

APPENDIX C

Sample Walk-About/Ride-Along Workbook

TOOLBOX INFORMATION



City of Buellton

WALK-ABOUT

AND

BIKE-ALONG

SITE VISITS

In Preparation of

The City of Buellton

Bicycle and Pedestrian Master Plan

July 16, 2011

TOOL BOX GUIDE

This side of the booklet will serve as your “toolbox” of information such as general design requirements and typical traffic calming and safety devices that are used to enhance bicycle and pedestrian travel and safety.

Information provided here are excerpts from various documents such as the Manual of Uniform Traffic Control Devices (MUTCD), Federal Highway Administration (FHWA), Caltrans Design Manual, and Traffic Engineering Manual.

Types of measures and devices are NOT limited to these, but rather, those included are typical examples. The measures provided in this handbook will have a description, a pictured example and a list of advantages and disadvantages. When possible, an effectiveness measure is also provided. Cost estimates vary, so they are described using “\$” symbols. Typically the range is as follows:

\$	0 - \$20K
\$\$	\$20K - \$50K
\$\$\$	\$50K - \$100K
\$\$\$\$	\$100K+

It is important to preface this workbook and exercise that implementation of safety tools should not be treated as the end-all solution. It is the responsibility of BOTH the pedestrian (cyclist) AND driver to be aware of their surroundings and be cautious.

Thank you for your participation in the City of Buellton Bike and Pedestrian Master Planning Workshop Site Visits. We appreciate your input and support as we try to better our community.

GOALS AND OBJECTIVES OF THE BPMP

The City of Buellton Bicycle and Pedestrian Master Plan will maximize bicycle and pedestrian accessibility by creating an interconnected system where people can bicycle or walk safely and conveniently to all destinations.

By expanding existing facilities, improving bicycle and pedestrian travel between neighborhoods, within the City and to adjacent jurisdictions, people will desire and are encouraged to bike or walk to work and children will have safe routes to bike or walk to school.

The Master Plan will create a system that is accessible to all and serves the needs of both commuters and recreation users while enjoying the natural beauty of our Valley.

The Master Plan will define facilities that are safe, efficient and feasible. It will define implementation strategies and programs that will advocate these forms of mobility.

PEDESTRIAN DESIGN GUIDELINES

The following are guidelines in designing pedestrian facilities such as sidewalks:

Surface/Materials: *Stable, firm, slip resistant
*Concrete, asphalt, decomposed granite/
shale, dirt

Vertical Clearance: *7 feet

Clear Width: *generally 5 feet
*if <60", pass spaces (60"x60") every 200'
*accessible route is generally 48"
*minimum accessible is 36" w/hardship

Slopes: *Cross – to ensure drainage 2%
*Long – ADA 8.33" (or aligned with street)

TRAILS DESIGN GUIDELINES -

The following are Federal guidelines in designing pedestrian facilities such as trails:

- Surface/Materials: *Stable, firm
- *Crushed stone, packed soil, natural materials, boards
- Clear Width: *Trail head – 36" (min 32")
- *minimum accessible is 36" w/hardship

For Multi-purpose Trails:

- *For hikers, joggers, equestrians, bicyclists, etc.
- *Regulatory signing to restrict motor vehicles.
- *Width is average of 8 feet or greater to accommodate bi-directional traffic.
- *May need additional separation between cyclists, pedestrians and equestrians depending on usage.

BIKEWAY DESIGN GUIDELINES -

The following are guidelines in designing bikeway facilities:

It is important to note that all roads are considered to be shared. Cyclists do not require a bikeway designation to use roads and must follow and obey all traffic rules.

Designation of Classified facilities are meant to identify "preferred" routes where additional features and noticing to motor vehicles are made to create awareness.

All bikeway facilities require the Surface Quality to be smooth and uniform.

The following are the three classifications of bikeway facilities:

CLASS III BIKEWAY (BIKE ROUTE):

- *Shared roadway
- *Identification designates preferred routes
- *No minimum widths in guidelines
- *Bicyclists are permitted on all highways (except prohibited freeways), designated the route should be based on advantages the route provides to the user.

CLASS II BIKEWAY (BIKE LANE):

- *Established along streets with significant bicycle demand
- *Lanes signed and striped one-way facilities with Width generally 5 feet
- *Located between parking area and traffic lanes

**Figure 1003.2A
Typical Bike Lane Cross Sections
(On 2-lane or Multilane Highways)**

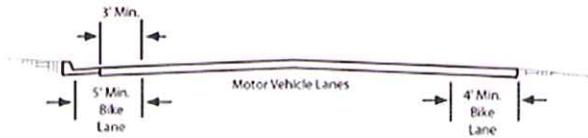


(1) MARKED PARKING

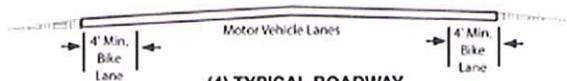


* 13' is recommended where there is substantial parking or turnover of parked cars is high (e.g. commercial areas).

(2) PARKING PERMITTED WITHOUT MARKED PARKING OR STALL



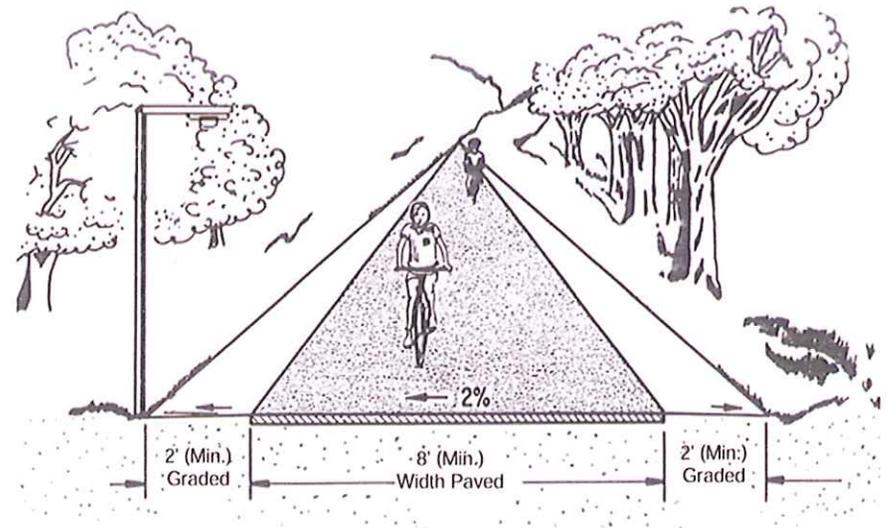
(3) PARKING PROHIBITED



(4) TYPICAL ROADWAY IN OUTLYING AREAS PARKING RESTRICTED

CLASS I BIKEWAY (BIKE PATH):

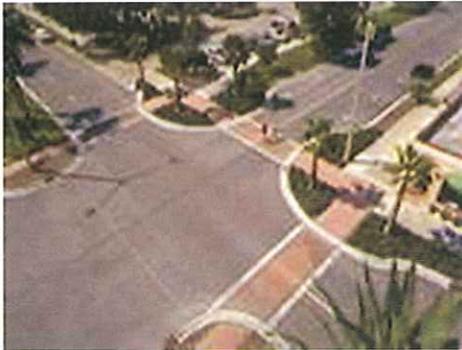
- *Serves corridors, not served by streets, offers opportunities not provided by the road system
- *Recreation, direct high-speed commute routes
- *Exclusive ROW (can be shared w/Pedestrians if designed as such)
- *Sidewalks are NOT Class I
- *Motorized bicycles (ie mopeds) and motor vehicles are prohibited by state law
- *Speeds ~ 25 mph
- *Widths: Minimum Paved for 2-way – 8 feet
Minimum Paved for 1-way – 5 feet



Note: For sign clearances, see MUTCD, Figure 9B-1.

