alternative B – Lane Standardization with Buffered Space***

***Alternative C – Lane Standardization with Raised Multi-Use Path***

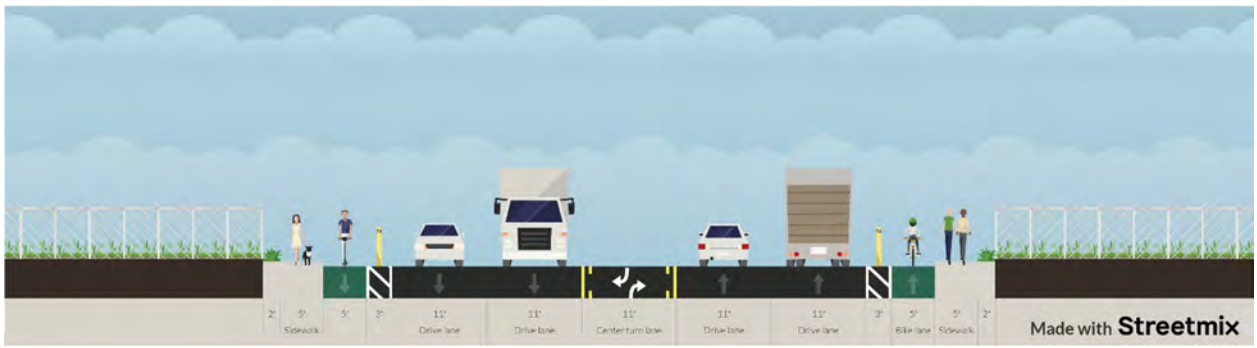
It should be noted that all of these alternatives include the same number of vehicle travel lanes with two through lanes in each direction and a center lane used as both a left-turn lane and a center two-way left-turn lane depending on the location. Cross section dimensions for a typical section on Niblick Road in comparison with the existing conditions is shown below.




Existing Lane Configuration




Alternative A – Enhance Existing Striping




Alternative B – Buffered Bike Lanes


Alternative C – Raised Multi-Use Path

## Alternative A - Enhance Existing Striping

The first alternative would be the lowest cost improvement and would maintain the status quo as much as possible. All improvements would occur within the existing pavement area and right-of-way. Following are features of Alternative A:

- **Repaving**: The project would start with pavement reconstruction for the corridor between Spring Street and Creston Road.
- **Maintain Existing Road Geometrics**: Existing lane striping in the corridor would be maintained with no change in lane widths or turn lanes at intersections. The existing bike lanes would remain as currently striped.
- **Striping and Markings**: All lane striping would be replaced in the same location after the new pavement is installed. High visibility signs and pavement markings would be used where applicable.
- **Green Bike Lanes**: Green thermoplastic or paint would be used in the bike lane in strategic locations including conflict zones, bus stops, and other high-profile areas such as near the High School frontage.



Other improvements which could be combined with any of the three alternatives are discussed below.

## Alternative B – Lane Standardization with Buffered Space

Alternative B would be slightly more costly than Alternative A. All improvements would occur within the existing pavement area and right-of-way similar to Alternative A, but outer lane truck traffic and bike lanes would benefit from the addition of a "buffer zone" between the outer travel lane and the bike lane, achieved through a reallocation of the lane widths. The number of vehicle lanes would not change but would become more uniform and no wider than 12 feet, which in turn would help to reduce travel speeds. Following are features of Alternative B:

- **Repaving**: The project would start with pavement reconstruction for the corridor between Spring Street and Creston Road.
- **Striping and Markings**: All lane striping would be replaced after the new pavement is installed. High visibility signs and pavement markings would be used where applicable.
- **Adjust Layout to Provide 3-foot Buffers**: Existing lane widths would be adjusted to create room for a 3-foot striped buffer between the outer vehicle travel lane and existing bike lane. Minimum lane widths design goals would include:
  - 10-foot center turn lane
  - 11-foot inner through lanes
  - 12-foot outer through lanes for truck traffic


- **Bike Lane Physical Separators**: Within the 3-foot striped buffered area, raised devices (see examples) would be added which would elevate the classification of the bike lanes from a Class II to Class IV. This alternative could be considered as two variations, one with the physical separators and one without. The inclusion of physical separators would likely induce slightly more vehicle speed reduction than without them.


