

## OLD FIG GARDEN

### COMMUNITY TRANSPORTATION STUDY

#### Final Report Appendix

Prepared for  
Fig Garden Homeowners Association  
County of Fresno  
City of Fresno  
Fresno Council of Government

Prepared by  
**COMMUNITY DESIGN + ARCHITECTURE**

with  
VRPA Technologies, Inc.  
Davey Resource Group

February 12, 2013



*This page left intentionally blank*





# Contents

- A. Guiding Principles - Polling Results
- B. Workshop Summaries
- C. Stakeholder Interview Summary
- D. Street Design Concepts - Polling Results
- E. Christmas Tree Lane Survey
- F. Old Fig Garden Street Tree Survey
- G. Steering Committee Guidelines
- H. Traffic Impact Study
- I. Air Quality Study
- J. Implementation Matrix

*This page left intentionally blank*



## A. GUIDING PRINCIPLES - POLLING RESULTS

*This page left intentionally blank*

# GUIDING PRINCIPLES

The following Guiding Principles address how residents in the Fig Garden area want to achieve the vision stated above.

## 1. Transportation

The Fig Garden community is interested in improving conditions for bicyclists and pedestrians in the area while maintaining the semi-rural character of many of its streets.





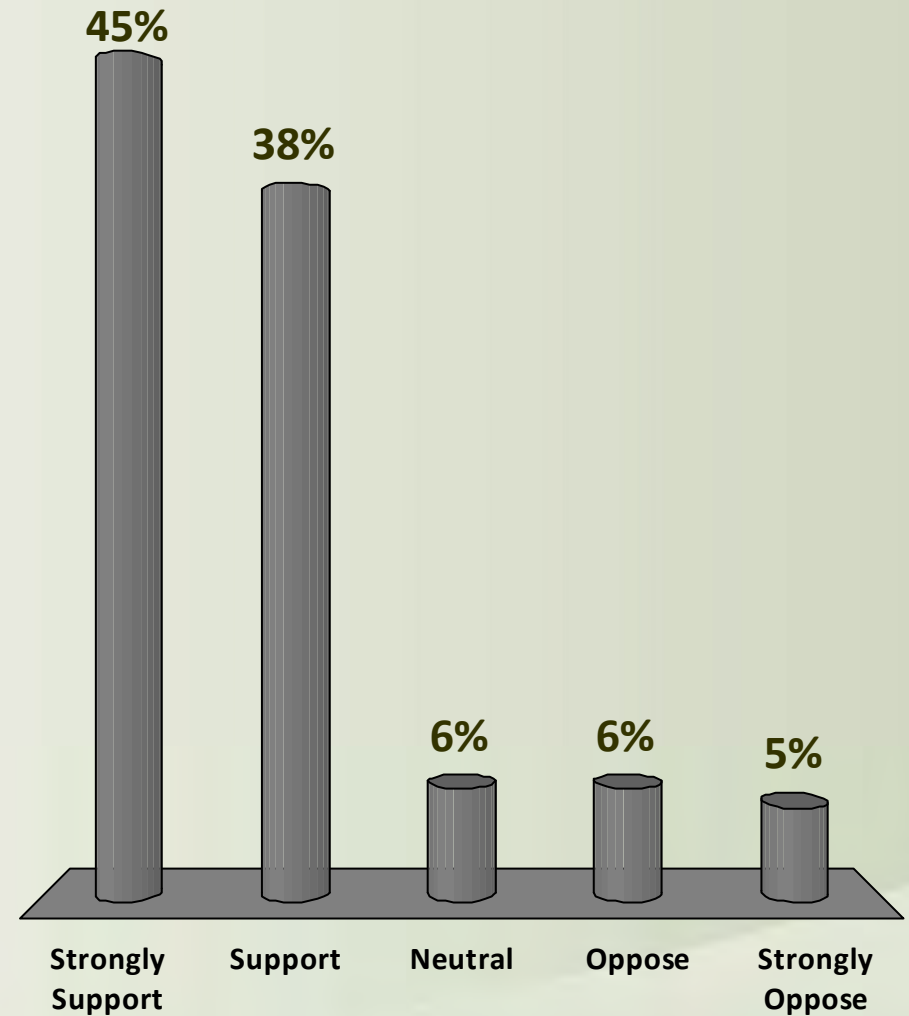
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Balance the transportation needs of those traveling with automobiles with the needs of those traveling on foot, by bicycle, and by transit, as well as those with disabilities.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

# GUIDING PRINCIPLES

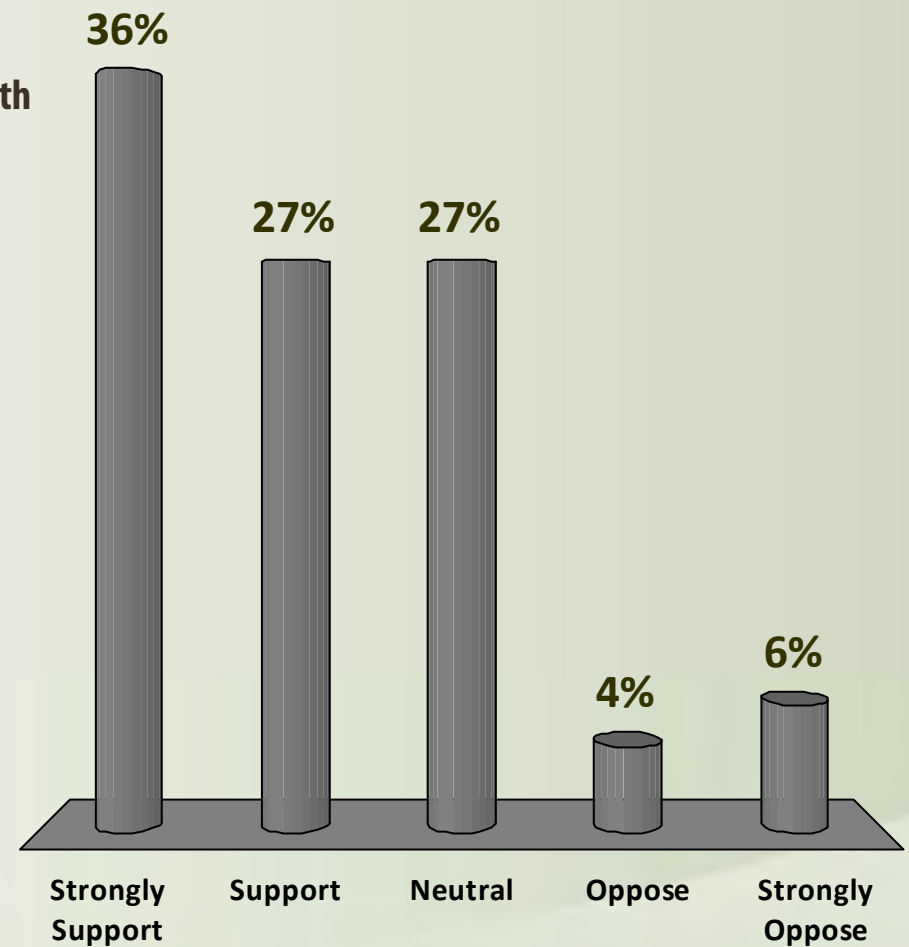
## 1. Transportation

### Pedestrian and Bicycle Travel

**Balance the transportation needs of those traveling locally with those passing through the area by:**

- ◆ Directing drivers to designated routes;
- ◆ Encouraging drivers to drive at safe speeds;
- ◆ Accommodating safe pedestrian travel along the entire length of streets used for through-travel.

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

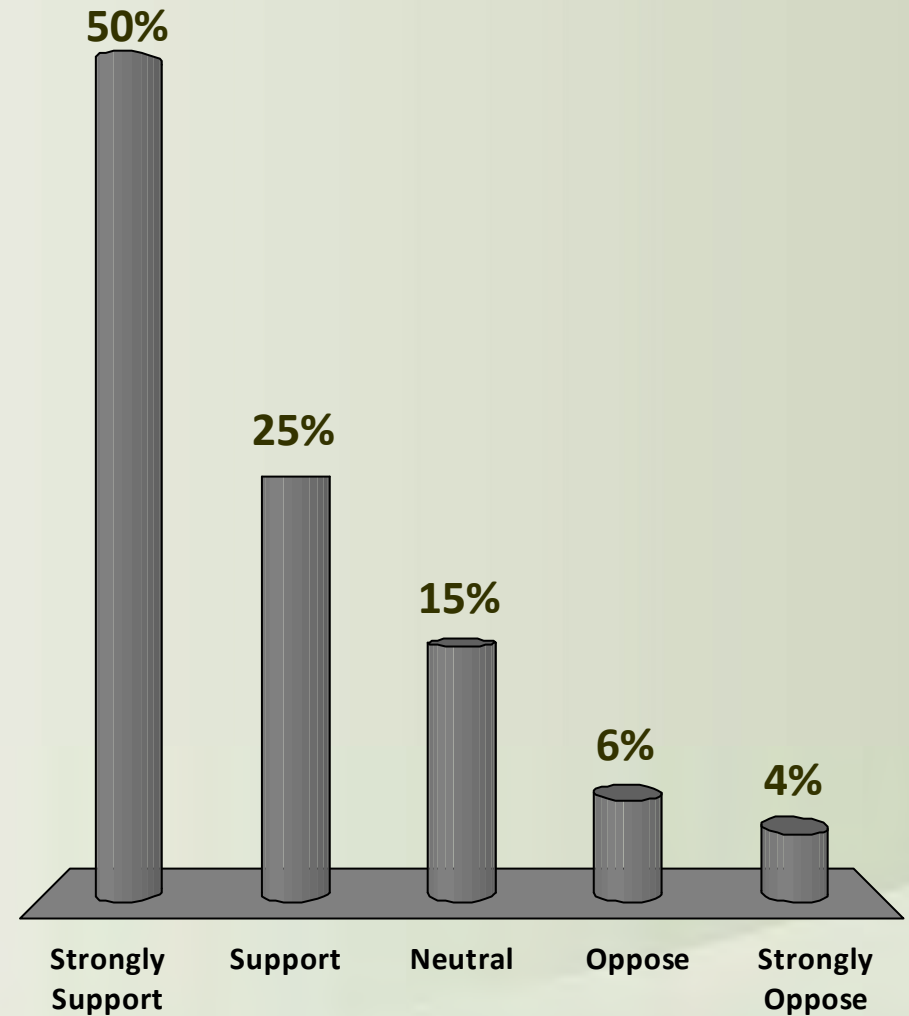
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Identify a network of safe routes and facilities for pedestrians and bicyclists that connect Fig Garden's residential neighborhoods.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012



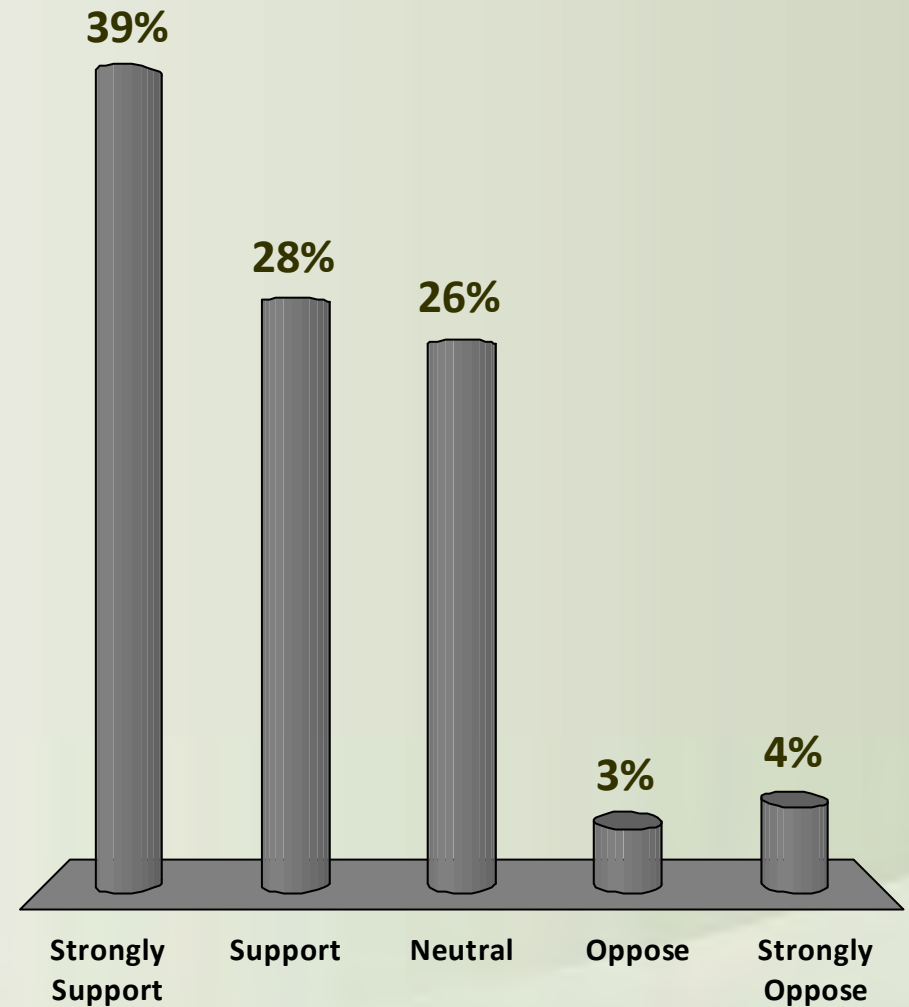
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Identify a network of safe routes and facilities for pedestrians and bicyclists that connect to schools and cultural and retail/service destinations.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

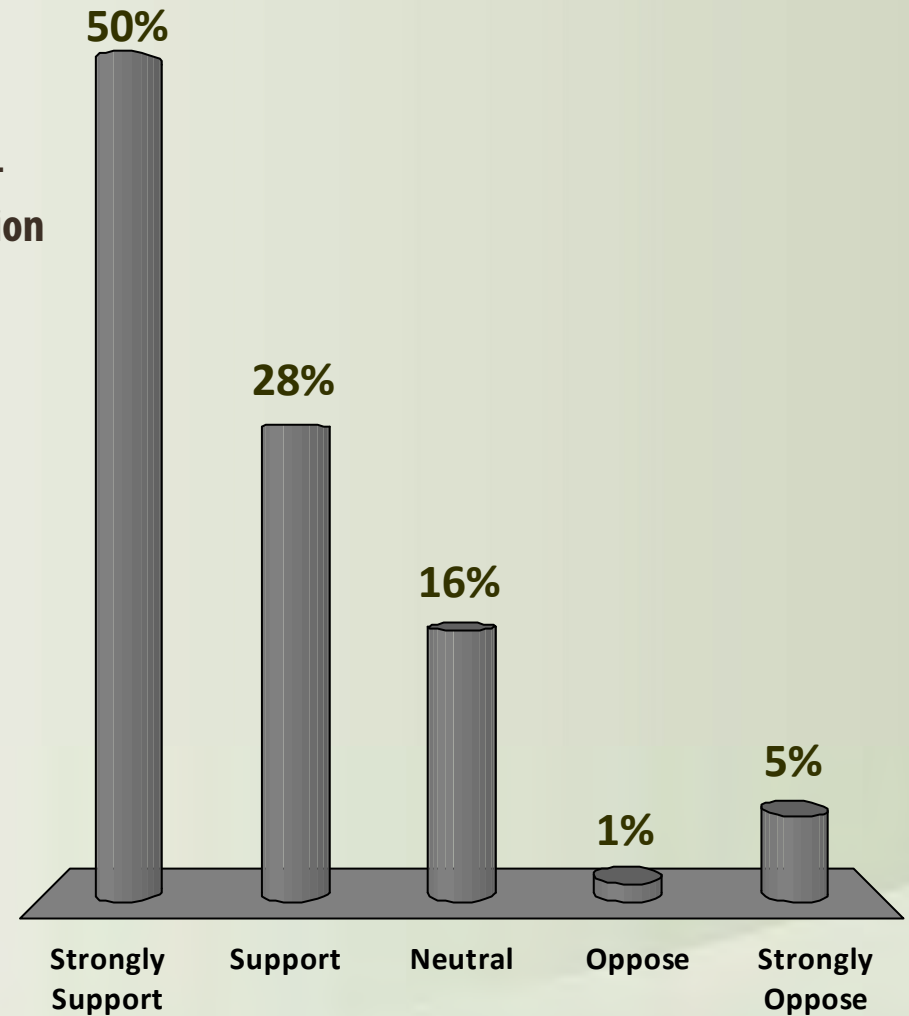
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Explore the feasibility of creating sections of safe bank-side trails along the Herndon irrigation canal for inclusion in the pedestrian/bicycle route network.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

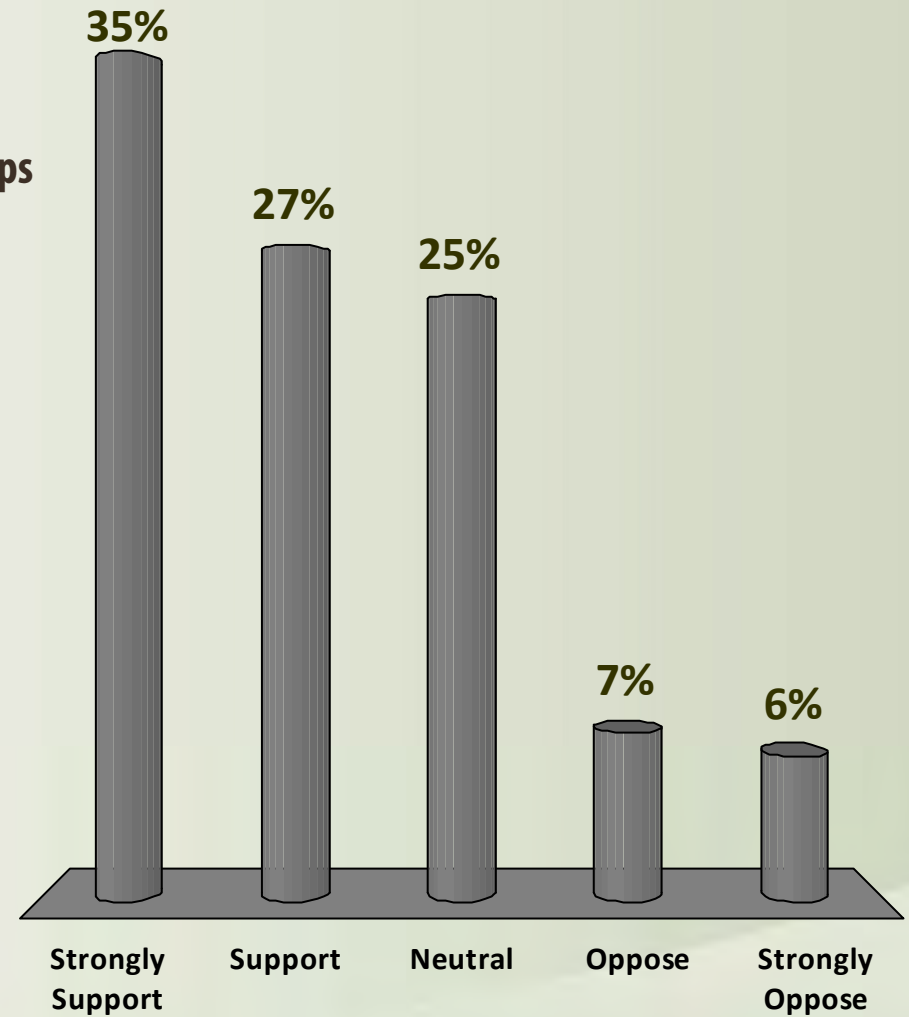
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Improve safety and convenience of access to transit stops in the area.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012



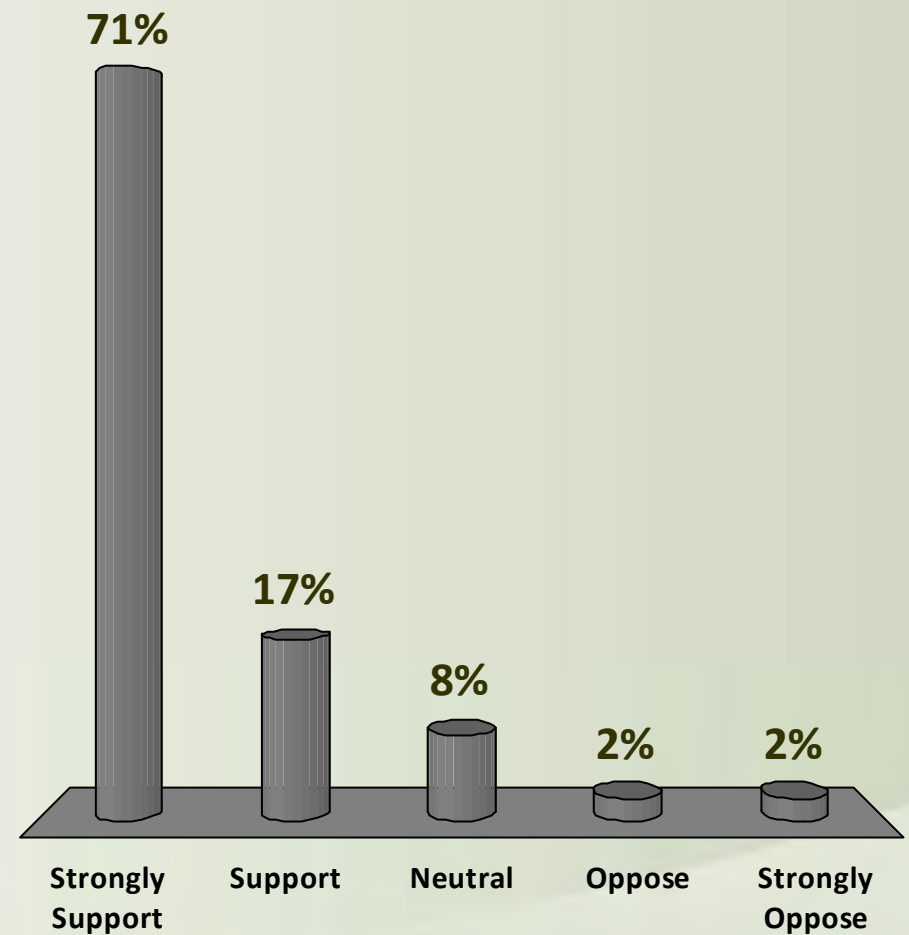
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Consider traffic calming measures on streets where vehicle speeds endanger pedestrians and bicyclists.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