SAFETY AND AWARENESS TOOLS

CURB BULB OUTS: Bulb-outs or Chokers are extensions of sidewalk at intersections that reduce the roadway width from curb to curb. They “pedestrianize” intersections by shortening crossing distances for pedestrians and drawing attention to them via raised peninsulas. They also tighten the curb radii at the corners, reducing speeds of turning vehicles.



ADVANTAGES:

- *Bulb-outs improves pedestrian circulation and space
- *Thru & left-turn movements are easily negotiable by large vehicles
- *They create protected on-street parking bays
- *They reduce speeds, especially for right-turning vehicles

DISADVANTAGES:

- *They may slow right-turning emergency vehicles
- *They may require elimination of some on-street parking
- *They may require bicyclists to briefly merge with vehicular traffic

EFFECTIVENESS:

- *Average of 7% decrease in the 85th percentile travel speeds, or from an average of 34.9 to 32.3 mph

COST ESTIMATE:

- *\$\$ - \$\$\$

SAFETY AND AWARENESS TOOLS

RAISED INTERSECTIONS: Raised intersections are flat raised areas covering an entire intersection, with ramps on all approaches and often with brick or other textured materials on the flat section. They usually rise to the level of sidewalk, or slightly below to provide a “lip” that is detectable by the visually impaired. By modifying the level of intersection, the crosswalks are more readily perceived by motorists to be “pedestrian territory”. Best application is for lower speed roads (ie, 35 mph).



ADVANTAGES:

- *Improves safety for both pedestrians and vehicles
- *If designed well, they can have positive aesthetic value
- *They can calm two streets at once

DISADVANTAGES:

- *They tend to be expensive, varying by materials used
- *Their impact to drainage needs to be considered
- *Impacts to emergency response needs to be considered

EFFECTIVENESS:

- *Average of 1% decrease in the 85th percentile travel speeds, or from an average of 34.6 to 34.3 mph

COST ESTIMATE:

- *\$\$ - \$\$\$

SAFETY AND AWARENESS TOOLS

CROSSWALKS: Crosswalks typically consist of pavement markings and signage to channelize pedestrian crossings to a specific location. They are placed at locations where there are significant pedestrian usage.



ADVANTAGES:

- *Provides an in-street identifier to motorists and pedestrians

DISADVANTAGES:

- *Motorists may focus on the cross walk instead of other locations
- *Pedestrians misinterpret the "safety" of the crosswalk

EFFECTIVENESS:

- *Speeds are not necessarily reduced. There may be a "perceived safety" and yielding issues.

COST ESTIMATE:

- *\$

SAFETY AND AWARENESS TOOLS

RAISED CROSSWALKS: Raised crosswalks are speed tables outfitted with crosswalk markings and signage to channelize pedestrian crossings, providing pedestrians with a level street crossing. Also, by raising the level of the crossing, pedestrians are more visible to approaching motorists. Best application is for lower speed roads (ie, 35 mph).



ADVANTAGES:

- *Improves safety for both pedestrians and vehicles
- *They are effective in reducing speeds

DISADVANTAGES:

- *Textured materials can be expensive
- *Their impacts on drainage needs to be considered
- *They may increase noise and air pollution

EFFECTIVENESS:

- *Average of 18% decrease in 85th percentile travel speeds, or from an average of 36.7 to 30.1 mph

COST ESTIMATE:

- *\$

SAFETY AND AWARENESS TOOLS

IN-PAVEMENT LIGHTED CROSSWALKS: The concept is that the intermittent flashing of the in-pavement lights brings more attention to the crosswalk, improving the chance that the motorist will respond to the pedestrian. These are implemented on "small" road widths (~ 50').



ADVANTAGES:

- *Improves night-time pedestrians visibility

DISADVANTAGES:

- *Pavement maintenance is problematic in the vicinity of the lights
- *Maintenance is expensive

EFFECTIVENESS:

- *Does not necessarily reduce speeds. Some agencies are removing.

COST ESTIMATE:

- *\$\$-\$\$\$\$

SAFETY AND AWARENESS TOOLS

VERTICAL TOOLS: These are various signage tools such as Street Signage, Flashing Beacons, Lighted Crossing Signs. Signage can be used to improve and highlight the presence of pedestrians.



ADVANTAGES:

- *Provides warning
- *Flashers and lighted signs improves night-time visibility

DISADVANTAGES:

- *Depending on the location, sign may not be effective

EFFECTIVENESS:

- *Does not necessarily reduce speeds.

COST ESTIMATE:

- *\$

SAFETY AND AWARENESS TOOLS

RAISED MEDIANS/ISLANDS: Raised medians effectively reduces street width. On a wide street, this is an alternative to “Bulb-Outs” if there are circulation issues that need to be addressed, or if Bulb-Outs are not applied. A refuge is created in the Median for pedestrians to wait until it is safe to continue crossing.



ADVANTAGES:

- *Improves safety for pedestrians
- *Reduces street width/ vehicle speeds
- *If designed well, can create an aesthetic enhancement
- *Can address multiple issues including circulation
- *Eliminates “center” drivers

DISADVANTAGES:

- *Cost

EFFECTIVENESS:

- *Reduces motor vehicle crashes by 15% and has been shown to reduce vehicle speeds on roadways.

COST ESTIMATE:

- *\$\$ - \$\$\$\$

TB14

SAFETY AND AWARENESS TOOLS

BUFFERED BIKE LANES: These are conventional bike lanes paired with a designated buffer spaces to separate from the adjacent vehicle lanes. There are various methods, ranging from a pair of 6-8 white stripes, colored pavement, to curbs, etc. The concept is to increase the safety of the cyclist. The buffer needs to be a minimum of 2' wide. When a curb separated bike lane is used, additional motor vehicle lane width should be provided to minimize the possibility of a vehicle striking the curb.



ADVANTAGES:

- *Provides a separated area for cyclists from motor vehicles

DISADVANTAGES:

- *Raised pavement markers can cause a cyclist to lose control and fall
- *Barriers and curbs also prevent cyclists from avoiding obstacles or passing or making left turns

EFFECTIVENESS:

- *A simple white line is generally effective in channelizing both motorists and cyclists.

