

MERCED COUNTY

FRANKLIN-BEACHWOOD SAFE ROUTES TO SCHOOL PLAN



Funded by:



Transportation Planning
Grant Program

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1. INTRODUCTION

Purpose

Many students and families in the Franklin-Beachwood area rely on walking each day to get to school. In order to support those who walk and bicycle to school, the *Franklin-Beachwood Safe Routes to School Plan* identifies key projects to support walking and biking and provides a framework for prioritization and implementation. The ultimate goal of the plan is to improve pedestrian safety throughout the community, with a focus on supporting children walking to the two area schools, Joe Stefani Elementary School and Franklin Elementary School.

Development

The *Franklin-Beachwood Safe Routes to School Plan* (SR2S Plan) was funded through a Fiscal Year 2012-2013 Caltrans Environmental Justice Transportation Planning Grant awarded to Merced County. The SR2S Plan process engaged local residents through a public workshop held in December 2013 and a follow up workshop held in May 2014.

Setting

Franklin-Beachwood is an unincorporated urban community in Merced County, located west of the City of Merced, north of State Route (SR) 99, and south of Santa Fe Drive. **Figure 1** shows the community's location between Santa Fe Drive and SR 99. Many residents of Franklin-Beachwood are employed in agriculture and related industries.





2. EXISTING CONDITIONS

This chapter takes a broad view of existing transportation facilities throughout the community of Franklin-Beachwood and also provides an overview of circulation issues at the area's two elementary schools: Franklin Elementary School and Joe Stefani Elementary School.

DEMOGRAPHICS

Approximately 6,100 people live in Franklin-Beachwood. According to the 2012 American Community Survey (ACS)¹ Five-Year Estimates, approximately 40 percent of the population is school-aged. 81 percent of Franklin-Beachwood residents have access to two or more vehicles, and all workers have access to at least one vehicle. Approximately 46 percent of Franklin-Beachwood residents earn \$50,000 or less annually, and the median family income is approximately \$51,600. Approximately 58 percent of Franklin-Beachwood residents are Latino. 6 percent of the community identifies as Asian, 2.3 percent as

¹ The American Community Survey is an ongoing survey operated by the US Census Bureau that provides demographic data in the intervening years between the decennial census data collection periods.

Hawaiian or Pacific Islander, percent as American Indian, and 2.4 percent as African-American.

LAND USE

Franklin-Beachwood is a primarily residential community. A number of commercial land uses are located near the intersection of Beachwood Drive and Santa Fe Drive, where a gas station, market, and bakery are located, as well as to the south along Beachwood Drive and Ashby Road. Agricultural land surrounds the residential development of Franklin-Beachwood. Light industrial uses are located on the north side of Santa Fe Avenue as well as east of Bryant Road.

The Merced City School District operates the Franklin-Beachwood Schools. Franklin Preschool and Franklin Elementary School are both located on the western edge of the community, on Franklin Road south of Lucich Drive. Joe Stefani Elementary School is located in the center of the community on Rancho Lane at B&B Boulevard. There is no middle or high school in Franklin-Beachwood. Students are bussed to Rivera Middle School, located on Buena Vista Drive east of Franklin-Beachwood, and El Capitan High School, located on Farmland Avenue to the northeast of the community.



Most residential units are single family residential, with some two and three-family residential units along Ashby Road.

INFRASTRUCTURE OVERVIEW

The community of Franklin-Beachwood is bounded by Santa Fe Drive to the north and SR 99 to the south. Franklin Road and Beachwood Drive are the only continuous north-south roadways between SR 99 and Santa Fe Drive. Lobo Avenue and Dan Ward Road are the primary east-west roadways through the community. The following roadways provide primary access through the community:

- **SR 99** is four-lane divided state highway that connects communities throughout the Central Valley. Access to Franklin-Beachwood from SR 99 is only available northbound at the Franklin Road interchange, where there is an on-ramp and off-ramp. Southbound, the community is accessed via both the 16th Street and Buhach Road interchanges.
- **Franklin Road** is a two-lane north-south roadway extending between Ladino Avenue and SR 140. The posted speed limit is 40 mph. Truck traffic is heavy on Franklin Road, as it provides regional access between SR 99 and agricultural uses to the north. The intersection at Sante Fe Avenue is signal-controlled, and the intersection

at Ashby Road is all-way stop-controlled. Franklin Elementary School is located on the east side of the roadway between Lucich Court and Autumn Drive.

- **Beachwood Drive** is a two-lane north-south roadway extending between Belcher Avenue and Ashby Road. An all-way stop-controlled intersection is located at Lobo Avenue, and a traffic signal controls the Beachwood Drive/Santa Fe Drive intersection. The posted speed limit is 25 mph.
- **Lobo Avenue** is a two-lane east-west roadway extending between Franklin Road and Drake Avenue. Lobo Avenue has a canal running along the south side of the street east of Rancho Lane, which experiences seasonal flooding. The posted speed limit is 35 mph.
- **Dan Ward Road** is a two-lane east-west roadway extending between Franklin Road and Beachwood Drive. The posted speed limit is 25 mph..
- **B&B Boulevard** is a two-lane north-south residential roadway extending between Lobo Avenue and Rancho Lane. The posted speed limit is 25 mph.
- **Rancho Lane** is a two-lane north-south roadway that extends between Dan Ward Road and Lobo Avenue. The posted speed limit is 25 mph. Joe Stefani Elementary School is located on the east side of Rancho Lane. In



front of and north of the school, Rancho Lane is a divided roadway with left-turn pockets.

- **Meadowbrook Avenue** is a two-lane north-south roadway that extends between Cabot Avenue and Lobo Avenue. The roadway provides a parallel route to Beachwood Drive. The posted speed limit is 25 mph.
- **Santa Fe Drive** is a four-lane north-south roadway extending between SR 59/Snelling Highway and Olive Avenue in Merced and communities to the north. The posted speed limit is 55 mph.
- **Ashby Road** is a two-lane north-south roadway that connects Atwater and Merced, parallel to SR 99. The posted speed limit is 45 mph.

Average daily auto volumes and peak hour volumes are presented on **Figure 2**.

Speeds

The community perceives prevailing speeds on many roadways in Franklin-Beachwood to be high. Posted speed limits and areas of perceived speeding are presented on **Figure 3**.

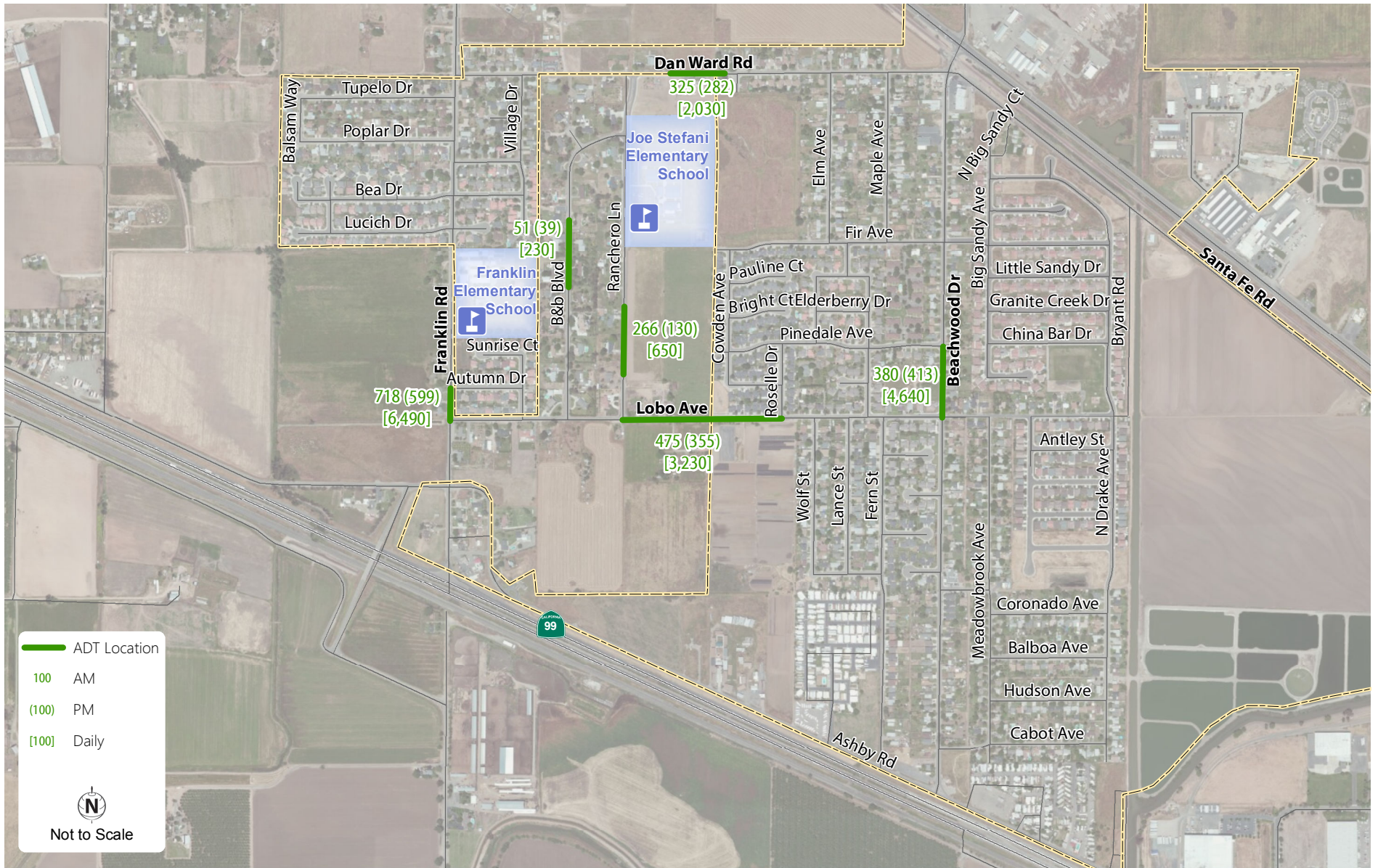
At the public December 2013 public workshop, families identified areas of perceived high speeds and/or where traffic calming features are desired. These roadways include:

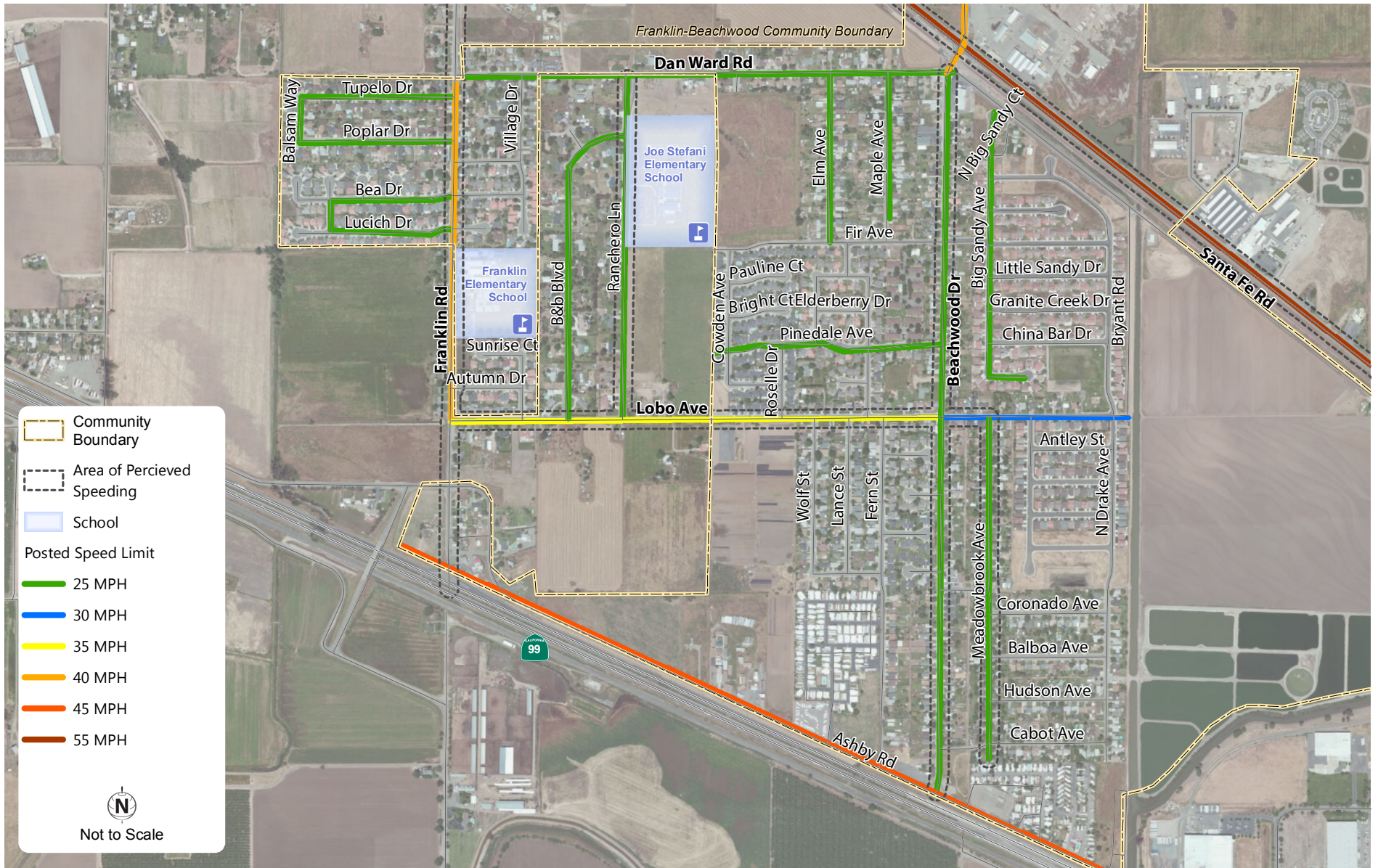
- Franklin Road
- Rancho Lane
- Beachwood Drive
- Lobo Avenue
- Santa Fe Avenue
- Meadowbrook Avenue



Sidewalks are missing on some of Franklin-Beachwood's primary roadways, including Dan Ward Road







Sidewalks

Sidewalks are limited in Franklin-Beachwood and do not provide continuous routes through the community. **Figure 4** presents the existing sidewalk network in Franklin-Beachwood. Distances between destinations are often long for pedestrians, as many roadways do not provide through routes and have leap frogged development, such as the area between Rancho Lane and residential areas to the east.

Portions of Franklin Road, Rancho Lane, Fir Avenue, Beachwood Drive, Lobo Avenue, and Dan Ward Road have some sidewalk with many gaps. Continuous sidewalks are primarily located on residential neighborhood streets.

Crosswalk and Traffic Control

Figure 4 also includes the crosswalks and traffic control devices in Franklin-Beachwood. Five intersections in Franklin-Beachwood are controlled by all-way stops or traffic signals. All-way stops are located at:

- Franklin Road/Ashby Road intersection
- Lobo Avenue/Beachwood Drive intersection
- Drake Avenue/Bryant Road intersection

Traffic signals are located at the Beachwood Drive/Santa Fe Avenue intersection and Franklin Road/Santa Fe Avenue intersection.

Marked crosswalks are located at several intersections in the community, including at the all-way stop at the Lobo Avenue/Beachwood Drive intersection. Most of the crosswalks are uncontrolled. The crosswalk on the south side of the Franklin Road/Lucich Drive intersection, near Franklin Elementary School, is enhanced with user-actuated in-pavement flashing lights.