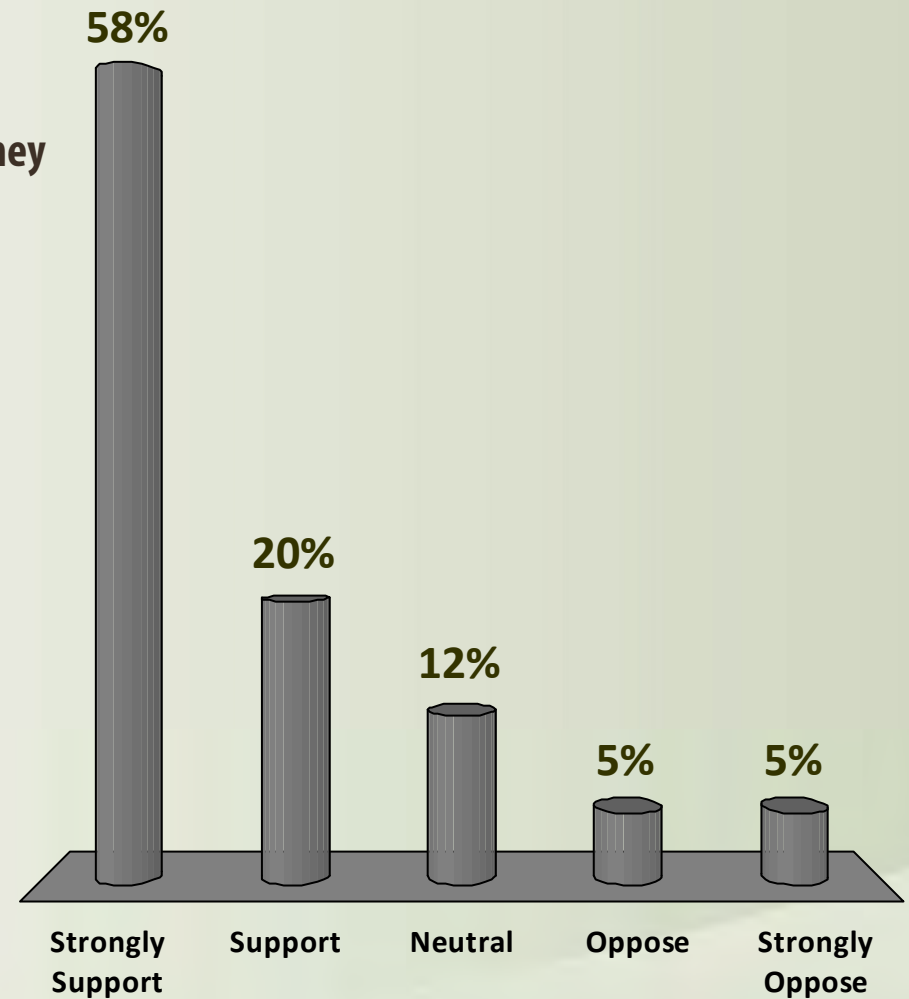
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Consider traffic calming measures in locations where they can address concerns over cut-through traffic.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

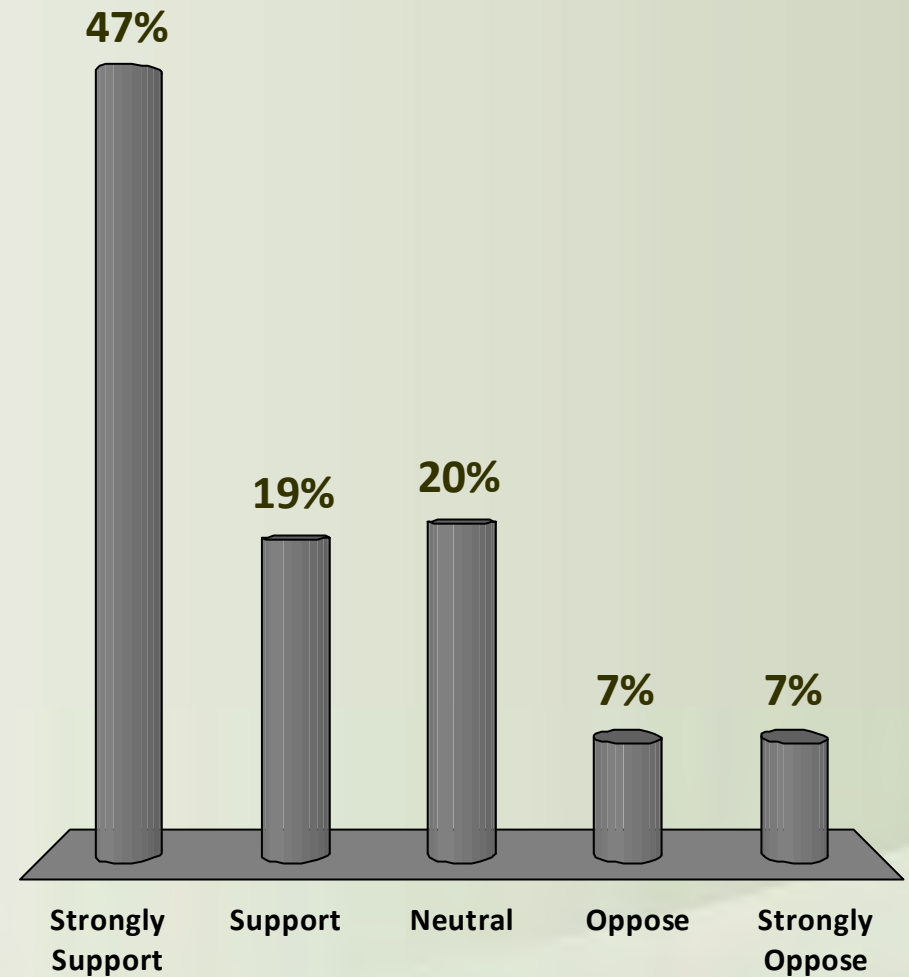
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Consider design treatments along public streets that increase personal safety and discourage crime.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012



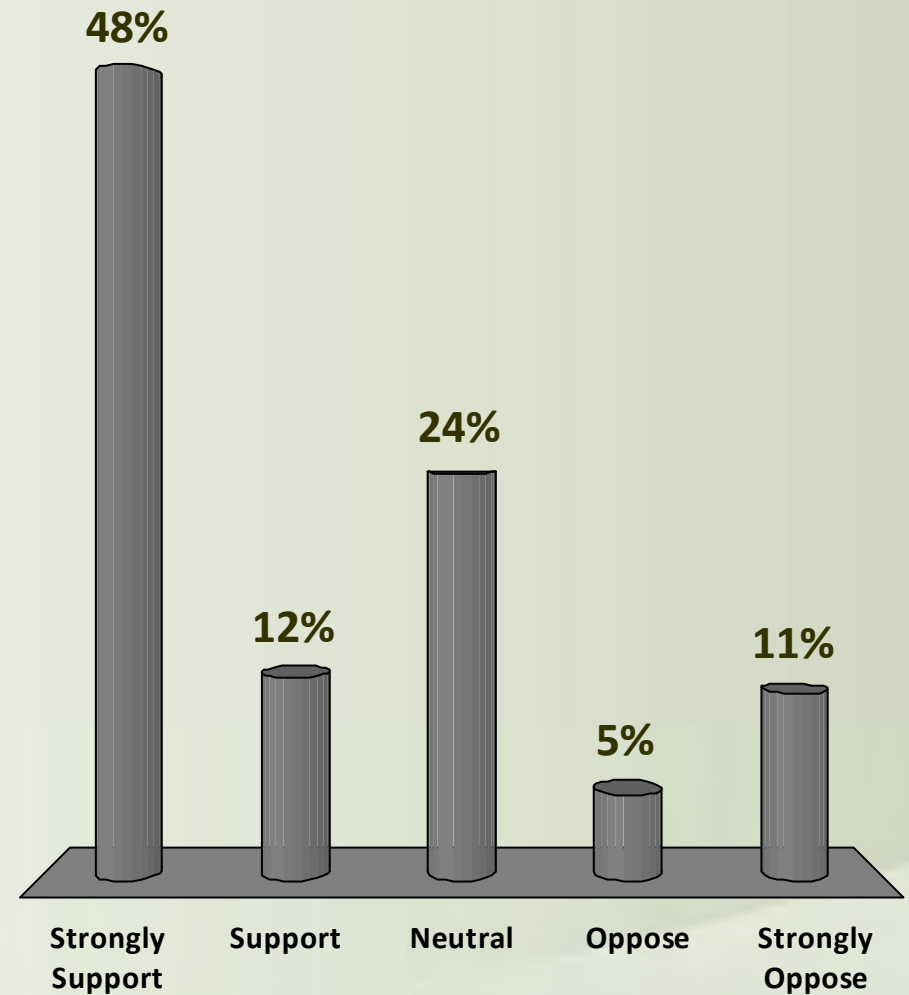
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Design recommended street improvements to utilize existing public rights-of-way.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012



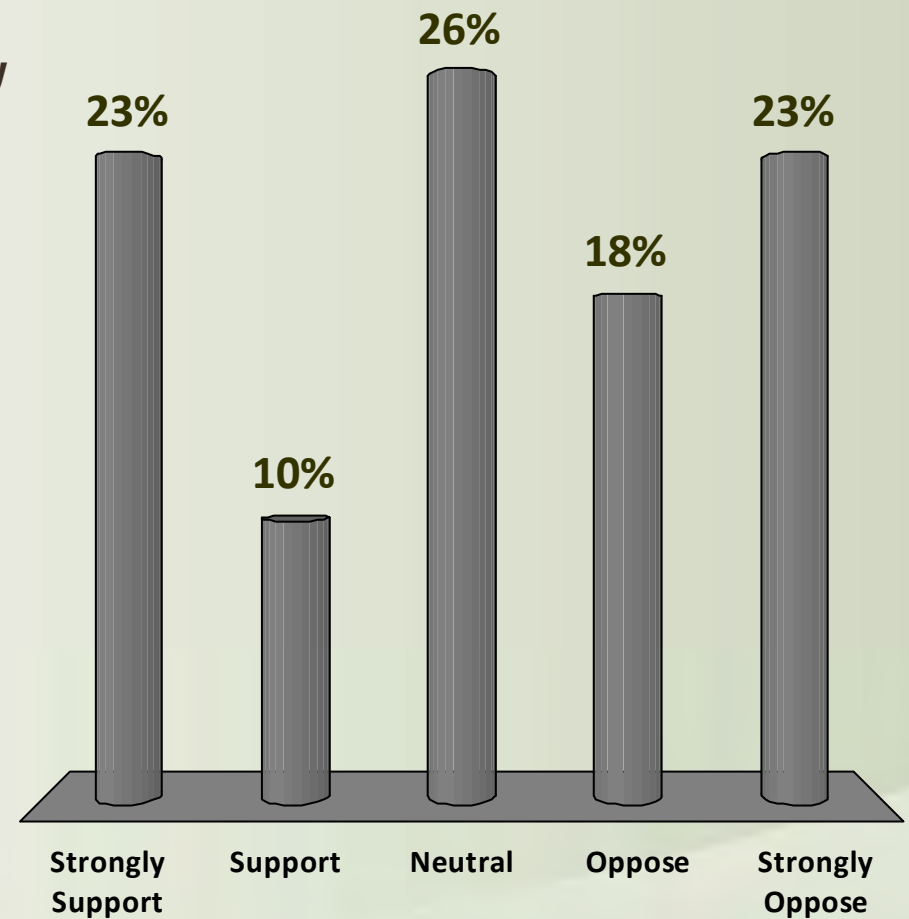
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Consider the acquisition of additional right-of-way only where additional space is needed to accomplish an improvement specifically desired by the Fig Garden community.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

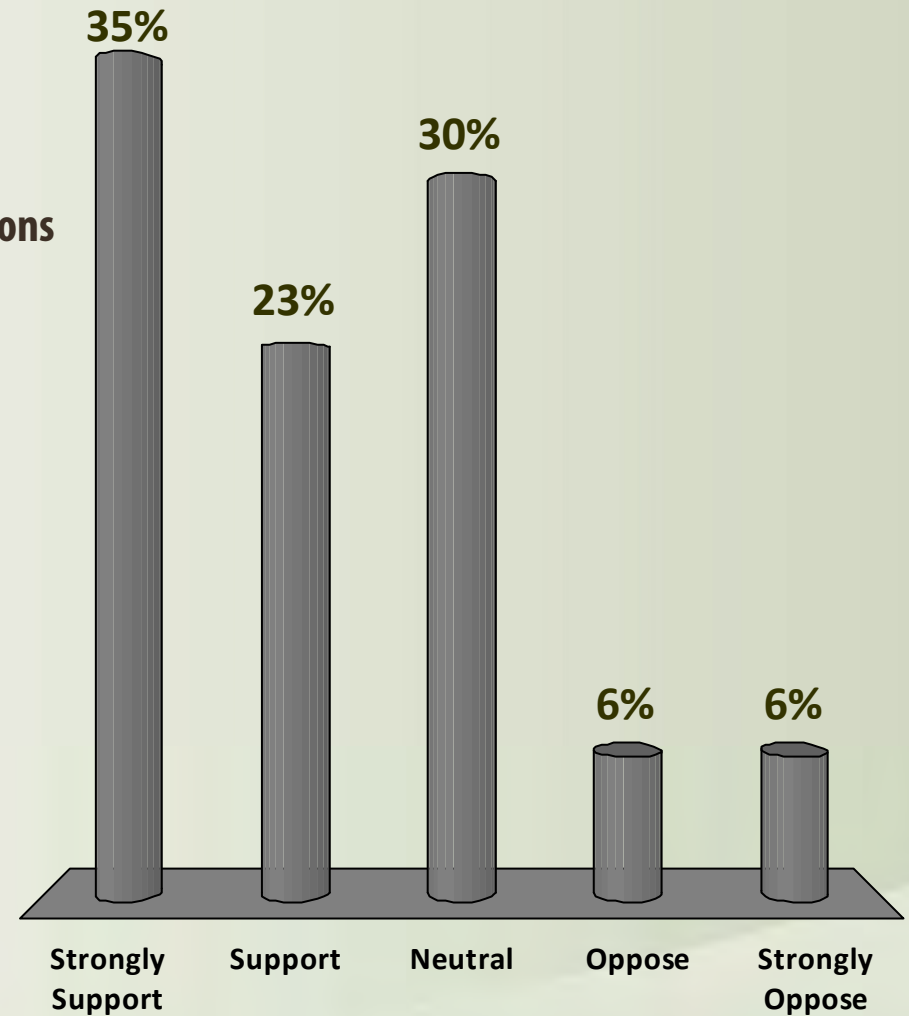
# GUIDING PRINCIPLES

## 1. Transportation

### Pedestrian and Bicycle Travel

**Recognize that design recommendations for potential street improvements can vary between different locations in the Fig Garden area.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012



# GUIDING PRINCIPLES

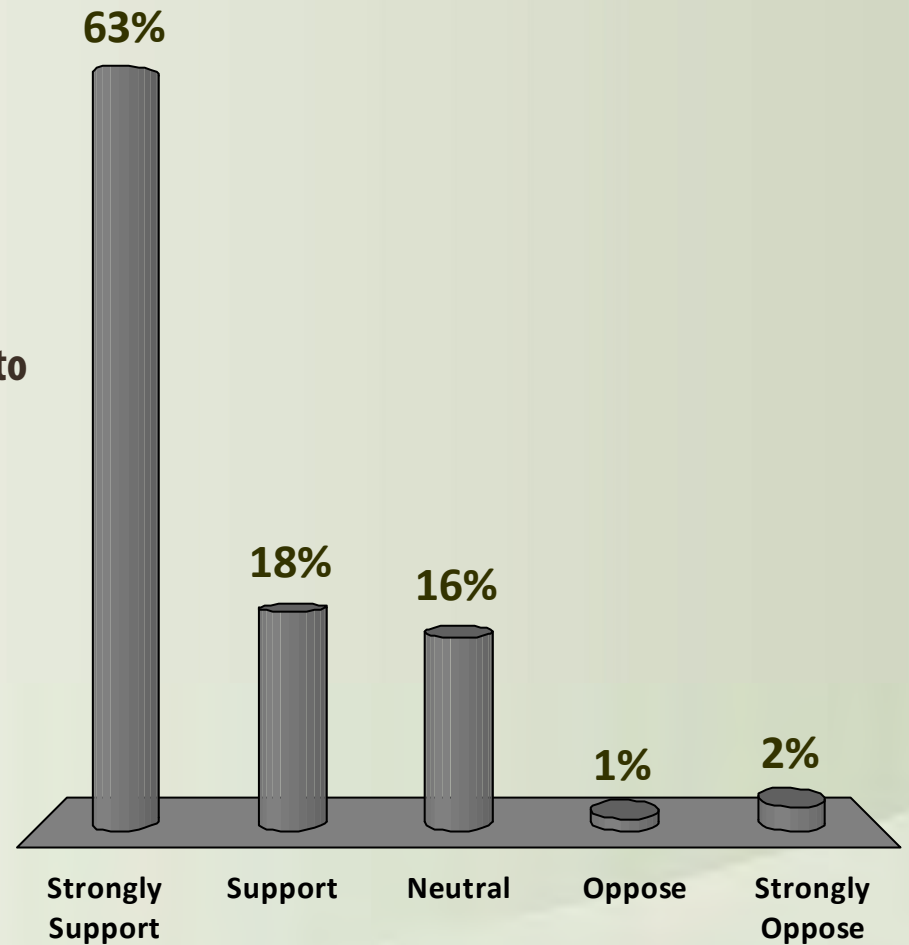
## 1. Transportation

### Safe Routes to School

**Provide safe routes to school for school children, parents, and teachers by:**

- ◆ **Identifying safe pedestrian and bicycle routes and roadway crossings to schools in the study area;**
- ◆ **Making public streets around schools a safe places to be.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

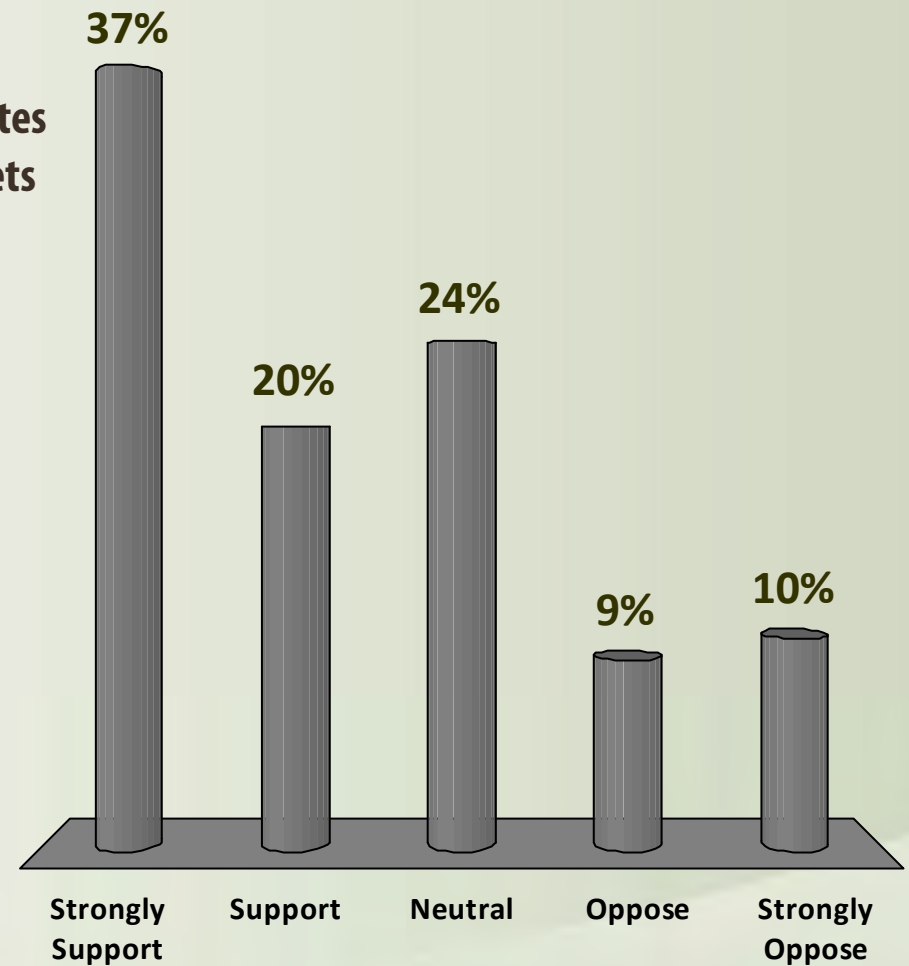
# GUIDING PRINCIPLES

## 1. Transportation

### Wayfinding

**Use wayfinding signs to direct traffic to designated routes in order to avoid unnecessary motorized traffic on streets prioritized for local traffic, pedestrians, and bicyclists.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012



# GUIDING PRINCIPLES

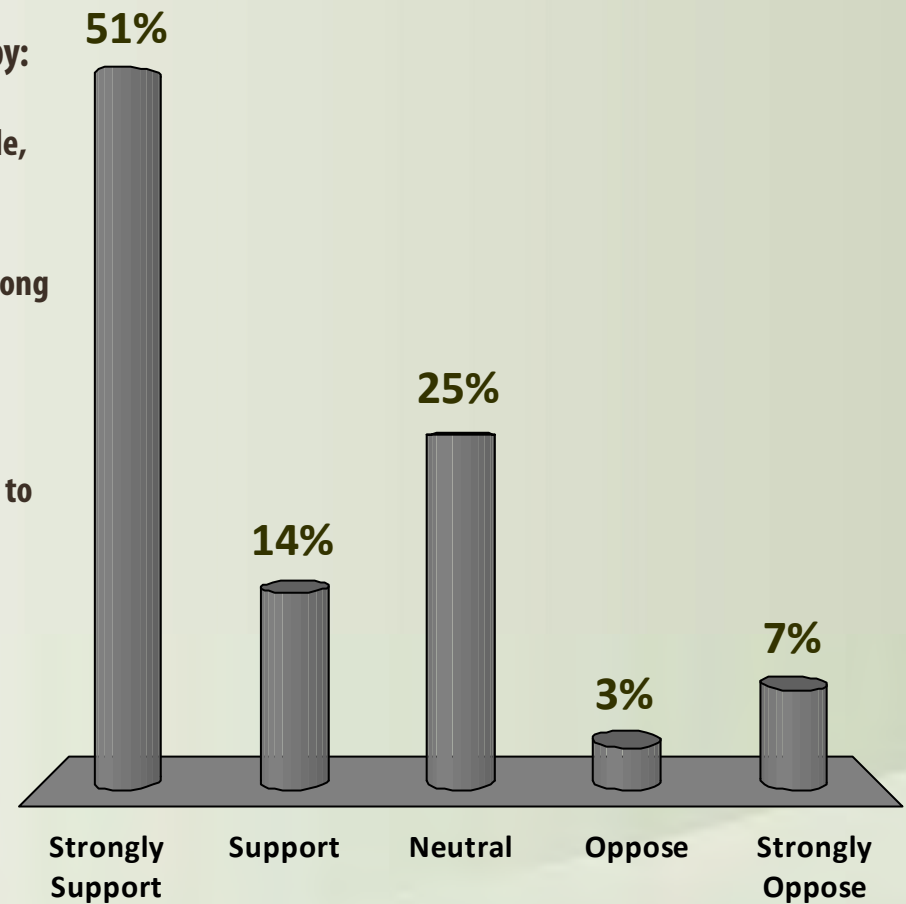
## 1. Transportation

### Christmas Tree Lane

Address issues associated with the Christmas Tree Lane event, by:

- ◆ Balancing the transportation needs of those traveling with automobiles with the needs of those travelling on foot, by bicycle, and by transit, as well as those with disabilities;
- ◆ Balancing personal safety needs of those traveling on Van Ness Boulevard with the privacy needs of those living in residences along the street;
- ◆ Limiting the exposure of visitors and Fig Garden residents to automobile exhaust and noise;
- ◆ Balancing the need for access and movement with those related to personal safety and cultural enjoyment.