Bike Lane Physical Separators

- **Green Bike Lanes**: Green thermoplastic or paint would be used in the bike lane in strategic locations including conflict zones, bus stops, and other high-profile areas such as near the High School frontage.

- **Bike Crossings** – At intersections, 'bike cross' markings would be installed adjacent to crosswalks.

Other improvements which could be combined with any of the three alternatives are discussed below.

## Class IV Bike Lanes and Raised Devices

Bike Lanes (Class II) are on-street facilities designated for bicyclists using stripes and stencils. Bike lanes may include buffer striping to provide greater separation between bicyclists and parked or moving vehicles. Bike lanes are the preferred treatment for all arterial and collector streets on the bikeway network, and not typically installed on low-volume, low-speed residential streets.

In order for the bike facility to be considered a Type IV Bikeway, it must have a physical separation:

Protected Bike Lanes (Class IV), also known as cycle tracks, provide space that is exclusively for bicyclists and separated from motor vehicle travel lanes, parking lanes, and sidewalks. Parked cars, curbs, bollards, or planter boxes provide physical separation between bicyclists and moving cars. Where on-street parking is allowed, it is placed between the bikeway and the travel lanes (rather than between the bikeway and the sidewalk, as is typical for Class II bike lanes).

Why Build Separated Bikeways?

- Get more people to ride bikes by providing the safety, comfort, and separation most people want and need to consider bicycling.
- Improve safety for bicyclists, drivers and pedestrians.
- Increase sales in business districts.
- Boost property values.

See Appendix X: *Class IV Separated Bikeways: Approved for Use in California*, California Bicycle Coalition

## Alternative C – Lane Standardization with Raised Multi-Use Path

Alternative C would be the most expensive of the three alternatives. All improvements would occur within the existing right-of-way. A shared pathway for pedestrians and bicyclists would be created on the north side of the corridor using the existing sidewalk and bike lane space. The modifications would combine this width plus some reclaimed undeveloped or landscaped space into one raised pathway with a separator between the travel lanes. This separated facility would be a more comfortable bike riding experience for all ages rather than the existing bike lane configuration directly adjacent to the travel lanes. The number of vehicle lanes would not change but the lane widths would become slightly narrower in the westbound direction which in turn would induce the most speed reduction of all three alternatives. Following are features of Alternative C.

- **Repaving**: The project would start with pavement reconstruction for the corridor between Spring Street and Creston Road.

- **Striping and Markings**: All lane striping would be replaced after the new pavement is installed. High visibility signs and pavement markings would be used where applicable.

- **Adjust Layout to Provide 10-foot Raised Multi-Use Path**: The existing 5-foot (approximately) sidewalk on the north side of the corridor would be demolished and combined with the 2-4 foot planter strip against the property boundary wall and the existing westbound 5-foot bike lane and be reconstructed as a raised 10-foot multi-use path with a 3-foot buffer area to accommodate both pedestrian and bicyclists. Bicycle travel, like pedestrians, would be allowed in both directions (see discussion below) on the raised path. Existing vehicle lane widths would be adjusted to create room for the raised path. Minimum lane widths design goals would include:

  - 10-foot center turn lane
  - 11-foot inner through lanes
  - 12-foot outer through lanes for truck traffic

- **Buffer Zone**: Within the 3-foot raised buffered area, some type of either landscaping, rough pavers, or other elements would be required to discourage bicycle travel in this zone as an eastbound bicyclist would be adjacent and contraflow to westbound vehicles.