At the community workshop, families identified various crossing locations that are perceived to be unsafe. These include:

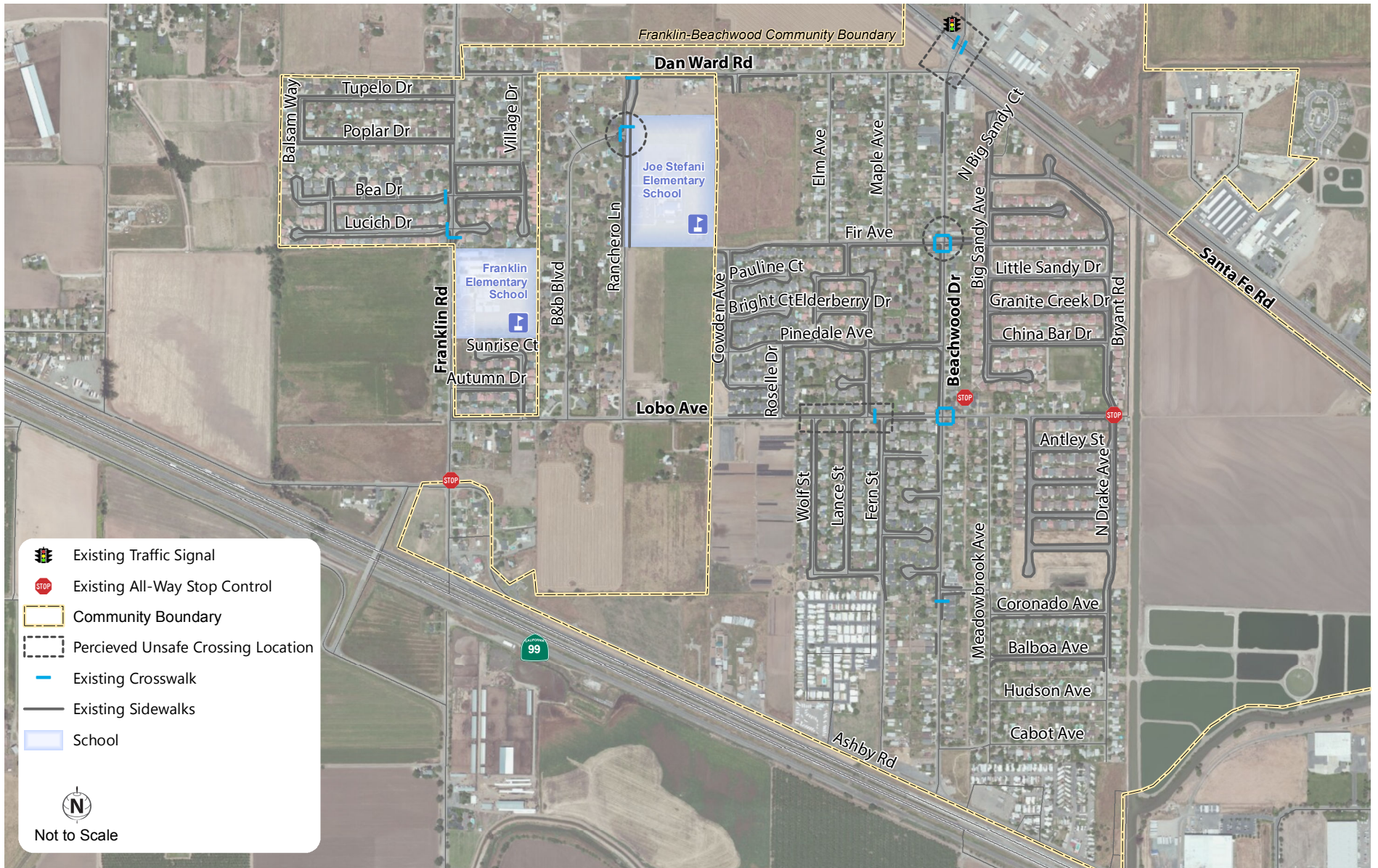
- B&B Boulevard/Rancho Lane intersection (adjacent to Stefani Elementary School)
- Various locations along Lobo Avenue
- Beachwood Drive/Dan Ward Road/Santa Fe Road/Railroad intersection
- Beachwood Drive/Fir Avenue intersection



Bicycle Facilities

There are no existing designated bikeways in the Franklin-Beachwood area.





COLLISIONS AND PERCEIVED SAFETY

Between 2007 and 2013, five reported pedestrian-involved collisions and two reported bicycle-involved collisions occurred in Franklin-Beachwood, according to the California Highway Patrol's (CHP) Statewide Integrated Traffic Records System (SWITRS). The collisions included in the database only consist of those collisions for which CHP officers took reports. As a result, less severe collisions are likely to be unreported or underreported, as are collisions involving those who may not feel comfortable reporting collisions due to issues such as language barriers or immigration status. **Figure 5** shows the location of the reported bicycle and pedestrian collisions between 2007 and 2013.

Pedestrian Collisions

Table 1 presents the five reported pedestrian-vehicle collisions between 2007 and 2013. Two of the collisions occurred where pedestrians were crossing outside of a crosswalk on Beachwood Drive near Pinedale Avenue, and two of the collisions occurred while pedestrians were walking in the roadway or shoulder.

TABLE 1 PEDESTRIAN COLLISIONS, 2007-2013

Location	Severity	Year	Violation ¹
Beachwood/Ashby Road – 900' East of Intersection	Complaint of Pain	2010	21954 (A) – Pedestrians Yielding ROW to Vehicles
Beachwood Drive/ Pinedale Avenue – 128' South of Intersection	Other Visible Injury	2010	21954 (A) – Pedestrians Yielding ROW to Vehicles
Beachwood Drive/ Pinedale Avenue – 101' North of Intersection	Other Visible Injury	2010	21954 (A) – Pedestrians Yielding ROW to Vehicles
Meadowbrook Avenue, north of Oakland Avenue	Fatal	2013	-
Santa Fe Avenue/ Beachwood Drive/ Dan Ward Avenue/Railroad Intersection	Fatal	2013	-

1. Violation refers to the violation code recorded at the time of the collision. Numerical references are to the California Vehicle Code.

Source: SWITRS Data, 2007-2013.



During the public workshops, community members identified several areas where there are perceived pedestrian safety issues, including a desire to see walkway and lighting improvements on:

- Franklin Road
- Dan Ward Road
- Beachwood Drive
- Meadowbrook Avenue
- Ashby Road
- Lobo Avenue
- Rancho Lane
- Fir Avenue
- Elm Avenue
- Crossing at Beachwood Drive/Santa Fe Road/Dan Ward Road/Railroad intersection

Bicycle Collisions

Table 2 presents the two reported bicycle-auto collisions between 2007 and 2012. Both collisions stated that the bicyclist was at fault. As a result, each violation category refers to a failure by the bicyclists. Violations include biking on the wrong side of the road and turning improperly.

TABLE 2 BICYCLE COLLISIONS, 2007-2012

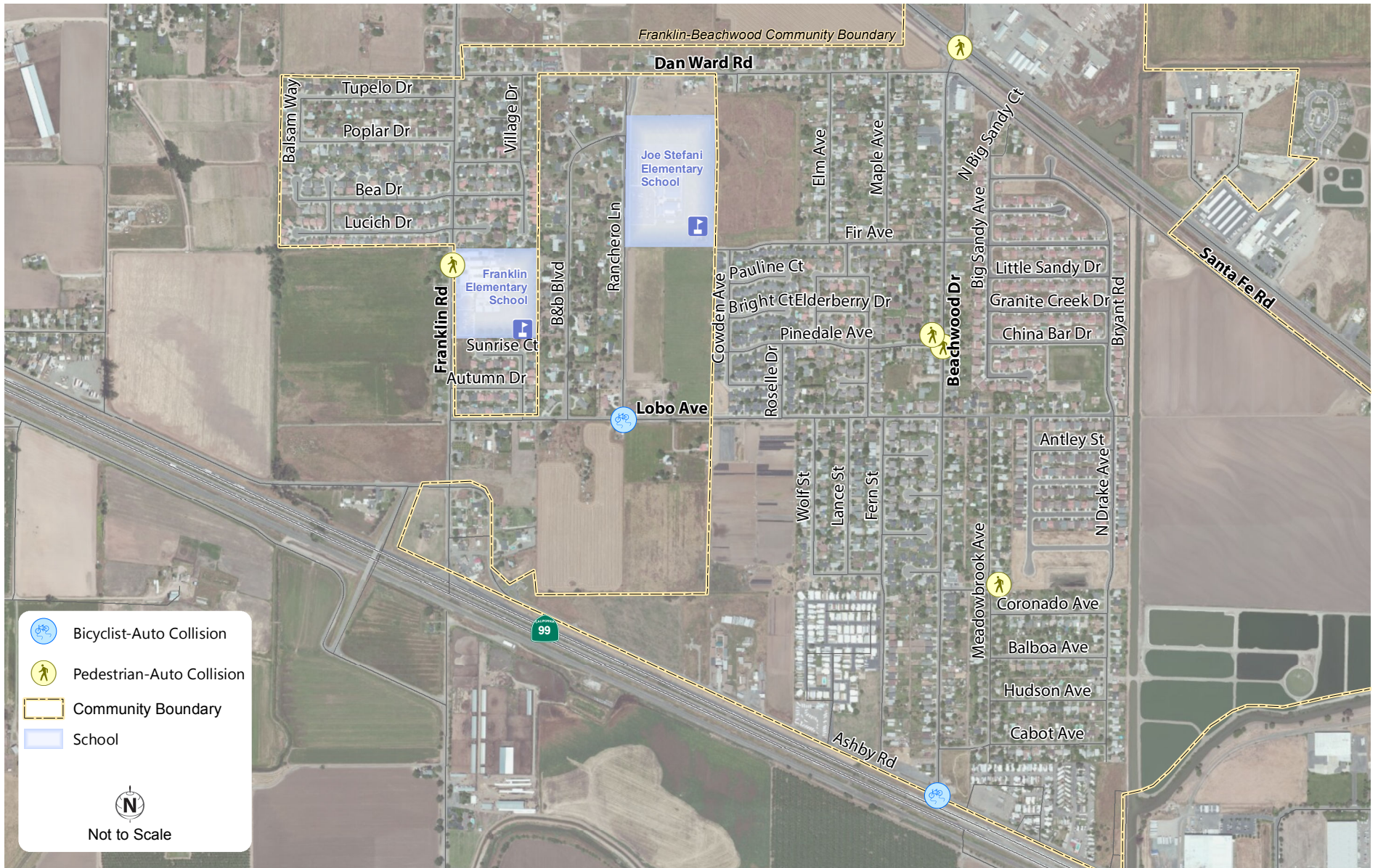
Location	Severity	Year	Violation ¹
Beachwood Drive/ Ashby Road – 528’ East of Intersection	Complaint of Pain	2010	21650 – Driving on the Wrong Side of the Road
Lobo Avenue/ Ranchero Lane – 22’ West of Intersection	Other Visible Injury	2010	22107 – Improper Turning

1. Violation refers to the violation code recorded at the time of the collision. Numerical references are to the California Vehicle Code. In both collisions, law enforcement determined the bicyclist to be at fault.
Source: SWITRS Data, 2007-2012.

During the public workshops, community members identified several areas where there are perceived biking safety issues and wanted to see bicycle improvements on:

- Lobo Avenue
- B&B Boulevard
- Rancho Lane
- Fir Avenue
- Beachwood Drive
- Ashby Avenue





FRANKLIN ELEMENTARY SCHOOL

Franklin Elementary School serves preschool through second grade students in the Franklin-Beachwood area as part of the Merced City School District. The school had 532 enrolled students in the 2012-2013 school year. In October 2012, approximately 85 percent of students were eligible for a free or reduced-price lunch.

School starts at 8:30AM for all students. Students are dismissed at 2:55PM, with a 2:25PM dismissal on Wednesdays.

Anecdotally, approximately 75 percent of Franklin students get to and from school via bus. Students who live in the immediate area, such as the residential neighborhoods along Franklin Road, may walk to school. Approximately 100 students are dropped off and picked up at school each day.

Pick-Up/Drop-Off Circulation

Pick-up and drop-off primarily occurs off of Franklin Road at the drop-off loop on the west side of the campus, as well as on B&B Boulevard, near the path connecting to Franklin Elementary School. Northbound vehicle queues typically extend south of the school site and are often managed by California Highway Patrol officers.

North of the primary pick-up/drop-off is an approximately 150 foot bus pullout in front of the school. This provides a loading zone for buses serving Franklin Elementary School and also for buses for Franklin-Beachwood students attending Rivera Middle School.

A path on the east side of the campus leading to B&B Boulevard provides another pick-up/drop-off location. The gate to the path is open in the morning and afternoon and is otherwise locked. Students bicycling to the junior high school bus stop also use the path and park their bikes at the elementary school. Students and parents also use B&B Boulevard as a walking route between the two elementary schools.

Three crossing guards serve Franklin Elementary School:

- At the pick-up/drop-off loop
- At the Lucich Court marked crosswalk
- At the path to B&B Boulevard

Summary of Potential Issues

Figure 6 presents key issues and opportunities at the two elementary schools. Missing sidewalks and perceived speeding concerns are two key issues near Franklin Elementary School. No



sidewalk is provided on the east side of Franklin Road between Parker Drive and Dan Ward Road. Sidewalks are all entirely or partially missing on B&B Boulevard, Lobo Avenue, and Dan Ward Road.

Speeds on Franklin Road are a concern for parents and students, many of whom cross Franklin Road to access the school from the west. While a crossing guard is provided during bell times at the Franklin Road/Lucich Court intersection and the crosswalk has in-pavement flashers, drivers yielding to pedestrian at the crosswalk remains a concern for the community. Many of the vehicles are heavy trucks.

Parents also have concerns about queuing into the drop-off and pick-up loop at Franklin Elementary School. Parents waiting to drop-off or pick-up students wait in a queue on the east side of Franklin Road south of Franklin Elementary School. While the queue is generally orderly, there are concerns about some parents rushing to the school to avoid waiting in the queue.

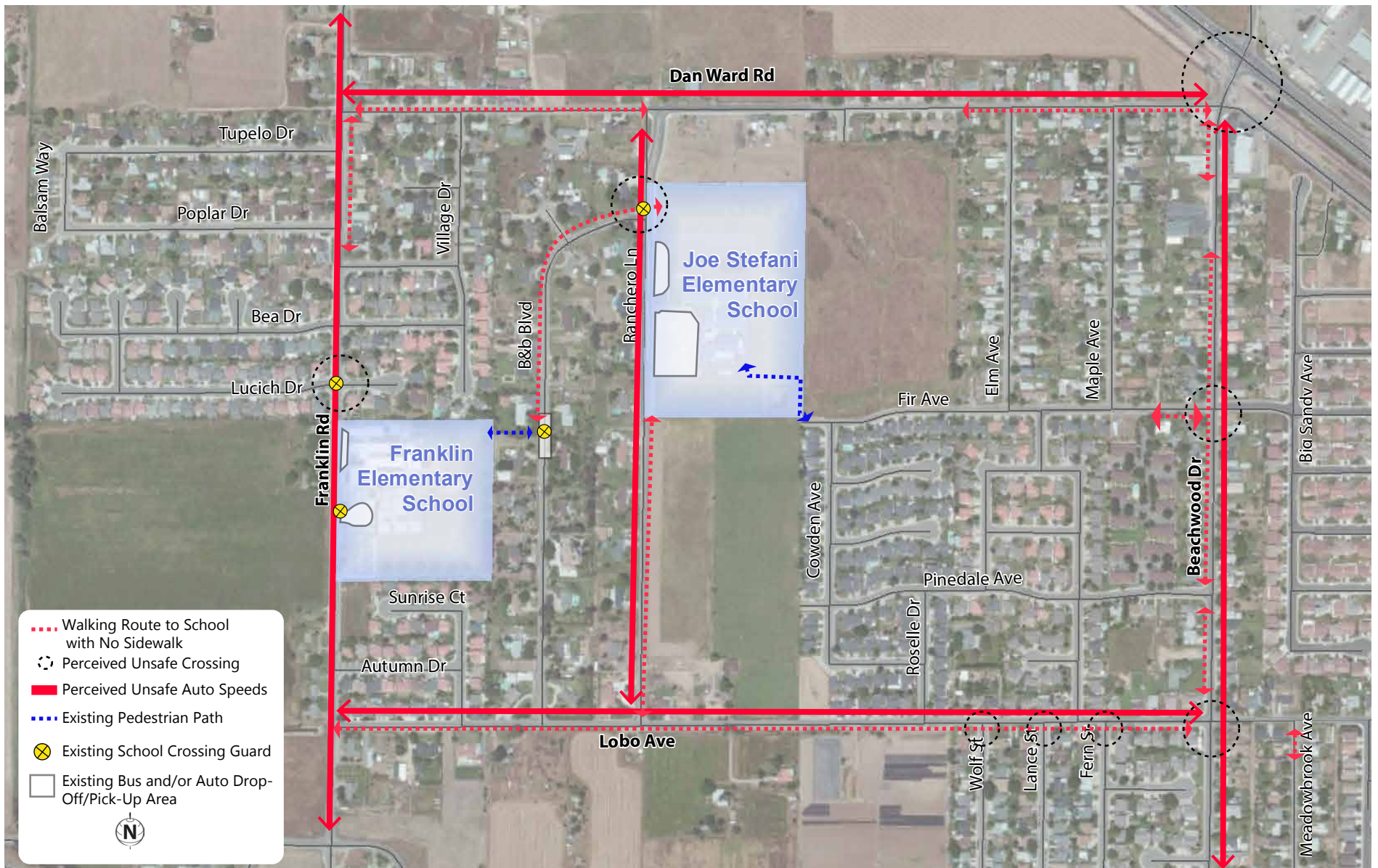


Large trucks frequently use Franklin Road to get to SR 99, passing by Franklin Elementary School



A crossing guard positioned on Franklin Road at Lucich Court, the busiest crosswalk near the school





JOE STEFANI ELEMENTARY SCHOOL

Joe Stefani Elementary School serves third through fifth grade students in the Franklin-Beachwood area as part of the Merced City School District. In the 2012-2013 school year, Stefani Elementary School had 520 enrolled students. Of those students, 81 percent were eligible for free or reduced-price lunch programs.

School starts at 8:20AM for all students. Students are dismissed at 2:45PM, with a 2:15PM dismissal on Wednesdays.

Pick-Up/Drop-Off Circulation

Students are picked-up and dropped-off at a one-way loop through the school parking lot, as well as on B&B Boulevard, near the path connecting to Franklin Elementary School. Most vehicles form a curbside queue northbound on Rancho Lane to enter the parking lot. Queuing frequently blocks northbound traffic on Rancho Lane. Alternatively, some parents park and pick up children in the parking lot.

A crossing guard serves the uncontrolled marked crosswalk across Rancho Lane at B&B Boulevard. On a single afternoon, almost fifty children and parents were observed walking north on Rancho Lane and/or using the crosswalk at B&B Boulevard.

Additionally, three students on bicycles were observed. Due to perceived yielding issues at the intersection, the crossing guard frequently uses a cone to block one half of the roadway while she stops traffic on the other half of the roadway.