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012



# GUIDING PRINCIPLES

## 2. Urban Design Transitions

The Fig Garden study area is bounded on three sides by corridors – Blackstone, Shields, and Shaw Avenues – proposed to accommodate future growth within the City of Fresno. While these growth corridors and activity centers will help to slow sprawl and the consumption of agricultural land in the larger Fresno area, it is important to recognize the potential effects of proposed land use intensity changes on residential properties and neighborhoods adjacent to these corridors and centers.

Fig Garden residents therefore desire the development of recommendations for site and building design guidelines that apply to properties located in growth corridors or activity centers bordering Fig Garden properties. The GUIDELINES should:

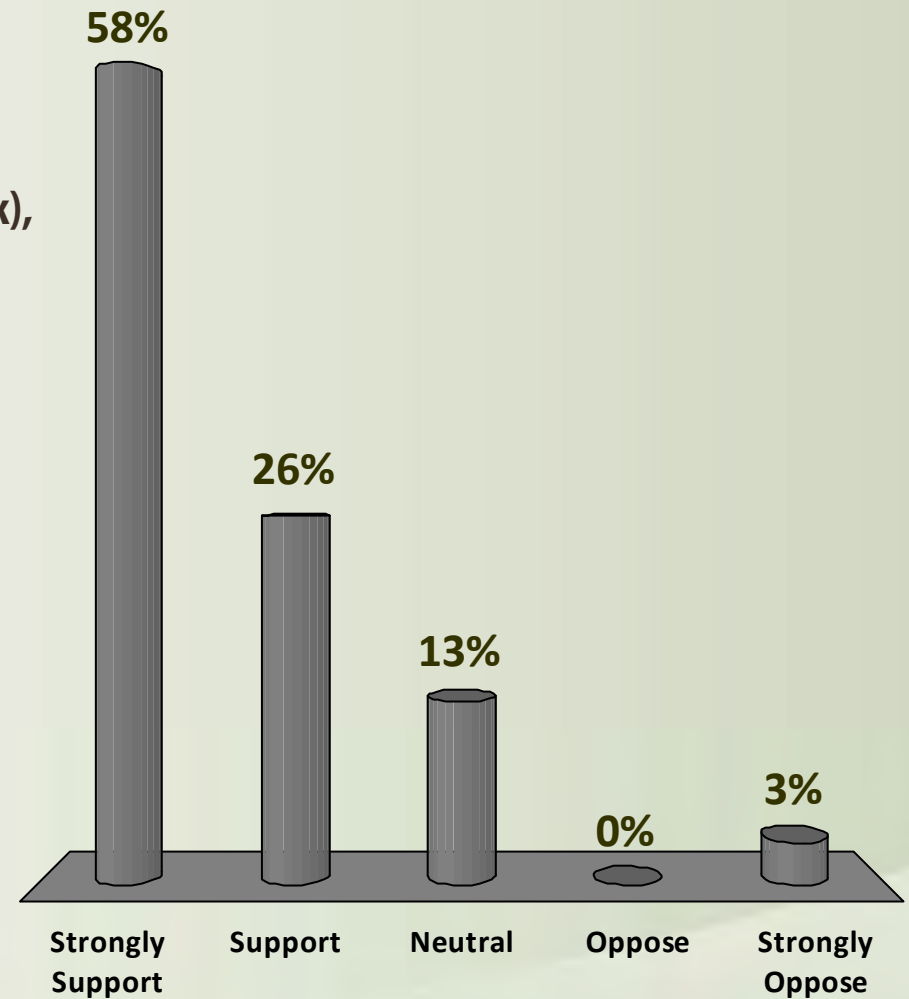


# GUIDING PRINCIPLES

## 2. Urban Design Transitions

**Create harmonious transitions between Fig Garden neighborhoods and development along growth corridors/activity centers with respect to land use (intensity and location), building scale (height and bulk), and architectural and landscape character.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



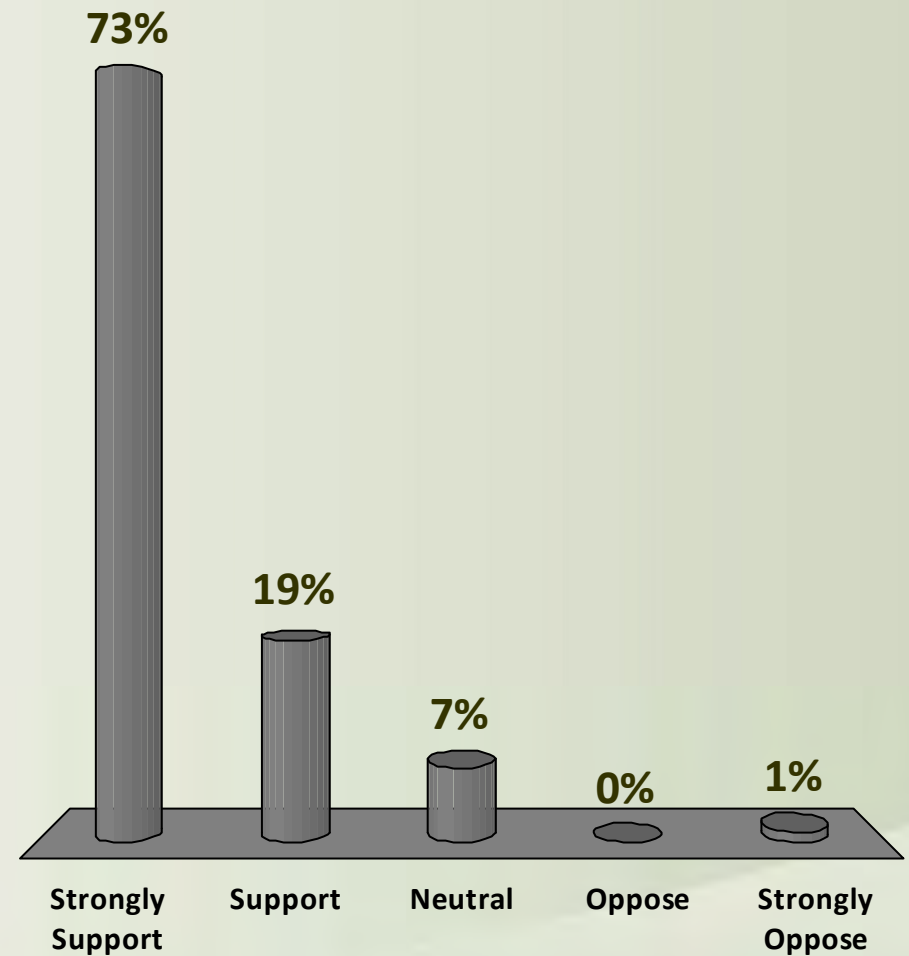
Feb. 23, 2012

# GUIDING PRINCIPLES

## 2. Urban Design Transitions

Address visual, solar access, noise, and odor concerns potentially associated with future development along growth corridors/activity centers.

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



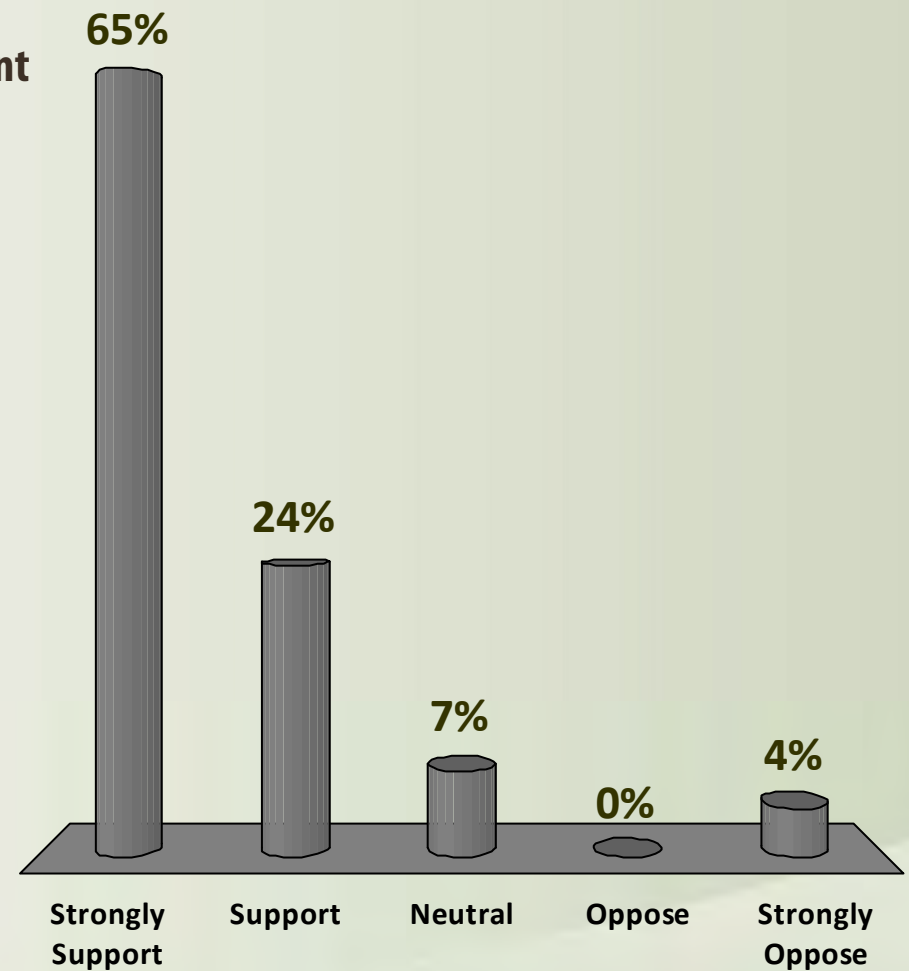
Feb. 23, 2012

# GUIDING PRINCIPLES

## 2. Urban Design Transitions

Be submitted to the City of Fresno for inclusion in the ongoing process of preparing standards for development in growth corridors/activity centers.

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

# GUIDING PRINCIPLES

## 3. Urban Forest

The trees planted by J.C. Forkner in the early 20th century are universally recognized by residents of the Fig Garden area as a defining feature of the neighborhood's identity and character.

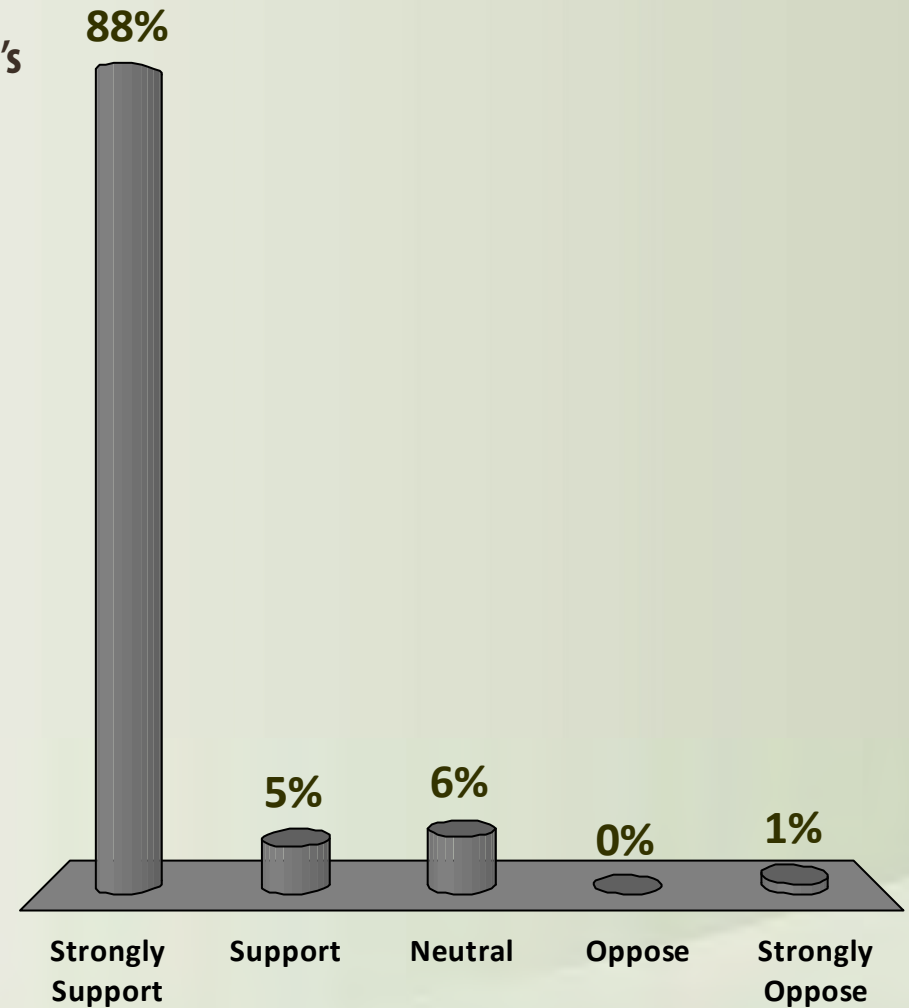


# GUIDING PRINCIPLES

## 3. Urban Forest

**Develop maintenance recommendations for Fig Garden's urban forest to ensure that it can be enjoyed by future generations.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

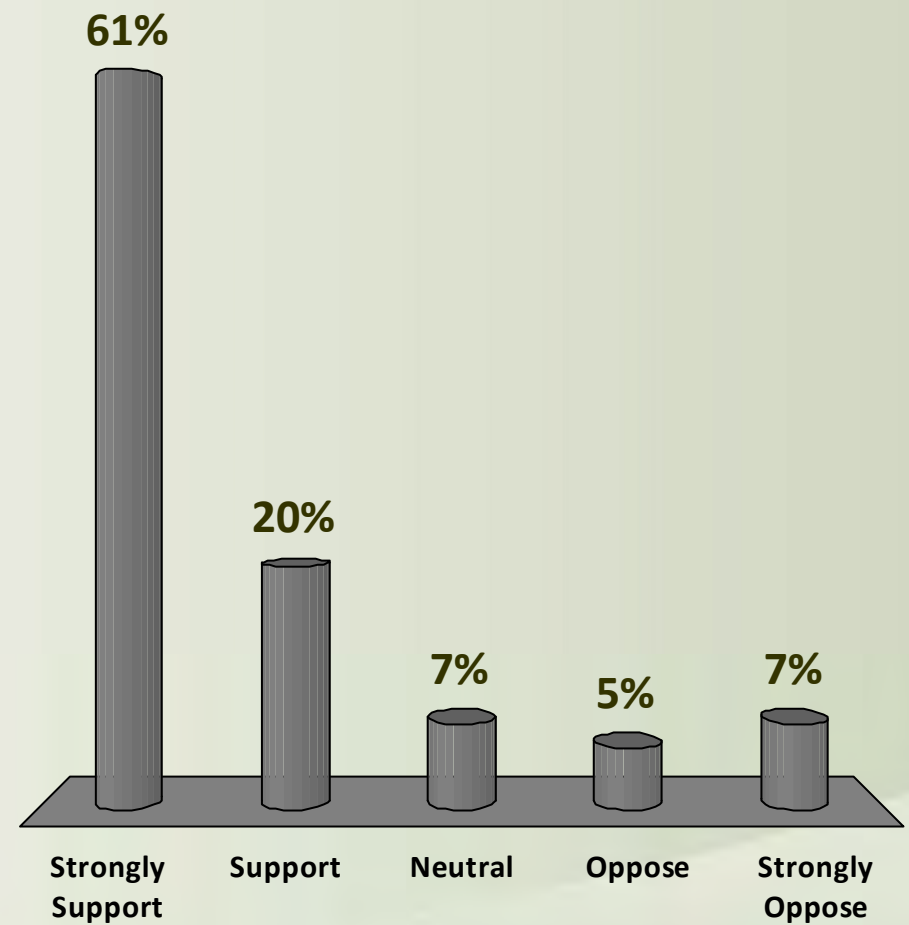


# GUIDING PRINCIPLES

## 3. Urban Forest

**Reduce the use of tree species poorly suited to Fresno's local and urban climate.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

# GUIDING PRINCIPLES

## 4. History and Architecture

The architectural landscape of the Fig Garden area is diverse, from architect-designed houses on one-acre lots along Van Ness Boulevard to more modest homes clustered along side streets. Building styles range from the earliest Craftsman and Foursquare homes through the entire pallet of Period Revival styles to the modernism of the 1950s up through the most recent in-fill projects. Of additional interest are the numerous adobes throughout the Study area. Two main features – the area's canals and mature landscaping, tie this diversity of building stock together.

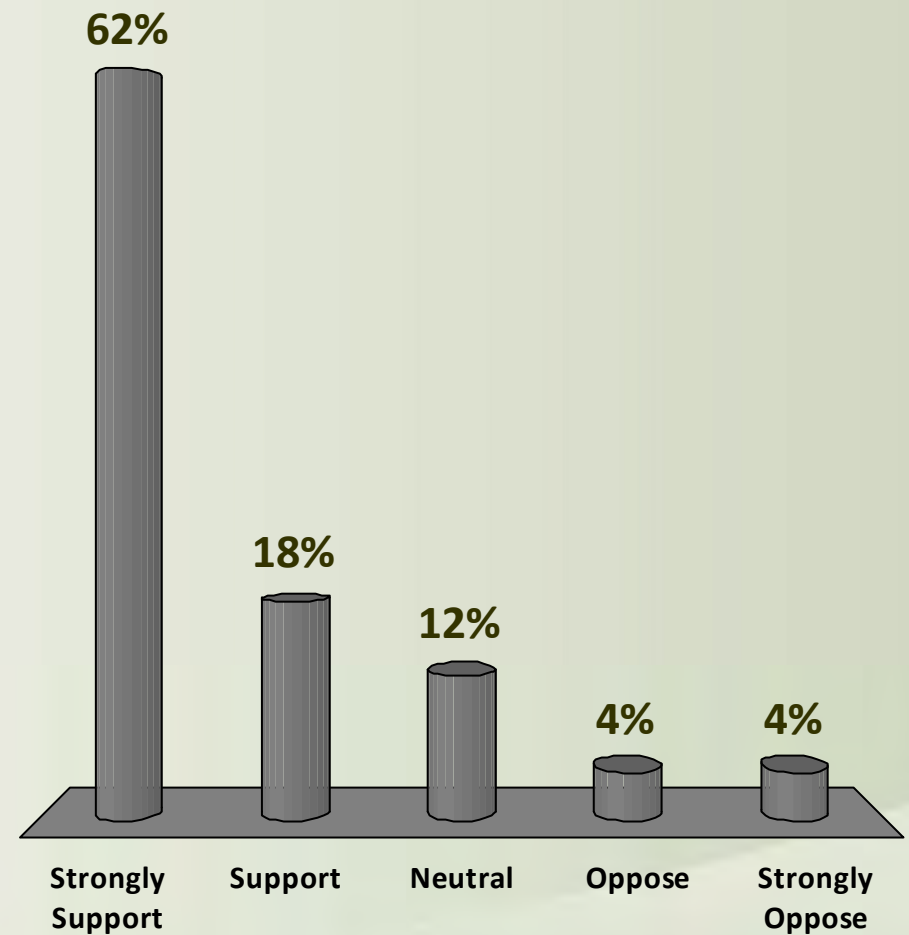


# GUIDING PRINCIPLES

## 4. History and Architecture

**Prepare a historic context for the area, which includes an overview of building typologies and styles. Use this information for future design guidelines for the Fig Garden community.**

1. Strongly Support
2. Support
3. Neutral
4. Oppose
5. Strongly Oppose



Feb. 23, 2012

*This page left intentionally blank*

## B. WORKSHOP SUMMARIES

*This page left intentionally blank*

# Old Fig Garden

## Community Transportation and Land Use Study

### *Summary of Input from Community Workshop #1*

#### Introduction

The following is a summary of input provided by participants during the small group session at Workshop #1 on February 23, 2012. Comments and other input were taken from each table's large maps, individual 11x17 maps and comment cards.

The "Tops Five"-summary is organized by table-number (there were 9 tables). All other comments have been divided into four sections:

1. Neighborhood Assets
2. Concerns & Issues
3. Suggestions
4. Comments on Public Involvement Process

Some sections have been further divided into sub-sections (i.e. Traffic & Safety, Bicycling, Lighting etc) in order to make a review of the comments easier.

**Please Note:** The results from the polling process about the Vision Statement and Guiding Principles is available as a separate document.