COST ESTIMATE:

- *\$

TB15

SAFETY AND AWARENESS TOOLS

COLORED BIKE LANES: Colored pigments are incorporated in pavement areas to delineate bike lanes and bike boxes. The purpose is to enhance the visibility of the bicycle area.



ADVANTAGES:

- *Provides greater awareness and visibility of bicycle locations

DISADVANTAGES:

- *Additional maintenance

EFFECTIVENESS:

- *There is an increase in motor vehicle awareness of the bicycle facility & greater likelihood of vehicles staying out of the bike lane.

COST ESTIMATE:

- *\$\$

SAFETY AND AWARENESS TOOLS

SHARROWS: Sharrows are another way to encourage bicycles and motor vehicles to share the travel lane as Class III. These markings are usually used on lower speed roadways (maximum 25-30 mph) with or without parking. The main purpose is to give cyclists freedom to move further to the left within travel lane, rather than brave the "door zone", squeezed between moving and parked cars.



ADVANTAGES:

- *Alerts motorists to share the road with cyclists and conveys that the street is a preferred bike route.

DISADVANTAGES:

- *Additional pavement marking installation and maintenance

EFFECTIVENESS:

- *There is an increase in motor vehicle awareness of the bicycle facility & greater likelihood of vehicles staying out of the bike lane.

COST ESTIMATE:

- *\$

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USER INFORMATION



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WALK-ABOUT

AND

BIKE-ALONG

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July 16, 2011

USER INFORMATION GUIDE

This side of the booklet will serve as your workbook to document your comments, observations and recommendations. These site visits will not be discussion based and are meant for you the user to see/experience first-hand, the issues and conditions of various sites.

We have allocated 10-20 minutes per site for you to explore. All feed back should be written in your workbook. Spaces for each stop have been provided, as well as blank sheets for general comments, thoughts, suggestions.

We will collect the workbooks at the end of the day. Electronic copies of the workbook will be made available on the City's website.

A follow-up workshop will be held during the August 22nd Parks and Recreation Commission Meeting. Staff will summarize all the comments/recommendations received.

Thank you for your participation in the City of Buellton Bike and Pedestrian Master Planning Workshop Site Visits. We appreciate your input and support as we try to better our community.

USER INFORMATION

NAME: _____

AGE: _____ SEX: M / F _____

METHOD OF TRAVEL: _____

EXPERIENCE LEVEL: BEG / MODERATE / ADV / PRO

DESCRIBE EXP: _____

DO YOU WORK LOCALLY? CITY? _____

PRIMARY SHOPPING CITY? _____

PRIMARY RECREATION PLACE? _____

DO YOU WALK OR BIKE TO ANY OF THE ABOVE?:

WOULD YOU? WHY OR WHY NOT?

WHAT WOULD YOU LIKE TO SEE OUT OF THE MP?

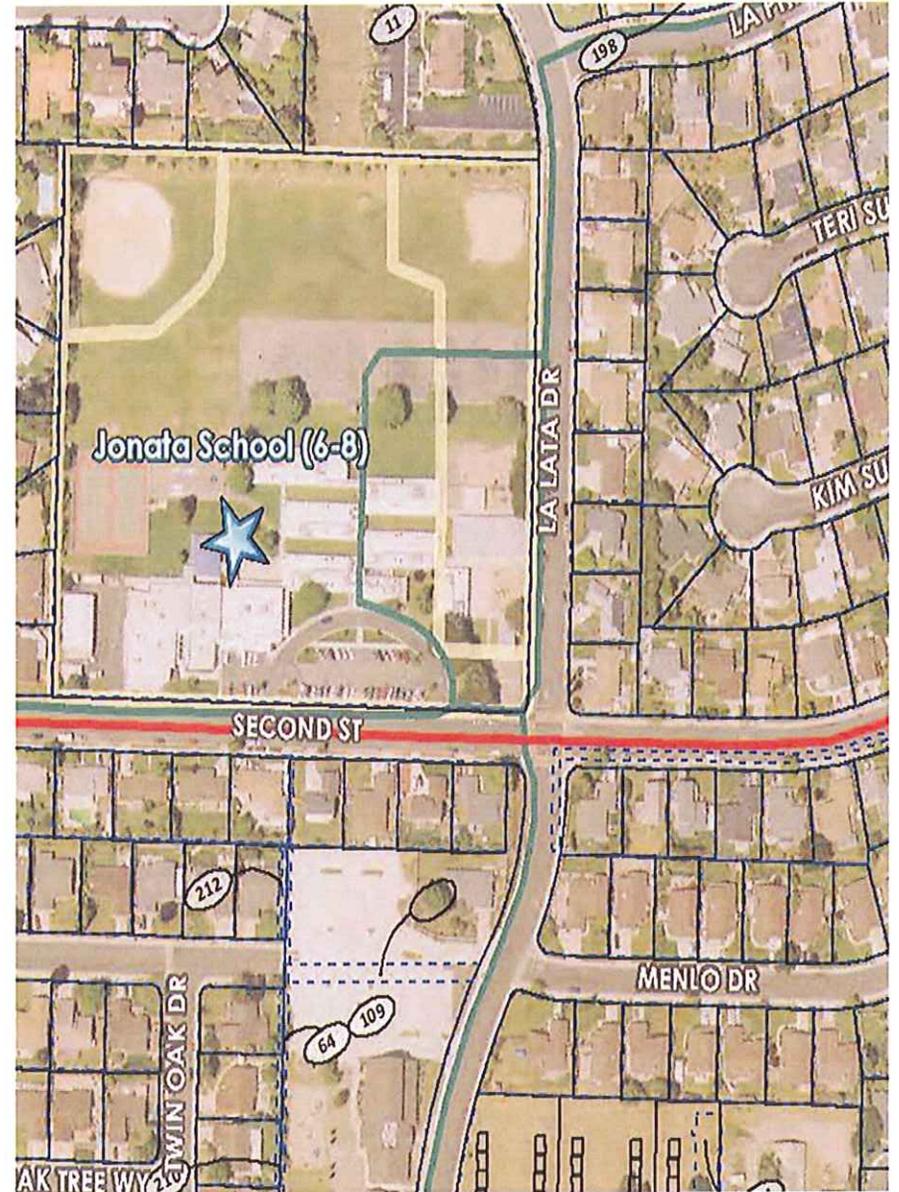
UI2

STOP	LOCATION	BIKE-ALONG			WALK-ABOUT		
		ARRIVE	DEPART	ACTUAL TRAVEL TIME	ARRIVE	DEPART	ACTUAL TRAVEL TIME
1	Jonata School (La Lata/2nd)	8:30	8:45		8:30	8:45	
2	Oak Valley Elementary	8:50	9:05		8:55	9:15	
3	Hwy 246 / Sycamore	9:10	9:30		9:25	9:45	
4	South Industrial Way	9:35	9:55		10:10	10:40	
5	South Ave of Flags Park and Ride	10:05	10:20		11:05	11:25	
6	Zaca Creek Golf Course	10:25	10:35		11:40	12:00	
7	2nd St / Zaca Creek	10:45	11:00		1:15	1:30	
8	Damassa / Hwy 101	11:05	11:07		1:33	1:35	
9	McMurray Road	11:10	11:20		1:37	1:45	
10	Hwy 246 / McMurray - Hwy 101	11:25	11:30		1:50	2:10	
11	Thumbelina Creek	11:35	11:45		2:15	2:25	
12	Hwy 246 / Ballard Cyn	11:47	11:50		2:30	2:40	
		12:00	Bike return to Zaca GC				