North of the parking lot, there is an approximately 225 foot bus pullout area, where students get picked-up and dropped-off by local school buses.

Summary of Potential Issues

Figure 6 presents key issues and opportunities at the two elementary schools. Missing sidewalks, perceived speeding concerns, and perceived unsafe crossings are three key issues near Stefani Elementary School. Sidewalks are missing on Rancho Lane south of the elementary school. B&B Boulevard, which provides a connection between the two schools and is frequently traversed by students and parents traveling between the two, is also missing sidewalk. The existing marked crosswalk across Rancho Lane is another area of perceived safety concern.

To the north, Dan Ward Road has several sidewalk gaps. To the east, a short sidewalk gap exists on Fir Avenue at Beachwood Drive, and several long sidewalk gaps are located on Beachwood



Drive. Three reported pedestrian collision have occurred on Beachwood Drive in the last five years, one of which was fatal.

To the south, Lobo Avenue is missing a sidewalk and has seasonal flooding issues due to the open canal on the south side of the roadway. Crossing Lobo Avenue from residential side-streets feels unsafe to some residents. Likewise, the intersection at Beachwood Drive, though controlled by an all-way stop, is also perceived as having pedestrian safety issues.



Pick-up traffic at Joe Stefani Elementary School backs up onto Rancho Lane



Elementary school students walk along B&B Boulevard near Joe Stefani Elementary School

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3. PUBLIC OUTREACH

A key component of the Safe Routes to School Plan involved public workshops to help guide the direction of the Plan and to gain valuable insight for the community. Three outreach events occurred in Franklin-Beachwood:

- September 2013 Municipal Advisory Committee (MAC) Meeting
- December 2013 Public Workshop
- May 2014 Public Workshop

September 2013 MAC Meeting

In September 2013, the consultant team attended a meeting of the Municipal Advisory Committee (MAC) to present an overview of the project. The meeting primarily provided an opportunity for the MAC members to help steer the project and provide initial input and identify critical issues for further study.

December 2013 Public Workshop

The project team hosted a public workshop on December 16, 2013. The intent of the workshop was to gain community input on the most important issues and highest priority areas for

providing safe routes to school throughout the community. Approximately 30 community residents, students, and other stakeholders participated. The workshop and all materials were presented in both Spanish and English. The structure of the workshop consisted of:

- A brief presentation
- A group mapping exercise
- Two mapping stations

For the group mapping exercise, participants organized into groups and noted key issues and opportunities on large aerial maps. They then presented back to the group on key findings and concerns.

The mapping stations engaged the community on specific questions, such as:

- Where are vehicle speeds a concern?
- What improvements are needed for walking?
- Where do you feel unsafe crossing?
- What improvements are needed for biking?



Participants were asked to draw on and markup the maps. In addition to that, a large aerial floor map, approximately 8 feet by 12 feet in area, provided another medium for participant feedback.

Concerns and suggestions heard at the workshop are summarized below.

Concerns

- Need to improve pedestrian safety on Meadowbrook Avenue, especially given several bus stops, high vehicle speeds, and perception of drunk driving on Meadowbrook Avenue
- Recent pedestrian fatality occurred on Meadowbrook Avenue
- Franklin Road has high vehicle speeds and heavy truck traffic
- Need to slow down vehicles southbound on Ranchero Lane
- Traffic is too fast on Beachwood Drive
- Flooding occurs seasonally on both sides of Lobo Avenue though it is an important route to school
- Need to reduce speeds on Lobo Avenue



December 2013 workshop attendees mark up aerial maps and participate in the floor map exercise



- Perception of unsafe crosswalks at B&B Boulevard/Ranchero Lane, in front of Stefani Elementary School
- Perception of unsafe crosswalks on Lobo Avenue at Wolf Street, Lance Street, and Fern Street
- Perception of unsafe crosswalks on Beachwood Drive at the Dan Ward Road/Santa Fe Road/railroad intersection and the Beachwood Drive/Fir Avenue intersection
- High speeds on Santa Fe Avenue

Suggestions

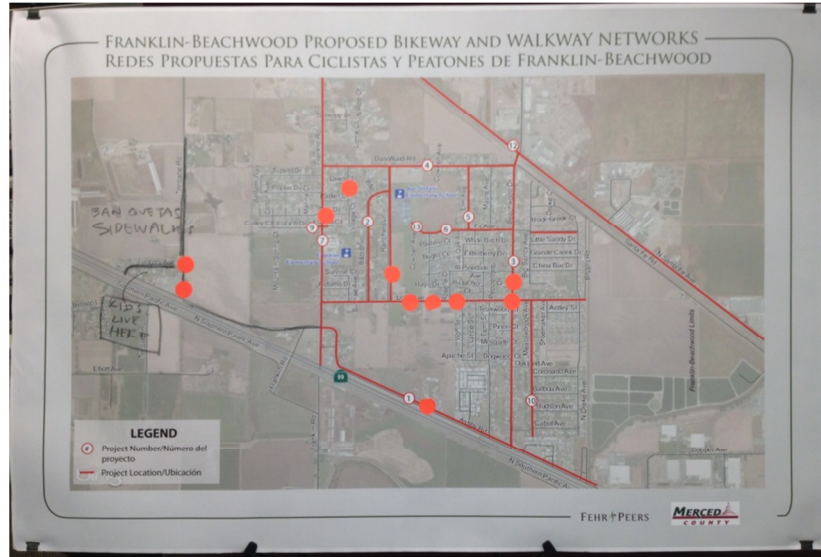
- Construct sidewalks and install lighting on Meadowbrook Avenue given high walking demand
- Improve pedestrian safety at railroad/Santa Fe Road/Beachwood Drive intersection
- Consider new parks and walking trails at the southeast corner of the Dan Ward Road/Ranchero Lane intersection and the northeast corner of the Cowden Avenue/Fir Avenue intersection
- Construct sidewalks on Franklin Road, Dan Ward Road, Beachwood Drive, Ashby Road, Lobo Avenue, Ranchero Lane, Fir Avenue, Elm Avenue, and Meadowbrook Avenue

- Improve lighting on Franklin Road, Dan Ward Road, Beachwood Drive, Ashby Road, Lobo Avenue, Pinedale Avenue, Cowden Avenue, Peppertree Drive, Coronado Avenue, Balboa Avenue, Hudson Avenue, and Cabot Avenue
- Provide bicycle facilities on Lobo Avenue, B&B Boulevard, Ranchero Lane, Fir Avenue, Beachwood Drive, and Ashby Avenue (toward Merced)
- Construct sidewalks on B&B Boulevard between the Franklin Elementary School path and Ranchero Lane
- Construct sidewalks on Ranchero Lane south of Stefani Elementary School
- Close sidewalk gaps on Dan Ward Road (east of Ranchero Lane and west of Beachwood Drive)
- Construct sidewalks on Ashby Road between Merced Mobile Estates and Beachwood Drive
- Install all-way stop control at the Beachwood Drive/Fir Avenue intersection

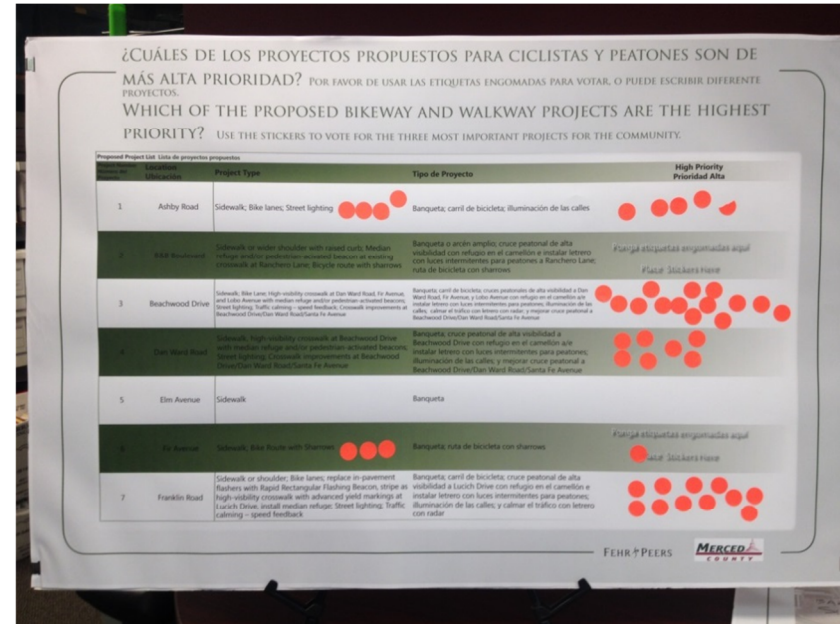


May 2014 Public Meeting

In May 2014, the consultant team conducted a public workshop to present the proposed bicycle and pedestrian improvements in the community. The workshop included a brief presentation and an opportunity for participants to vote on which projects represent the highest priorities for the community.



Board from the public workshop illustrating the proposed network of pedestrian and bicycle facilities based on previous community meetings and planning efforts



Board from the public workshop of proposed bikeway and walkway projects for attendees to identify which projects are of the highest priority to them

Through the voting exercise, the community feedback provided a sense of the proposed projects that are of the greatest priority to residents. Bicycle and pedestrian improvements on Lobo Avenue, including sidewalk, bike lane and crosswalk improvements, received a high number of votes. Attendees also highly prioritized improvements to Beachwood Drive and Franklin Road, which included bike lanes, sidewalks, crossing improvements and traffic calming devices on both corridors.



4. PROPOSED PROJECTS

This chapter describes the proposed Franklin-Beachwood bikeway and walkway network.

FRANKLIN-BEACHWOOD WALKING & BIKING NETWORKS

Public input received during the two public workshops, as well as Municipal Advisory Committee meeting, greatly influenced the development of the proposed network. Once completed, the proposed bicycle and pedestrian networks will provide more comfortable and more direct walking and bicycling routes throughout the community. The proposed bicycling and walking networks were developed based on the following criteria:

- **Connections to Schools:** Franklin and Stefani Elementary Schools should be easily accessible by walking and biking.
- **Comfort and Convenience:** New walking and biking facilities should provide convenient, comfortable facilities that users of all ages and abilities, including the young and old, can feel comfortable using.
- **Improving Crossings:** Many routes to school and through the community cross busy and higher speed roadways in addition to the train tracks. The network should make crossings easier and safer for pedestrians and improve driver yielding.

IMPROVEMENT PROJECTS

The proposed projects consist of bicycle and pedestrian facilities and enhancements that will fill in important gaps in the existing network, provide access to schools, and improve corridors and crossings with real and perceived safety issues. The proposed network of improvements is divided into 51 individual projects. **Table 3** includes a brief description of each individual project.

Pedestrian Facilities and Street Lighting

Figure 7 presents pedestrian facilities, including existing and proposed sidewalks and crosswalks, in addition to recommended street lighting improvements. Sidewalks have been proposed on streets with high pedestrian demand, large traffic volumes and fast moving vehicles, including Franklin Road, Ashby Road, Lobo Avenue, Dan Ward Road, Beachwood Drive, Rancho Lane, and B&B Boulevard. Sidewalks are proposed on both sides of the street where there is not an



existing sidewalk. Additionally, difficult crossings identified by the community are proposed as enhanced crosswalks. Several new, high-visibility marked crosswalks are proposed. Street lighting is recommended on key connections including Franklin Road, Beachwood Drive, Lobo Avenue and Ashby Road.

Bicycle Facilities

Figure 8 presents existing and proposed bicycle facilities. Bike lanes are proposed on roads with high volumes of traffic and high posted speed limits including Franklin Road, Santa Fe Avenue, Lobo Avenue, Beachwood Drive and Ashby Avenue. Roads with speed limits of 25 mph or less and less than 3,000 vehicles per day are recommended as bicycle routes, with striped sharrows to indicate the presence of bicyclists and preferred bicyclist alignment. These include B&B Boulevard, Rancho Lane, and Fir Avenue.

Traffic Calming

Figure 9 shows proposed traffic calming devices, such as speed humps and speed feedback signs. Traffic calming devices are recommended on key connections including Franklin Road, Beachwood Drive, Lobo Avenue and Ashby Road.

TABLE 3 PROJECT LIST

Project Number	Project Type	Location	Limits/ Notes
1	Sidewalk or Shoulder	Franklin Road (east side)	Santa Fe Avenue to Dan Ward Avenue
2	Sidewalk or Shoulder	Franklin Road (west side)	Santa Fe Avenue to Dan Ward Avenue
3	Sidewalk or Wider Shoulder with Raised Curb	B&B Boulevard (east side)	Ranchero Lane to Lobo Avenue
4	Sidewalk or Wider Shoulder with Raised Curb	B&B Boulevard (west side)	Ranchero Lane to Lobo Avenue
5	Sidewalk	Franklin Road (east side)	Dan Ward Road to Parker Drive, Lobo Avenue to Ashby Road
6	Sidewalk	Franklin Road (west side)	Lucich Court to Ashby Road
7	Sidewalk	Ashby Road (north side)	Franklin Road to Merced City Limit



TABLE 3 PROJECT LIST

Project Number	Project Type	Location	Limits/ Notes
8	Sidewalk	Ashby Road (south side)	Franklin Road to Merced City Limit
9	Sidewalk	Ranchero Lane (east side)	Stefani Elementary School to Lobo Ave
10	Sidewalk	Ranchero Lane (west side)	Stefani Elementary School to Lobo Ave
11	Sidewalk	Fir Avenue (north side)	Stefani Elementary School Path to Beachwood Drive
12	Sidewalk	Fir Avenue (south side)	150' east of Maple Avenue to Beachwood Drive
13	Sidewalk	Beachwood Drive (east side)	Santa Fe Drive to Dan Ward Road, 300' south of Dan Ward Road to Oakland Avenue, 200' south of Oakland Avenue to Ashby Road

TABLE 3 PROJECT LIST

Project Number	Project Type	Location	Limits/ Notes
14	Sidewalk	Beachwood Drive (west side)	Santa Fe Road to Fir Avenue, 200' south of Dogwood Court to Ashby Road
15	Sidewalk	Lobo Avenue (north side)	100' east of Sunrise Avenue to 500' west of Roselle Drive, Beachwood Drive to 200' west of Drake Avenue
16	Sidewalk	Lobo Avenue (south side)	Franklin Avenue to Fern Street, Beachwood Drive to 100' west of Shoemaker Avenue
17	Sidewalk	Dan Ward Road (north side)	Village Court to Beachwood Drive



TABLE 3 PROJECT LIST

Project Number	Project Type	Location	Limits/ Notes
18	Sidewalk	Dan Ward Road (south side)	Franklin Road to Rancho Lane, 200' west of Elm Avenue to Beachwood Drive
19	Sidewalk	Meadowbrook Avenue (east side)	Lobo Avenue to Cabot Avenue
20	Sidewalk	Meadowbrook Avenue (west side)	Lobo Avenue to Cabot Avenue
21	Sidewalk	Elm Avenue (east side)	Dan Ward Road to Fir Avenue
22	Sidewalk	Elm Avenue (west side)	Dan Ward Road to Fir Avenue
23	Sidewalk	Langry Avenue	Ashby Road to Trindade Road
24	Sidewalk	Village Drive (west side)	Parker Drive to Dan Ward Road

TABLE 3 PROJECT LIST

Project Number	Project Type	Location	Limits/ Notes
25	Sidewalk	Village Drive (east side)	Parker Drive to Dan Ward Road
26	Sidewalk	Lawn Court	Both sides
27	Enhanced Crosswalk	Lobo Avenue/ Wolf Street	High-visibility crosswalk on west side of intersection, raised median refuge and/or RRFB
28	Enhanced Crosswalk	Beachwood Drive/Dan Ward Road	High-visibility crosswalk on south side of intersection, raised median refuge and/or RRFB
29	Enhanced Crosswalk	B&B Boulevard/ Rancho Lane	High-visibility crosswalk, median refuge, and RRFB
30	Enhanced Crosswalk	Lobo Avenue/ Fern Street	Median refuge and RRFB



TABLE 3 PROJECT LIST

Project Number	Project Type	Location	Limits/ Notes
31	Enhanced Crosswalk	Lobo Avenue/ Beachwood Drive	High-visibility crosswalk and median refuge
32	Crosswalk Improvements	Beachwood Drive/Santa Fe Road/Railroad signalized intersection	Pedestrian railroad crossing arms, curb extension on SE corner of Beachwood Drive, median refuge
33	Enhanced Crosswalk	Beachwood Drive/Fir Avenue	High-visibility crosswalk with median refuge and RRFB
34	Enhanced Crosswalk	Franklin Road/Lucich Drive	Replace in-pavement flashers with RRFB, high-visibility crosswalk with advanced yield markings, median refuge
35	Bike Lane	Franklin Road	Ashby to Santa Fe
36	Bike Lane	Santa Fe Avenue	Franklin Road to Beachwood Drive

TABLE 3 PROJECT LIST

Project Number	Project Type	Location	Limits/ Notes
37	Bike Lane	Lobo Avenue	Franklin Road to Bryant Road
38	Bike Lane	Beachwood Drive	Dan Ward to Ashby
39	Bike Lane	Ashby Avenue	Toward Merced
40	Bike Route with Sharrows	B&B Boulevard	Ranchero to Lobo
41	Bike Route with Sharrows	Ranchero Lane	Dan Ward to Lobo
42	Bike Route with Sharrows	Fir Avenue	Cowden Ave to Drake Ave
43	Street Lighting	Franklin Road	Dan Ward Road to Ashby Road
44	Street Lighting	Dan Ward Road	Franklin Road to Beachwood Drive
45	Street Lighting	Beachwood Drive	Santa Fe Road to Ashby Road