#### Summary of "Top Five" Listings

The following list provides an overview of the most frequently provided responses:

##### **Top 5 Assets of Fig Garden Area (*not prioritized*)**

- Trees (9 responses)
- Rural feeling (6)
- Historic homes/architecture (5)
- No sidewalks and Christmas tree lane (tied at 4)
- Public safety/sheriff and location (tied at 3)



### **Top 5 Issues Study Should Address**

- Traffic/traffic calming (7)
- Crime/safety (6)
- Pedestrian issues/safety (5)
- General concerns on Ashlan (4)

### **Top 5 Suggestions for Solutions**

- Pedestrian improvements (5)
- Add stop signs (3)
- Increased patrol (2)
- Traffic Calming (general options given) (2)

## **“Top Five” Listings by Table**

### **TABLE 1**

#### **Top 5 Assets of Fig Garden Area (not prioritized)**

- Lack of standardization
- Not part of the City
- Lots of old trees
- No sidewalks
- Great support from Sheriff's department
- Privacy
- Historic and unique homes
- Wildlife (one comment about foxes in yard)
- Great neighbors
- Christmas tree lane

#### **Top 5 Issues Study Should Address**

- Excessive traffic
- Trucks, size of vehicles which damage trees
- Crime, need more sheriff's patrols

- Gettysburg is unsafe for walkers
- Condition of pavement on Maroa
- Marijuana dispensaries: drugs and traffic
- Drainage

**Top 5 Suggestions for Solutions**

- Traffic circles on Van Ness, Ashlan, and Palm
- Speed bumps
- Stop signs at Del Mar and Fairmont

**TABLE 2**

**Top 5 Assets of Fig Garden Area**

- Large trees and rural nature
- Architectural variety- historical integrity
- Convenient location/traffic access
- Public Safety – Sheriff and Fire Protection
- Christmas Tree Lane

**Top 5 Issues Study Should Address**

- Pedestrian crossing and traffic on Ashlan
- Gettysburg Traffic control
- Sidewalks & Accessible bus access on Palm only
- Crime on Blackstone – prostitution and Gangs on Dakota
- Lack of lighting (mixed review) Historic lights/pedestrians

**Top 5 Suggestions for Solutions**

- Traffic light triggered by pedestrian push button (Ashlan)
- Calming device on Gettysburg (speed control or diversion)
- Build the sidewalks & accessibility on Palm
- Increased Patrol
- Historic pedestrian lanterns or lighting (lighting policy on personal property)

### **TABLE 3**

#### **Top 5 Assets of Fig Garden Area**

- Country feel (no sidewalks, no curbs) family-oriented, big lots, rural atmosphere, beautiful, calm
- Cohesiveness of neighborhood, uniqueness of each home and we are a county island.
- Unique- not designed by land developer, unique homes
- Beautiful trees, streets, and houses
- Historic architecture, mature landscape, neighbors look after each other, proximity to Fig Garden Village
- Like the neighborhood association

#### **Top 5 Issues Study Should Address**

- Proximity to urban crime, proximity to Sec. 8 apartments
- Need traffic calming at Van Ness and Ashlan, more safety measures for bikers and pedestrians. Want people to go slower
- Decay near neighborhood (crime, etc.)
- Speed through neighborhood. Need it decreased (Holland to Savemart)
- Crime and safety of pedestrians on Blackstone (new bus terminal)
- Deterioration pavement
- Stairway on Ashlan + Carruth (Kids going to school and causing problems)
- Monitoring vendors on Fruit & Ashlan and Ashlan & Blackstone
- Canal needs to be fenced

#### **Top 5 Suggestions for Solutions**

- Traffic calming measure at Ashlan + Van Ness
- Code Enforcement
- Designated pedestrian walkways for children traveling to school west of Fruit/South of Ashlan from high density housing

### **TABLE 4**

#### **Top 5 Assets of Fig Garden Area**

- Central location; shopping

- Quiet, rural, no sidewalks, no lights
- Historic value; architecture
- Trees, no sidewalk, no lights
- Christmas Tree Lane

**Top 5 Issues Study Should Address**

- Poor drainage
- Side street traffic; too fast, signage (position, lack of residential streets as thoroughfare ignore speed signs
- Bike lanes and walking paths
- Train noise/train traffic
- Shrubbery obstructing signs

**Top 5 Suggestions for Solutions**

- Canal safety

**TABLE 5**

**Top 5 Assets of Fig Garden Area**

- Trees and Foliage
- No curbs and no city government
- Neighborhood
- Privacy and Quiet
- Nice People

**Top 5 Issues Study Should Address**

- Crime
- Use of neighborhood streets as cut-through opportunities; these drivers speed and ignore stop signs
- Too big of houses (McMansion Monsters do not belong in Old Fig as infill. We need a Design Review Committee Immediately!)
- Traffic along Ashlan

**Top 5 Suggestions for Solutions**

- Clearly marked Ped and Bike Lanes for safety on Christmas Tree Lane, a fabulous street!

- Clearly marked (white lines) at intersections of cross-streets (E-W) with main streets (Van Ness, Wilson, etc.)
- No lot splits!!
- Traffic lights at Van Ness and Ashlan?

## **TABLE 6**

### **Top 5 Assets of Fig Garden Area**

- Sense of pride, rural atmosphere; quiet; large lots, overall neighborhood concern and care
- Street Trees, vegetation, urban forest
- Centrally located within Fresno
- Fire and Sheriff coverage, safety, neighborhood watch program

### **Top 5 Issues Study Should Address**

- Unsafe driving conditions- Vegetation not cut back street speed is too fast. No stop signs causes too fast speed, no sight vision – blocked
- Pedestrian Passage, Biking passage is too dangerous, no safe passage for school kids.
- Ashlan has divided the neighborhood
- Palm – dangerous pedestrian passage – no walking access
- General road conditions

### **Top 5 Suggestions for solutions**

- Pedestrian walkways; sidewalks (on Palm), trails
- Cut vegetation and enforce code so cars have vision
- Review current stop sign locations and possibly add more, stop high trucks (heavy) from going through the area

## **TABLE 7**

### **Top 5 Assets of Fig Garden Area**

- Trees
- Rural Character – Lot Size
- Fig Garden Village
- C.T.L. (Christmas Tree Lane) “The Lane”

- Schools/Library

**Top 5 Issues Study Should Address**

- Safety – Crime (Lack of Street Lighting)
- Do not widen Ashlan – Constant traffic, speed + amount
- Keep character of area i.e. Keep proportion of new houses appropriate to lot

**Top 5 Suggestions for Solutions**

- Increase patrol (Highway Patrol) and lighting – crime
- Decrease/lower speed limits
- Pedestrian crossings (Ashlan/Van Ness & Wilson /Wishon

**TABLE 8**

**Top 5 Assets of Fig Garden Area**

- Tree/ Greenery
- Architecture, historic, well maintained area
- Quiet/ambiance/less traffic/dark/no curbs
- Wildlife
- Neighborhood of choice

**Top 5 Issues Study Should Address**

- Keep the County annexation
- Traffic Calming on Wishon
- Crime
- Transition in corridors to residential areas

**Top 5 Suggestions for Solutions**

- Better alternative to Ashlan

**TABLE 9**

**Top 5 Assets of Fig Garden Area**

- Trees/large lots
- Fig Garden Village
- Sense of Community (Usually)

- No Curbs/Gutters/Sidewalks
- Individual Architecture

#### **Top 5 Issues Study Should Address**

- Through traffic and speed
- Architectural standards (McMansions)
- Lack of parks & Playgrounds
- More bike lanes where feasible

#### **Top 5 Suggestions for Solutions**

- Schools into parks
- Canal into linear park path
- Tax free zone

## **Comments from “What Streets Do You Use?”-Map, Comment Cards, and Large Table Maps**

### **Neighborhood Assets**

- Love the width of Wishon Ave.
- We love our Fig Garden! As it is! I have lived here since August 1958.
- Rural setting (marked on map Rialto between Palm and Van Ness)
- Trees are important.
- Like the trees on Gettysburg (marked on map)
- We love our urban forest!
- The Christmas Tree Lane walk-down is the premier event in the City of Fresno. Nothing else comes close.
- We like the quiet, shady, non-uniform character of the area.
- Herndon canal is an asset (marked on map)
- Low traffic volumes (marked on map Wilson btw Indianapolis and Ashlan)
- Love the dog park (marked on map at Wawona School)
- Fig Garden Shopping Center the #1 asset (marked on map)



- Like the Fig Garden Swim and Racquetball club in the neighborhood (marked on map)

## Concerns and Issues

### Traffic & Safety

- My family and I feel we cannot walk along Palm at all and must devise routes to avoid it, even when walking to Fig Garden Village. Crossing Ashlan by foot can take a long time. Visibility @ Van Ness entering Palm is dangerous, visibility is also poor entering Palm from various side streets. Crossing Ashlan is problematic except for on Palm or Maroa.
- Ashlan between Palm and Maroa is difficult to cross on foot or by bicycle.
- I do not bike through Old Fig due to traffic on Ashlan.
- Would like it to be easier/safer to cross Ashlan when walking.
- I cannot cross Ashlan.
- Crossing impossible and dangerous (marked on map Wilson and Ashlan)
- There is a lot of traffic on Gettysburg – too much and not very good at stopping. Drive patterns – we try to go where there are stop signs in order to get across traffic. How about more 4-way stops?
- Would like slower traffic on Gettysburg between Blackstone and Palm.
- Eliminate heavy truck traffic use of Gettysburg between Blackstone + Palm.
- I stay away from Palm as much as possible.
- I walk with dogs and don't want to cross major streets.
- Fairmont Avenue, Channing, people drive too fast. Drive through stops (West to Fruit/Shaw to Gettysburg).
- It seems that creating additional 4 way stops at 2 way intersections would serve to slow certain stretches used as speedways. Example: Holland and Arthur. Holland has frequent speeding from Thorne to Fruit. Very dangerous for peds/bikes crossing.
- Discuss transportation and pedestrian issues at railroad crossing by Fruit and Ashlan- safety issues for students.
- Cars too fast (marked on map Wishon between Ashlan and Herndon Canal)

### Architecture & Neighborhood Character

- Do not want curbs in Old Fig (2).
- I hope we never have curbs and sidewalks and streetlights of significance.
- My main concern is the character changing in the neighborhood.
- We do not want high-density apartments! The crime is getting worse. We are too soft on the criminals – they stay in hotels called prisons.
- Want to maintain family community. Do not want high-density apartments.
- Widening streets promotes less value of homes on those streets.

### Other Concerns

- Please address the issue on annexation into city as well as widening of Ashlan. We don't want either. We are concerned about this.
- Rainwater should not flow into residential areas from Shaw and West. Currently Shaw Avenue from Channing to West flows south to Fairmont, then east to Channing, then south. This brings trash into the neighborhood.
- We have poor storm drainage at Van Ness and Dayton.
- Noise of train still continues with their horns during late hours.
- People going through trashcans at all hours of the night and morning before pick up trucks comes.
- Crime high (marked on map Arthur between Holland and Ashlan)
- Santa Fe between West and Ashlan hasn't seen new asphalt for many years.
- Barking dogs in backyards are a big problem. How to deal with this?
- Lack of park maintenance (mark on map pointed at intersection of Shaw and Van Ness)

### **Suggestions**

#### Traffic & Safety

- Street lights at intersections would enhance safety for pedestrians, bikers, etc. would also help to reduce crime

- Traffic control needed on Santa Ana between Palm and Fruit. This roadway is being used by commuters as an alternate route to Shaw Ave. Need additional speed limit signs to advise motorists of 25mph speed limit. Installation of additional stop signs to slow traffic. Law enforcement in areas to monitor habitual speeders.
- 4-way stop signs at Del Mar and Fairmont.
- Turn light on Ashland and Palm. (2)
- Traffic needs to be directed off of Ashland out of our area back to Shields or Shaw.
- Ashland needs to have less traffic, perhaps @ Blackstone it should be left and right turns only, also at Palm. Make getting on 41 more advantageous at Shaw and Shields.
- Ashland Ave -> One-Way (at least during commute hours) One-Way E in AM? One-Way W in PM?
- Need to widen Ashland Ave. between Fruit and Maroa Avenue to 2-lanes [in each direction].
- Widen Ashland? (marked on map)
- Limit Usage of cars on Ashland (marked on map)
- Traffic calming on Palm Ave (marked on map between Indianapolis and Holland)
- Problem streets should include Saginaw, which has lots of thru traffic. Need white lines at intersections of all the streets crossing Wilson Ave, so cars stop properly (know how far from the "middle" of the street to stop). Another problem street is Ashland as it is difficult to cross, especially at peak hours. Put traffic light at Van Ness & Ashland to "calm" the traffic.
- Have speed bumps placed ASAP between Blackstone and Palm on E. Gettysburg. The traffic attracts an undesirable element from Blackstone and property values have depreciated as a result.
- The neighborhood around E. Gettysburg + College needs speed bumps as soon as possible. Also need it around Blackstone and Maroa because of all the traffic on Gettysburg heading to and from Palm. This traffic has significantly depreciated property values and attracts a bad element from Blackstone.
- No speed bumps.
- Put traffic circles on Van Ness or Ashland.
- Slow the traffic on Del Mar (marked on map between Swift and Rialto)

- Less traffic needed on Wilson (marked on map between Rialto and Gettysburg)
- Slow traffic on Holland (marked on map between Maroa and Del Mar)

### Transit Access

- Need wheelchair access for the buses on Palm South of Shaw (please work with the County on this).
- I would ride the bus up Palm to Fig Garden Village more often if the bus stops were more accessible and more pleasant to wait at (need benches!).
- Bus terminal needs crosswalk (marked on map at Blackstone between Fedora and Cortland)

### Bicycling

- Add bike lanes to Palm and Fruit.
- We need a bike lane (designated) along Van Ness Avenue.
- Walking? (mark on map pointed towards Herndon Canal)

### Trails

- I like to walk on the canal banks but lately it feels unsafe. We worked on a plan for Bankside Trail for 2 years. I feel it would help to have joggers, walkers there – i.e. lighting, benches.
- The irrigation ditch should be developed as walk and bike paths. Don't forget landscaping.
- Need bike and walking lanes, i.e. Herdon Canal, Wishon.
- I walk on the canal behind Wawona School most every day – I like it as is. No park please along the canal, will bring in too many people. I have lived in the neighborhood for 44 years.
- Add Enterprise-Holland canal to study as soon as possible pedestrian neighborhood train route.

### Lighting

- Would like street lighting in order to deter crime.
- Streetlights needed – would help with the safety issue.
- Metal, nice-looking (historic) street lights at all the intersections of thru (E-W) streets with main streets.

### Architecture & Neighborhood Character

- Need guidelines for new construction and approval by a board in keeping with the historical aspect of our area. (2)
- Keep character of neighborhood including lot size, County Island, no commercial/business within neighborhood.
- We are privileged and so happy to live in an area that has been unaffected by change for so long. Please, no sidewalks, widening of Ashlan, etc., etc. The rural county lane ambiance must be preserved.
- Block grants to repair older homes, bad fences, owner does work.
- Zoning should keep Shaw from looking like Blackstone. Perhaps traffic can be directed toward Shields for E/W corridor.

### Signage

- New street signs at street intersections.

### Other Suggestions

- Small, low powered high efficiency vehicles should be encouraged and allowed to use “bike lanes” and residential streets.
- Railroad underpasses on Shields, Palm and Fruit would eliminate periodic heavy traffic in area and encourage use of Shields, Palm and Fruit vs. the residential streets
- Outlaw leaf blowers. (2)

### **Comments on Public Involvement Process**

- Happy that this process is taking place.

- Polling questions should encourage more disparity in responses. Most questions seem to entice a positive response only. Include questions that might yield negative response.
- Post meeting notice at Fig Garden swim and Racquet Club (on bulletin boards in men's and women's restrooms & main bulletin board if possible).
- We have many young families who did not attend probably because of the day and time. Try Saturday morning or provide daycare.

# **Old Fig Garden**

## **Community Transportation and Land Use Study**

### *Summary of Input from Community Workshop #2*

#### **Introduction**

The following is a summary of input provided by participants during the small group session at Workshop #2, on May 23, 2012. Comments and other input were taken from each table's large maps, table note sheets, and facilitator notes. Please refer to the PDF of the PowerPoint Presentation for details on design options and their numbering referenced in the text below.

The summary is organized into three components:

1. Comments on the Draft Multimodal Transportation Framework
2. Comments on individual street improvement concepts
3. Results of polling on conceptual improvement options for Ashlan, Palm and Fruit Avenues.

#### **Comments on the Draft Multimodal Transportation Framework**

Only few mark-ups were found on the table maps that showed the Multimodal Transportation Network. One small group recommended a bike priority route on Holland Avenue and on the western segment Indianapolis Avenue, from Fruit Avenue to the Wawona Middle School. A second group did not want any priority indication for the eastern segment of Dakota Avenue within the study area.

With regard to the choice of bike routes on Van Ness vs. Wishon Avenues, there were two tables that preferred a bike route on Wishon; one table preferred Van Ness, and; another table preferred bike routes on both.

#### **Summary of Comments by Location**

##### *Ashlan Avenue*

Table 1

- Bring 4-way stop at Ashlan at Van Ness

Table 2

- Agree with median refuges on Ashlan

Table 6

- Option 4 (Bike Priority)
- Ashlan at Thorne intersection needs to be calmed, as it is dangerous

Table 5

- Concern that traffic calming measures on Ashlan will divert traffic to other 'sensitive' streets in the Old Fig Garden area
- Address congestion on Ashlan (interconnect)
- Train crossing enhancements

### *Blackstone Avenue*

Table 3

- Close off Gettysburg entry/exit to/from Blackstone

### *Dakota Avenue*

Table 1

- Concern with Dakota as bicycle priority (Bike lane + parking)
- No for Dakota between Maroa and Blackstone (referring to whether they agree with the Pedestrian, Bike or Auto priority draft framework map)

### *Del Mar Avenue*

Table 1

- Leave as-is

Table 2

- Option 2 (Pedestrian Priority single side) or Option 3 (Pedestrian and Bike Priority)

Table 5

- Option 1 (Pedestrian Priority both sides)

### *Gettysburg Avenue*

Table 1

- Leave as-is



Table 2

- Option 3 (Pedestrian and Bike Priority)
- Extend Safe Routes to school from Arthur to Fruit
- Traffic Calming H (enhanced stop markings) Gettysburg at College Ave

Table 3

- Close off street to Blackstone

Table 5

- Option 2 (Pedestrian Priority single side)

### *Griffith Avenue*

Table 1

- Leave as-is

Table 2

- Option 1 (Pedestrian Priority both sides)

Table 5

- Option 2 (Pedestrian Priority single side)

### *Holland Avenue*

Table 1

- Leave as-is

Table 2

- Option 1 (Pedestrian Priority both sides)
- Traffic Calming H (enhanced stop markings) Holland at Arthur
- Traffic Calming Four Way Stop Holland at Arthur
- Bike priority Holland from Blackstone to Fruit

Table 5

- Option 2 (Pedestrian Priority single side)

### *Indianapolis Avenue*

Table 1

- Leave as-is

Table 2

- Option 1 (Pedestrian Priority both sides)

Table 5

- Option 2 (Pedestrian Priority single side)

### *Lansing Avenue*

Table 6

- Traffic calming Option E (chicane one-way) between Del Mar and College, Maroa and Wishon
- Option 5 (meandering paths)

### *Maroa Avenue*

Table 1

- Leave as-is
- Traffic Calming option C (short median with refuge)

Table 2

- Option 3 (Pedestrian and Bike Priority) or Option 4 (Bike Priority)

Table 6

- Traffic Calming Option B (mini traffic circle) at Santa Ana, Gettysburg, Holland, Hampton, and Griffith.
- Option 4 (Bike Priority)

### *Palm Avenue*

Table 6

- Option 3 (Pedestrian and Bicycle priority) or Option 4 (Bike priority)

### *Rialto Avenue*

Table 1

- Leave as-is

Table 2

- Option 1 (Pedestrian priority both sides)

Table 5

- Option 2 (Pedestrian priority single side)

### *Santa Ana Avenue*

#### Table 2

- Regarding the bike striping between Fruit and Harrison. “I’ve seen where a newly paved road covered over the existing bicycle path marks and where these were not repainted. It took years plus an ‘act of congress’ for those bicycle and pedestrian painted marks to go back on the road. I’m not even sure if they were ever repainted”

### *Santa Fe Avenue*

#### Table 1

- Leave as-is

#### Table 2

- Any option

### *Swift Avenue*

#### Table 1

- Leave as-is

#### Table 2

- Option 1 (Pedestrian priority both sides)
- Swift at Maroa intersection needs median crossing

#### Table 5

- Option 4 (Bicycle Priority) but without sidewalks

### *Thorne Avenue*

#### Table 1

- Leave as-is

#### Table 2

- Option 1 (Pedestrian priority both sides)

### *Van Ness Avenue*

#### Table 1

- No preference for bike priority (Van Ness vs. Wishon)
- Leave as-is
- Bring 4-way stop at Ashlan at Van Ness
- Traffic Calming Option A (narrowing)

Table 2

- Option 2 (Bike priority on Wishon)

Table 3

- Bicycle priority on Van Ness (OK with bike lane)

Table 5

- Prefer Option 1 (Bike Priority on Van Ness)
- Bike Priority on both Wishon and Van Ness

### *Wilson Avenue*

Table 1

- Leave as-is

Table 2

- Option 1 (Pedestrian priority both sides)

Table 5

- Option 2 (Pedestrian priority single side)

### *Wishon Avenue*

Table 1

- No preference for bike priority (Van Ness vs. Wishon)
- One note prefers Wishon as bike priority street
- Leave as-is
- Traffic Calming Option A (narrowing)

Table 2

- We like Wishon the way it is
- Option 1 (Bike priority on Wishon)
- Bike Priority Griffith to Rialto

Table 3

- OK as is (bike facilities)

Table 5

- Prefer Option 2 (Bike Priority on Van Ness)
- Bike priority on both Wishon and Van Ness

### *Herndon Canal*

Table 6

- Extend proposed Bike/Ped Trail along irrigation canal to Shields and also to West.

### *Miscellaneous Comments*

Table 2

- Need pictures of the existing areas that are “problem” areas.

Table 3

- Don't remove any trees
- No on one-way Chicanes
- All traffic calming good (except one-way chicanes) if proper treatment is used on designated streets.
- Pedestrian lighting on select streets is good
- Two participants were concerned that so much time was spent on Ashlan and no attention given to Gettysburg.
- Table did not get through 90 % of the items in the break out session. They said they felt bad about not being able to make comments, write down their concerns, because the night ran late and there was not enough time to do the small-group exercise.
- Appreciated the fact that something was “being done” to address all of the traffic issues however they wanted to emphasize that Ashlan is not the only problem.
- “This will never be completed in our lifetime so basically it is for the next owners of our homes.”
- "How will implementation be funded?"
- All in favor of lighting throughout the area.
- All in favor of some sort of road diet, however, participants focused their attentions mostly on the area from Palm to Del Mar with regard to treatments, solutions, trails, calming measures, etc.
- Not in favor of removing any trees, or damaging vegetation for the most part. Neighbors need to trim and cut back as “things” have gotten out of hand and county code is not “doing anything about making homeowners clear their property.”

Table 1

- Prefer no striping for Bicycle or Pedestrian Priority
- Pedestrian lighting should be historic and small at some intersections
- Traffic calming option D (two-way chicane) preferred [specific street not indicated]

Table 6

- Pedestrian lighting on Palm, Maroa, Wishon (from Dakota to Gettysburg), and Ashlan. (But don't take trees out to do it!)
- "No Curbs! Last meeting's consensus was no or minimal curbs, then city staff said they don't want curbs 'everywhere', wrong misrepresentation. Too bad. Wrong tone and trust went down the drain."
- There should be no improvements that would affect any existing vegetation whatsoever.
- One participant questioned whether street parking should be permitted, especially on Ashlan.
- Reluctant to have lighting on east-west streets. Gettysburg was singled out as an exception.
- There was general confusion as to what alternatives went with what street. The participants felt the presentation went too fast and was "sprung upon them".
- In favor of employing the various traffic calming strategies at the intersections, though there was not enough time in the break out session to designate how and where they might be applied.