UI3



STOP 1 JONATA MIDDLE SCHOOL



NOTES FOR STOP 1:

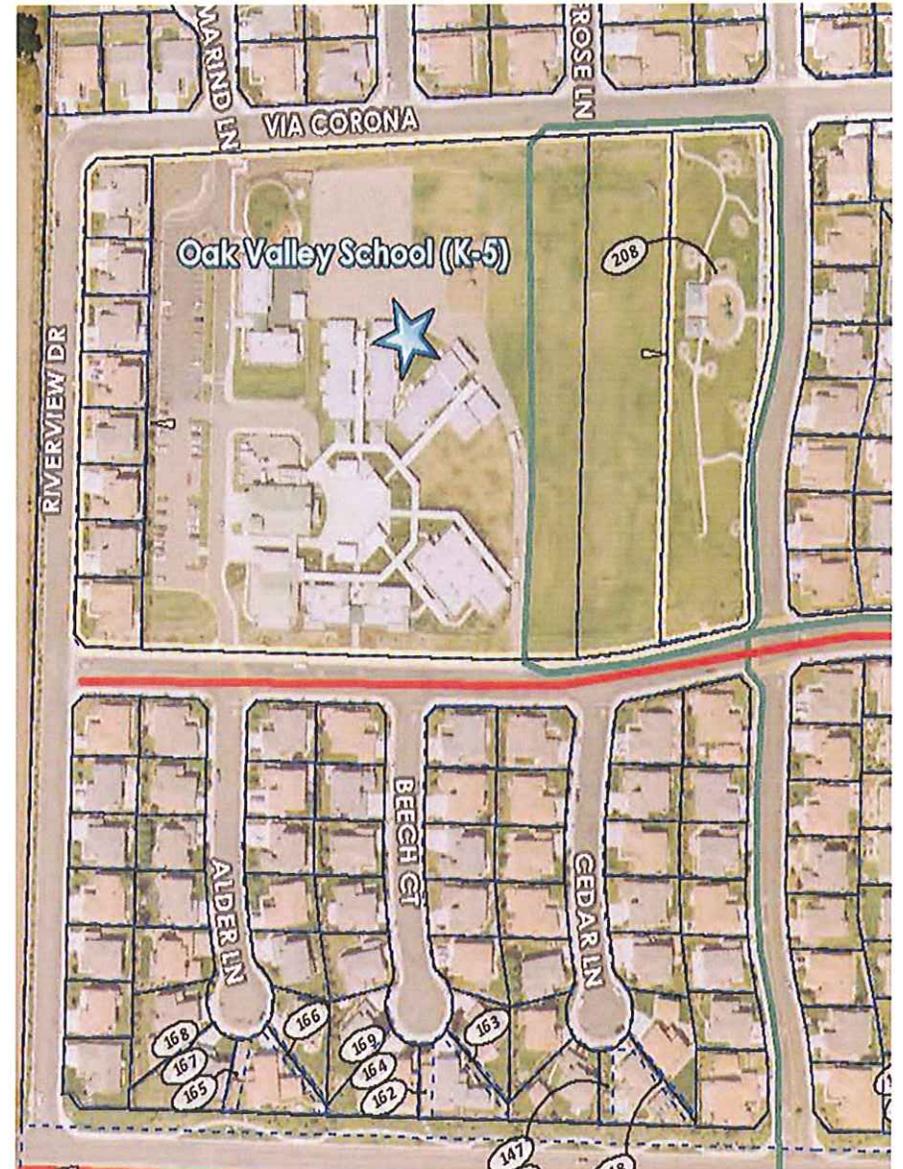
EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI6

STOP 2

OAK VALLEY ELEMENTARY SCHOOL



UI7

NOTES FOR STOP 2:

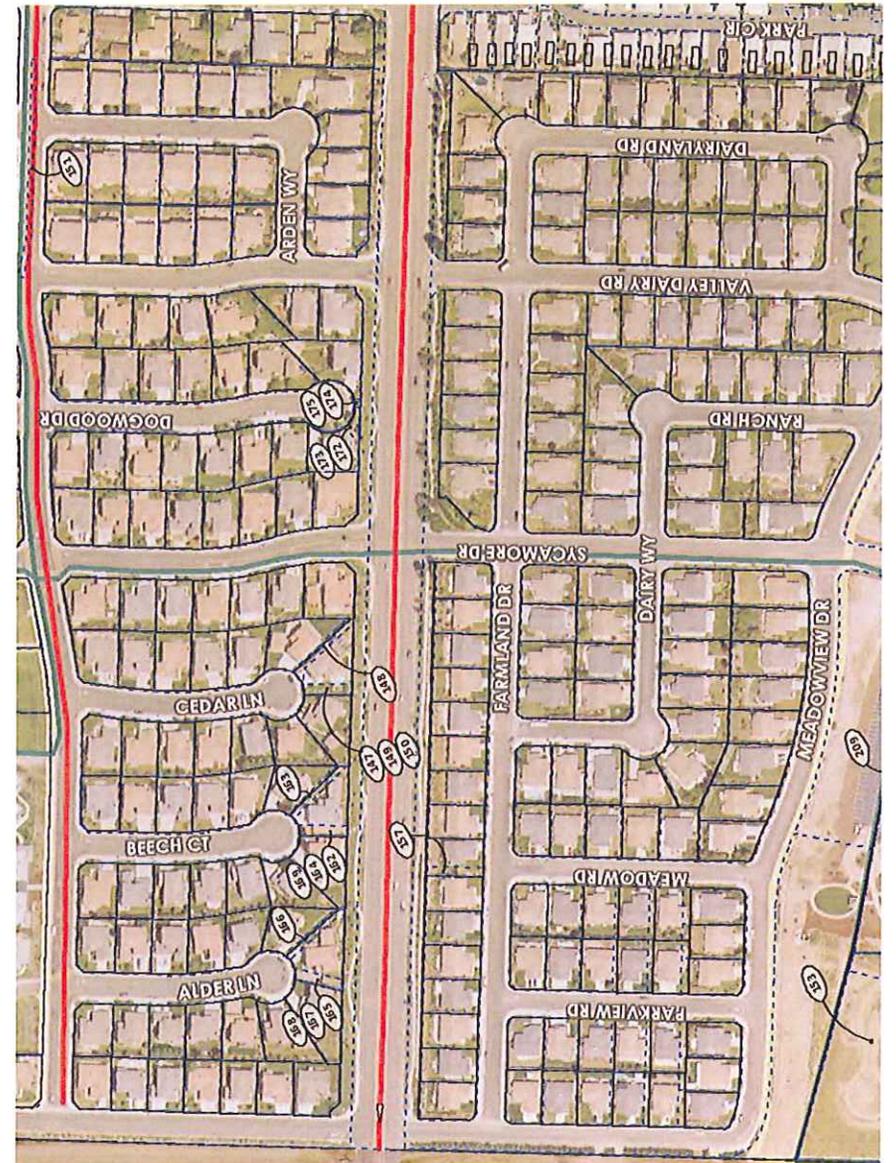
EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI8