- **Eastbound Bike Lane**: The existing eastbound bike lane would be maintained on the south side of the street with three variations: either as currently striped adjacent to the travel lane, with a striped 3-foot buffer separating the bike lane from the vehicle lane, or with a raised physical device within the striped buffer zone.

- **Green Bike Lanes**: Green thermoplastic or paint would be used in the bike lane in strategic locations including conflict zones, bus stops, and other high-profile areas such as near the High School frontage.

- **Bike Crossings** – At intersections, 'bike cross' markings would be installed adjacent to crosswalks.

Other improvements which could be combined with any of the three alternatives are discussed below.

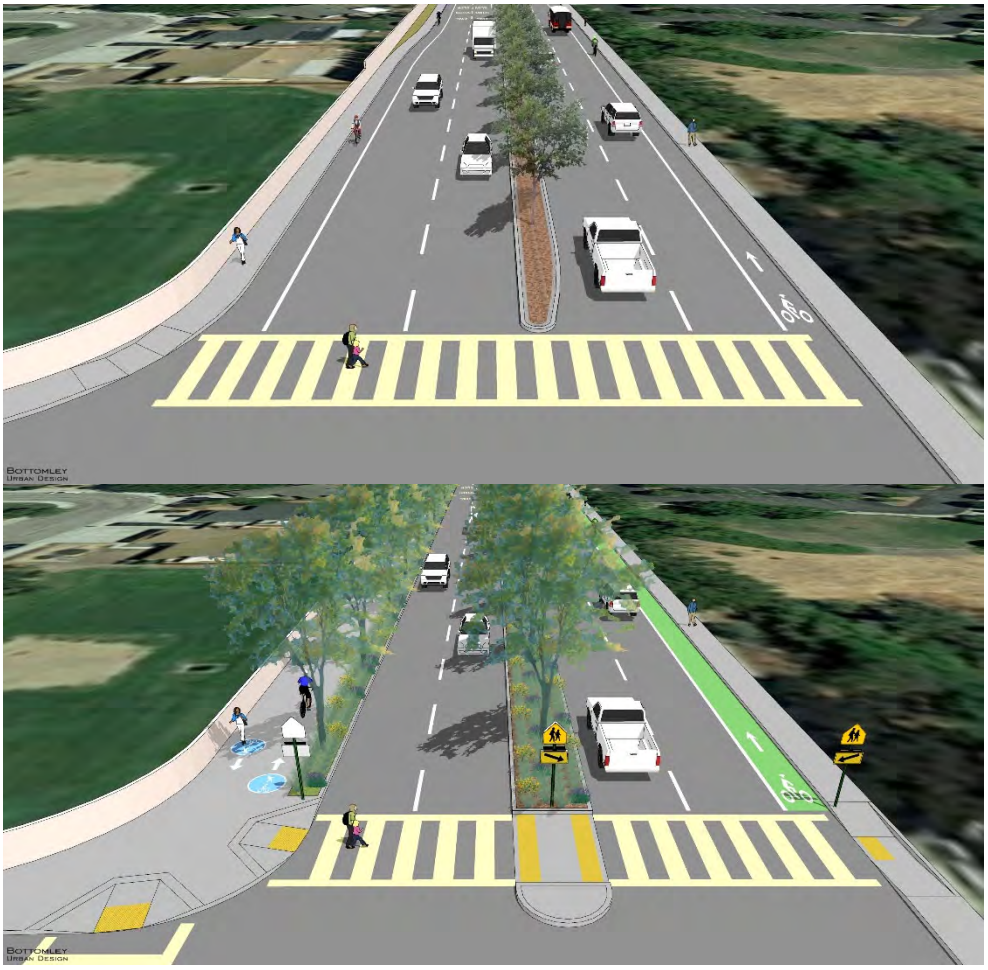
## Two-Way Multi-Use Path

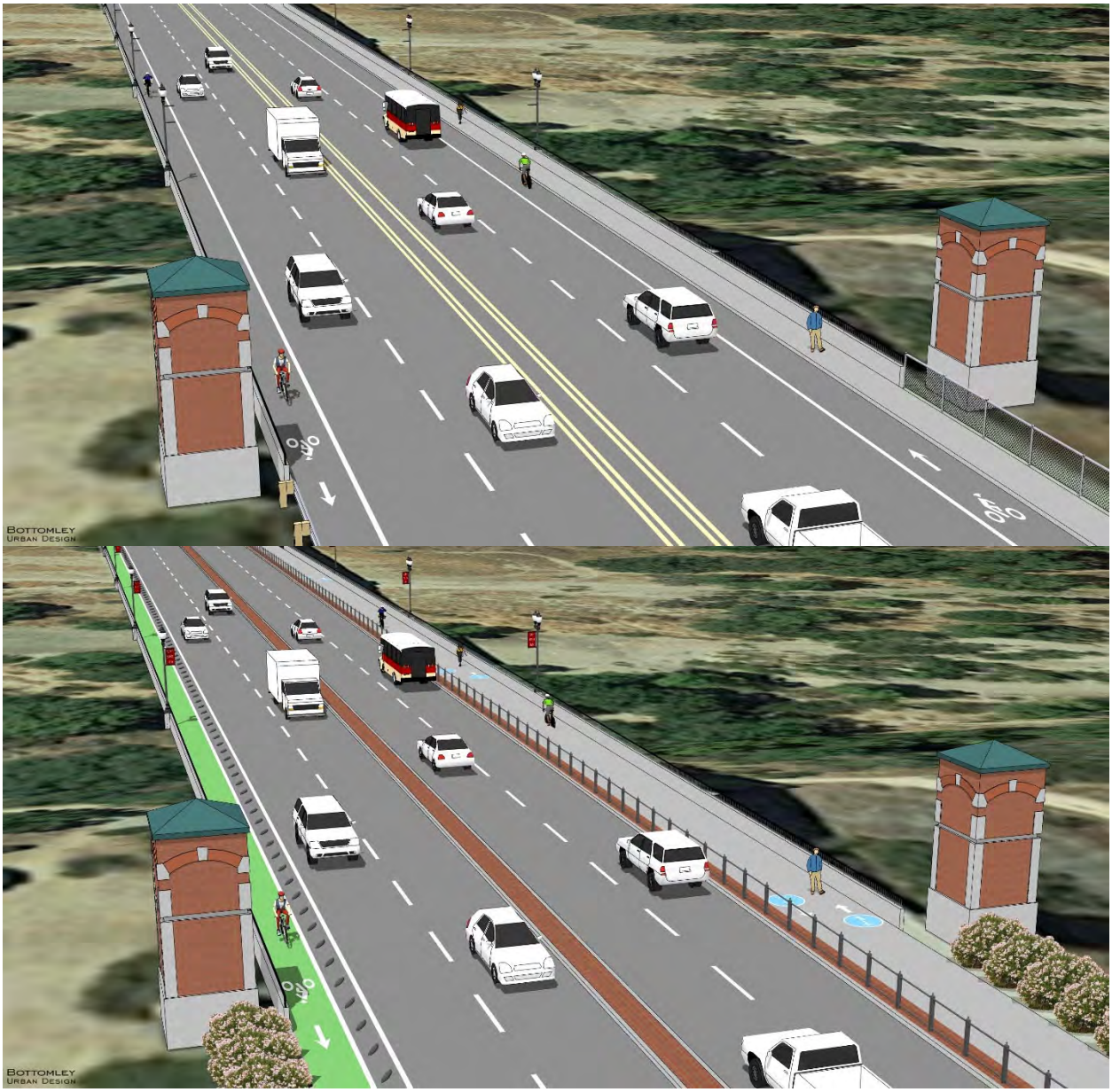
Two-way cycle tracks (also known as protected bike lanes, separated bikeways, and on-street bike paths) are physically separated cycle tracks that allow bicycle movement in both directions on one side of the road. Two-way cycle tracks share some of the same design characteristics as one-way tracks, but may require additional considerations at driveway and side-street crossings.