## Results of Polling on Conceptual Improvement Options

The consultant team conducted a polling exercise for the conceptual improvement options for Ashlan, Palm and Fruit Avenues. *TurningPoint* software was used to facilitate the interactive polling. During the polling exercise, sixteen (16) questions were asked and the audience had the opportunity to respond with remote clickers. There were between 34 and 37 responses for each of the 16 questions, which represented 91 to 100% of the participants in the audience. The reason that a few participants did not answer all of the questions could be a result of lack of understanding of the question, no personal stance on the subject in question, or accidental misuse of the remote clicker. The results of the polling are provided as an attachment to this document.

# **Old Fig Garden**

## **Community Transportation and Land Use Study**

### *Summary of Input from Community Workshop #3*

#### **Introduction**

The following is a summary of input provided by participants during the open house session at Workshop #3, on September 26, 2012. Comments and other input were taken from the large display maps and notes from the suggestion box. Please refer to the PDF of the PowerPoint Presentation to obtain further information on the presentation made during the workshop.

There were notably fewer comments than the previous workshop, therefore this summary is organized by the topics that were most highlighted by the participants.

#### **Comments regarding Ashlan Avenue**

- Ashlan still has to be considered a high-volume thru street. It will probably never be four lanes but whatever can improve traffic flow/pedestrian safety should be considered. “Speeding” on streets seemed to be a hot topic. Before any traffic calming measures are looked at, let’s be sure that “speeding” is really a huge problem on any street.
- Pedestrian paths only need to be on one side except along Ashlan Avenue and pathways should not be more than four feet wide.
- Consider pedestrian actuated signals at Van Ness and Ashlan.
- A tree calming circle is a great idea especially at the intersection of Ashlan and Van Ness. Trial blockers ok too.

#### **Comments regarding Palm Avenue**

- Can Palm be used more as a north and south route for pedestrians (kids and schools), bikes, etc.? How about three lanes like north of Shaw on Maroa where the two schools are? There is not much traffic most of the time on Palm between shields and Shaw.

#### **Comments regarding Ped & Bike Design Concepts**

- What is Pedestrian scale lighting? It was not discussed tonight.
- Pedestrian and bike lanes are preferred along streets with large trees for landscaping.
- Will bike and pedestrian trails increase modes of travel, and the number of people accessing the neighborhood?

- No overlay to show impact of the foliage and trees in the very void easements if “plans” were adopted. Visual impact and environmental because Van Ness, for instance would be stripped bare.

### Comments on Traffic Calming

- Suggest trying a calming measure test at a couple intersections, for example Gettysburg and Wishon.
- I like the short median (mid-block), but will it also be considered for implementation at intersections?
- Short median mid-block is a beautiful design style.

### Other Comments

- Noise ignored too.
- Traffic Problems on Teilman Ave.
- The neighborhood between Shaw and Gettysburg; West and Teilman previously recommended to the City of Fresno that sidewalks in this neighborhood were not necessary.



## C. STAKEHOLDER INTERVIEW SUMMARY

*This page left intentionally blank*

# Old Fig Garden Community Transportation & Land Use Study

## Stakeholder Interview Results

### Prepared for:

City of Fresno  
Development and Resource Management Dept.  
2600 Fresno St., Room 3043  
Fresno, CA 93721  
Project Manager: Keith Bergthold



### Prepared by:

Community Design + Architecture  
350 Frank Ogawa Plaza, 5th Floor  
Oakland, CA 94612  
Principal In Charge: Thomas Kronemeyer  
Consultant Team Project Manager: Bharat Singh

COMMUNITY DESIGN + ARCHITECTURE  
REGION • CITY • NEIGHBORHOOD • BUILDING

VRPA Technologies, Inc.  
4630 W. Jennifer, Suite 105  
Fresno, CA 93722  
Transportation & Outreach Project Manager: Georgiena M. Vivian



March 14, 2012

---

# Table of Contents

Section	Description	Page
1.0	Background	1
2.0	Summary of Stakeholder Results	2
2.1	General Consensus (Over 90%)	2
2.2	Majority (50%-90%)	2
2.3	Minority (Less than 50%)	2
3.0	Guide to Interpreting Results	4
3.1	List of Interviewees	4
3.2	Interview Format	5
3.3	Presentation of Stakeholder Interview Results	5
4.0	Stakeholder Results	7
4.1	Study Process	7
4.2	Public Outreach	10
4.3	General	13
4.4	Education Community	14
4.5	Law Enforcement	18
4.6	Christmas Tree Lane	23
4.7	Fresno Irrigation District	25
4.8	Fresno Metropolitan Flood Control District	26
4.9	Business Community	27
4.10	Residents	31
4.11	Transit Users	36
4.12	Pedestrian/Bicycle/Trails	40
4.13	Non-Profit Groups/Churches	44
4.14	Environmental Justice Groups	47
4.15	Elected Officials	50
4.16	Senior Citizen Organizations	55
4.17	Apartment Owners Association	60
4.18	City & County Services	62

## 1.0 Background

The County of Fresno, the City of Fresno, the Fig Garden Homeowners Association, the Fresno Council of Governments, and Caltrans District 6 are collaborating on the preparation of a Community Transportation and Land Use Study for a Study Area encompassing the County island of “Old Fig Garden” under the jurisdiction of the County of Fresno and adjacent neighborhoods located within the City’s Council Districts 1 and 7. The entire Study Area is covered by County Supervisorial District 2. The purpose of the Study is to define appropriate transitions from the established residential neighborhoods to adjacent city and State transportation corridors; promote traffic calming, bike and walking trails, safe routes to schools; and encourage context sensitive development that recognizes and preserves the historic fabric and urban forest of the Old Fig Garden Neighborhood.

An Outreach Strategy was developed for the purpose of conducting a comprehensive public engagement process that effectively captures stakeholder and public input, and results in a shared understanding of Study components. The opportunity for communication with the public and stakeholders is vital to the Study’s success. The Outreach Strategy includes a variety of public involvement methods that will be utilized throughout the Study development process. Stakeholder interview sessions are listed as one of these methods, and the results of these stakeholder interview sessions are documented in this report.

The ultimate goal of the Outreach Strategy is to allow the public and stakeholders opportunities throughout the process to influence the Study. One of the first steps in this process is to identify the key stakeholders, which may include active citizens, residents, business owners, school representatives, elected officials, other affected organizations and various other agencies interested in shaping the future vision of the Study Area and who may be impacted by Study recommendations. There are a number of public groups (each with a unique perspective) that will be interested in the Old Fig Garden Community Transportation and Land Use Study development process. These include organizations and individuals representing the following interests:

- |  |  |
|--|--|
| ■ Accessibility Challenged                     | ■ General Public                                       |
| ■ Affected Government Agencies                 | ■ Industry Peers & Associations                        |
| ■ Apartment Owners Associations                | ■ Neighborhoods/Residential                            |
| ■ Bicycle/Pedestrian/Trail Users/Organizations | ■ Non-Profit Groups and Churches                       |
| ■ Business Organizations                       | ■ Commercial & Retail Establishments                   |
| ■ Christmas Tree Lane Organizers               | ■ Residents  |
| ■ Community Based Organizations                | ■ Safety and Emergency Service Providers/Organizations |
| ■ Community Services Districts /Organizations  | ■ Senior Citizen Organizations                         |
| ■ Education Providers                          | ■ Students   |
| ■ Elected Officials                            | ■ Transit riders                                       |
| ■ Employer/Business Organizations              | ■ Transportation Advocates                             |
| ■ Environmental Groups                         |  |
| ■ Environmental Justice Groups/Organizations   |  |

The Engagement Team (composed of VRPA Technologies and CD+A) worked with City staff and identified key stakeholders in the target area. VRPA Technologies then contacted all of these stakeholders and were successful in conducting twenty-seven (27) interview sessions.

## 2.0 Summary of Stakeholder Results

The following is a general summary of the responses received on the questions asked to all twenty-seven (27) stakeholders:

### 2.1 General Consensus (Over 90%)

Almost all of the interviewed stakeholders (92%) are interested in participating in the Study process.

### 2.2 Majority (51%-90%)

Most of the interviewed stakeholders (56%) knew someone who may be particularly invested and/or passionate of potential changes within the Study Area. Most of these stakeholders identified the person so that they could be contacted in the future.

Most of the interviewed stakeholders (54%) suggested a specific group, commercial interest, or individual that should be included in the Study process. Most of these stakeholders identified the group, interest, or individual so that they could be contacted in the future.

Most of the interviewed stakeholders (56%) are willing to add a link to the Study website or include Project information and announcements on their webpage or membership newsletter.

Most of the interviewed stakeholders are interested in attending meetings or workshops related to the Study (70%) and to provide review and comments of Study materials (78%).

### 2.3 Minority (Less than 50%)

Only a minority of the interviewed stakeholders (33%) reside in the Old Fig Garden area. Only a minority (33%) provide services in the Study Area. Only a minority (30%) commute through the Study Area. Only a minority (26%) provide services in the Old Fig Garden area. Only a minority (22%) reside in the Study Area and/or work in the Old Fig Garden area. Only a minority (19%) work in the Study Area and/or provide services within the incorporated portion of the Study Area. Only a minority (15%) have patrons in the Old Fig Garden area and/or have patrons in the Study Area. Only a minority (11%) have school children going to school in the Study Area. And none (0%) of the interviewed stakeholders have children going to school in the Old Fig Garden area.

Only a minority (35%) of interviewed stakeholders were aware of the Study.

Only a minority (44%) of interviewed stakeholders had been involved in previous planning processes regarding the Study Area.

In terms of communicating with the public at large about the Study, the largest minority (41%) would prefer conducting neighborhood meetings, the second minority (37%) would prefer focusing on the businesses and residents within the Study Area, the third minority (26%) would prefer contacting the entire community, and finally (only 7%) would prefer conducting face-to-face meetings.

### 3 | Old Fig Garden Community Transportation and Land Use Study *Stakeholder Interview Results*

Only a minority (33%) of interviewed stakeholders are interested in allowing their comments as testimonials.

## 3.0 Guide to Interpreting Results

### 3.1 List of Interviewees

All key stakeholders identified by the Engagement Team, in consultation with City staff, were contacted by phone by VRPA Technologies in January 2012. In the initial contact, VRPA provided each of the stakeholders with a summary of the Study, informed them they had been identified by the Engagement Team as a key stakeholder, and invited them to participate in a stakeholder interview session. Twenty-seven (27) of these individuals graciously gave of their time and knowledge and agreed to participate. They were given the option to complete the interview session by phone or email, with all but one (1) selecting the email option.

These twenty-seven (27) interviewees are listed below:

- Education Community
  - Fresno Unified School District (FUSD)
  - Principal, FUSD School
  - Parent of Student, FUSD School
- Law Enforcement
  - California Highway Patrol (CHP)
  - Fresno County Sheriff's Department
  - Fresno Police Department
- Fresno County Emergency Services Agencies
  - Department of Public Health
- Christmas Tree Lane
  - Coordinator
- Fresno Irrigation District
  - Fresno Irrigation District (FID)
- Fresno Metropolitan Flood Control District
  - Fresno Metropolitan Flood Control District (FMFCD)
- Business Community
  - Business Owner
- Residents
  - Resident 1
  - Resident 2
  - Resident 3
  - Fig Garden Homeowners Association
- Transit Users
  - Planning Staff, Fresno Area Express (FAX)
  - Scheduling Staff, Fresno Area Express (FAX)
- Pedestrian/Bicycle/Trails
  - I Bike Fresno
  - Fresno Cycling Club
- Non-Profit Groups/Churches
  - Palm Avenue Community Church
- Environmental Justice Groups



- Community Alliance
- Elected Officials
  - Fresno County Board of Supervisors
  - Fig Garden Police Protection District
- Senior Citizen Organizations
  - FMAAA
  - Fig Garden Villa Apartments (Senior)
- Apartment Owners Association
  - Casa Glenn Apartments
- City & County Services
  - City of Fresno Water Division
  - City of Fresno Solid Waste Division

### 3.2 Interview Format

In these stakeholder interview sessions, each individual was asked to answer several questions in the Study Process, Public Outreach, and General categories. Then, depending on which stakeholder category the individual represented, they were asked to answer additional questions related to a specific stakeholder group. These stakeholder groups consist of:

- |  |                                |
|--|--------------------------------|
| ■ Education Community                        | ■ Transit Users                |
| ■ Law Enforcement                            | ■ Pedestrian/Bicycle/Trails    |
| ■ Fire Department                            | ■ Non-Profit Groups/Churches   |
| ■ Fresno County Emergency Services Agencies  | ■ Environmental Justice Groups |
| ■ Christmas Tree Lane                        | ■ Elected Officials            |
| ■ Fresno Irrigation District                 | ■ Senior Citizen Organizations |
| ■ Fresno Metropolitan Flood Control District | ■ Apartment Owners Association |
| ■ Business Community                         | ■ Post Office                  |
| ■ Residents                                  | ■ Utility Companies            |
| ■ Retailers in Fig Garden Village            | ■ City & County Services       |
|  | ■ Commuters                    |

VRPA Technologies was successful in conducting at least one (1) interview for each of the above stakeholder groups, except for the Fire Department, Fresno County Emergency Services Agencies, Retailers in Fig Garden Village, Post Office, Utility Companies, and Commuters. Stakeholders identified and contacted for each of these groups were either unavailable or declined to participate.

### 3.3 Presentation of Stakeholder Interview Results

The Stakeholder Interview Results are organized by category, with the categories listed in the section above. The results/responses for each question are displayed underneath the question asked.

The responses collected in the Study Process, Public Outreach, and General categories (asked of all stakeholders) are presented in graphical/chart format whenever possible. The responses collected in each

## 6 | Old Fig Garden Community Transportation and Land Use Study

### *Stakeholder Interview Results*

of the specific stakeholder group categories are displayed in bullet format and indicate which agency/organization contributed the response.

All responses identified were either directly obtained (verbatim) from each key stakeholder, or summarized when necessary to account for repeat statements or reduce length of response.

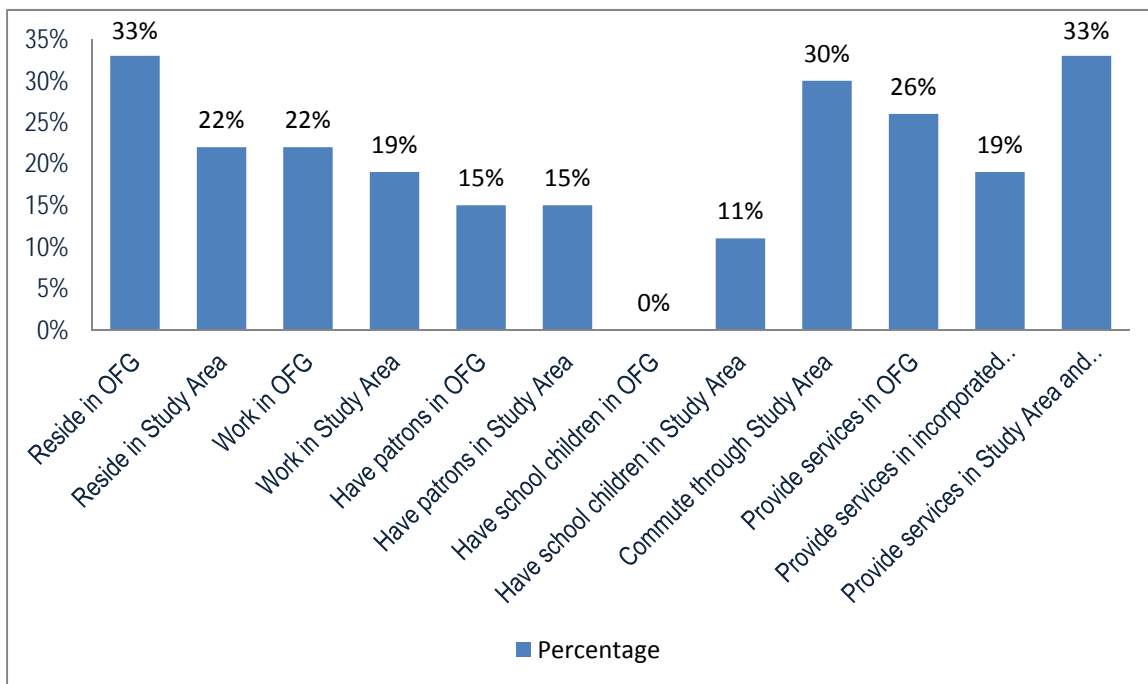
## 4.0 Stakeholder Results

### 4.1 Study Process

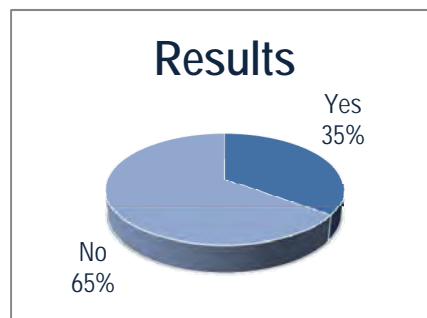
The following questions were asked of all interviewed stakeholders. Therefore, the results shown represent answers from approximately 27 individuals.

1. How are you involved with the Old Fig Garden Community and/or Study Area?

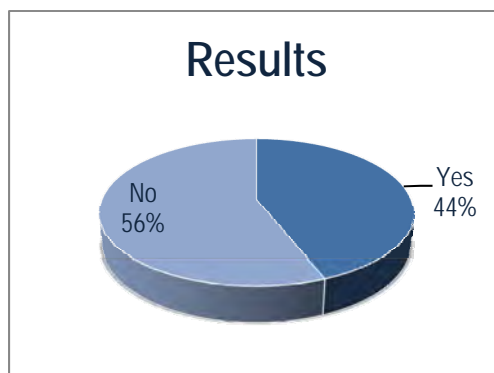
(Some interviewees had multiple answers.)



2. Are you aware of the Old Fig Garden Community Transportation and Land Use Study?



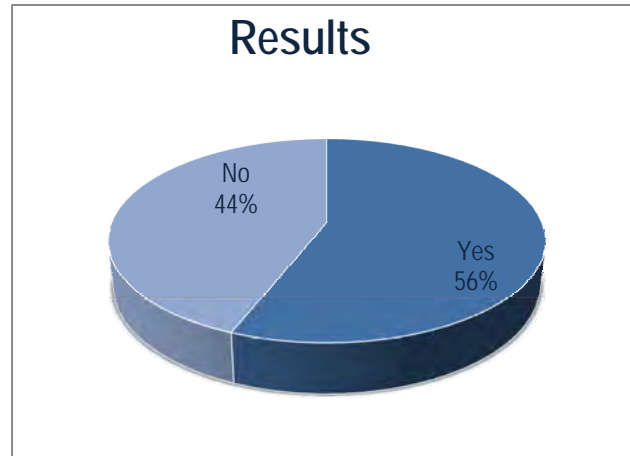
3. Have you been involved in previous planning processes regarding the Study Area? (Such as Bullard Community Plan, Fresno General Plan, or other meetings affecting the Study Area, the Ashlan Avenue Corridor Study, reviewed other related plans/maps and then offered comments to public agencies, or served on committees or commissions affecting the Study Area, etc.)



If so, how would you describe your efforts/involvement?

FID	• Staff at FID along with the Homeowners Association was involved in helping develop a community trail. It was not successful.
Board of Supervisors	• As a Fresno County Supervisor
Fresno Cycling Club	• Attended meetings and studies for the Fresno General Plan
i Bike Fresno	• I Bike Fresno represents the bicycling community of Fresno. Members of the Fresno County Bicycle Coalition and local bicycle advocates have been steadily involved in making sure adequate bicycle infrastructure is available in Fresno Planning.
Solid Waste Division	• I have worked with the city of Fresno (as an employee) on the 2035 Master Plan, Downtown Neighborhood community Plan, and Form Based code.
Fig Garden Police Protection District	• Participate in general meetings on the Transportation Corridor • Serve as a Commissioner of the Fig Garden Police Protection District
Environmental Health	• As a reviewing regulatory agency
Fresno Police Department	• PD representative for the General Plan Committee
FMFCD	• Review of Fresno General Plan as it pertains to flood control and stormwater management. FMFCD worked on stormwater drainage improvement areas in the 1980s.
CHP	• Provided input on traffic and parking
Fig Garden HOA	• Served as the Fig Garden HOA lead on land use issues

4. In our efforts to ensure that all interested parties are actively engaged and have ample opportunities to share comments and concerns associated with development of the Study, is there anyone in your agency or group who might be particularly invested and/or passionate (opposed or supportive) of potential changes within the Study Area?



If yes, who would that be?

Christmas Tree Lane Committee	Larry Fortune (Fortune Associates)	Valerie Carter (Fig Garden Villa Apartments)	Mike Chen, Board Assistant, staff of Public Works Dept.
There are many bicyclists (in the Fresno Cycling Club) that live in the Study Area and commute or ride through the Study Area. They would like to have input.	Kiel Fanellos-Schmidt, Nick Paladino, Ed Smith, Byron Watkins, Tracy Lane, Larry Parredes, and others in the bicycle community	Dean Alexander	Check with staff of the DPU Solid Waste division. If any of them are residents in the area, they would most likely want to be involved.
Amy Tingy, amy@truenorthprops.com	John Downs, FAX	Owner of Casa Glen Apartments	Fig Garden Homeowners Association
Wendell Lum	Sergeant Jon Baker (CHP)	Dan Fitzpatrick	

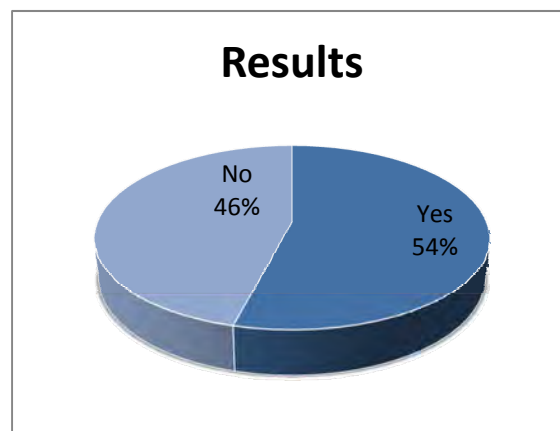
## 4.2 Public Outreach

The following questions were asked of all interviewed stakeholders. Therefore, the results shown represent answers from approximately 27 individuals.

1. A lot of effort will be utilized to “get the word out” about the Study. How would you think the community should be informed of meetings, and other issues related to the Study?

- Mail (from city routing list)
- Flyers sent to residents and businesses
- Mass emails
- Meeting postcards, mailed or hand delivered
- Media announcements
- Announcements at church
- Newsletters for the Project, or included in newsletters of other organizations (such as the Fig Garden Homeowners Association)
- Newspaper announcements
- Social media sites, such as Facebook
- Television, local news channels
- Partnering with I Bike Fresno and the Fresno County Bicycle Coalition
- Websites (set up a Project website or list on other websites)
- Mass text messages
- Send notices with the utility bills for residents and businesses in the Study Area
- Phone calls
- Signs
- Posters in places such as postal annexes, shopping centers, doctors offices in target area
- Through Susan Anderson and the County Board of Supervisors
- The contract Deputy assigned to Fig Garden Protection District would have many contacts
- Through the City of Fresno Fire Department who took over fire protection services for the Fig Garden Fire District

2. Are there any specific groups, commercial interests, or individuals that you would like for us to include in the Study process?