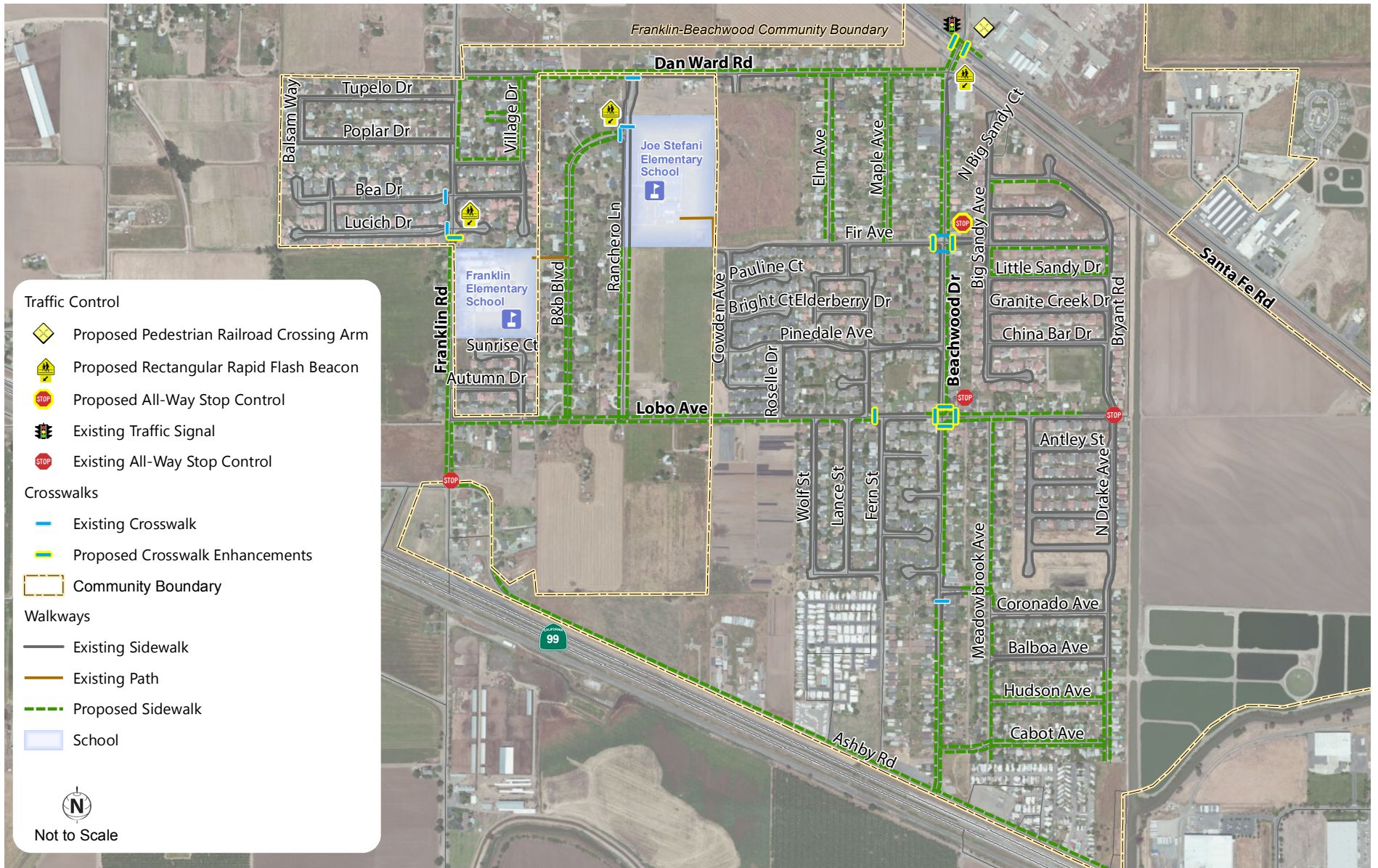
TABLE 3 PROJECT LIST

Project Number	Project Type	Location	Limits/ Notes
46	Street Lighting	Ashby Road	Franklin Road to Mobile Home Park
47	Street Lighting	Lobo Avenue	Franklin Road to Drake Avenue
48	Street Lighting	Ranchero Lane	Dan Ward Road to Lobo Avenue
49a	Traffic Calming	Franklin Road	Dan Ward Road to Ashby Road, Speed Feedback
49b	Traffic Calming	Franklin Road	Lobo Avenue to Dan Ward Road, planters
50	Traffic Calming	Beachwood Drive	Santa Fe Road to Ashby Road, Speed Feedback
51	Traffic Calming	Lobo Avenue	Franklin Road to Drake Avenue, Speed Humps
52	Traffic Calming	Ranchero Lane	Dan Ward Road to Lobo Avenue, Speed Humps

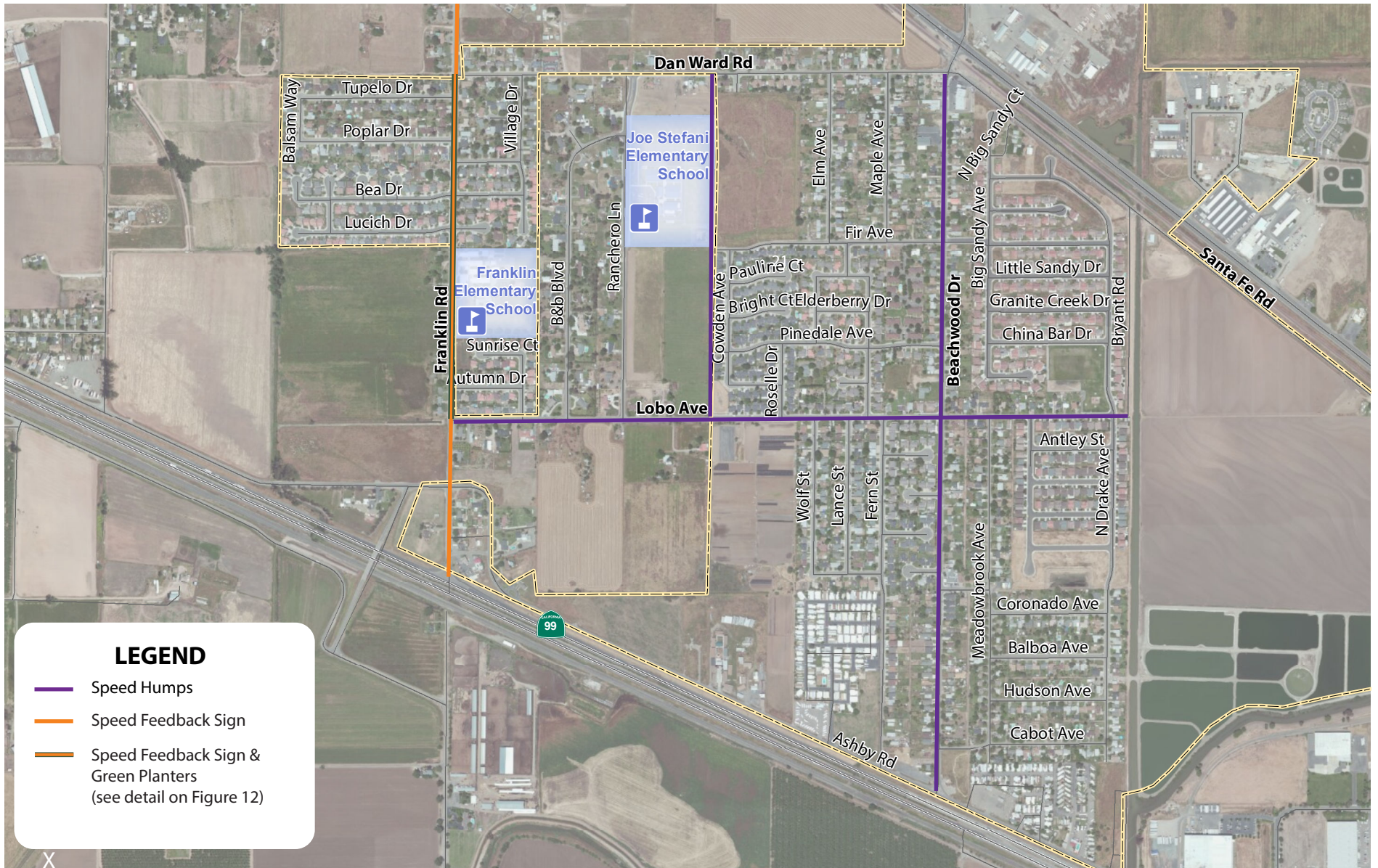
TABLE 3 PROJECT LIST

Project Number	Project Type	Location	Limits/ Notes
53	Multi-Use Path	Stefani Elementary School (southeast corner of school)	Existing Stefani Elementary School path to Fir Avenue
54	Flood Prevention	Lobo Avenue	Both sides; not on map









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5. PRIORITIZATION

The purpose of the bicycle and pedestrian networks is to provide safe, convenient, direct, and comfortable access to schools community-wide. However, the entire network cannot be completed at once due to funding and implementation constraints. Thus, prioritization criteria are identified to rank projects according to their community benefit. Each proposed project was scored according to prioritization criteria based on input received at the public workshops. The criteria include:

- Community Priority
- Access to Schools
- Closure of a Critical Gap
- Serves Immediate Safety Need
- Pedestrian Demand

Each criterion is further defined below.

COMMUNITY PRIORITY (4 POINTS)

One of the key criteria for prioritization is the community support for the project. During the two public workshops, the

public had the opportunity to, first, identify projects and, later, vote on the highest priority projects. Based on the input received at the public outreach events, Community Priority is scored as follows:

- 4 points for projects identified as being the most important projects to the community. These are projects identified as top priority in the community workshop.
- 2 point for projects that have been previously identified but are not key projects.
- 0 points for projects being identified for the first time.

ACCESS TO SCHOOLS (2 POINTS)

Additional points are assigned to projects located within close proximity to a school or with the potential to increase walking to and from a school:

- 2 points for projects within 1/2 mile of a school
- 1 point for projects between 1/2 and 1 mile of a school
- 0 points for projects over 1 mile from a school



CLOSURE OF A CRITICAL GAP (2 POINTS)

Gaps in the pedestrian network are defined as an area of discontinuity in existing pedestrian or bicycle infrastructure. Points are assigned to projects that close a gap in the pedestrian network, including sidewalk gaps and improved pedestrian access across interchanges:

- 2 points for directly closing a gap
- 1 point for improving access and reducing the impact of a gap
- 0 points for no gap closure

SERVES IMMEDIATE SAFETY NEED (2 POINTS)

Additional points are assigned to projects in areas where pedestrian safety is a primary concern, including proximity to recent pedestrian collisions and streets with high speed traffic or pedestrian exposure to high volumes of traffic. High speed roadways are considered those with a posted speed limit greater than 30 mph. Projects on roadways with at least 1 reported bicycle/pedestrian collision were considered to be projects near collisions. Feedback of perceived safety issues during the public input process was also a considered in the

designation of points for this criterion. Points are assigned as follows:

- 2 points for locations near pedestrian collisions and high speed/high volume streets, OR for projects where a high sense of perceived risk was expressed during the public input process.
- 1 point for locations near pedestrian collision OR high speed/high volume streets
- 0 points for locations where collisions, traffic speed/volume, and perceived safety are less of a concern

PEDESTRIAN DEMAND (2 POINTS)

Additional points are assigned to projects that are located on the side of the street with greater pedestrian need due to the location of key destinations, existing infrastructure, land use and pedestrian desire lines. Based on feedback at the community meetings, pedestrian projects are a greater priority than bicycle projects, and, as such, points are only awarded to pedestrian improvement projects. Points are assigned as follows:

- 2 points for projects located on the primary desire line or the area with highest pedestrian demand



- 0 points for projects located not on the primary desire line or the side with the lower pedestrian demand. Non-pedestrian projects such as bicycle projects also received 0 points.

Each recommended project was scored according to these criteria, with the highest scores indicating the highest priorities. Projects were then grouped into high, medium, or low priority projects. **Appendix A** presents all projects in their ranked order according to the sum of their scores for each criterion. The resulting ranked list is not intended to be a static document, as new opportunities for funding and improved access will emerge. However, the list will provide a starting point for determining project priorities and implementation.

HIGH PRIORITY PROJECTS

Using these prioritization criteria, the following projects received the highest scores, scoring ten, eleven or twelve points out of fourteen points:

- Franklin Road sidewalk between Dan Ward Road and Parker Drive, and between Lobo Avenue and Ashby Road (#5)
- Lobo Avenue sidewalk, north side, between 100 feet east of Sunrise Avenue and 500 feet west of Roselle Drive; Fern Street and 200 feet west of Beachwood Drive; and, Beachwood Drive and 200 feet west of Drake Avenue (#15)
- Franklin Road traffic calming, Santa Fe Road to Ashby Road (#49)
- Lobo Avenue/Fern Street intersection crosswalk enhancements (#30)
- Lobo Avenue/Beachwood Drive intersection improvements (#31)
- Beachwood Drive/Santa Fe Road/railroad intersection crosswalk improvements (#32)
- Franklin Road/Lucich Drive intersection crosswalk enhancements (#34)
- Lobo Avenue street lighting (#47)
- Beachwood Drive traffic calming between Santa Fe Road and Ashby Road (#50)
- Lobo Avenue traffic calming between Franklin Road and Drake Avenue (#51)
- Lobo Avenue bike lane between Franklin Road and Bryant Road (#37)



- Beachwood Drive/Fir Avenue intersection crosswalk enhancements (#33)
- Lobo Avenue flood prevention (#54)
- Franklin Road sidewalk, west side, Lucich Court to Ashby Road (#6)
- Meadowbrook Avenue sidewalk, west side, Lobo Avenue to Cabot Avenue (#20)
- Franklin Road street lighting (#43)

Of these high-priority projects, two projects were selected based on community input and guidance from Merced County for further study and concept development:

- Rancho Lane crosswalk enhancements
- Franklin Road traffic calming, landscape bulbouts, bike lane, speed feedback signs and sidewalk

Detailed project descriptions and concept drawings are presented in the next section.



Ranchero Lane/B&B Boulevard Crosswalk Enhancements

This project proposes enhancing the existing crosswalk at Ranchero Lane/B&B Boulevard intersection with a median nose to create a full pedestrian refuge, high visibility (“ladder” style) school crosswalk striping, and Rapid Rectangular Flashing Beacons (RRFBs) with advanced yield markings.

This crossing provides a key connection to and from Joe Stefani Elementary School and the dense residential area to the west. Many students and parents use this route to go between the two elementary schools. Though a crossing guard is present at this location near bell times, the continued community perception is that poor driver yielding behavior creates an unsafe crossing at this location. This crossing also provides a primary pedestrian route to Dan Ward Road, one of two east-west connections that provides access across Franklin-Beachwood.