A two-way cycle track may be configured as a protected cycle track—at street level with a parking lane or other barrier between the cycle track and the motor vehicle travel lane—and/or as a raised cycle track to provide vertical separation from the adjacent motor vehicle lane.

Benefits:

- Dedicates and protects space for bicyclists by improving perceived comfort and safety. Eliminates risk and fear of collisions with over-taking vehicles.
- Reduces risk of 'dooring' compared to a bike lane and eliminates the risk of a doored bicyclist being run over by a motor vehicle.
- Low implementation cost when making use of existing pavement and drainage and using parking lane or other barrier for protection from traffic.
- More attractive to a wide range of bicyclists at all levels and ages.




BOTTOMLEY
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## Other Corridor Modifications

### General Improvements

Numerous other general improvements not tied to any one alternative can be combined with the above alternative improvements such as:

- Speed Reduction Markings to induce lower vehicle speeds
- Radar Feedback Signs for speed awareness
- RRFBs at uncontrolled crosswalks
- Curb Extensions at intersections to decrease crossing distance and decrease vehicle speeds
- Roundabout intersections to reduce vehicle speeds, queuing, and delay.
- Murals on corridor walls to add visual interest
- Bike accommodation such as bicycle loop detector improvements, "bike boxes" at Spring/Niblick and Niblick/Woodland, and bike crossing markings
- Enhanced street lighting, especially at uncontrolled crosswalks
- Signal timing improvements

Speed Reduction Markings

Radar Feedback Signs

## Specific Spot Modifications

Specific modifications which could be implemented in the short-, medium-, or long-term and combined with one of the alternatives include:

**Short Term Measures**

- Speed Feedback Signs Near Bridge and on Both Sides of High School
- Higher Fence along South Side of Bridge
- Thematic Treatments (Banners/ Artwork/ Signs) on Bridge Walls & Median
- Formalize Connection to Salinas River Trail
- Signal Ahead Warning Signs/Flashing Lights for River Road Intersection
- RRFB at Appaloosa Drive
- Remove Wall Fronting Lenco Park
- Improve Street Lighting within Routes to High School
- Pedestrian Phasing Improvements at Bearcat Lane and Rambouillet Intersections
- Circulation Plan for High School Pick-up and Drop-off

**Medium Term Measures**

- Improvements to Accommodate Bikes at Spring Street Intersection
- Thematic Treatments (Banners/ Artwork/ Signs) on Bridge Walls & Median
- Utilize Bridge Columns for Gateway Treatment
- Capacity & Bike Improvements at River Road Intersection
- Program for Wall Artwork/ Murals Between River Road and High School
- Enhanced Crossing Geometrics at Appaloosa Drive Intersection
- Redesign Southern Leg of Bearcat Lane Intersection
- Pick-up Drop-off Location Behind School
- Pedestrian/ Bicycle Connection Behind School
- Remove West Crosswalk and Geometric Improvements at Rambouillet Road Intersection