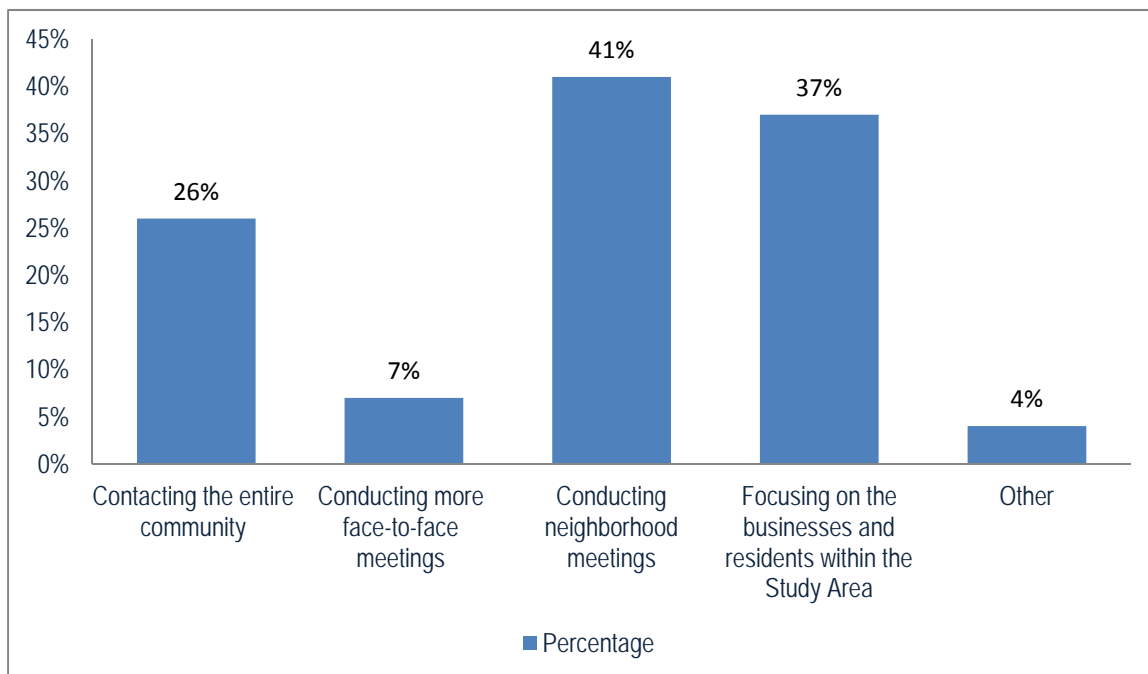


If yes, who are they?

Christmas Tree Lane Committee	Fig Garden Homeowners Association	Baltimore, 1144 E. Saginaw Way	Wawona Middle School	Fresno County Bicycle Coalition
Local bike shops and clubs	Schools within the Study Area	Churches within the Study Area	Local Chamber	Fig Garden Firehouse 2537 N Wishon 559-621-4002
CHP	Fig Garden Village	FUSD	California Apartment Association	Ruth at Gettysburg Apartments
	Fresno County Sheriff's Department	Senior Adults	Dan Fitzpatrick	

3. What would be your first priority in terms of communicating with the public at large about the Study?

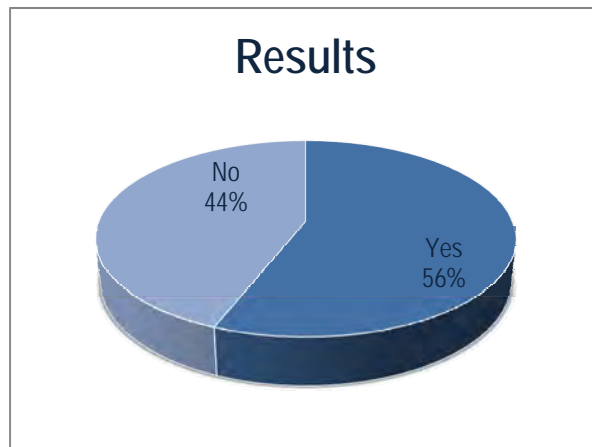
(Some interviewees had multiple answers.)



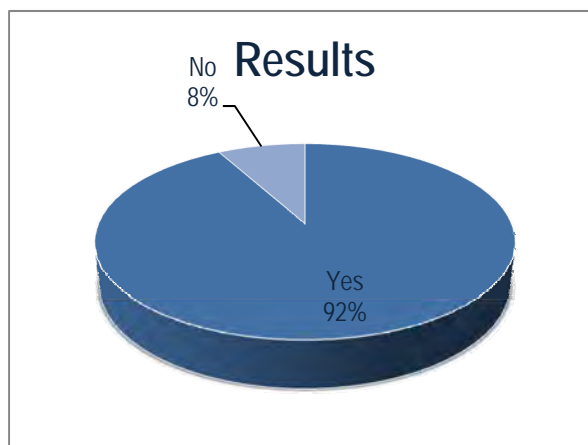
Other:

- The presenter of the message – The largest turn off to a study is the “pushy”, “don’t you care?” sales pitch. The presentation of the study needs to be done in a personable manner where the investment has value but doesn’t come across as overly intellectual so the attraction to younger people with less life experience and possibly education will take ownership, rounding out your answers so they are more thorough.

4. If your group, agency, or organization has a web page or produces a membership newsletter, would you be willing to add a link to the Study web site or include project information and announcements?



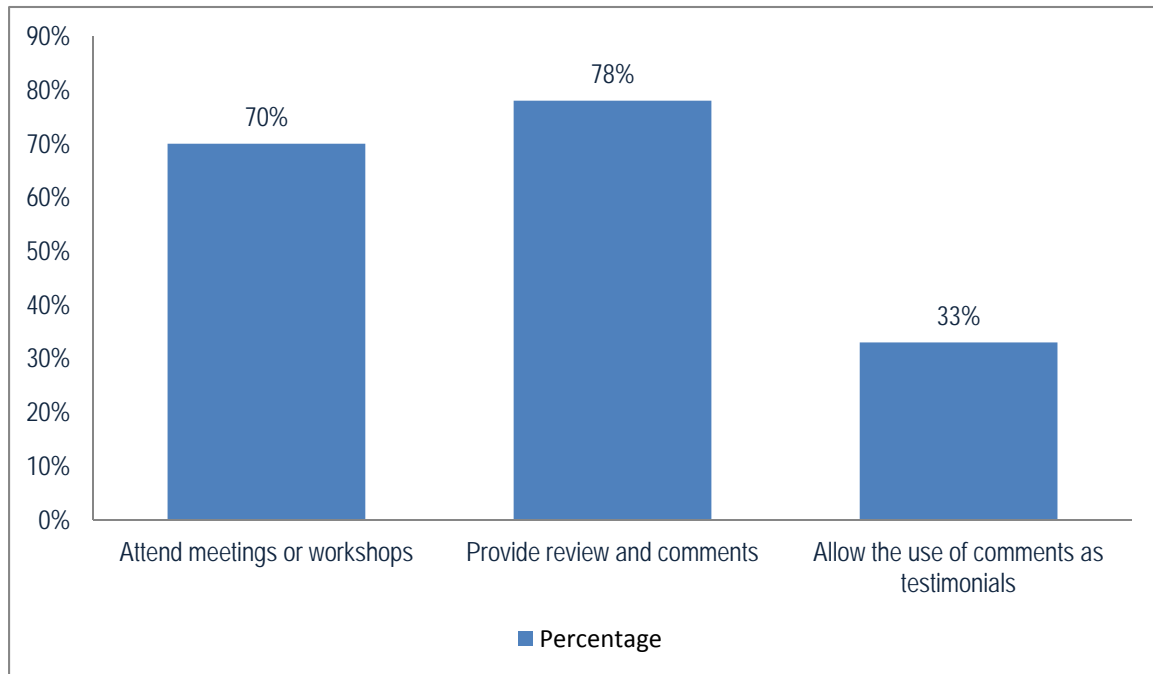
5. Would you or your organization be interested in participating in this Study process?





6. In what way would you and your organization be interested in ongoing participation in this Study?

(Some interviewees had multiple answers.)



### 4.3 General

The following questions were asked of all interviewed stakeholders. Therefore, the results shown represent answers from approximately 27 individuals.

1. What questions would you would like to ask?

- What are the Ashlan Avenue re-design and flow patterns?
- How much are we spending on this?
- What all will the study cover?
- What accommodations will be made for bicycle lanes in the Study Area?
- Will alternative forms of transportation be considered?
- How can graffiti be cleaned and/or prevented?
- How can you stop cross traffic through the neighborhood?
- How can you preserve the neighborhood?
- How can you reduce crime?
- What changes/upgrades/modifications are being looked at in these early stages?
- What options do we have?
- Is there a neighborhood watch group within the Study Area?
- What impacts will the project have on water resources (e.g., supply and quality)?
- What are the resources available?

2. What should we know that we haven't asked?

- This area needs to be more bike friendly.
- Ample notice be given for public input meetings in order to get word to our groups and fans so that they may attend. Planning Teams tend to announce a meeting with only one to two days notice effectively making it impossible for most of the public to get word and clear schedules to attend and provide input.
- Roads need to be created for all modes of transportation. Bicycle Infrastructure would be very important to our organization. Also bicycle facilities such as public bike racks and walking and biking trails.
- The poverty rate in Fresno and the high school graduation rate in Fresno.
- The poverty rate is very high – one of the highest in the nation - and the graduation rate is very low – averaging 50%. These influence everything.
- At times, there has been a little tension between the City and County. I participated in a series of Grand Jury interviews where they explored the possibility that the Fresno Police Department provide law enforcement services to county islands, much as the Fresno Fire Department currently does. The idea that the Grand Jury was exploring was to shift Sheriff Department existing resources to keep jail space open and allow FPD to provide field services. County officials saw this as a means to annex these County islands into the City, which was not the case, and which resulted in tension between the City and the residents of Old Fig Garden. This occurred in 2010-11.
- The education process is so important when getting the public on-board. Things like a “road-diet” for example is something most people have never heard of and need time to understand the benefits of. Using lots of pictures and non-technical jargon all help in creating a public that is more understanding and aware. The public can tend to go kicking and screaming through change to the cities infrastructure. The only way to help them understand why 50 years of infrastructure planning is changing to help educate why.

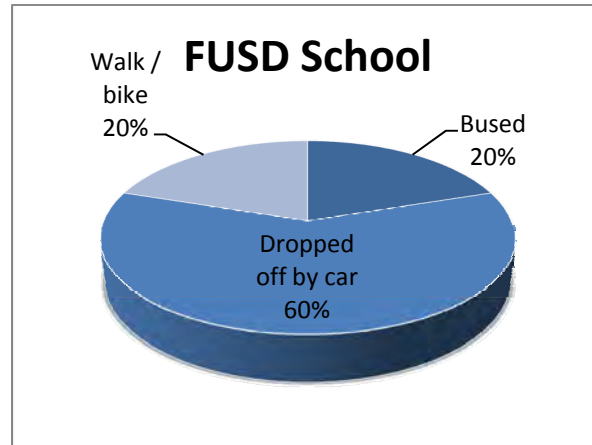
#### 4.4 Education Community

The following questions were asked of an FUSD School within the Study Area and the FUSD Transportation Department.

1. How many students attend your school?

- School: 520 students

2. Please provide estimates of how many students are bused to school, dropped off by car, and travel by walking/bicycling?



- According to FUSD, 9,200 students total are bused each morning.

3. Which access routes (streets) are primarily used by parents to drop off/pick-up school children?

- School: Parents access our parking lot which includes our pick-up/drop off zones from Swift Avenue. Access from Ashlan Avenue includes Thorne Avenue. We do have some parents who drop kids off on the South side of Ashlan Avenue and use the crosswalk at either Ashlan/Thorne or Ashlan/Harrison.

4. Are there any traffic issues associated with school bus access?

- School: YES

If yes, what are they?

- Due to the large number of buses (both Fresno Unified and First Student), our parking lot is extremely busy at both drop-off and pick-up times. Traffic is often backed up on Swift Avenue waiting to either enter or exit the parking lot.

5. Do the children, parents, teachers, or others experience any safety problems with children who walk to school?

- School: YES

- FUSD: YES

If yes, what are they?

- School: Students who must cross Ashlan Avenue at either Thorne or Harrison must cross a very busy street. We have crossing guards, but the cars do not always follow the directions of

the crossing guards. The crossing guards have narrowly missed being hit by a car several times. We have a very small number of students who cross Palm Avenue at Swift.

■ FUSD: Some areas don't have sidewalks.

6. Do you know of any safety problems that children or others (parents, teachers, employees, etc.) experience while walking to school who ride bicycles to school?

■ School: NO

■ FUSD: YES

If yes, what are they?

■ FUSD: Making sure they ride with the flow of traffic

7. Do you experience any problems with parking or traffic backups during school drop-off and pick-up times?

■ School: YES

■ FUSD: YES

If yes, what are they?

■ School: Although we have clearly marked our entrance and exit gates to the parking lot, cars do not always follow the posted directional signs. Due to the large number of buses, our parking lot is extremely congested at drop-off and pick up. There is a crosswalk and we have crossing guards to help students cross the pick-up lanes into the main parking lot. There are times that students are almost hit because drivers are not stopping at the crosswalk.

■ FUSD: Parents blocking streets and driveways going into school.

8. Do you have enough parking for faculty and staff?

■ School: YES

■ FUSD: YES

9. Do you have any problems with neighbors who complain about school traffic or parking issues?

■ School: YES

■ FUSD: YES

If yes, what are their primary issues?

- School: Some employees who work in the South Building park on the south side of Ashlan Avenue. This blocks parking for the homeowners there. Swift Avenue is not wide enough for cars to park on both sides of the street.
- FUSD: Traffic through neighborhood after school.

10. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

- School: YES
- FUSD: NO

If so, what might they be?

- School: Due to being located in a county island, there is no monthly street sweeping. Leaves collect in the gutter area and must be removed for cars to be able to park.

11. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

- School: YES

If so, where are they?

- School: Our crosswalks at Ashlan/Thorne and Ashlan/Harrison are extremely dangerous to walkers and bicyclers.

12. What do you think might be causing these traffic flow, roadway access and safety problems?

- School: Lack of signal crosswalks – lack of sidewalks for students to walk on (South side of Ashlan)

13. What problems do you experience with parking in the Study Area?

- School: NONE

14. What problems do you experience with pedestrian travel?

- School: Lack of sidewalks.

15. What problems do you experience with travel by bicycle in the Study Area?

- School: NONE

16. What problems do you experience with travel by bus or other public transit?

■ School: NONE

17. Do you have any personal experience with transportation problems within the Study Area?

■ School: NO

■ FUSD: NO

18. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

■ School: NO

19. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

■ School: NO

■ FUSD: NO

20. Is your school considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

■ School: NO

#### 4.5 Law Enforcement

The following questions were asked of the Fresno County Sheriff's Department (FSD), Fresno Police Department (FPD), and California Highway Patrol (CHP).

1. Are you aware of any problems with traffic safety in the Study Area?

■ FSD: YES, CHP should also advise

■ FPD: YES

■ CHP: YES

If yes, what type of problems do you experience?

■ Travel speeds – FPD, CHP

■ Bicycle safety on streets without sidewalks – FSD, CHP

■ Pedestrian safety on streets without sidewalks – FSD, CHP

■ Visibility of cross traffic at intersections – FSD, CHP

2. Are there problems with crime or personal safety in the Study Area?

- FSD: NO, normal crime rate
- FPD: YES
- CHP: YES

If yes, what are they?

- FPD: There is crime in this area, but the answer depends upon how you define problem. The County keeps separate crime statistics and would have specifics.
- CHP: Contact FSD.

3. Do you experience any problems with traffic enforcement in the Study Area?

- FSD: NO, nothing unusual. CHP should also advise
- FPD: YES
- CHP: YES

If yes, what are the problems?

- FPD: County islands within City pockets is addressed through a Mutual Aid Agreement between City/County
- CHP: There aren't any shoulders to park on to monitor traffic or conduct traffic stops.

4. Do you experience any problems with parking enforcement in the Study Area?

- FSD: NO, nothing unusual
- FPD: NO
- CHP: YES

If yes, what are the problems?

- CHP: People parking the wrong way.

5. Do you experience any problems with emergency response in the Study Area?

- FSD: NO, nothing unusual. CHP should also advise
- FPD: YES
- CHP: NO

If yes, what are the problems?

- FPD: County islands within City pockets is addressed through a Mutual Aid Agreement between City/County.

6. Do you experience any problems with Christmas Tree Lane drive nights?

- FSD: NO, not in regards to controlling Van Ness Avenue traffic. There is a detailed plan regarding diverting cross traffic. Some issues arise with the diverted traffic. CHP should also address this question.
- FPD: YES
- CHP: YES

If yes, what are the problems?

- FPD: 3 Agencies have shared this responsibility, PD, SO and CHP. We handle ingress and egress onto major streets which presents a traffic congestion issue at times.
- CHP: There is poor lighting on Ashlan and Van Ness Avenues. There is congestion on the lane and on through streets. It is difficult for traffic to see officers conducting traffic control.

7. Do you experience any problems/concerns with Christmas Tree Lane walk nights?

- FSD: NO, none concerning traffic on Van Ness. Some issues arise with the diverted traffic. CHP should also address this question.
- FPD: YES
- CHP: YES

If yes, what are the problems/concerns?

- FPD: This year there was a stabbing on Christmas Tree Lane. Residents of nearby neighborhoods complained about street closures and access to their homes during these events.
- CHP: There is poor lighting on Ashlan and Van Ness Avenues. It is difficult for traffic to see officers conducting traffic control.

What suggested improvements would you recommend?

- FSD: None; the impact to the area is seasonal and for two nights. To regulate parking for out of the impacted area only would negatively impact the event.
- FPD: This recommendation should come from the Sheriff's Office.
- CHP: Permanent lighting at the intersection of Ashlan and Van Ness.



8. Are there preferred or primary routes and connections to adjacent major corridors?

- FSD: YES
- FPD: YES
- CHP: YES

If yes, what are they?

- FSD: Van Ness north to Palm Avenue and south to Shields Avenue. Other cross traffic along Van Ness reduces to two lanes on what would be considered primary streets.
- FPD: Shields, Ashlan and Shaw Avenues. Palm is the major N-S Avenue.
- CHP: Gettysburg Avenue, Ashlan Avenue, Fruit Avenue, Palm Avenue, and Maroa Avenue.

9. What is law enforcement's view of the quality of lighting in public rights of way within the study area?

- FSD: Limited. This is due to vegetation and reduced public lighting devices.
- FPD: No opinion.
- CHP: Poor, it is very difficult to see pedestrian traffic.

10. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

- FSD: YES
- FPD: YES
- CHP: YES

If so, what might they be?

- FSD, FPD, CHP: Christmas Tree Lane

11. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

- FSD: NO; not major. Some though, see prior question responses. CHP should also address this question.
- FPD: NO
- CHP: YES

If so, where are they?

- CHP: Ashlan Avenue (Maroa to Fruit)

12. What do you think might be causing these traffic flow, roadway access and safety problems?

- FSD: Modified travel due to special events. Vegetation blocking view.
- FPD: Christmas Tree Lane
- CHP: Roadway is not designed for the amount of traffic. Traffic uses alternate routes to avoid Shaw Avenue.

13. What problems do you experience with parking in the Study Area?

- FSD: Cars encroaching into traffic lanes. Unorganized parking pattern. CHP should also address this question.
- FPD: Parking enforced in City areas only.
- CHP: Inadequate width of shoulders.

14. What problems do you experience with pedestrian travel?

- FSD: Walking in roadway and being unaware of vehicle traffic. CHP should also address this question.
- FPD: NONE
- CHP: There aren't sidewalks, so pedestrians walk in the roadway.

15. What problems do you experience with travel by bicycle in the Study Area?

- FSD: Bicycle in roadway and being unaware of vehicle traffic. CHP should also address this question.
- FPD: NONE
- CHP: Roadways are narrow. If there are parked cars, there are no rooms for bicycles.

16. What problems do you experience with travel by bus or other public transit?

- FSD: UNKNOWN. CHP should address this question.
- FPD: NONE
- CHP: NONE

17. Do you have any personal experience with transportation problems within the Study Area?

- FSD: YES
- FPD: NO
- CHP: NO

If so, can you describe them?

- FSD: During peak commuter travel times, traffic at posted stop signs will back up and delay travel on those routes.

18. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/roadway network and other modal systems?

- FSD: The aesthetics of the area are important to the community as a whole. To propose modifying the area where vegetation is removed, sidewalks are installed, roads are widened will negatively impact the area's history. People move into this area specifically for the aesthetics.
- FPD: Traffic Engineering may be able to help.
- CHP: Widen Ashlan Avenue. Provide paved shoulders and sidewalks. Improve lighting. Install pavers at the intersection of Ashlan Avenue and Van Ness Avenue. The transition from asphalt to pavers may serve as a reminder of an intersection and slow traffic.

19. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

- FSD: YES
- FPD: YES
- CHP: YES

If yes, please describe these issues.

- FSD: NO raised islands. Raised islands create hazards and delays for emergency vehicle travel.
- FPD: As previously discussed
- CHP: Poor lighting and no shoulders to park on to monitor traffic or conduct traffic stops.

20. Is your agency considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

- FSD: NO
- FPD: NO
- CHP: NO

#### 4.6 Christmas Tree Lane

The following questions were asked of the Christmas Tree Lane Coordinator.

1. What problems do you experience on Christmas Tree Lane drive nights?

- Congestion getting on the lane, vendors

2. What problems do you experience on Christmas Tree Lane walk nights?

- Parking, crowd control

3. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

■ YES

If so, what might they be?

■ Stated above.

4. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

■ Yes

If so, where are they?

■ Access to Van Ness from Shields, vendors

5. What do you think might be causing these traffic flow, roadway access and safety problems?

■ Speed of traffic on the lane, vendors, traffic volume

6. What problems do you experience with parking in the Study Area?

■ Walk nights – amount of people and vehicles

7. What problems do you experience with pedestrian travel?

■ Over-crowding

8. What problems do you experience with travel by bicycle in the Study Area?

■ No room to ride, congestion of people on walk nights do not allow bicycles

9. What problems do you experience with travel by bus or other public transit?

■ NONE

10. Do you have any personal experience with transportation problems within the Study Area?

■ YES

If so, can you describe them?

■ Described above.

11. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/roadway network and other modal systems?

■ Prohibit vendors, improve traffic flow across Ashlan Avenue, improve traffic flow from Shields Avenue

12. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

■ YES

If yes, please describe these issues.