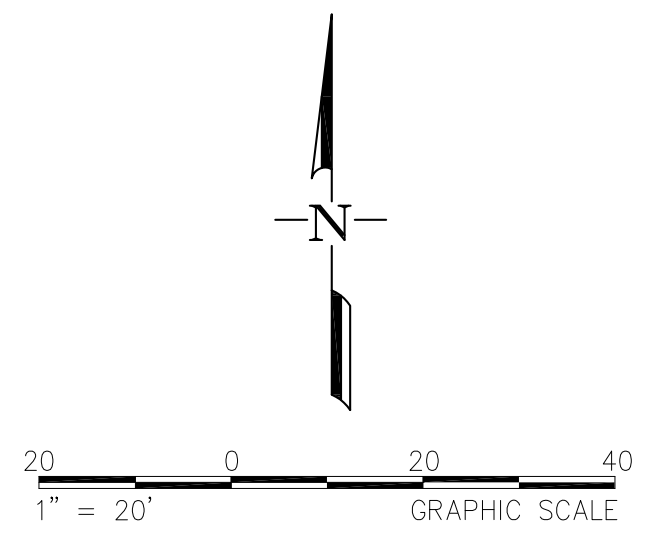
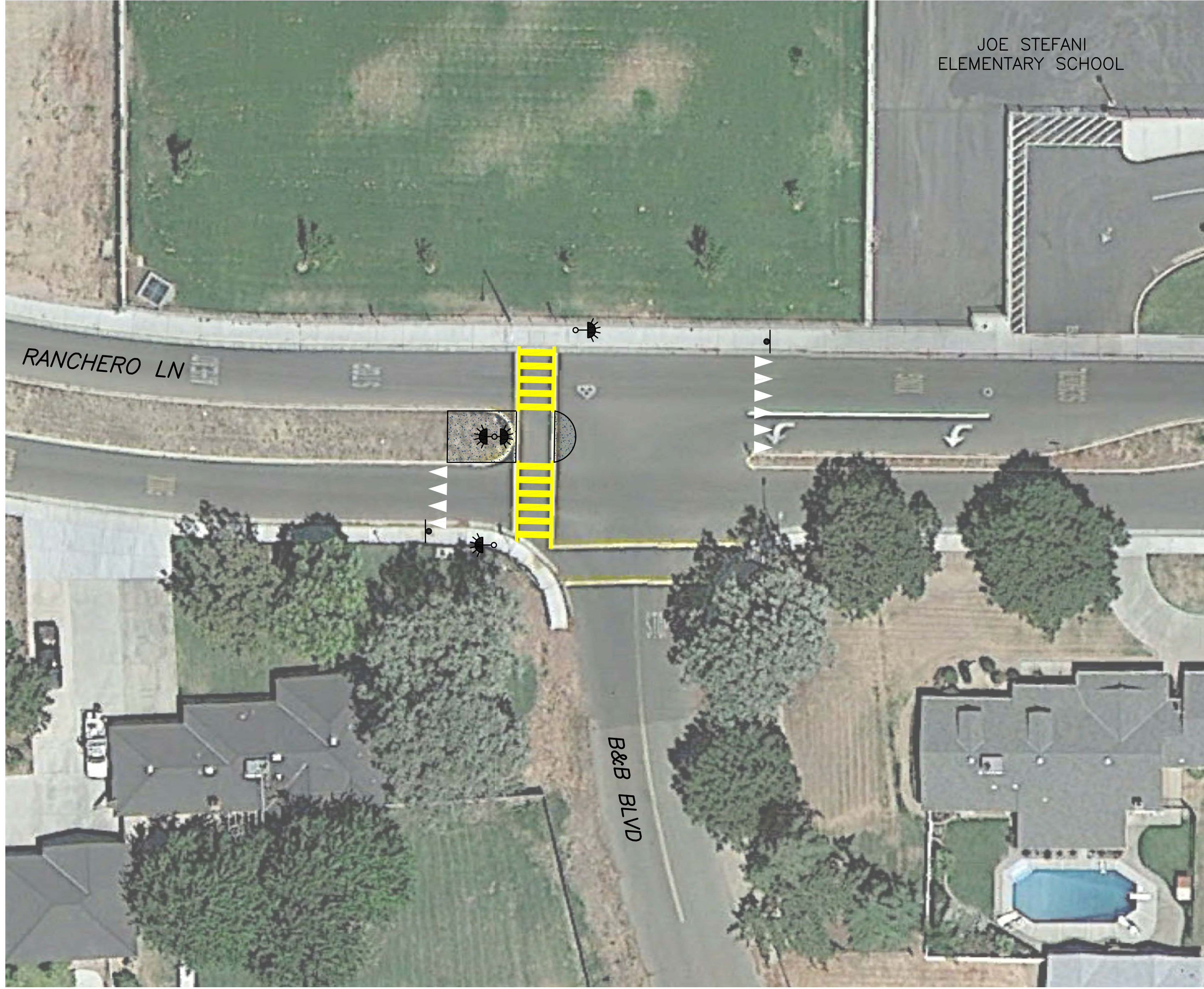


Ranchero Lane crosswalk as it exists today (top) and with the proposed improvements (bottom).







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Jun 05, 2014



LEGEND

-  12' RAISED, LANDSCAPE MEDIAN WITH GATEWAY SIGNAGE (WIDTH OF EXISTING TWLTL)
-  RETANGULAR RAPID FLASHING BEACON (RRFB)
-  ADVANCED YIELD MARKINGS
-  "YIELD HERE TO PEDS" SIGN



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Designed By: CN
 Drawn By: DD
 Checked By: CN
 Drawing No.: RS13-3151
 Date: JUNE 2014

RANCHERO LN/B&B BLVD PRIORITY PROJECT
FRANKLIN-BEACHWOOD SAFE ROUTES TO SCHOOL PLAN

FIGURE
10

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Franklin Road Landscaped Bulbouts, Bike Lane, Speed Feedback Signs and Sidewalk

Bicycle, pedestrian, and traffic calming improvements are proposed for Franklin Road. Bicycle lanes are proposed between Ashby Road and Santa Fe Drive in order to provide a safe option for bicyclists to travel north-south across town and will also provide access to Franklin Elementary School.

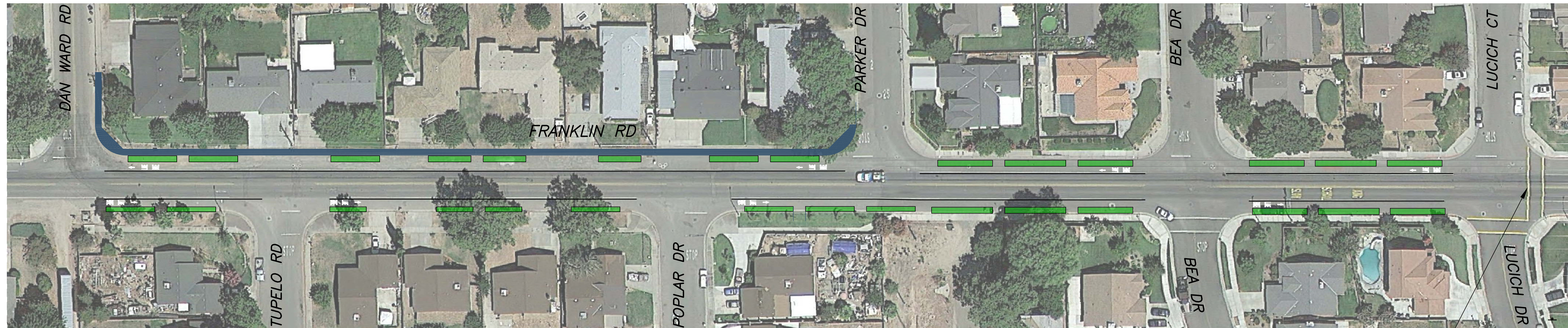
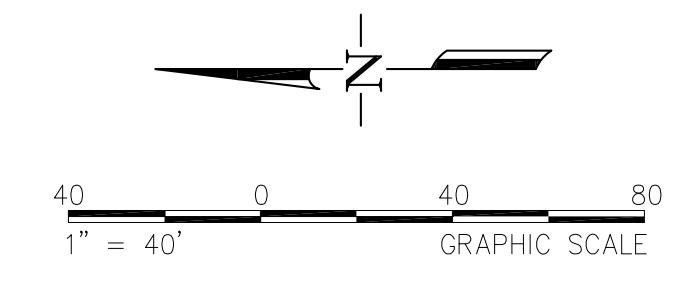
This project also includes a completion of the sidewalk network on the east side of Franklin Road, from Dan Ward Road to Parker Drive and Lobo Avenue to Ashby Road. This component will provide a continuous sidewalk network between Franklin Elementary School and nearby neighborhoods.

Two types of traffic calming devices are proposed: speed feedback signs and planters. Given the heavy truck volumes and perceived high speeds on Franklin Road, the landscaped bulbouts were selected in order to reduce speeds without impacting goods movement. Landscape bulbouts improve the quality of the pedestrian environment by providing landscaping and a buffer between vehicles and pedestrians. They also visually narrow the roadway, which will help to reduce speeds. Landscaped planters about 50 feet long and five feet wide will be implemented every 50 to 75 feet on both sides of Franklin







Road. Planters will run from Lobo Avenue to Dan Ward Road. A speed feedback sign is proposed in each direction between in the vicinity of the elementary school, at locations to be determined by further study.

These two traffic calming techniques, in addition to sidewalks and bike lanes, will slow down vehicular traffic in order to make the corridor safer for all modes. **Figure 11** presents these improvements in total, and **Figure 12** presents the detailed green planter design.

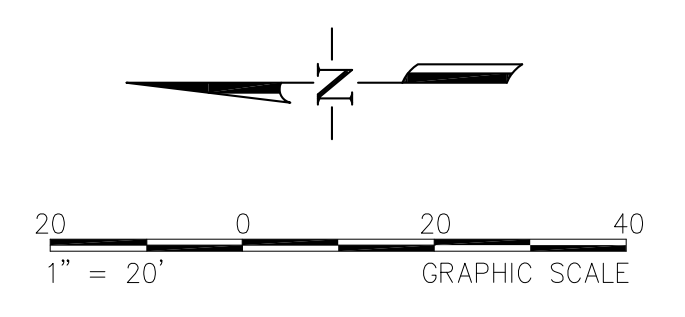
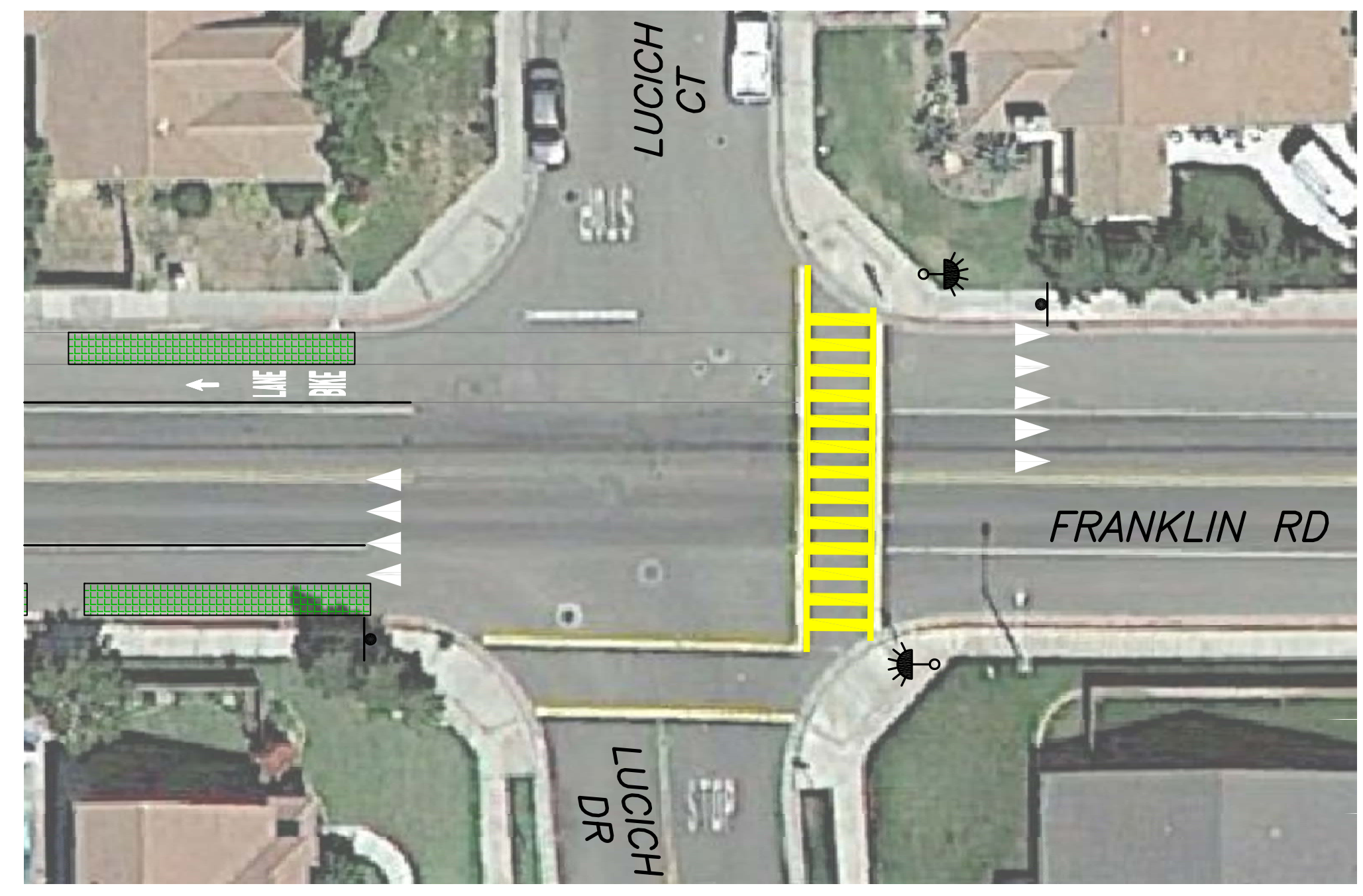




LEGEND

-  SIDEWALK
-  ADVANCED YIELD MARKINGS
-  RAISED LANDSCAPE AREA
-  12' RAISED, LANDSCAPE MEDIAN WITH GATEWAY SIGNAGE (WIDTH OF EXISTING TWLTL)
-  RETANGULAR RAPID FLASHING BEACON (RRFB)
-  "YIELD HERE TO PEDS" SIGN
R1-5

SEE DETAIL 'A' BELOW FOR CROSSWALK AND (RRFB) IMPROVEMENTS



DETAIL 'A'
1"=20'

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 □ Los Angeles County, CA

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 Drawn By: DD
 Checked By: CN
 Drawing No.: RS13-3151
 Date: JUNE 2014

FRANKLIN ROAD TRAFFIC CALMING & CROSSWALK IMPROVEMENTS
FRANKLIN-BEACHWOOD SAFE ROUTES TO SCHOOL PLAN
FRANKLIN ROAD BETWEEN DAN WARD ROAD & LUCICH DRIVE

FIGURE
11

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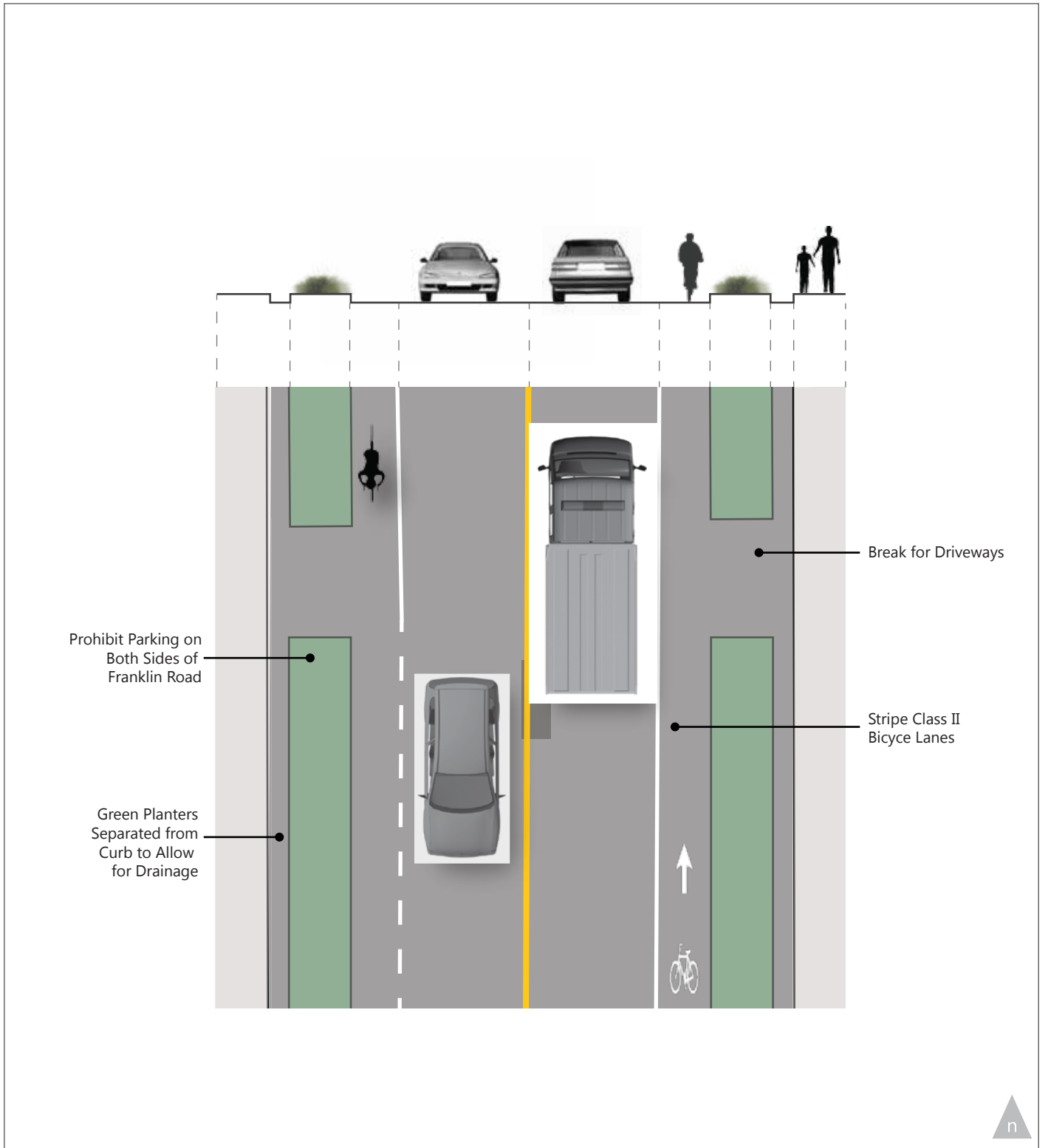


Figure 12
 Franklin Road
 Proposed Improvements
 Cross-Section and Plan



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6. FUNDING

Federal, state, regional, county and local organizations provide funding for pedestrian and bicycle projects and programs. The most recent federal surface transportation funding program, Moving Ahead for Progress in the 21st Century Act (MAP-21), was signed into law in July 2012. This is the first long-term federal transportation authorization enacted since 2005, and the new authorization brings significant changes to typical funding sources and structures.

MAP-21 funding is distributed to federal and state surface transportation funds. Most of these resources are available to Franklin-Beachwood through Caltrans, the Merced County Association of Governments (MCAG), and Merced County.