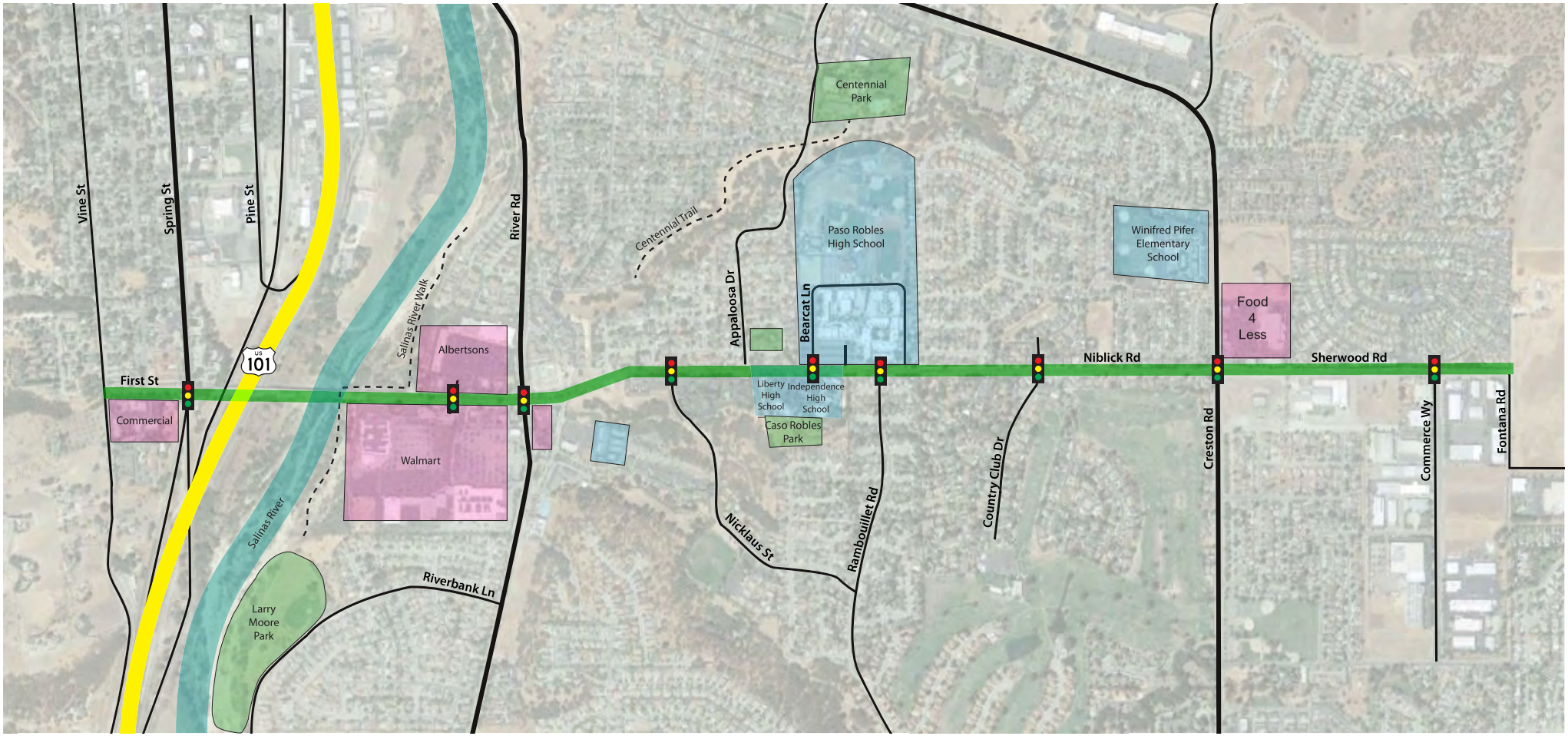
- Install Sidewalk along South Side of Roadway East of Rambouillet Road
- Traffic Calming on Melody Drive
- Capacity & Bike Improvements at Creston Road Intersection
- Road Diet for Segment East of Creston Road with Gateway Treatment

**Long Term Measures**

- Pedestrian Bridge Over Salinas River
- Roundabouts at River Road, Shopping Center, and Spring Street Intersections

**Attachments**

- Corridor Study Area Graphic
- 30% Concept Plans – 4 sections on Niblick Road (Alternatives A, B and C)




LEGEND

- Study Corridor
- School and/or Church
- Park
- Commercial Lot
- US 101
- Trail
- Traffic Signal