■ Described above.

13. Is your organization considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

■ NO

#### 4.7 Fresno Irrigation District

The following questions were asked of staff at the Fresno Irrigation District.

1. What are your issues/concerns regarding irrigation canals in the Study Area?

■ FID's concerns would center on the safety and integrity of the Canals.

2. What past efforts have there been to establish public trails along the irrigation canals in the Study Area?

■ FID will provide any information it has developed on trails.

3. Would you consider allowing pedestrian/bicycle paths along your canals?

■ NO

4. What issues would need to be overcome in order to build pedestrian/bicycle paths along your canals?

■ Safety and Liability.

5. What are the design criteria for potential implementation of a path/trail?
  - Safety, Liability and the ability for FID to perform maintenance.
6. What is the possibility of additional street or pedestrian/bike-only crossings across your irrigation canals?
  - They need to be constructed per FID's specs
7. What are the design criteria for potential new crossings?
  - FID will provide the drawings as requested.
8. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?
  - No answer
9. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?
  - NO
10. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?
  - NO
11. Is your agency considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)
  - NO

#### 4.8 Fresno Metropolitan Flood Control District

The following questions were asked of staff at the Fresno Metropolitan Flood Control District.

1. What past improvement efforts for creating usable open space around retention basins has the FMFCD been involved with?
  - One stormwater basin within the Study Area has passive recreation (walking) and is fully landscaped. Two other basins are classified as recharge and need landscaping along the top perimeter.

2. What are the allowed recreational uses in your retention basins?

■ Depends on the City's and County's designation, basins could be solely used as recharge or recreation such as sport fields, parks and walking areas. As stated above, 2 basins are classified as recharge and need landscaping along the perimeter, while the other basin is fully landscaped.

3. What are the design criteria for open space improvements around retention basins?

■ No answer.

4. Do you have any personal experience with transportation problems within the Study Area?

■ NO, only drainage concerns

5. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/roadway network and other modal systems?

■ FMFCD has existing hydrological models that serve the study area. There are a few areas within the study area that have minor drainage issues that might be of interest to the Study – FMFCD has a map highlighting some of these areas.

6. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general street operations?

■ YES

If yes, please describe these issues.

■ If roads are widened and land use changes, storm drainage service could be impacted and additional capital improvement projects might be needed. Also, additional drainage fees could be collected.

7. Is your agency considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

■ NO. FMFCD reacts and responds to changes in Land Use classification as it pertains to drainage issues and traffic circulation.

## 4.9 Business Community

The following questions were asked of a local business owner.

1. Is adequate access provided for your customers and visitors?

■ YES

2. Is adequate parking provided for your customers and visitors?

■ YES

### Land Use Introduction

The City of Fresno has been working towards minimizing the growth of the City's urban footprint by looking to revitalize several corridors within the existing city limits. An associated goal is for the corridors to achieve an intensity and mix of uses that supports investment in transit. The Old Fig Garden study area is bounded by two such corridors, the Blackstone Avenue and the Shaw Avenue corridors. The envisioned mixed use environment along these corridors would bring a greater variety of goods and services to within walking and bicycling distance of the Old Fig Garden neighborhood and larger study area, as well as better transit service with the proposed Bus Rapid Transit (BRT) on Blackstone Avenue. The City's existing General Plan and Zoning support revitalization of these corridors with up to 6-8 story buildings, and over 10 story buildings at certain locations. The City is currently updating the General Plan to refine the corridor land use concepts.

The Old Fig Garden Community Transportation and Land Use Study will develop strategies for height and use transitions from these mixed use corridors to adjacent residential neighborhoods. This may include the development of design guidelines for properties located along the corridors and along streets that enter residential areas and the development of transportation strategies that discourage through traffic on local streets within the study area. More information about the City's policies and plans for its mixed use corridors can be obtained from the City's website about the ongoing General Plan Update process.

### Land Use Questions

3. What is your opinion about the mix and appearance of the existing land uses along the major corridors in the Study Area (Blackstone, Shaw, Shields, West)? Do you see opportunities for preservation of some uses and revitalization of others?

■ Blackstone and Shields look terrible. West and Shaw are OK.

4. In your opinion, do the existing shops and businesses address the community's needs for goods and services?

■ YES

5. Are you aware of the potential changes in the mix of uses and use intensity along the Blackstone and Shaw Avenue corridors under new City of Fresno General Plan Update?

■ NO



6. What is your assessment of the residential, commercial, and retail property market in the Study Area?

■ The market is fair to good.

7. Do you see viability in small-scale, neighborhood-serving retail or mixed use development in the Study Area that is located away from the major corridors and outside of the Old Fig Neighborhood (County Island)?

■ YES

If yes, where?

■ Northeast corner of Fruit and Ashlan

8. Do you have any expectations for changes in the makeup of residential areas in the Study Area?

■ NO

9. What land use related issues or challenges do you see in Study Area?

■ Northeast corner of Fruit and Ashlan

10. What do you believe are the strongest assets in the Study Area?

■ Fig Garden Police Protection District, the environment

11. What is your assessment of the residential, commercial, and retail property market in the Study Area?

■ The market is fair to good.

12. What is your view regarding accessibility of commercial uses from the residential areas within the Study Area?

■ Excellent

13. What land use related issues or challenges do you see in Study Area?

■ Northeast corner of Fruit and Ashlan

14. What do you believe are the strongest assets in the Study Area?

■ Fig Garden Police Protection District, the environment

15. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

■ YES

If so, what might they be?

■ Christmas Tree Lane

16. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

■ YES

If so, where are they?

■ Ashlan Avenue

17. What do you think might be causing these traffic flow, roadway access and safety problems?

■ Too many cars and not enough lanes

18. What problems do you experience with parking in the Study Area?

■ NONE

19. What problems do you experience with pedestrian travel?

■ NONE

20. What problems do you experience with travel by bicycle in the Study Area?

■ NONE

21. What problems do you experience with travel by bus or other public transit?

■ NONE

22. Do you have any personal experience with transportation problems within the Study Area?

■ YES

If so, can you describe them?

■ Can't cross Van Ness during Christmas season. Can't ever cross Ashlan.

23. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/roadway network and other modal systems?

■ NO, I like it just the way it is.

24. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general street operations?

■ YES

If yes, please describe these issues.

■ All streets with new water service should be repaved.

25. Is your business or organization considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

■ NO

#### 4.10 Residents

The following questions were asked of three (3) residents that live within the Study Area.

1. Do you experience any problems with parking in your neighborhood?

■ R1: YES, but only during Christmas Tree Lane walking nights.

■ R2: NO

■ R3: No answer

2. Do you experience any problems with through traffic in your neighborhood?

■ R1: YES, turning from Ashlan to Van Ness

■ R2: YES

■ R3: No answer

#### Land Use Introduction

The City of Fresno has been working towards minimizing the growth of the City's urban footprint by looking to revitalize several corridors within the existing city limits. An associated goal is for the corridors to achieve an intensity and mix of uses that supports investment in transit. The Old Fig Garden study area is bounded

by two such corridors, the Blackstone Avenue and the Shaw Avenue corridors. The envisioned mixed use environment along these corridors would bring a greater variety of goods and services to within walking and bicycling distance of the Old Fig Garden neighborhood and larger study area, as well as better transit service with the proposed Bus Rapid Transit (BRT) on Blackstone Avenue. The City's existing General Plan and Zoning support revitalization of these corridors with up to 6-8 story buildings, and over 10 story buildings at certain locations. The City is currently updating the General Plan to refine the corridor land use concepts.

The Old Fig Garden Community Transportation and Land Use Study will develop strategies for height and use transitions from these mixed use corridors to adjacent residential neighborhoods. This may include the development of design guidelines for properties located along the corridors and along streets that enter residential areas and the development of transportation strategies that discourage through traffic on local streets within the study area. More information about the City's policies and plans for its mixed use corridors can be obtained from the City's website about the ongoing General Plan Update process.

### Land Use Questions

3. What is your opinion about the mix and appearance of the existing land uses along the major corridors in the Study Area (Blackstone, Shaw, Shields, West)? Do you see opportunities for preservation of some uses and revitalization of others?

- R1: YES
- R2: Blackstone and Shields look terrible. Shaw and West are OK.
- R3: No answer

4. Do the existing shops and businesses address your needs for goods and services?

- R1: YES
- R2: YES
- R3: NO

If no, what is missing?

- R3: We are a residential area to be protected as such. Why are we focusing on business development?

5. Are you aware of the potential changes in the mix of uses and use intensity along the Blackstone and Shaw Avenue corridors under new City of Fresno General Plan Update?

- R1: YES
- R2: NO
- R3: YES

If yes, what is your view of those changes?

- R1: I think 6-10 story buildings are not appropriate for the area.
- R3: They are not correctly integrated into the neighborhood's fabric. They are just stuck on.

6. Would you like to see small-scale, neighborhood-serving retail or mixed use development in the Study Area that is located away from the major corridors and outside of the Old Fig Neighborhood (County Island)?

- R1: YES
- R2: No answer
- R3: NO

If yes, where?

- R1: Clinton, Shields, Dakota, Fruit and Palm

If no, why not?

- R3: Expansion of the business areas into the existing residential areas is our number one focus.

7. What other land use related issues or challenges do you see in Study Area?

- R1: Maintaining the integrity of the Old Fig Garden Area
- R2: Northeast corner of Fruit and Ashlan
- R3: No answer

8. What do you believe are the strongest assets in the Study Area?

- R1: Mature landscape
- R2: Fig Garden Police Protection District, its environment
- R3: The size of the contiguous residential areas.

9. What are your concerns about public safety in the Study Area?

- R1: Walking, biking paths and lighting
- R2: We currently have coverage by the Fresno County Sheriff for 10 hours a day, 7 days a week. But we need 24/7 coverage.
- R3: Safety/crime

10. What other issues or challenges do you see in Study Area?

- R1: No answer

- R2: I fear annexation efforts by the City of Fresno.
- R3: Quality of the schools.

11. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

- R1: YES
- R2: YES
- R3: YES

If so, what might they be?

- R1: Christmas Tree Lane ingress and egress
- R2: Christmas Tree Lane

12. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

- R1: YES
- R2: YES
- R3: YES

If so, where are they?

- R1: Ashlan during peak travel times to the east and west
- R2: Ashlan Avenue
- R3: Accepting the through traffic in our area.

13. What do you think might be causing these traffic flow, roadway access and safety problems?

- R1: Single lanes going east and west
- R2: Too many cars and not enough lanes
- R3: No answer

14. What problems do you experience with parking in the Study Area?

- R1: NONE
- R2: NONE
- R3: Not an issue.

15. What problems do you experience with pedestrian travel?

- R1: Van Ness BLVD needs bicycle lanes which pedestrians could also use for walking

- R2: NONE
- R3: Limited defined access ways.

16. What problems do you experience with travel by bicycle in the Study Area?

- R1: Not enough bicycle lanes
- R2: NONE
- R3: Limited defined access ways.

17. What problems do you experience with travel by bus or other public transit?

- R1: NONE
- R2: NONE
- R3: No defined access way system.

18. Do you have any personal experience with transportation problems within the Study Area?

- R1: YES
- R2: YES
- R3: YES

If so, can you describe them?

- R1: No turn signal at Maroa and Ashlan
- R2: Can't cross Van Ness during Christmas season. Can't ever cross Ashlan.

19. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

- R1: Turn Ashlan and Gettysburg into one-way streets
- R2: Yes, leave everything alone.
- R3: We need traffic calming.

20. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

- R1: NO
- R2: YES
- R3: YES

If yes, please describe these issues.

- R2: All streets with new water services should be repaved.

- R3: Maintaining the existing residential character of the area.

21. Are you or your organization considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

- R1: NO
- R2: NO
- R3: NO

#### 4.11 Transit Users

The following questions were asked of two (2) staff members from Fresno Area Express (FAX).

1. Do you experience any problems with walking to or gaining access to bus stops in the Study Area?

- FAX1: NO
- FAX2: N/A

2. Are the bus stops/waiting areas adequate?

- FAX1: NO
- FAX2: YES, adequate, but more benches, shelters and lighting would be an improvement.

If no, what improvements are needed?

- FAX1: There are many stops that do not have amenities such as shelters, benches, trash cans. Many stops are in the dirt at the side of the road.

3. What are your issues/concerns regarding access to transit in the Study Area along major corridors and in the residential areas?

- FAX1: Safe waiting areas at bus stops that are isolated from traffic.
- FAX2: Upgraded bus stops and route frequency.

4. Are there plans for changes to transit service in the Study Area (including Blackstone, Shaw, Shields, and West Avenues)?

- FAX1: YES
- FAX2: YES



If yes, what are the plans?

- FAX1: BRT on Blackstone by 2014, and perhaps on Shaw much later.
- FAX2: A future BRT line on Blackstone.

5. What are the agency's latest plans for Bus Rapid Transit (BRT) along Blackstone and potential introduction of BRT on Shields and Shaw Avenues?

- FAX1: No plans for BRT on Shields.
- FAX2: The Blackstone BRT corridor is in the planning stages. I am not aware of plans or status of lines on Shields and Shaw

6. Are there plans for capital improvements related to stop amenities and stop access (crossings etc.)?

- FAX1: YES
- FAX2: YES

If yes, what are the plans?

- FAX1: only as related to the Blackstone BRT project.
- FAX2: I understand there will be BRT stations/platforms level with the bus floor for easy on and off movement, lighted shelters with benches, and pass/ticket vending machines at the platforms.

7. What are the challenges encountered or issues observed by drivers along transit routes in the Study Area?

- FAX1: No answer
- FAX2: The traffic on Shaw and Blackstone is, and continues to be, very heavy. Traffic signals are too close together in some areas. Bus stops are too frequent on some segments.

8. What other transit related issues or challenges does your agency see in Study Area?

- FAX1: No answer
- FAX2: Pending

9. What ideas or suggestions for improvements does your agency have?

- FAX1: No answer
- FAX2: Pending

10. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

- FAX1: NO
- FAX2: YES

If so, what might they be?

- FAX2: Traffic on Shaw and Blackstone is particularly heavy in late November, December and early January. Student ridership jumps sharply in August and September, particularly on Palm Ave.

11. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

- FAX1: NO
- FAX2: YES

If so, where are they?

- FAX2: Traffic on Ashlan Ave. between Maroa and Fruit is restricted, slow and potentially dangerous.

12. What do you think might be causing these traffic flow, roadway access and safety problems?

- FAX1: No answer
- FAX2: The roadway needs to be widened and updated

13. What problems do you experience with parking in the Study Area?

- FAX1: NONE
- FAX2: N/A

14. What problems do you experience with pedestrian travel?

- FAX1: NONE
- FAX2: N/A

15. What problems do you experience with travel by bicycle in the Study Area?

- FAX1: NONE
- FAX2: N/A

16. What problems do you experience with travel by bus or other public transit?

- FAX1: At some bus stops there are no amenities, and pedestrians are not separated from traffic.
- FAX2: N/A

17. Do you have any personal experience with transportation problems within the Study Area?

- FAX1: YES
- FAX2: YES

If so, can you describe them?

- FAX1: As a pedestrian and cyclist, it is sometimes difficult to cross Ashlan at Wilson.
- FAX2: Traffic on the Blackstone and Shaw corridors within the Study Area almost comes to a stall during peak travel times. Student bus ridership can be excessive, exceeding the capacity of the buses. There are also boarding delays due to student ridership. Some stops block a traffic lane, which can be a hazard during peak traffic times.

18. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

- FAX1: No answer
- FAX2: NONE, other than those already mentioned

19. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

- FAX1: NO
- FAX2: YES

If yes, please describe these issues.

- FAX2: Bus route schedules, route frequency, bus stop location and standards, passenger ridership

20. Is your agency considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

- FAX1: NO
- FAX2: YES

If yes, can you share those concepts with the Study team?

- FAX2: As mentioned before, the proposed BRT line on Blackstone. Our agency would be able to share these concepts with your Study team.

#### 4.12 Pedestrian/Bicycle/Trails

The following questions were asked of two (2) bike organizations, I Bike Fresno (iBike) and Fresno Cycling Club (FCC).

1. What are your main destinations along Blackstone, Shaw, Shields, and West Avenues?
  - FCC: Schools, places of work, shopping, recreation destinations.
  - iBike: There should be no destinations within this space that should not be accessible by bicycle. The city should be including these improvement considering the adopted Fresno Bicycle Master Plan.
2. What are the main walking and bicycle routes within the Study Area to these destinations?
  - FCC: Blackstone, Shields, Ashlan, West, Palm, San Pablo, Gettysburg.
  - iBike: The canal. VanNess. Palm is a big walking street but very little good infrastructure for it.
3. How should the existing network of bicycle facilities/routes be improved?
  - FCC: There should be bike lanes installed on major routes and routes to schools.
  - iBike: Many of the roads within this space are too narrow and lack any serious multi-use facilities.
4. What is perception of pedestrian and bicycle safety in the Study Area?
  - FCC: Pedestrians and Bicyclists are at their own risk, basically stay out of the area if you want to live.
  - iBike: This area is a wasteland of bike lanes. It is also very dark as there are not many street lights.
5. What are specific problem spots (any mode)?
  - FCC: Anywhere along Ashlan from Blackstone to West.
  - iBike: Ashlan with the area is narrow and bad for bikes. Old fig lacks streetlights which makes it hard to walk and bike after dark. Overall, all streets within the study need bicycle lanes.
6. Are there specific streets or routes where pedestrian/bicycle accommodation should be improved (i.e. new sidewalks, paths)?
  - FCC: YES

- iBike: YES

If yes, what improvements should be considered?

- FCC: Most of the streets in the target area have no accommodations
- iBike: Bike Lanes. I am not recalling any within the study area.

7. Are there specific intersections where pedestrian/bicycle accommodation should be improved?

- FCC: YES
- iBike: YES

If yes, which intersections?

- FCC: All along Blackstone, West, Palm, Ashlan avenue, on San Pablo, and Wishon.
- iBike: Almost all of them. Again, there is a real lack of pedestrian and bike facilities within this study.

8. Would you like to see pedestrian/bicycle paths along canals?

- FCC: YES
- iBike: YES

9. What do you believe are the barriers to implementation of pedestrian/bike paths along canals?

- FCC: Fencing the canals to keep people from falling in.
- iBike: The Irrigation Control District. Making it safe enough that the public is not worried the people will fall in

10. What issues would need to be overcome in order to build pedestrian/bicycle paths along canals?

- FCC: No answer
- iBike: See response above

11. Are additional canal crossings desirable?

- FCC: No answer
- iBike: YES

If yes, where?

- iBike: As far as walking and biking crossings, YES!!!! Cars have an easy ability to get around these stop gaps but making it EASIER for the public to walk and bike to their destinations only increases alternative transportation participation. Not trapping pedestrians and bicyclists in infrastructure is a much needed 2012 improvement.

12. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

- FCC: YES
- iBike: YES

If so, what might they be?

- FCC: School children riding to school.
- iBike: Christmas Tree Lane; Schools. More kids biking in the summer and a want to improve the percentage of kids biking to school.

13. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

- FCC: YES
- iBike: YES

If so, where are they?

- FCC: Ashlan from Blackstone to West.
- iBike: EVERY SINGLE SPOT THAT DOES NOT HAVE A BIKE LANE.

14. What do you think might be causing these traffic flow, roadway access and safety problems?

- FCC: Too small of roadway for amount of traffic.
- iBike: Lack of infrastructure for all modes of transportation. This does not encourage the public to choose options beyond the car. This in turn creates traffic and air issues. Also speed control measures within the area should be improved.

15. What problems do you experience with parking in the Study Area?

- FCC: Parking is difficult at best.
- iBike: NONE (If you drive a car). Bicycle Parking...there is NO city provided bike parking.

16. What problems do you experience with pedestrian travel?

- FCC: There are no sidewalks in many areas so pedestrian travel is almost nonexistent.
- iBike: Lack of sidewalks

17. What problems do you experience with travel by bicycle in the Study Area?

- FCC: Most of the roads have no bike lanes and many don't even have sufficient roadway with to share the lane or even a shoulder to ride on.
- iBike: Lack of Bike Lanes. Narrow roads that force you into the 2<sup>nd</sup> lane. Bike sensors for tripping lights. Debris.

18. What problems do you experience with travel by bus or other public transit?

- FCC: No answer
- iBike: Not enough bike racks on bus. Cannot bring bikes on the bus. Schedule is erratic. Routes unpredictable

19. Do you have any personal experience with transportation problems within the Study Area?

- FCC: YES
- iBike: YES

If so, can you describe them?

- FCC: Most of the problems are on Ashlan with too much traffic for an undersized roadway.
- iBike: I travel frequently by bike through this entire area

20. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

- FCC: The need Bike lanes where they do not exist.
- iBike: Yes, bike lanes.

21. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

- FCC: YES
- iBike: YES

If yes, please describe these issues.

- FCC: A safe place to ride bicycles in the form of bike lanes or trails.

- iBike: Commuting by Bike. Making it safer and easier for alternative trans choices. Making it safer for kids to bike to school.

22. Are you or your organization considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

- FCC: NO
- iBike: YES

If yes, can you share those concepts with the Study team?

- iBike: we hope to see an increase in the public choosing walking and biking over driving. Safe accessible, infrastructure, is the #1 way to do that. We also have an I Bike Fresno Custom, locally manufactured bicycle rack. These racks could be purchased and installed throughout the Study Area.

#### 4.13 Non-Profit Groups/Churches

The following questions were asked of staff at Palm Avenue Community Church.

1. Is adequate access provided for your staff and visitors?

- YES

2. Is adequate parking provided for your staff and visitors?

- YES

3. What are the main driving, walking, and bicycle routes within the Study Area to your group's location?

- Most of our congregation drives on Palm from NW Fresno

4. What are the major issues in Study Area related to all modes of transportation – general and specific to (i.e. church) location?

- The fact that there is no bike lanes on Palm

#### Land Use Introduction

The City of Fresno has been working towards minimizing the growth of the City's urban footprint by looking to revitalize several corridors within the existing city limits. An associated goal is for the corridors to achieve an intensity and mix of uses that supports investment in transit. The Old Fig Garden study area is bounded by two such corridors, the Blackstone Avenue and the Shaw Avenue corridors. The envisioned mixed use



environment along these corridors would bring a greater variety of goods and services to within walking and bicycling distance of the Old Fig Garden neighborhood and larger study area, as well as better transit service with the proposed Bus Rapid Transit (BRT) on Blackstone Avenue. The City's existing General Plan and Zoning support revitalization of these corridors with up to 6-8 story buildings, and over 10 story buildings at certain locations. The City is currently updating the General Plan to refine the corridor land use concepts.

The Old Fig Garden Community Transportation and Land Use Study will develop strategies for height and use transitions from these mixed use corridors to adjacent residential neighborhoods. This may include the development of design guidelines for properties located along the corridors and along streets that enter residential areas and the development of transportation strategies that discourage through traffic on local streets within the study area. More information about the City's policies and plans for its mixed use corridors can be obtained from the City's website about the ongoing General Plan Update process.