STOP 3

HIGHWAY 246 / SYCAMORE DRIVE



UI9

NOTES FOR STOP 3:

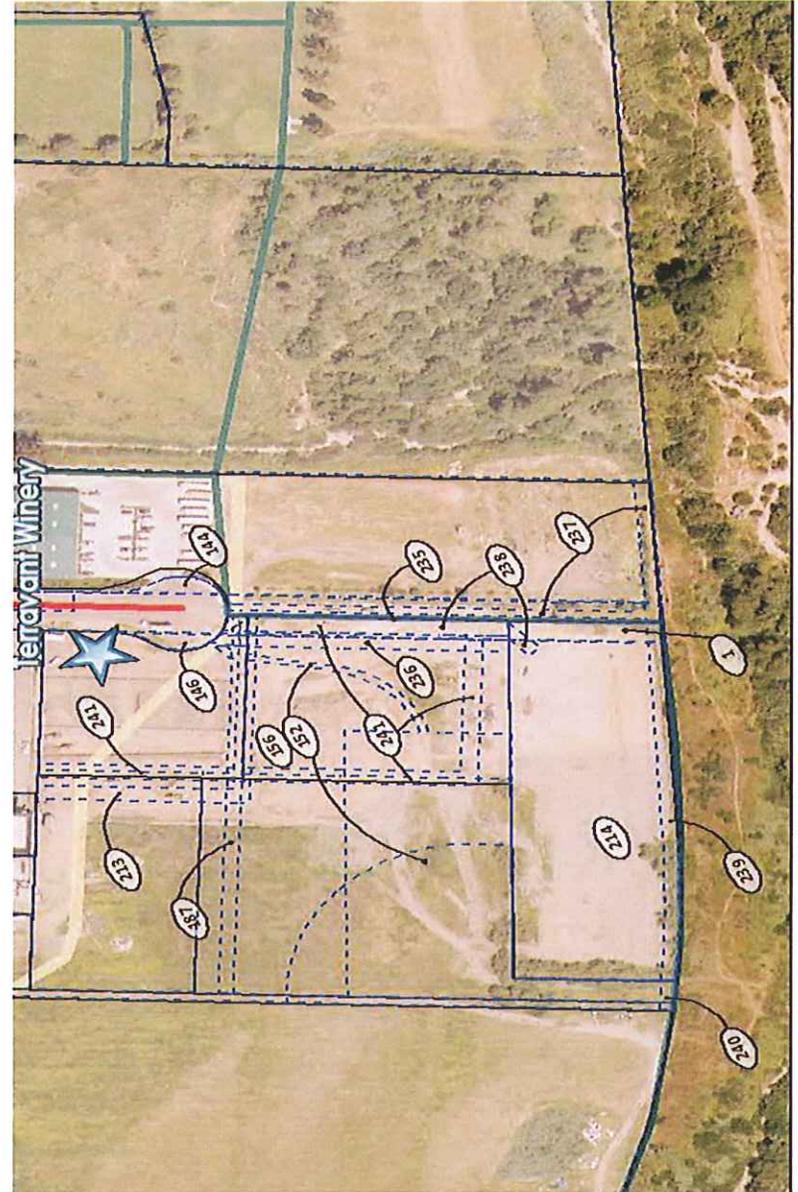
EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI10

STOP 4

SOUTH INDUSTRIAL WAY



UI11

NOTES FOR STOP 4:

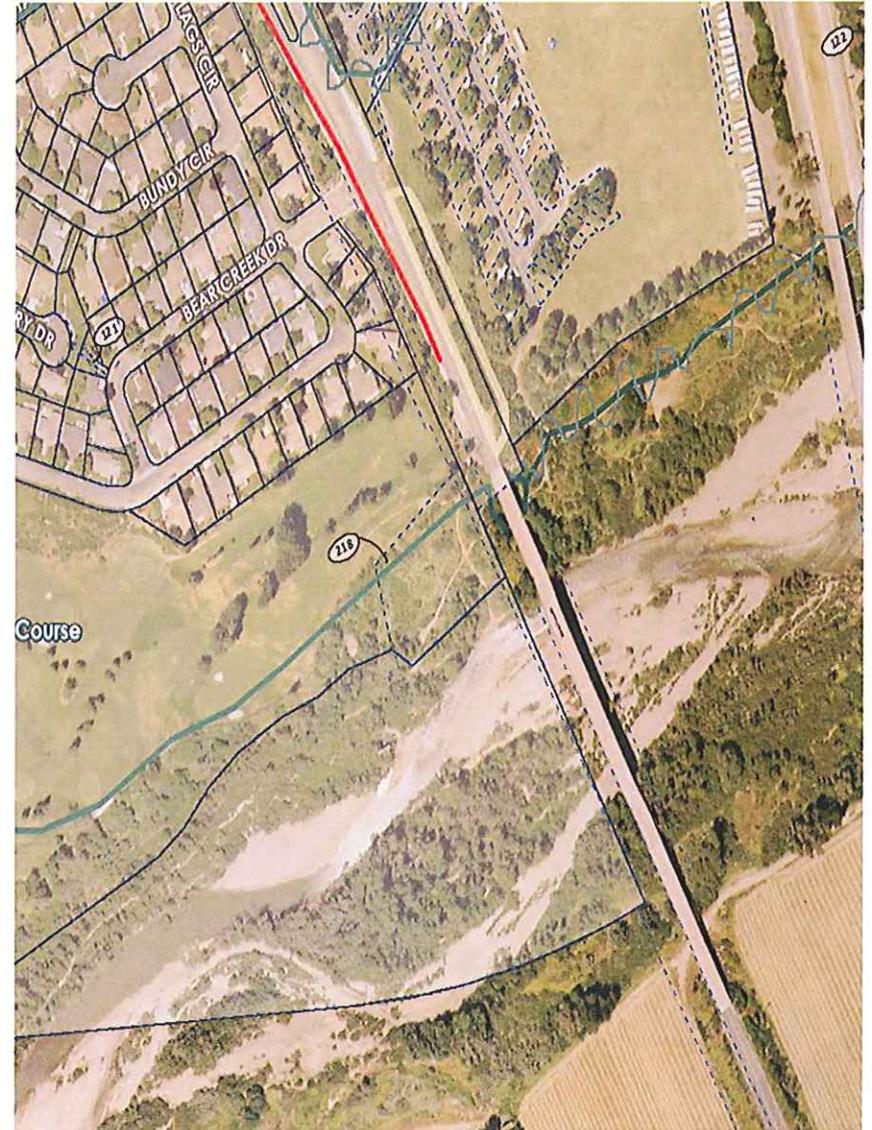
EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI12