This chapter includes details about current programs that are used to fund existing scheduled projects and an assessment of upcoming programs as of May 2014. These may change as state and local programs adapt to the new MAP-21 funding.

Table 4 summarizes the applicability of these various funding sources to projects, planning efforts, and programs proposed in this plan.

Federal Programs

The majority of public funds for bicycle, pedestrian, and trails projects are derived through a core group of federal and state programs. Federal funding is authorized through the Surface Transportation Program (STP). STP provides flexible funding that may be used by states and localities for projects on any Federal-aid highway. In the past this funding was authorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Funding for STP is now authorized through MAP-21.

The Transportation Enhancements (TE) under SAFETEA-LU is now the Transportation Alternatives Program (TAP). TAP, authorized through MAP-21, consolidates TE, Safe Routes to School, and Recreational Trails and provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, transit access, mobility, and recreation trails program. TAP broadens eligibility and flexibility for state allocation of TAP funds. Safe Routes to School programs, including infrastructure, encouragement, campaigns, education, outreach and a Safe Routes coordinator, are eligible under TAP, though no funds are dedicated for this.



The Congestion Mitigation and Air Quality Improvement Program (CMAQ) also authorizes federal funds, including education programs. MAP-21 maintains the existing CMAQ program and broadens eligibility for transit operations.

Federal funds from STP, TAP and CMAQ programs are allocated for distribution through MCAG. Distribution is allocated either competitively or proportionally according to jurisdiction population.

Other recent policies at the federal level have resulted in a series of programs that promise to provide increased funding in the coming years for bicycle projects. The HUD-DOT-EPA Interagency Partnership for Sustainable Communities has generated a series of new grant programs to-date, including Urban Circulator grants, TIGER grants, and Sustainable Communities Planning grants. The Department of Transportation recently announced a new DOT policy initiative, indicating “well-connected walking and bicycling networks [are] an important component for livable communities.”

State Programs

There are a number of state-wide funding sources and regionally administered funds. These are summarized below and in **Table 4**

which shows the applicability of these various funding sources to projects, planning efforts, and programs proposed in this Plan.

Active Transportation Program

The Active Transportation Program was created by SB 99/Assembly Bill 101 to encourage increased use of active modes of transportation such as biking and walking. The program consolidated five previous state funded programs: Transportation Alternatives Program, Recreational Trails program, Safe Routes to Schools, Environmental Enhancement and Mitigation Program and the Bicycle Transportation Account. It provides a comprehensive program that improves program planning and flexibility and is more efficient than multiple programs. Another benefit is that funds can be directed to multi-year projects to make greater long-term improvements to active transportation.

The ATP mixes state and federal funds and provides approximately \$130 million annually, with a focus on implementing active transportation improvements to support the goals of local SB 375 sustainable community strategies. This program is funded from a combination of federal and state funds from appropriations in the annual state budget act. Forty percent of the funding will go toward metropolitan planning



organizations in urban areas. Ten percent of the funds go to small urban and rural regions. The remaining funds will go to the California Transportation Commission for statewide projects. The ATP ensures that disadvantaged communities fully share in the benefits of the program by requiring that a minimum of 25 percent of funding be distributed to disadvantaged communities. Given the percentage of Franklin-Beachwood students receiving free or reduced price lunches, the community qualifies as a disadvantaged community, as defined by the ATP.

In order to maximize the effectiveness of program funds and to encourage the aggregation of small projects into a comprehensive bundle of projects, the minimum request for Active Transportation Program funds that will be considered is \$250,000. This minimum does not apply to non-infrastructure projects, Safe Routes to Schools projects, and Recreational Trails projects.

Project types allowed under the ATP include: new bikeways serving major transportation corridors, new bikeways to improve bicycle commuting options, bicycle parking at transit and employment centers, traffic control devices to improve pedestrian and bicycle safety, improving and maintaining safety on existing bikeways, recreational facilities, Safe Routes to

School projects, Safe Routes To Transit projects, education programs, and other improvements to bicycle-transit connections and urban environments.

For a project to contribute toward the Safe Routes to School funding requirement, the project must directly increase safety and convenience for public school students to walk and/or bike to school. Safe Routes to Schools infrastructure projects must be located within two miles of a public school or within the vicinity of a public school bus stop. Other than traffic education and enforcement activities, non-infrastructure projects do not have a location restriction.

Highway Safety Improvement Program

Caltrans administers two funding programs for roadway safety improvements: the Highway Safety Improvement Program (HSIP) and the Highway Rural Roads Program (HR3). These programs use cost-benefit ratios as a primary factor in the awarding of applications. Because both of these programs focus on roadway safety, projects with documented collision history – through frequency of collision but particularly collision severity – are typically ranked higher. Roadways with documented bicycle and pedestrian collision history, as discussed in Section 9-3 of this Plan, may be well-qualified for HSIP and HR3 applications,



particularly since many of the proposed projects would improve bicyclist and pedestrian safety at a lower cost than many of the highway projects also eligible under this funding source.

In its most recent grant cycle (November 2013), Caltrans awarded \$150 million to 231 projects. While this funding source is often used for major roadway improvement projects, installation of traffic signals, and most other cost-intensive projects, funding has routinely been awarded to bicycle and pedestrian projects. Successful projects have included:

- Median refuges and curb extensions
- Curb, gutter, and sidewalk
- Paved shoulders
- Upgraded traffic signals with pedestrian countdown signals and pedestrian-scale lighting
- Bicycle lane striping
- Crosswalk striping
- Rectangular rapid flashing beacon (RRFB) at crossings

Many of these projects were applied for as standalone bicycle and pedestrian improvement projects; some bicycle and pedestrian improvements were included with a broader package

of roadway improvement projects. The average programmed federal funding amount was \$400,000.

An additional \$15 million is dedicated for the Highway Rural Road Improvement Program (HR3), for which many Merced County communities are eligible. To be eligible for HR3, roadway improvements must occur on a roadway with a functional classification of:

- Rural major collector
- Rural minor collector
- Rural local road

Programmed federal funds for HR3 projects averaged \$580,000 in the third funding cycle (2011), and most projects funded the widening or improvement of shoulders.

Caltrans expects the available funding apportioned to local agencies in the 2013 Federal Statewide Transportation Improvement Program (FSTIP), which is a four-year funding cycle from 2012/13 through 2015/16, to be approximately \$100 million for the four-year HSIP plan. More information is available online:

<http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm>



Other Statewide Funding Programs

Caltrans Transportation Planning Grants are available to jurisdictions and can be used for planning or feasibility studies. The Division will award approximately \$5.3 million in funding through three Grant Programs for Fiscal Year 2014-15. The maximum funding available per project is \$300,000.

Limited amounts from the Local Transportation Fund (LTF), which is derived from a ¼ cent of the general sales tax collected statewide, can be used for bicycle and pedestrian facilities.

The California State Parks administers the state's Recreational Trails Program (RTP). RTP provides funds annually for recreational trails and trails-related projects. Counties are eligible applicants for the approximately \$1.5 million available annually. The program requires an applicant match of 12 percent of the total project cost.

The National Park Service and California State Parks administer the Land and Water Conservation Fund (LWCF). The LWCF Program provides matching grants to states and local governments for the acquisition and development of public outdoor recreation areas and facilities. Counties are eligible

applicants. Approximately \$1.74 million is available annually; grants require a 50 percent local match.

Some of these programs will no longer be funded under proposed and current federal and state funding plans, and may only be short-term funding resources for the current schedule of projects. See below for proposed funding structures related to some of these programs.

Regional and Local Funding

Private/local funding for pedestrian projects comes primarily from development projects, either in the form of improvements constructed directly by developers or through development fee programs.

These funding sources should be actively pursued to help fund high-priority projects not eligible under the Active Transportation Program.

San Joaquin Valley Air Pollution Control District REMOVE II Program

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is currently accepting applications for bicycle infrastructure projects, including Class I (bicycle path construction) or Class II



(bicycle lane striping) projects that may provide air quality improvements as an alternative to motorized vehicular travel. The program provides funding to assist with the development or expansion of a comprehensive bicycle-transportation network which will provide a viable transportation option for travel to school, work and commercial sites.

TABLE 4: REGIONAL FUNDING SOURCE APPLICABILITY MATRIX

Funding Source	Class I Bicycle Path	Class II Bicycle Lane	Class III Bicycle Route	Pedestrian Projects	Other Projects	Planning and Programs
Highway Safety Improvement Program (HSIP) Grants	◐	●	◐	●	●	○
Caltrans Transportation Planning Grants	○	○	○	○	○	●
Local Transportation Fund (LTF)	●	●	●	●	●	○
California State Parks Recreational Trails Program (RTP)	●	○	○	○	○	○
Land and Water Conservation Fund (LWCP)	●	○	○	○	○	○
Active Transportation Program (ATP)	●	●	●	●	●	●
SJVAPCD REMOVE II Program	●	●	○	○	○	○
Transportation Development Act (TDA)	●	●	●	●	●	●

Notes:

1. ● indicate that funds may be used for this category; ○ indicate that funds may not be used for this category, and ◐ indicate that funds may be used, though restrictions apply.

Source: Fehr & Peers, 2013.



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7. IMPLEMENTATION

This section presents basic design guidelines, recommended safe routes to school, and next steps for grant funding.

BASIC DESIGN GUIDELINES

Table 5 contains a unit cost summary for constructing the proposed bikeway and pedestrian facilities. These cost estimates are based on costs experienced in other California and western United States communities and recent cost estimates for projects that were awarded grant funding. These cost estimates should only be used to develop generalized construction cost estimates and project prioritization. In some cases, both a low-end and high-end cost estimate are provided; low-end cost estimates usually apply where little grading or demolition is necessary. More detailed estimates should be developed through feasibility analysis, preliminary engineering, and design. Planning-level cost estimates for each project are included in **Appendix B**.

TABLE 5 GENERALIZED UNIT COSTS FOR IMPROVEMENTS

Facility/ Item Type	Cost	Unit
Class I Bike Path or Trail		
Class I Bike Path (Paved)	\$80	Per Linear Foot
Class II Bike Lane		
Class II Bike Lane (Add Stripe)	\$23,200	Per Mile
Class II Bike Lane (Widen Roadway)	\$300,000	Per Mile
Class III Bikeways		
Wide Shoulder	\$60	Per Linear Foot
Sharrows	\$5,250	Per Linear Mile
Share the Road Signage	\$350	Per Sign
Traffic Calming		
Mobile Speed Feedback Sign	\$12,000	Per Trailer
Speed Hump	\$2,500	Per Hump
Replace Speed Limit Sign	\$600	Per Sign
Planter	\$4,150	Per Planter
Pedestrian Facility		
Sidewalks, Curb, and Gutter	\$90	Per Linear Foot
Sidewalks, without Curb and Gutter	\$50	Per Linear Foot
ADA Curb Ramp	\$3,500	Each
Curb Extension/ Bulb Out	\$20,000	Per Intersection
High Visibility Crosswalk	\$5,000	Each



Marked Crosswalk	\$770	Each
Rectangular Rapid Flashing Beacon (RRFB)	\$15,000	Each
Pedestrian Hybrid Beacon (PHB)	\$100,000	Each
Advanced Yield Markings	\$2,000	Per Crossing
Median	\$20	Per Square Foot
Pedestrian Railroad Crossing Gate	\$100,000	Per Track Crossing (2 gates)
Sign Removal	\$150	Per Sign
Signalized Intersection	\$250,000	Per Signal and Post
Street Light	\$8,000	Per Street Light

Source: Fehr & Peers, 2014

Class I Bike Paths or Trails

Each of the proposed Class I bike path or trail facilities will require a feasibility assessment for implementation. The feasibility assessment should identify or include:

- A preferred route
- Bike path or trail surface type (aggregate versus pavement)

- Proposed solutions to key roadway or waterway crossings
- Preliminary engineering and cost estimates
- Statements of stakeholder interest

Following a feasibility assessment, the County can either fund project design and construction or pursue grant funding.

Class II Bike Lanes

Where Class II bike lanes are proposed, the County should require that roadways are modified to the desired standard for Class II bike lanes when various roadway projects are completed. Width for bike lanes can be acquired in two ways:

- Add width to the existing roadway
- Reduce the width of travel lanes on the existing roadway

Painting bike lanes or conflict points in green has been shown to increase motorist awareness of the presence of cyclists, increase cyclist safety and result in bicyclists positioning themselves more accurately. Green bike lanes, green conflict points, and green-back bicycle symbols have been granted interim approval in the MUTCD.



Further feasibility assessment should determine the proposed implementation strategy for individual Class II bike lane projects.



Directional signage can provide wayfinding at key intersections



Signage can also be used to display distances to major destinations

Class III Bike Routes

For proposed Class III bike route with sharrows, the County can first sign these roadways as a Class III bike route with signage only and add sharrows (also known as “shared-lane markings”). The County should also consider installing “Share the Road” signage, as appropriate. Similar to the strategy outlined for Class II bike lane projects, the County should require that roadways are modified to the desired standard for a Class III bike route with sharrows when various roadway projects are completed. For key segments or gap closures, the County can either fund project design and construction or pursue grant funding.



Share the road signage communicates its message to all road users



The County can group the signage for all Class III bike routes into one project and apply for grant funding. This signage should include both the CAMUTCD D11-1 “Bike Route” signage, CAMUTCD W11-1 and W16-1 “Share the Road” signage, and guide signs for bicycle facilities.

Pedestrian Facility Design Guidance

Crosswalks

A uniform crosswalk policy that specifies different treatments for crosswalks at controlled (stop-controlled) and uncontrolled marked crosswalks is beneficial for pedestrians. While standard crosswalk striping is typically sufficient at controlled locations,



A standard marked crosswalk with two parallel stripes – standard crosswalks are appropriate at stop or signal-controlled locations



Ladder crosswalks should be prioritized for use at uncontrolled locations

high-visibility striping (such as “ladder” striping) is preferable at uncontrolled locations where motorist yielding is required, as ladder striping improves visibility for motorists. This may be accompanied with advanced yield markings, particularly on multi-lane roadways. Consistent crosswalk striping policies passively alert pedestrians and motorists to uncontrolled crosswalks.

The first step in identifying candidate marked crosswalk locations at an uncontrolled crossing (without a stop sign or signal) is to identify the places people would like to walk (“pedestrian desire lines”). These places are affected by local land uses (homes, schools, parks, commercial establishments, etc.) and the location of transit stops. This information forms a basis for identifying pedestrian crossing improvement areas and prioritizing such improvements, thereby creating a convenient, connected, and continuous walking environment.

The second step is identifying the locations safest for people to cross. Of all road users, pedestrians have the highest risk because they are the least protected. National statistics indicate that pedestrians represent 14 percent of all traffic incident fatalities, yet walking accounts for only three percent of total trips. Pedestrian collisions occur most often when a pedestrian is

attempting to cross the street at an intersection or mid-block location.²

Several major studies of pedestrian collision rates at marked and unmarked crosswalks have been conducted. In 2002, the Federal Highway Administration (FHWA) published a comprehensive report on the relative safety of marked and unmarked crossings.³ In 2006, another study was completed that further assists engineers and planners in selecting the right treatment for marked crosswalks based on studies of treatment effectiveness.⁴ These studies represent best practice guidance on when to mark an uncontrolled crosswalk and how to enhance the crosswalk where needed (on higher volume, higher speed, wider roadways).

Several community residents indicated that Franklin-Beachwood's crossings are in need of improvement. The

following are examples of preferred non-signal pedestrian safety treatments for uncontrolled locations. Further engineering studies should be completed to determine if candidate treatments are appropriate for a specific location.



Corner bulbouts extend the curb and sidewalks further into the roadway, shortening the length of the crosswalk. They act as a traffic calming device by narrowing the effective width of the roadway. Because they extend into the roadway, often past parallel-parked vehicles, they improve visibility for pedestrians. Corner bulbouts can be constructed with reduced curb radii and to accommodate ADA improvements, such as directional curb ramps.

1. *Pedestrian Crash Types, A 1990's Information Guide*, FHWA. This paper analyzed 5,076 pedestrian crashes that occurred during the early 1990s. Crashes were evenly selected from small, medium, and large communities within six states: California, Florida, Maryland, Minnesota, North Carolina, and Utah.
2. Zegeer, C.V., J.R. Stewart, H.H. Huang and RA. Lagerwey. "Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations: Executive Summary and Recommended Guidelines." Report No. FHWA-RD-01-075. Washington, DC, USA: Federal Highway Administration, March 2002.
http://www.walkinginfo.org/pdf/r&d/crosswalk_021302.pdf.
3. Fitzpatrick, Kay, et al. *Improving Pedestrian Safety at Uncontrolled Crossings*. TCRP Report 112/NCHRP Report 562. 2006.
http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_562.pdf.





Pedestrian refuge islands are placed in the center of the roadway separating opposing lanes of traffic with cutouts or ramps for accessibility along the pedestrian path. Median refuge islands are recommended where right-of-way allows and conditions warrant.



Source: Eugene Safe Routes to School

The *Stutter Flash* or *Rectangular Rapid Flashing Beacon* (RRFB) is an enhancement of the flashing beacon that replaced the traditional slow flashing incandescent lamps with rapid flashing LED lamps. The RRFB may be push-button activated or activated with passive detection.