STOP 5

SOUTH AVE OF FLAGS PARK & RIDE



UI13

NOTES FOR STOP 5:

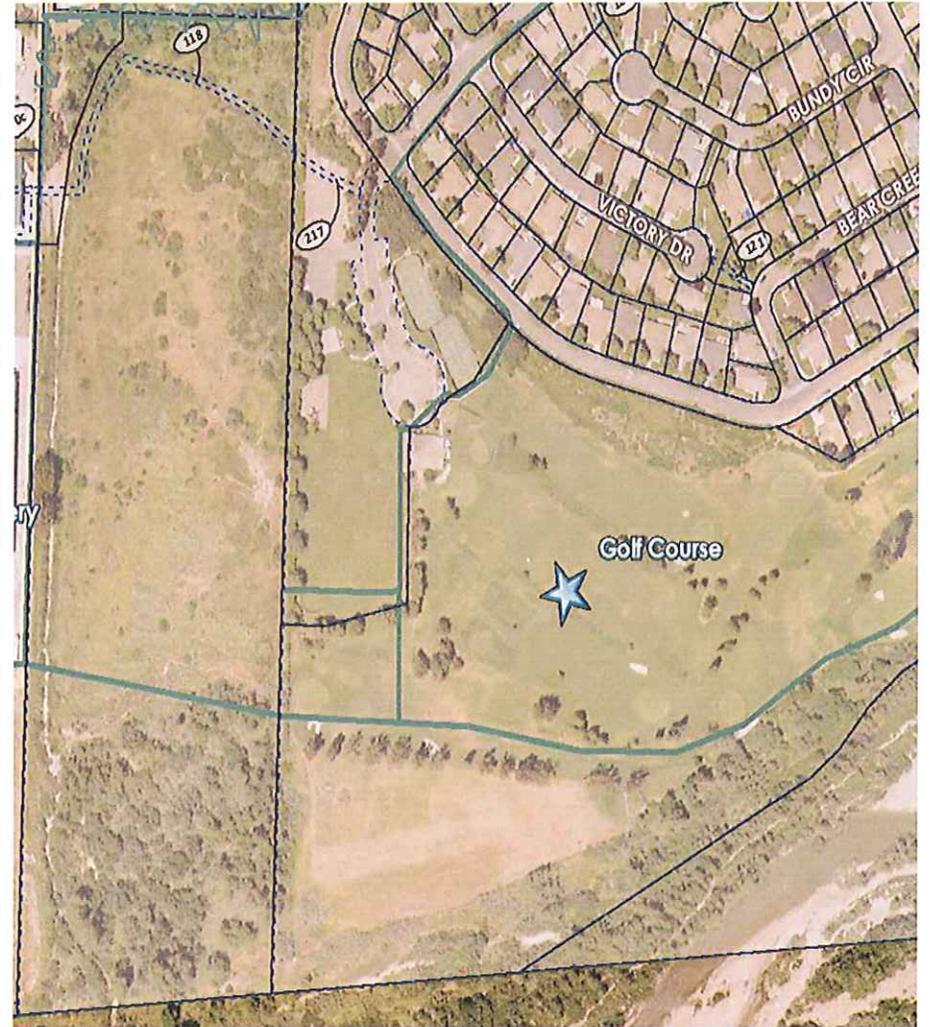
EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI14

STOP 6

ZACA CREEK GOLF COURSE



UI15

NOTES FOR STOP 6:

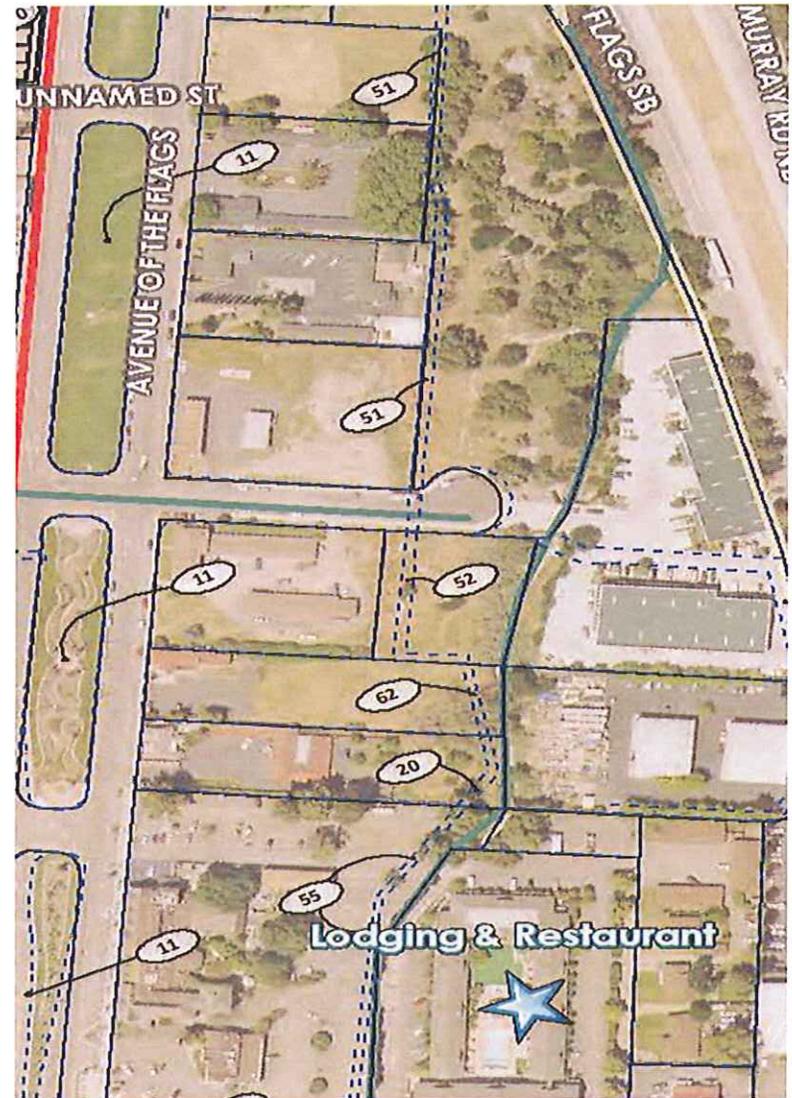
EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI16

STOP 7

2ND STREET – ZACA CREEK



UI17

NOTES FOR STOP 7:

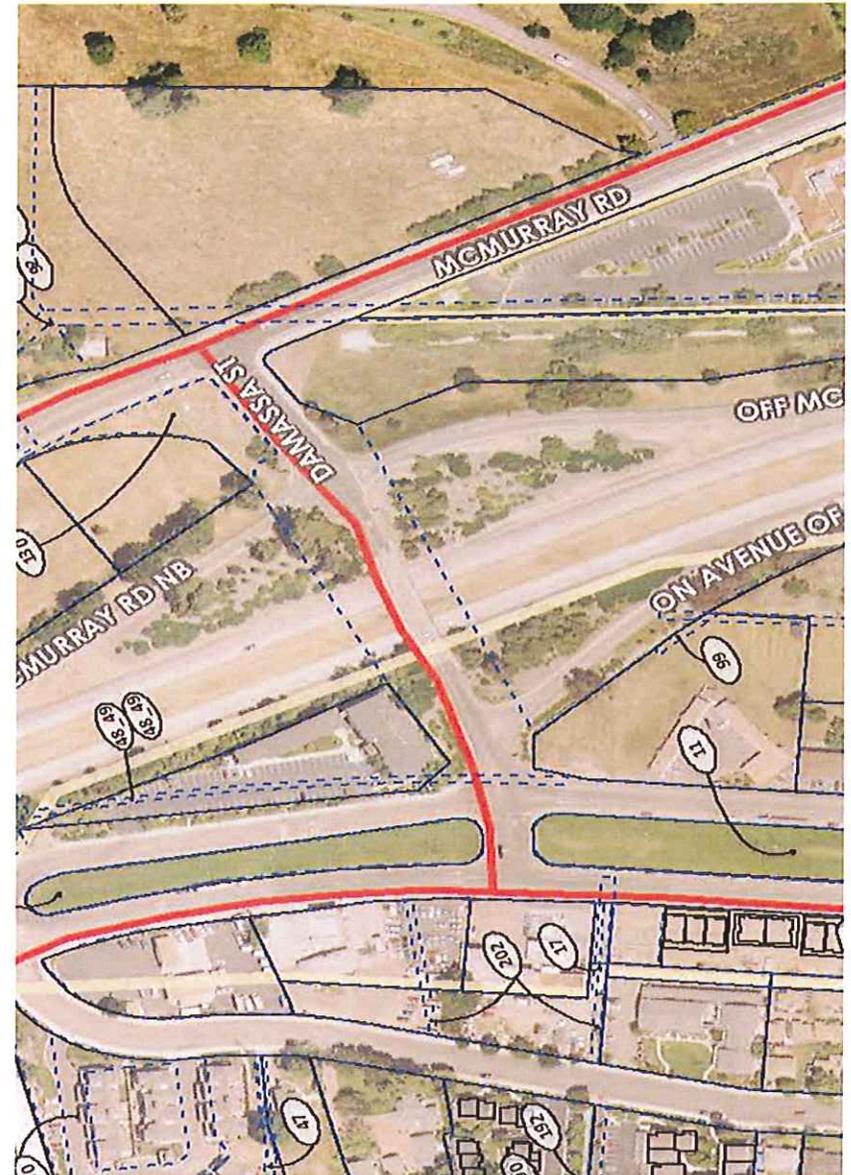
EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI18

STOP 8

DAMASSA / HIGHWAY 101



UI19

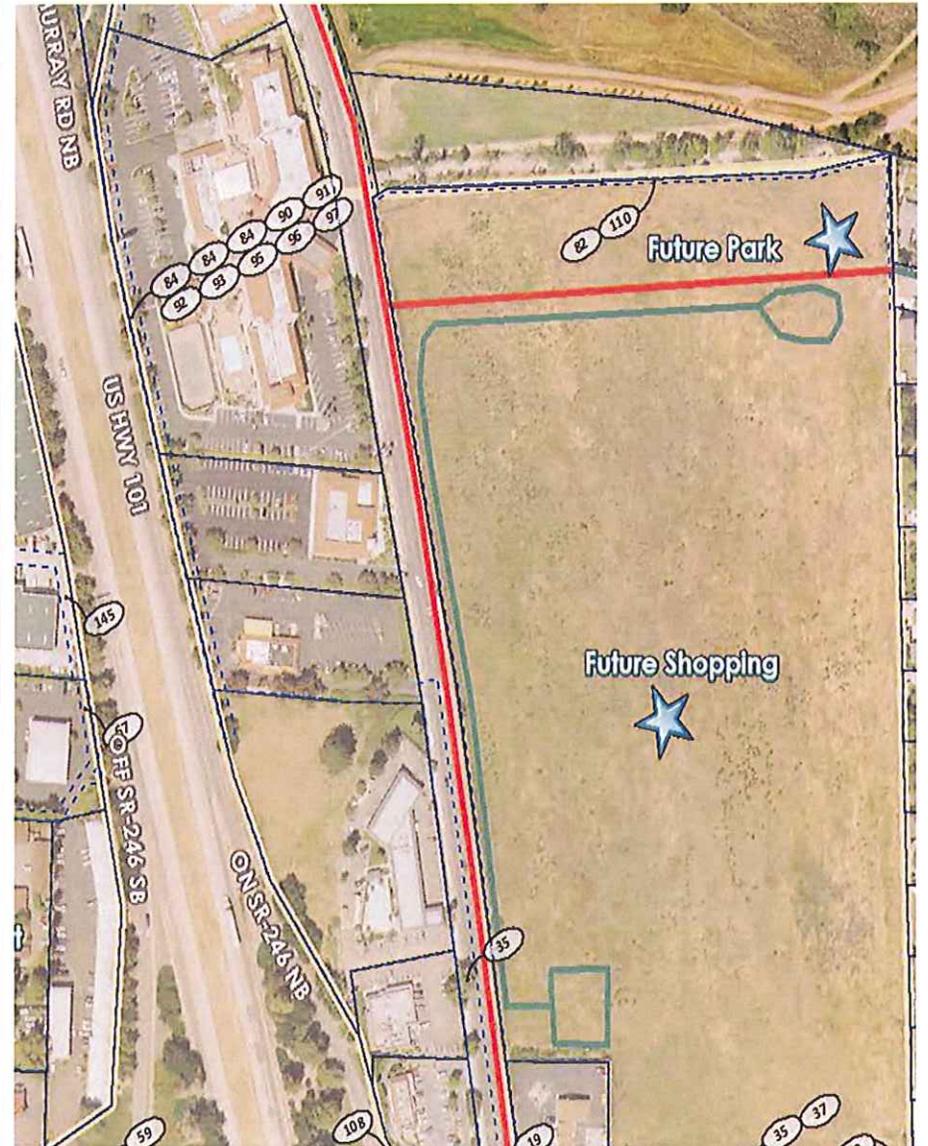
NOTES FOR STOP 8:

EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI20

STOP 9 MCMURRAY ROAD



UI21

NOTES FOR STOP 9:

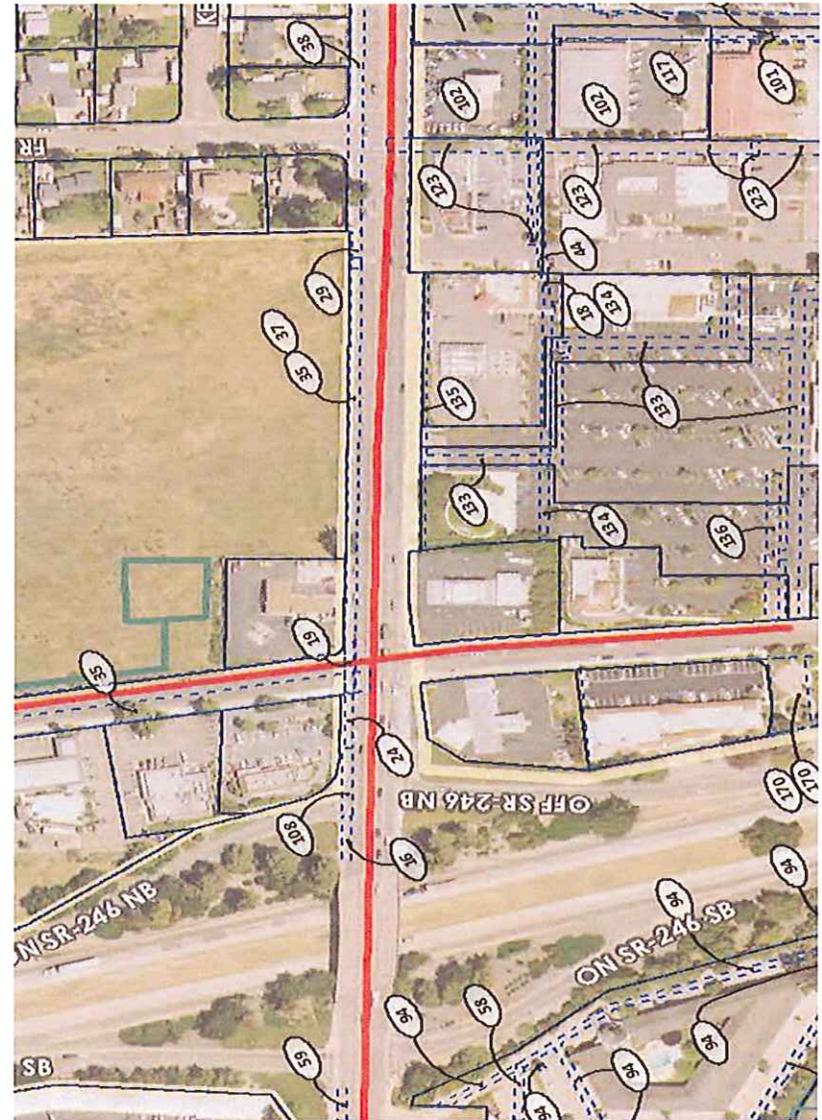
EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI22

STOP 10

HIGHWAY 246 / MCMURRAY – HIGHWAY 101



UI23

NOTES FOR STOP 11:

EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI26

STOP 12

HIGHWAY 246 / BALLARD CYN



NOTES FOR STOP 12:

EXISTING FACILITIES COMMENTS:

SUGGESTED IMPROVEMENTS:

UI28

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UI29

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UI30

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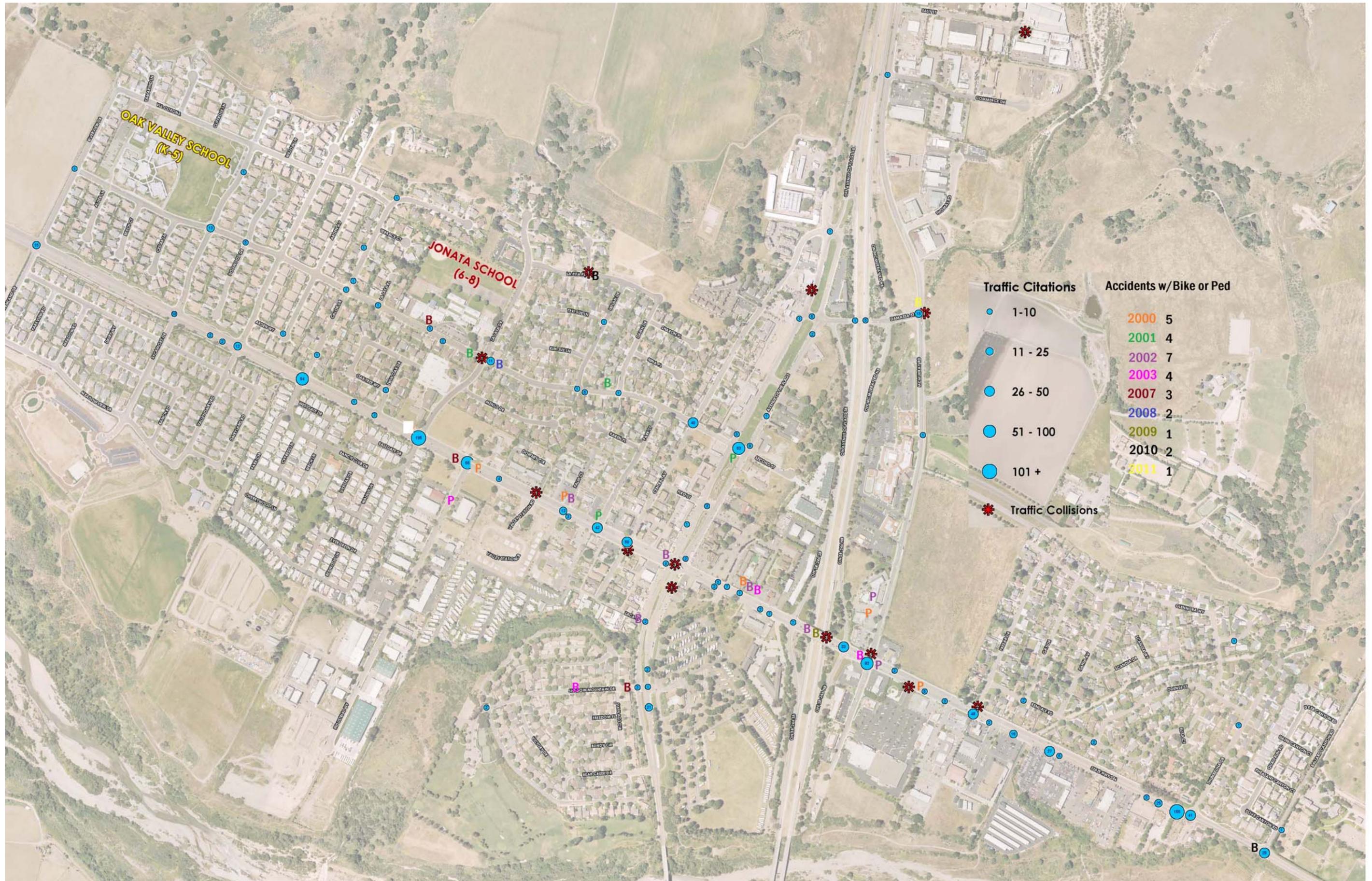
UI31

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UI33

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UI34



City of Buellton Bicycle and Pedestrian Master Plan



- Bikeways for Commuters
- Bikeways for Recreation
- ★ Destination Spots
- Areas of Interest
- Easements

Note: Commuter and Recreational Bikeways are interchangeable.