Source: PBIC

The *pedestrian hybrid beacon (PHB)*, also known as the High intensity Activated crossWALK (or HAWK), is a pedestrian-activated warning device located on the roadside or on mast arms over midblock pedestrian crossings. The beacon head consists of two red lenses above a single yellow lens. The beacon head is "dark" until activated by the pedestrian desires to cross the street, at which point the device displays a steady red indication to drivers and a "WALK" indication to pedestrians.

Sidewalks

Per the proposed sidewalk network maps, sidewalks should be required as individual parcels develop. However, most of the proposed sidewalks are located on streets that are unlikely to incur significant further development. For these segments, the County can either fund project design and construction or pursue grant funding. When pursuing grant funding, multiple sidewalk segments should be grouped into a single grant application. Grant applications should include enough sidewalk segments to significantly improve conditions for pedestrians

while maintaining a reasonable cost (a cost that has historically been awarded by the grant and for which the County can meet any matching requirements).

Wider sidewalks can accommodate more pedestrians and further buffer pedestrians from vehicles. New sidewalks should have a minimum width of five feet. In busy areas such as commercial corridors and school areas, sidewalks should be wider.

Meandering sidewalks, as opposed to straight sidewalks, should be avoided since they are inconvenient for pedestrians and are challenging for disabled users.

Curb Ramps

Providing two curb ramps per corner, each that points directly into the crosswalk, improves access for blind pedestrians. When installing new curb ramps, strive to install two ramps per corner where possible. The City of Sacramento's curb ramp design standards are a best practice.⁵

⁵ Americans with Disabilities Act City of Sacramento Transition plan for Curb Ramps. Department of Public Works City of Sacramento. 9 January 2001.
<http://www.cityofsacramento.org/generalservices/documents/TransitionPlan.pdf>

NEAR-TERM IMPROVEMENTS

The above section provides an overview on best practices for accommodating pedestrians and bicyclists. Some of these capital improvements, such as the construction of sidewalk, require substantial investment in addition to time to design construct the project. However, there are interim solutions that can be employed by the County to make pedestrian and bicycle safety improvements in the near term using available funding and standard treatments.

- Striped Medians and Curb Extensions with Temporary Planters and/or Soft-Hit

Posts: The County can stripe medians and protect them with temporary raised planters or soft-hit posts to create pedestrian refuges where



feasible. This provides a low cost solution that does not rely on curb and gutter work, sidewalk construction, or similarly costly measures.



- Stripe Edgelines: On roadways with no existing sidewalk, the County could consider striping edgelines on the roadways to designate a preferred path of travel for pedestrians.



high-visibility ladder signing. Install high-visibility pedestrian crossing signage and school crossing signage.



- Install Asphalt Curb: Where median refuges or curb extensions could be provided, the County could install raised asphalt curb to provide protections for pedestrians.



- Stripe High-Visibility Crosswalks: On major roadways with existing marked crosswalks, refresh crosswalk striping with

NEXT STEPS FOR GRANT FUNDING

Merced County should work with community leaders in Franklin-Beachwood to apply for the high priority projects identified through this Plan. The most applicable funding sources for the improvements recommended by this plan are the Active Transportation Program and the Highway Safety Improvement Program. Outlined below are next steps for the acquisition of these funds.

Active Transportation Program

The Safe Routes to School package of projects should be addressed through the Active Transportation Program. This is the first year of new consolidated Active Transportation Programs, so it is important to become familiar with the new criteria and guidelines in order to create competitive, focused grant applications. The ATP mixes state and federal funds and provides approximately \$130 million annually, with a focus on implementing active transportation improvements. The next ATP call for projects is in Fall 2014. It is recommended to have an implementation plan in place that identifies a larger “package” of projects that can be submitted together that will justify a request of \$500,000 or more.

Highway Safety Improvement Program

The Highway Safety improvement Program (HSIP) will provide another funding source for projects that may be high- or medium-priority and not necessarily in the vicinity of the school sites. Due to the high importance placed on safety countermeasures, the most competitive projects for HSIP are locations with documented collisions in which severe injuries were sustained by one of the parties.

The minimum federal HSIP reimbursement amount for any single HSIP project is \$100,000 and the maximum for the next cycle of projects, Cycle 7, is \$1,500,000. This minimum dollar amount has been established to ensure the efficiency and cost-effectiveness of the overall program and individual projects. Because of Franklin-Beachwood’s rural classification, most project applications will be High Risk Rural Road (H3) eligible projects.

- Apply for HSIP funding for Meadowbrook sidewalk and street lighting
- Apply for HSIP funding for the Santa Fe/Beachwood Drive intersection improvements



- Normally an HSIP Call for Projects is made at an interval of one to two years. The timing and size of a Call for Projects is determined by the program apportionments, HSIP FTIP capacity and the delivery of the existing HSIP projects.
- Agencies seeking HSIP funds to construct infrastructure improvements are required to complete the HSIP Application Form in PDF format located on the website. The application form and its instructions guide applicants through the process of entering the required data.

ATP PRIORITY PROJECT PACKAGING

The projects in **Table 6** and presented on **Figure 13** represent a recommended package of walking and biking improvements for which the County should pursue competitive grant funding under the Active Transportation Program. These projects were selected because they ranked as the highest priority, given the community goals and public participation results, as identified in the priority ranking process described on page 34. These high priority projects address the most immediate needs in Franklin-Beachwood and have the highest likelihood of grant funding through the ATP. As a package, these projects create a connected bicycle and pedestrian network that provides access to key destinations in Franklin-Beachwood, including schools,

parks, commercial centers and dense residential areas. These projects together would have the greatest impact on walking and biking in the community due to their proximity to dense areas of housing as well as schools. This package of projects satisfies the goals of the Active Transportation Program by increasing biking and walking trips, enhancing public health, ensuring that disadvantaged communities fully benefit from projects, and improving the safety and mobility of pedestrians and bicyclists.

Table 7 outlines the total cost of this package of projects, including just the construction cost, and final total with additional soft costs and contingency. The Active Transportation Program encourages the aggregation of small projects into a comprehensive bundle of projects, to ensure the effectiveness of funds. The minimum request considered is \$250,000.

Franklin-Beachwood should continue to pursue the grants discussed above in the future by utilizing the prioritization process in this report to package high priority projects that further connect existing bicycle and pedestrian facilities and provide access to key destinations and areas of dense housing in the community.



TABLE 6 PRIORITY PROJECT PACKAGE

Proj #	Project Type	Location	Limits/ Notes	Constr. Cost
29	Enhanced Crosswalk	B&B Boulevard/ Ranchero Lane	Median nose, RRFB, high visibility crosswalk, advanced yield markings	\$23,240
35	Bike Lane	Franklin Road	Ashby to Santa Fe	\$223,920
49a	Traffic Calming	Franklin Road	Santa Fe Road to Ashby Road, speed feedback signs	\$16,000
49b	Traffic Calming	Franklin Road	Lobo Avenue to Dan Ward Road, planters	\$149,400
5	Sidewalk or Shoulder	Franklin Road (east side)	Dan Ward Road to Parker Drive, Lobo Avenue to Ashby Road	\$183,330

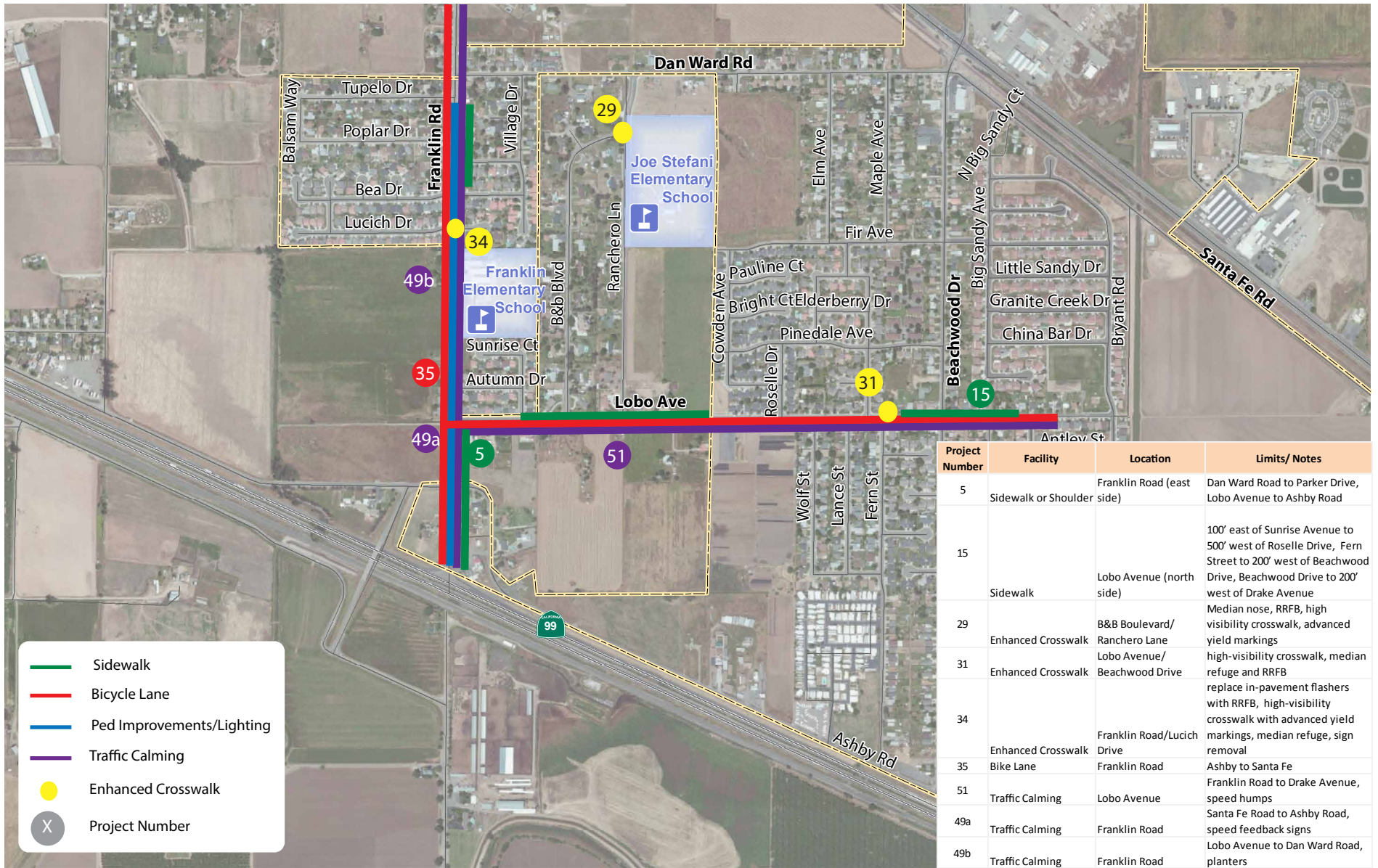
34	Enhanced Crosswalk	Franklin Road/ Lucich Drive	Replace in-pavement flashers with RRFB, high-visibility crosswalk with advanced yield markings, median refuge, sign removal	\$36,700
15	Sidewalk	Lobo Avenue (north side)	100' east of Sunrise Avenue to 500' west of Roselle Drive, Fern Street to 200' west of Beachwood Drive, Beachwood Drive to 200' west of Drake Avenue	\$224,640
51	Traffic Calming	Lobo Avenue	Franklin Road to Drake Avenue, speed humps	\$25,000
31	Enhanced Crosswalk	Lobo Avenue/ Beachwood Drive	high-visibility crosswalk, median refuge	\$34,400



TABLE 7 TOTAL PRIORITY PROJECT PACKAGE COSTS

Additional Fees	Cost
Construction Cost	\$916,630
Soft Costs (Traffic Control 5%, Construction Management 10%, Mobilization 5%)	\$183,326
Design (10%)	\$91,663
Environment (5%)	\$45,832
Contingency (20%)	\$183,326
Total Cost	\$1,420,777





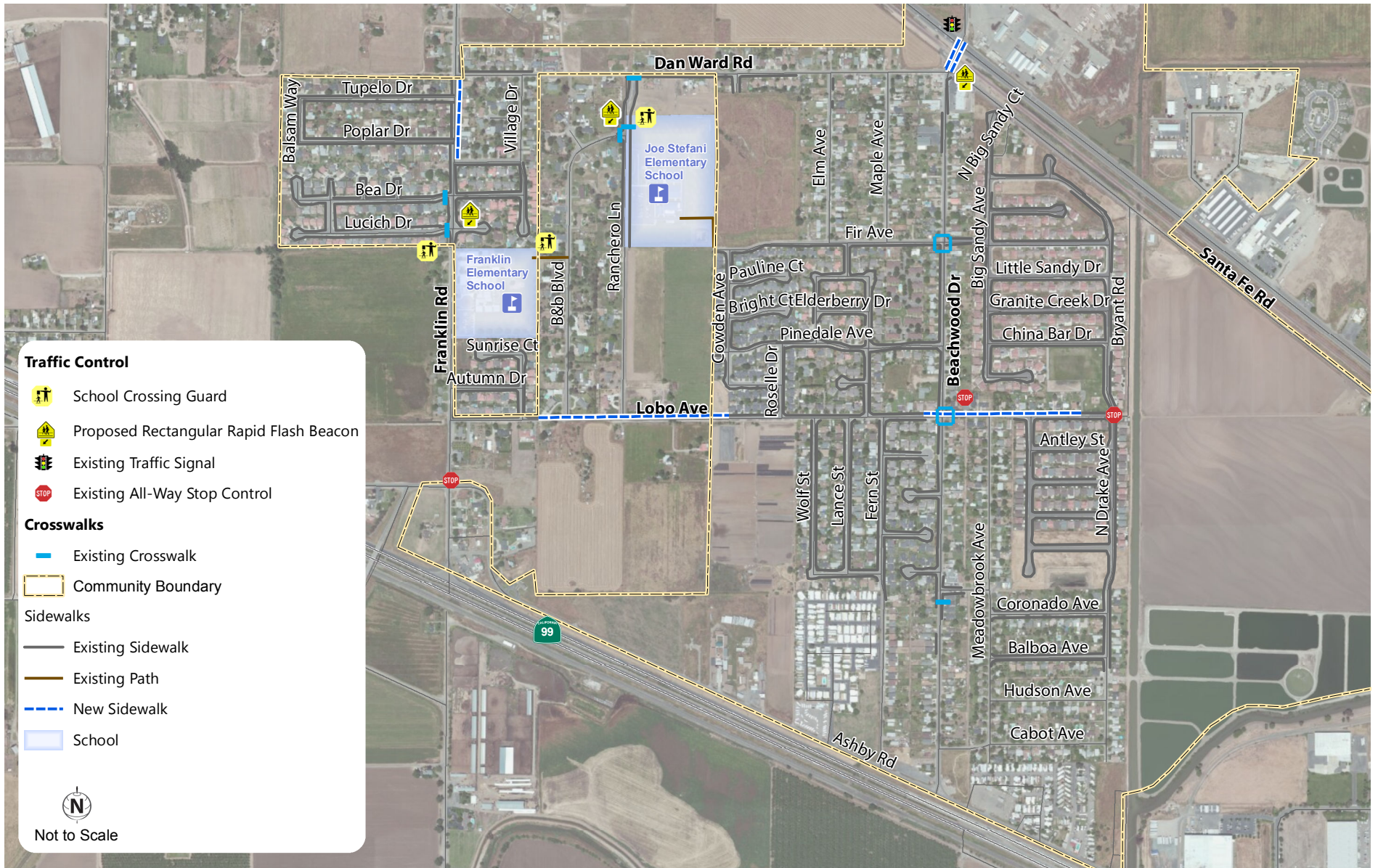
Project Number	Facility	Location	Limits/ Notes
5	Sidewalk or Shoulder	Franklin Road (east side)	Dan Ward Road to Parker Drive, Lobo Avenue to Ashby Road
15	Sidewalk	Lobo Avenue (north side)	100' east of Sunrise Avenue to 500' west of Roselle Drive, Fern Street to 200' west of Beachwood Drive, Beachwood Drive to 200' west of Drake Avenue
29	Enhanced Crosswalk	B&B Boulevard/ Ranchero Lane	Median nose, RRFB, high visibility crosswalk, advanced yield markings
31	Enhanced Crosswalk	Lobo Avenue/ Beachwood Drive	high-visibility crosswalk, median refuge and RRFB
34	Enhanced Crosswalk	Franklin Road/Lucich Drive	replace in-pavement flashers with RRFB, high-visibility crosswalk with advanced yield markings, median refuge, sign removal
35	Bike Lane	Franklin Road	Ashby to Santa Fe
51	Traffic Calming	Lobo Avenue	Franklin Road to Drake Avenue, speed humps
49a	Traffic Calming	Franklin Road	Santa Fe Road to Ashby Road, speed feedback signs
49b	Traffic Calming	Franklin Road	Lobo Avenue to Dan Ward Road, planters

SAFE ROUTES TO SCHOOL MAP

With the completion of the high-priority projects, a more continuous pedestrian network will be in place for Franklin-Beachwood. **Figure 14** presents the Walk and Roll to School Map, which shows recommended walking routes to school *assuming the implementation of the high-priority treatments*.

This map can be used as an encouragement and education tool for parents and students. The map could be distributed at the beginning of each semester once the projects are implemented to highlight the preferred walking and biking routes to school.





Appendix A: Project Prioritization Matrix



Project List				Criteria					Summary		
Project Number	Proposed Improvement	Location	Limits/Notes	Community Priority (4 points)	Access to Schools (2 points)	Closure of a Critical Gap (2 points)	Serves Immediate Safety Needs (2 points)	Pedestrian Demand (2 points)	Total (out of 12)	Priority (high, medium, low)	Priority Rank
49	Traffic Calming	Franklin Road	Santa Fe Road to Ashby Road, speed feedback signs, planters	4	2	2	2	2	12	High	1
5	Sidewalk	Franklin Road (east side)	Dan Ward Road to Parker Drive, Lobo Avenue to Ashby Road	4	2	2	2	2	12	High	2
15	Sidewalk	Lobo Avenue (north side)	100' east of Sunrise Avenue to 500' west of Roselle Drive, Fern Street to 200' west of Beachwood Drive, Beachwood Drive to 200' west of Drake Avenue	4	2	2	2	2	12	High	3
50	Traffic Calming	Beachwood Drive	Santa Fe Road to Ashby Road, speed feedback signs	4	2	2	1	2	11	High	4
32	Crosswalk Improvements	Beachwood Drive/Santa Fe Road/Railroad intersection	Pedestrian railroad crossing arms, curb extension on SE corner of Beachwood Drive, median refuge	4	1	2	2	2	11	High	5
34	Enhanced Crosswalk	Franklin Road/Lucich Drive	Replace in-pavement flashers with RRFB, high-visibility crosswalk with advanced yield markings, median refuge	3	2	2	2	2	11	High	6
47	Street Lighting	Lobo Avenue	Franklin Road to Drake Avenue	4	2	1	2	2	11	High	7
51	Traffic Calming	Lobo Avenue	Franklin Road to Drake Avenue, speed humps	4	2	1	2	2	11	High	8
31	Enhanced Crosswalk	Lobo Avenue/ Beachwood Drive	High-visibility crosswalk, median refuge and RRFB	4	1	2	2	2	11	High	9
30	Enhanced Crosswalk	Lobo Avenue/ Fern Street	High-visibility crosswalk, median refuge and RRFB	4	1	2	2	2	11	High	10
29	Enhanced Crosswalk	B&B Boulevard/ Rancho Lane	Median refuge and RRFB	3	2	1	2	2	10	High	11
33	Enhanced Crosswalk	Beachwood Drive/Fir Avenue	High-visibility crosswalk, median refuge and RRFB	4	1	2	1	2	10	High	12
43	Street Lighting	Franklin Road	Dan Ward Road to Ashby Road	3	2	1	2	2	10	High	13
6	Sidewalk	Franklin Road (west side)	Lucich Court to Ashby Road	4	2	2	2	0	10	High	14
37	Bike Lane	Lobo Avenue	Franklin Road to Bryant Road	4	2	2	2	0	10	High	15
54	Flood prevention	Lobo Avenue	Franklin Road to Beachwood Drive	4	2	0	2	2	10	High	16
20	Sidewalk	Meadowbrook Avenue (west side)	Lobo Avenue to Cabot Avenue	3	1	2	2	2	10	High	17
46	Street Lighting	Ashby Road	Franklin Road to Mobile Home Park	3	2	0	2	2	9	Medium	18
7	Sidewalk	Ashby Road (north side)	Franklin Road to Merced City Limit	3	2	0	2	2	9	Medium	19
45	Street Lighting	Beachwood Drive	Santa Fe Road to Ashby Road	3	1	2	1	2	9	Medium	20
35	Bike Lane	Franklin Road	Ashby Road to Santa Fe Road	3	2	2	2	0	9	Medium	21
27	Enhanced Crosswalk	Lobo Avenue/ Wolf Street	High-visibility crosswalk, median refuge and RRFB	4	1	2	2	0	9	Medium	22

Project List				Criteria					Summary		
Project Number	Proposed Improvement	Location	Limits/Notes	Community Priority (4 points)	Access to Schools (2 points)	Closure of a Critical Gap (2 points)	Serves Immediate Safety Needs (2 points)	Pedestrian Demand (2 points)	Total (out of 12)	Priority (high, medium, low)	Priority Rank
53	Multi-Use Path	Stefani Elementary School (southeast corner of school)	Existing Stefani Elementary School path to Fir Avenue	3	2	2	0	2	9	Medium	23
14	Sidewalk	Beachwood Drive (west side)	Santa Fe Road to 75' north of Lobo Avenue, 200' south of Dogwood Court to Ashby Road	3	1	1	1	2	8	Medium	24
44	Street Lighting	Dan Ward Road	Franklin Road to Beachwood Drive	3	2	1	0	2	8	Medium	25
18	Sidewalk	Dan Ward Road (south side)	Franklin Road to Rancho Lane, 200' west of Elm Avenue to Beachwood Drive	3	2	1	0	2	8	Medium	26
42	Bike Route with Sharrows	Fir Avenue	Cowden Ave to Drake Ave, sharrow and signage	3	2	1	0	2	8	Medium	27
12	Sidewalk	Fir Avenue (south side)	150' east of Maple Avenue to Beachwood Drive	2	2	2	0	2	8	Medium	29
1	Sidewalk or Shoulder	Franklin Road (east side)	Santa Fe Avenue to Dan Ward Avenue	3	1	0	2	2	8	Medium	30
16	Sidewalk	Lobo Avenue (south side)	Franklin Avenue to Fern Street, Beachwood Drive to 100' west of Shoemaker Avenue	4	2	0	2	0	8	Medium	31
39	Bike Lane	Ashby Road	Franklin Road to Beachwood Drive	3	2	0	2	0	7	Medium	32
8	Sidewalk	Ashby Road (south side)	Franklin Road to Merced City Limit	3	2	0	2	0	7	Medium	33
28	Enhanced Crosswalk	Beachwood Drive/Dan Ward Road	High-visibility crosswalk, median refuge and RRFB	3	1	0	1	2	7	Medium	34
52	Traffic Calming	Rancho Lane	Dan Ward Road to Lobo Avenue, speed humps	2	2	1	0	2	7	Medium	35
9	Sidewalk	Rancho Lane (east side)	Stefani Elementary School to Lobo Ave	2	2	1	0	2	7	Medium	36
48	Street Lighting	Rancho Lane	Dan Ward Road to Lobo Avenue	2	2	1	0	2	7	Medium	37
4	Sidewalk or Wider Shoulder with Raised Curb	B&B Boulevard (west side)	Rancho Lane to Lobo Avenue	1	2	1	0	2	6	Low	38
38	Bike Lane	Beachwood Drive	Dan Ward Road to Ashby Road	3	1	1	1	0	6	Low	39
13	Sidewalk	Beachwood Drive (east side)	Santa Fe Drive to Dan Ward Road, 300' south of Dan Ward Road to Oakland Avenue, 200' south of Oakland Avenue to Ashby Road	3	1	1	1	0	6	Low	40
17	Sidewalk	Dan Ward Road (north side)	Village Drive to Beachwood Drive	3	2	1	0	0	6	Low	41
11	Sidewalk	Fir Avenue (north side)	Stefani Elementary School Path to Beachwood Drive	2	2	2	0	0	6	Low	42
2	Sidewalk or Shoulder	Franklin Road (west side)	Santa Fe Avenue to Dan Ward Avenue	3	1	0	2	0	6	Low	43
41	Bike Route with Sharrows	Rancho Lane	Dan Ward Road to Lobo Avenue, sharrow and signage	1	2	1	0	2	6	Low	44
36	Bike Lane	Santa Fe Avenue	Franklin Road to Beachwood Drive	3	1	0	2	0	6	Low	45
22	Sidewalk	Elm Avenue (west side)	Dan Ward Road to Fir Avenue	0	2	1	0	2	5	Low	46

Project List				Criteria					Summary		
Project Number	Proposed Improvement	Location	Limits/Notes	Community Priority (4 points)	Access to Schools (2 points)	Closure of a Critical Gap (2 points)	Serves Immediate Safety Needs (2 points)	Pedestrian Demand (2 points)	Total (out of 12)	Priority (high, medium, low)	Priority Rank
19	Sidewalk	Meadowbrook Avenue (east side)	Lobo Avenue to Cabot Avenue	3	1	1	0	0	5	Low	47
10	Sidewalk	Ranchero Lane (west side)	Stefani Elementary School to Lobo Ave	2	2	1	0	0	5	Low	48
40	Bike Route with Sharrows	B&B Boulevard	Ranchero Lane to Lobo Avenue, sharrow and signage	1	2	1	0	0	4	Low	49
3	Sidewalk or Wider Shoulder with Raised Curb	B&B Boulevard (east side)	Ranchero Lane to Lobo Avenue	1	2	1	0	0	4	Low	50
25	Sidewalk	Village Drive (east side)	Parker Drive to Dan Ward Road		2	1	0	1	4	Low	51
24	Sidewalk	Village Drive (west side)	Parker Drive to Dan Ward Road		2	1	0	1	4	Low	52
21	Sidewalk	Elm Avenue (east side)	Dan Ward Road to Fir Avenue	0	2	1	0	0	3	Low	53
26	Sidewalk	Lawn Court	Both Sides		1	1	0	0	2	Low	54
23	Sidewalk	Langry Avenue	Ashby Road to Trindade Road		0	0	0	0	0	Low	55

Appendix B: Planning Level Cost Estimates



Project Number	Facility	Location	Limits/ Notes	Length/ Quantity	Unit	Cost
1	Sidewalk or Shoulder	Franklin Road (east side)	Santa Fe Avenue to Dan Ward Avenue	3022	Feet	\$ 271,980
2	Sidewalk or Shoulder	Franklin Road (west side)	Santa Fe Avenue to Dan Ward Avenue	3143	Feet	\$ 282,870
3	Sidewalk or Wider Shoulder with Raised Curb	B&B Boulevard (east side)	Ranchero Lane to Lobo Avenue	2433	Feet	\$ 218,970
4	Sidewalk or Wider Shoulder with Raised Curb	B&B Boulevard (west side)	Ranchero Lane to Lobo Avenue	2433	Feet	\$ 218,970
5	Sidewalk	Franklin Road (east side)	Dan Ward Road to Parker Drive, Lobo Avenue to Ashby Road	2037	Feet	\$ 183,330
6	Sidewalk	Franklin Road (west side)	Lucich Court to Ashby Road	2879	Feet	\$ 259,110
7	Sidewalk	Ashby Road (north side)	Franklin Road to Merced City Limit	6277	Feet	\$ 564,930
8	Sidewalk	Ashby Road (south side)	Franklin Road to Merced City Limit	6277	Feet	\$ 564,930
9	Sidewalk	Ranchero Lane (east side)	Stefani Elementary School to Lobo Ave	1313	Feet	\$ 118,170
10	Sidewalk	Ranchero Lane (west side)	Stefani Elementary School to Lobo Ave	1313	Feet	\$ 118,170
11	Sidewalk	Fir Avenue (north side)	Stefani Elementary School Path to Beachwood Drive	1747	Feet	\$ 112,270
12	Sidewalk	Fir Avenue (south side)	150' east of Maple Avenue to Beachwood Drive	238	Feet	\$ 11,900
13	Sidewalk	Beachwood Drive (east side)	Santa Fe Drive to Dan Ward Road, 300' south of Dan Ward Road to Oakland Avenue, 200' south of Oakland Avenue to Ashby Road	5500	Feet	\$ 275,000
14	Sidewalk	Beachwood Drive (west side)	Santa Fe Road to 75' north of Lobo Avenue, 200' south of Dogwood Court to Ashby Road	2435	Feet	\$ 121,750
15	Sidewalk	Lobo Avenue (north side)	100' east of Sunrise Avenue to 500' west of Roselle Drive, Fern Street to 200' west of Beachwood Drive, Beachwood Drive to 200' west of Drake Avenue	2496	Feet	\$ 224,640
16	Sidewalk	Lobo Avenue (south side)	Franklin Avenue to Fern Street, Beachwood Drive to 100' west of Shoemaker Avenue	3947	Feet	\$ 355,230
17	Sidewalk	Dan Ward Road (north side)	Village Drive to Beachwood Drive	3143	Feet	\$ 279,910

Project Number	Facility	Location	Limits/ Notes	Length/ Quantity	Unit	Cost
18	Sidewalk	Dan Ward Road (south side)	Franklin Road to Ranchero Lane, 200' west of Elm Avenue to Beachwood Drive	2551	Feet	\$ 229,590
19	Sidewalk	Meadowbrook Avenue (east side)	Lobo Avenue to Cabot Avenue	2596	Feet	\$ 233,640
20	Sidewalk	Meadowbrook Avenue (west side)	Lobo Avenue to Cabot Avenue	2596	Feet	\$ 233,640
21	Sidewalk	Elm Avenue (east side)	Dan Ward Road to Fir Avenue	1287	Feet	\$ 64,350
22	Sidewalk	Elm Avenue (west side)	Dan Ward Road to Fir Avenue	1287	Feet	\$ 64,350
23	Sidewalk	Langry Avenue	Ashby Road to Trindade Road	1139	Feet	\$ 102,510
24	Sidewalk	Village Drive (west side)	Parker Drive to Dan Ward Road	1178	Feet	\$ 58,900
25	Sidewalk	Village Drive (east side)	Parker Drive to Dan Ward Road	1178	Feet	\$ 58,900
26	Sidewalk	Lawn Court	Both Sides	474	Feet	\$ 23,700
27	High-Visibility Crosswalk	Lobo Avenue/ Wolf Street	High-visibility crosswalk, median refuge and RRFB			\$ 34,400
28	High-Visibility Crosswalk	Beachwood Drive/Dan Ward Road	High-visibility crosswalk, median refuge and RRFB			\$ 34,400
29	Enhanced Crosswalk	B&B Boulevard/ Ranchero Lane	Median nose, RRFB, high visibility crosswalk, advanced yield markings, sign removal			\$ 23,240
30	Enhanced Crosswalk	Lobo Avenue/ Fern Street	High-visibility crosswalk, median refuge and RRFB			\$ 34,400
31	Enhanced Crosswalk	Lobo Avenue/ Beachwood Drive	High-visibility crosswalk, median refuge and RRFB			\$ 34,400
32	Crosswalk Improvements	Beachwood Drive/Santa Fe Road/Railroad intersection	Pedestrian railroad crossing arms, curb extension on SE corner of Beachwood Drive, median refuge at Santa Fe Avenue/Beachwood Drive crosswalk			\$ 134,400
33	Enhanced Crosswalk	Beachwood Drive/Fir Avenue	High-visibility crosswalk, median refuge and RRFB			\$ 34,400
34	Enhanced Crosswalk	Franklin Road/Lucich Drive	Replace in-pavement flashers with RRFB, high-visibility crosswalk with advanced yield markings, median refuge, sign removal			\$ 36,700
35	Bike Lane	Franklin Road	Ashby Road to Santa Fe Road	1.32	Miles	\$ 223,920
36	Bike Lane	Santa Fe Avenue	Franklin Road to the canal	1.236	Miles	\$ 28,670
37	Bike Lane	Lobo Avenue	Franklin Road to Bryant Road	0.977	Miles	\$ 151,475
38	Bike Lane	Beachwood Drive	Dan Ward Road to Ashby Road	1.08	Miles	\$ 25,045
39	Bike Lane	Ashby Road	Franklin Road to Beachwood Drive	1.19	Mile	\$ 356,648

Project Number	Facility	Location	Limits/ Notes	Length/ Quantity	Unit	Cost
40	Bike Route with Sharrows	B&B Boulevard	Ranchero to Lobo, sharrow and signage	0.461	Mile	\$ 3,819
41	Bike Route with Sharrows	Ranchero Lane	Dan Ward to Lobo, sharrow and signage	0.493	Mile	\$ 1,425
42	Bike Route with Sharrows	Fir Avenue	Cowden Ave to Drake Ave, sharrow and signage	0.573	Mile	\$ 14,683
43	Street Lighting	Franklin Road	Santa Fe Road to Railroad	30	Street Light	\$ 240,000
44	Street Lighting	Dan Ward Road	Franklin Road to Beachwood Drive	15	Street Lights	\$ 168,000
45	Street Lighting	Beachwood Drive	Santa Fe Road to Ashby Road	23	Street Light	\$ 256,000
46	Street Lighting	Ashby Road	Franklin Road to the canal	25	Street Light	\$ 288,000
47	Street Lighting	Lobo Avenue	Franklin Road to Bryant Road	21	Street Lights	\$ 168,000
48	Street Lighting	Ranchero Lane	Dan Ward Road to Lobo Avenue	10	Street Lights	\$ 80,000
49a	Traffic Calming	Franklin Road	Santa Fe Road to Ashby Road, speed feedback signs	2	Speed Feedback Sign	\$ 16,000
49b	Traffic Calming	Franklin Road	Lobo Avenue to Dan Ward Road, planters	36	Planters	\$ 149,400
50	Traffic Calming	Beachwood Drive	Santa Fe Road to Ashby Road, speed feedback signs	2	Speed Feedback Sign	\$ 16,000
51	Traffic Calming	Lobo Avenue	Franklin Road to Drake Avenue, speed humps	10	Speed Humps	\$ 25,000
52	Traffic Calming	Ranchero Lane	Dan Ward Road to Lobo Avenue, speed humps	6	Speed Humps	\$ 15,000
53	Multi-Use Path	Stefani Elementary School (southeast corner of school)	Existing Stefani Elementary School path to Fir Avenue	602	Feet	\$ 48,160
54	Flood Prevention	Lobo Avenue	Franklin Road to Beachwood Drive			