### Land Use Questions

5. What is your opinion about the mix and appearance of the existing land uses along the major corridors in the Study Area (Blackstone, Shaw, Shields, West)? Do you see opportunities for preservation of some uses and revitalization of others?

■ There is great potential here. We do have a significant graffiti problem

6. Do the existing shops and businesses address your needs for goods and services?

■ YES

7. Are you aware of the potential changes in the mix of uses and use intensity along the Blackstone and Shaw Avenue corridors under new City of Fresno General Plan Update?

■ NO

8. Would you like to see small-scale, neighborhood-serving retail or mixed use development in the Study Area that is located away from the major corridors and outside of the Old Fig Neighborhood (County Island)?

■ YES

If yes, where?

■ Shields/Palm Area

9. What other land use related issues or challenges do you see in Study Area?

■ No answer

10. What do you believe are the strongest assets in the Study Area?

- The beautiful homes

11. What are your concerns about public safety in the Study Area?

- In the last year, we have been broken into twice and had copper wiring stolen 3 times.

12. What other issues or challenges do you see in the Study Area?

- Some language barriers

13. What are strongest assets/characteristics of the Study Area?

- Strong Families

14. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

- NO

15. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

- NO

16. What do you think might be causing these traffic flow, roadway access and safety problems?

- No answer

17. What problems do you experience with parking in the Study Area?

- NONE

18. What problems do you experience with pedestrian travel?

- NONE

19. What problems do you experience with travel by bicycle in the Study Area?

- No bike lanes on Palm

20. What problems do you experience with travel by bus or other public transit?

- NONE

21. Do you have any personal experience with transportation problems within the Study Area?

■ NO

22. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

■ NO

23. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

■ No answer

24. Is your organization considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

■ No answer

#### 4.14 Environmental Justice Groups

The following questions were asked of staff at Community Alliance.

1. What are the main driving, walking, and bicycle routes within the Study Area to your group's location?

■ No answer

2. What are the major issues in study area related to each transportation mode – general and specific to your location?

■ No answer

#### Land Use Introduction

The City of Fresno has been working towards minimizing the growth of the City's urban footprint by looking to revitalize several corridors within the existing city limits. An associated goal is for the corridors to achieve an intensity and mix of uses that supports investment in transit. The Old Fig Garden study area is bounded by two such corridors, the Blackstone Avenue and the Shaw Avenue corridors. The envisioned mixed use environment along these corridors would bring a greater variety of goods and services to within walking and bicycling distance of the Old Fig Garden neighborhood and larger study area, as well as better transit service with the proposed Bus Rapid Transit (BRT) on Blackstone Avenue. The City's existing General Plan and Zoning support revitalization of these corridors with up to 6-8 story buildings, and over 10 story buildings at certain locations. The City is currently updating the General Plan to refine the corridor land use concepts.

The Old Fig Garden Community Transportation and Land Use Study will develop strategies for height and use transitions from these mixed use corridors to adjacent residential neighborhoods. This may include the development of design guidelines for properties located along the corridors and along streets that enter residential areas and the development of transportation strategies that discourage through traffic on local streets within the study area. More information about the City's policies and plans for its mixed use corridors can be obtained from the City's website about the ongoing General Plan Update process.

### Land Use Questions

3. What is your opinion about the mix and appearance of the existing land uses along the major corridors in the Study Area (Blackstone, Shaw, Shields, West)? Do you see opportunities for preservation of some uses and revitalization of others?

■ Blackstone is a mess, Shaw is OK, and Shields and West are ok, but not very pedestrian or bike friendly.

4. Do the existing shops and businesses address your needs for goods and services?

■ NO

5. Are you aware of the potential changes in the mix of uses and use intensity along the Blackstone and Shaw Avenue corridors under new City of Fresno General Plan Update?

■ NO

6. Would you like to see small-scale, neighborhood-serving retail or mixed use development in the Study Area that is located away from the major corridors and outside of the Old Fig Neighborhood (County Island)?

■ YES

If yes, where?

■ It would have to be where there is already commercial development, like along Shaw.

7. What other land use related issues or challenges do you see in Study Area?

■ It is important to retain the unique character of the area.

8. What do you believe are the strongest assets in the Study Area?

■ It has a long established residential area with lots of trees.

9. What are your concerns about public safety in the Study Area?

- I feel this is a safe area to live in. The sheriff's department does a good job.

10. What other issues or challenges does your agency see in Study Area?

- The railroad going through the area is a challenge. Consolidate the railroad and turn the current space into a trail.

11. What are strongest assets/characteristics of the Study Area?

- The residential areas give you the feeling of living in the country.

12. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

- YES

If so, what might they be?

- Christmas Tree Lane

13. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

- YES

If so, where are they?

- Ashlan can get pretty backed up around Palm.

14. What do you think might be causing these traffic flow, roadway access and safety problems?

- Ashlan is a one lane road (going in both directions) which leads to congestion.

15. What problems do you experience with parking in the Study Area?

- NONE

16. What problems do you experience with pedestrian travel?

- There are not enough designated trails in the area.

17. What problems do you experience with travel by bicycle in the Study Area?

- I don't ride a bike, so don't have a problem.

18. What problems do you experience with travel by bus or other public transit?

- I don't use public transportation. Wish I did, but I don't. It just takes forever to get anywhere on the bus.

19. Do you have any personal experience with transportation problems within the Study Area?

- NO

20. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

- Remove the railroad and replace it with a trail.

21. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

- NO

22. Is your organization considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

- NO

#### 4.15 Elected Officials

The following questions were asked of a Fresno County Board of Supervisors (FCBS) and a member of the Fig Garden Police Protection District (FGPPD).

1. Are there any challenges or common specific complaints or requests that you receive related to traffic, parking, bicycle travel, pedestrian travel or transit in the Study Area?

- FCBS: YES
- FGPPD: YES

If yes, what are they?

- FCBS: Traffic issues involving congestion on Ashlan, Gettysburg and Wishon are sources of numerous local complaints. There are parking issues along roads within Fig Garden when

parties are held. Cyclists and pedestrians have difficulty crossing Ashlan when traveling north-south.

- FGPPD: Too much cross street traffic through small streets. No ability to cross Ashlan Ave. easily

### Land Use Introduction

The City of Fresno has been working towards minimizing the growth of the City's urban footprint by looking to revitalize several corridors within the existing city limits. An associated goal is for the corridors to achieve an intensity and mix of uses that supports investment in transit. The Old Fig Garden study area is bounded by two such corridors, the Blackstone Avenue and the Shaw Avenue corridors. The envisioned mixed use environment along these corridors would bring a greater variety of goods and services to within walking and bicycling distance of the Old Fig Garden neighborhood and larger study area, as well as better transit service with the proposed Bus Rapid Transit (BRT) on Blackstone Avenue. The City's existing General Plan and Zoning support revitalization of these corridors with up to 6-8 story buildings, and over 10 story buildings at certain locations. The City is currently updating the General Plan to refine the corridor land use concepts.

The Old Fig Garden Community Transportation and Land Use Study will develop strategies for height and use transitions from these mixed use corridors to adjacent residential neighborhoods. This may include the development of design guidelines for properties located along the corridors and along streets that enter residential areas and the development of transportation strategies that discourage through traffic on local streets within the study area. More information about the City's policies and plans for its mixed use corridors can be obtained from the City's website about the ongoing General Plan Update process.

### Land Use Questions

2. What is your opinion about the mix and appearance of the existing land uses along the major corridors in the Study Area (Blackstone, Shaw, Shields, West)? Do you see opportunities for preservation of some uses and revitalization of others?

- FCBS: There is agreement that increased density is appropriate for the Blackstone corridor, however there is significant local objection to increased density along Shaw, where neighbors are especially concerned about the impact of traffic on the roads. The ones impacted the most are concerned about increased development close to their homes – many of which about the parking lots of businesses along Shaw. They are especially concerned about new businesses which would bring a significant increase in drive-in traffic. Neighbors who live on side roads adjacent to Shaw, Palm, and Maroa say that they have noticed an increasing amount of traffic traveling through their small side streets by commuters wishing to avoid traffic along Shaw, Palm and Blackstone Avenues.

- FGPPD: Not well planned or taken care of. No real standards. No integration. Parts are extremely unattractive. Revitalization is key, but the socio-economic levels of the surrounding area may prevent this.

3. Do the existing shops and businesses address your needs for goods and services?

- FCBS: YES

- FGPPD: some services do, most goods do not

If no, what is missing?

- FGPPD: I do a lot of shopping online and outside of Fresno

4. Are you aware of the potential changes in the mix of uses and use intensity along the Blackstone and Shaw Avenue corridors under new City of Fresno General Plan Update?

- FCBS: YES
- FGPPD: YES

If yes, what is your view of those changes?

- FGPPD: How will the increased density impact traffic through the neighborhood and the character of the neighborhood. How will it impact the crime rate.

5. Would you like to see small-scale, neighborhood-serving retail or mixed use development in the Study Area that is located away from the major corridors and outside of the Old Fig Neighborhood (County Island)?

- FCBS: NO
- FGPPD: NO

If no, why not?

- FCBS: This is a controversial issue in the area. Most people do not want strip malls or convenience stores located in the areas within the study area – even if they are outside Old Fig, since they believe they will bring increased traffic and congestion into the area. A proposal to allow a convenience store at Ashlan and fruit was rejected by neighbors.
- FGPPD: Business should stay in the business areas

6. What other land use related issues or challenges do you see in Study Area?

- FCBS: No answer
- FGPPD: No answer

7. What do you believe are the strongest assets in the Study Area?

- FCBS: The Fig Garden area offers a quiet neighborhood atmosphere in an urban environment that allows the community to take a break from the hectic metropolitan community around



them. Active and concerned neighbors work to preserve the unique character of the area, which has been designated a Historical District by the County of Fresno.

- FGPPD: Old Fig Neighborhood

8. What are your concerns about public safety in the Study Area?

- FCBS: Parts of the study area are under jurisdiction of County Sheriff's and City Police, so it is confusing to residents about whom to call regarding safety issues. There have been increasing complaints by neighbors who live closest to Blackstone and Shaw Avenues about increasing crime rates in those areas.
- FGPPD: Crime, cross traffic

9. What other issues or challenges do you see in the Study Area?

- FCBS: The transition between the City area and County Island Area
- FGPPD: Keeping the Old Fig beauty and character

10. What are strongest assets/characteristics of the Study Area?

- FCBS: See 7 above
- FGPPD: Old Fig (Same as Q 7?)

11. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

- FCBS: YES
- FGPPD: YES

If so, what might they be?

- FCBS: Christmas Tree Lane Walk each December along Van Ness Blvd. This also affects Shaw, Ashlan, Maroa, and Shields Avenues
- FGPPD: Christmas Tree Lane

12. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

- FCBS: YES
- FGPPD: YES

If so, where are they?

- FCBS: Ashlan Ave, Gettysburg Ave, Wishon Ave
- FGPPD: Traffic cutting through neighborhoods

13. What do you think might be causing these traffic flow, roadway access and safety problems?

- FCBS: The consensus is that commuter traffic from people living outside the study area transiting between Freeway 99 and Highway 41 along Ashlan Avenue is a major cause of most of the traffic problems in the area.
- FGPPD: Grid pattern of streets

14. What problems do you experience with parking in the Study Area?

- FCBS: When events are held at individual homes, parking can be difficult when visitors park along both sides of narrow streets.
- FGPPD: No real problems

15. What problems do you experience with pedestrian travel?

- FCBS: There are railroad crossings at Fruit and Ashlan and Dakota and Ashlan that has experienced several train/pedestrian fatalities in the past few years. These are also near public schools and apartment complexes where young children use the roadway to get to school by crossing over the tracks.
- FGPPD: No destinations to walk to on a regular basis. In going outside the neighborhood, you are surrounded by cars.

16. What problems do you experience with travel by bicycle in the Study Area?

- FCBS: Van Ness Blvd in the Fig Garden area is a popular bike route, however one challenge for cyclists is crossing Ashlan Ave. where auto traffic does not stop between Palm and Maroa.
- FGPPD: Worry about hitting bikes

17. What problems do you experience with travel by bus or other public transit?

- FCBS: Some of the bus stop areas are located in areas which allow very little space for passengers to assemble or disembark. Also, the stop closest to Shaw Ave on the south side in the northbound lane does not have a safe pathway to allow passengers to get to Shaw Ave. There is no sidewalk there and passengers are forced to compete with cars in a right-turn lane, while a wall along the property at that corner goes to within about a foot of the curb, which also forces passengers into the street. Bus transportation is infrequent in the area.
- FGPPD: Have never done it

18. Do you have any personal experience with transportation problems within the Study Area?

- FCBS: YES
- FGPPD: YES

If so, can you describe them?

- FCBS: We receive complaints from constituents about the amount of traffic and the speed of traffic in the study area
- FGPPD: I would walk or bike if the area/Fresno was not dominated by cars. I do walk all over San Francisco. I do no walking in Fresno.

19. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

- FCBS: The main suggestion made by residents is to conceive of a way to reduce traffic flow into the area from commuters who choose to use smaller roads to avoid traffic. Another suggestion is to find a way to encourage more commuters to use Shaw and Shields, since these are roads which are more able to handle the through traffic.
- FGPPD: Cut off access to some streets to break the grid pattern

20. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

- FCBS: NO
- FGPPD: No answer

21. Is your agency considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

- FCBS: NO
- FGPPD: YES

If yes, can you share those concepts with the Study team?

- FGPPD: We are hoping to bring the area east of Maroa into the Fig Garden Police Protection District. (This commission has the authority to receive property taxes and assessments from each household within the district. We use this money to hire additional police/sheriff/private security protection for the district. The district roughly goes from Shaw to Lansing, and Palm to Maroa. It does not include the entire county island.)

#### 4.16 Senior Citizen Organizations

The following questions were asked of staff at the FMAAA and the Fig Garden Villa Senior Apartments (FGV).

1. How do you feel about the quality of life for senior citizens in Study Area?

- FGV: Not safe enough and walking is physically dangerous
- FMAAA: Generally safer and more affluent than other neighborhoods in Fresno

2. What are the specific issues related to needs and requirements by seniors related to transit access, access to goods and services, etc.?
  - FGV: My seniors crossing Blackstone which is out of the Study Area
  - FMAAA: Ability to get to a bus stop, willingness to learn transit system, and need for FAX dial-a-ride services
3. What are the main driving and walking routes within the Study Area to seniors' residences?
  - FGV: Fedora to Blackstone both north and south. Walking down Fedora going west, road not level and no sidewalks
  - FMAAA: Shaw Avenue is main driving route. Walking routes for older adults are typically within a block or two of their residence.
4. What are major issues in the Study Area related to each travel mode – general and specific to location?
  - FGV: Covered above, getting across Blackstone
  - FMAAA: Street lighting is non-existent in County areas. Number of bus stops. Frequency of bus routes.

### **Land Use Introduction**

The City of Fresno has been working towards minimizing the growth of the City's urban footprint by looking to revitalize several corridors within the existing city limits. An associated goal is for the corridors to achieve an intensity and mix of uses that supports investment in transit. The Old Fig Garden study area is bounded by two such corridors, the Blackstone Avenue and the Shaw Avenue corridors. The envisioned mixed use environment along these corridors would bring a greater variety of goods and services to within walking and bicycling distance of the Old Fig Garden neighborhood and larger study area, as well as better transit service with the proposed Bus Rapid Transit (BRT) on Blackstone Avenue. The City's existing General Plan and Zoning support revitalization of these corridors with up to 6-8 story buildings, and over 10 story buildings at certain locations. The City is currently updating the General Plan to refine the corridor land use concepts.

The Old Fig Garden Community Transportation and Land Use Study will develop strategies for height and use transitions from these mixed use corridors to adjacent residential neighborhoods. This may include the development of design guidelines for properties located along the corridors and along streets that enter residential areas and the development of transportation strategies that discourage through traffic on local streets within the study area. More information about the City's policies and plans for its mixed use corridors can be obtained from the City's website about the ongoing General Plan Update process.

Land Use Questions

5. What is your opinion about the mix and appearance of the existing land uses along the major corridors in the Study Area (Blackstone, Shaw, Shields, West)? Do you see opportunities for preservation of some uses and revitalization of others?

- FGV: Not kept neat
- FMAAA: No answer

6. Do the existing shops and businesses address your needs for goods and services?

- FGV: NO
- FMAAA: NO

If no, what is missing?

- FGV: Most are out of the area that my seniors can walk to.
- FMAAA: Library, non-specialty groceries (e.g., Save Mart), affordable clothing stores, and entertainment venues (e.g., movies)

7. Are you aware of the potential changes in the mix of uses and use intensity along the Blackstone and Shaw Avenue corridors under new City of Fresno General Plan Update?

- FGV: NO
- FMAAA: NO

8. Would you like to see small-scale, neighborhood-serving retail or mixed use development in the Study Area that is located away from the major corridors and outside of the Old Fig Neighborhood (County Island)?

- FGV: NO
- FMAAA: NO

If no, why not?

- FGV: We need shopping inside the area.
- FMAAA: Current development is dense; Old Fig is unique and well loved by the community "as is".

9. What other land use related issues or challenges do you see in Study Area?

- FGV: Transportation
- FMAAA: Well-lit walking paths are needed.

10. What do you believe are the strongest assets in the Study Area?

- FGV: No answer
- FMAAA: Neighborhood cohesion

11. What are your concerns about public safety in the Study Area?

- FGV: Gangs and graffiti
- FMAAA: Lack of streetlights, and older adults living alone.

12. What other issues or challenges does your agency see in Study Area?

- FGV: No answer
- FMAAA: Older adults living in isolation, unable to downsize due to lowered property values.

13. What are strongest assets/characteristics of Study Area?

- FGV: No answer
- FMAAA: Trees, neighborhood cohesion.

14. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

- FGV: YES
- FMAAA: YES

If so, what might they be?

- FGV: Traffic backs up and blocks side street during Christmas Tree Lane season
- FMAAA: Christmas Tree Lane

15. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

- FGV: YES
- FMAAA: YES

If so, where are they?

- FGV: Streets and sidewalks need repair
- FMAAA: Ashlan Avenue is often backed up. Stop signs along Gettysburg and cross streets are often ignored. Also, drivers exceeding speed limits.

16. What do you think might be causing these traffic flow, roadway access and safety problems?

- FGV: Road damage. Sidewalks and curbs damaged by garbage trucks
- FMAAA: Trees blocking stop signs. Ashlan is a direct route to SR 99 and SR 41. People trying to avoid traffic by using side streets.

17. What problems do you experience with parking in the Study Area?

- FGV: NONE
- FMAAA: No shoulder on streets.

18. What problems do you experience with pedestrian travel?

- FGV: No place to walk safely
- FMAAA: People walking in middle of road, dogs.

19. What problems do you experience with travel by bicycle in the Study Area?

- FGV: Bikes going wrong directions. Bike lanes needed on Blackstone.
- FMAAA: NONE

20. What problems do you experience with travel by bus or other public transit?

- FGV: Seniors trying to walk to bus terminal
- FMAAA: Not enough bus stops. Older adults unable to walk long distances to bus stops.

21. Do you have any personal experience with transportation problems within the Study Area?

- FGV: YES
- FMAAA: YES

If so, can you describe them?

- FGV: My residents having to walk too far to cross Blackstone and bus security at the terminal
- FMAAA: People running stop signs. Traffic backs up on Ashlan.

22. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

- FGV: Repair streets and sidewalks
- FMAAA: Create more dead-end streets. Install speed bumps. Make stop signs more obvious.

23. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

■ FGV: Answer already given above.

■ FMAAA: NO

24. Is your organization considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

■ FGV: YES, we are repaving our parking lot

■ FMAAA: NO

#### 4.17 Apartment Owners Association

The following questions were asked of staff at the Casa Glenn Apartments.

1. Is adequate access provided for your residents and visitors?

■ YES

2. Is adequate parking provided for your residents and visitors?

■ YES

3. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

■ YES

If so, what might they be?

■ Christmas tree lane, hot rods along Blackstone

4. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

■ YES

If so, where are they?

■ Ashlan is dangerous. Speeding on palm.



5. What do you think might be causing these traffic flow, roadway access and safety problems?

■ Not sure

6. What problems do you experience with parking in the Study Area?

■ NONE

7. What problems do you experience with pedestrian travel?

■ NONE

8. What problems do you experience with travel by bicycle in the Study Area?

■ Sometimes bicycles speed through their parking lot and others that appear to be casing the place

9. What problems do you experience with travel by bus or other public transit?

■ NONE

10. Do you have any personal experience with transportation problems within the Study Area?

■ YES

If so, can you describe them?

■ Need to walk from palm to blackstone for another bus

11. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

■ Ashlan could be fixed and the condition of Rialto is terrible, full of potholes.

12. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

■ YES

If yes, please describe these issues.

■ There needs to be better signage around apartments for turning into driveways.

13. Is your agency considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

■ NO

#### 4.18 City & County Services

The following questions were asked of staff at the City of Fresno Solid Waste Management Division.

1. Are there seasonal traffic or other seasonal modal issues associated with the Study Area that need to be considered?

■ YES

If so, what might they be?

■ In unincorporated areas the lack of drainage in inclement weather leads to a flooding problem and traffic issues ensue.

2. Do you believe there are major traffic flow, mobility, and/or safety issues in the Study Area?

■ YES

If so, where are they?

■ Unfortunately, there are too many to list. Essentially these are the areas without curb and gutter systems.

3. What do you think might be causing these traffic flow, roadway access and safety problems?

■ Lack of street improvements and drainage issues related to the area being in a flood plain are major causes for the flooding.

4. What problems do you experience with parking in the Study Area?

■ NONE

5. What problems do you experience with pedestrian travel?

■ No Sidewalks or streetlights in some areas can make night travel dangerous.

6. What problems do you experience with travel by bicycle in the Study Area?

- Lack of curbs and delineated lines can make the area of travel for the cyclist unclear. On major arteries in incorporated areas traffic flows are fast and not all roads have bicycle lanes.

7. What problems do you experience with travel by bus or other public transit?

- I have not used public transit in the area.

8. Do you have any personal experience with transportation problems within the Study Area?

- NO

9. Can you suggest any potential improvements or other modifications to the Study Area's existing arterial/street network and other modal systems?

- Curb and gutter systems for areas without would help with flooding and drainage but would also take from the charm of the area. This is a fix but not one that may be acceptable to the residents of the area (of which I am not).

Thinking outside the box; If there was the ability to build a curb/gutter system which was functional in nature but especially did not rob from the charm of an older neighborhood or change the appearance so drastically that it would not "sell" then this product may work to fix problems I identified.

10. Is there an aspect of your current activities that should be considered when developing potential solutions for traffic flow, mobility, and safety issues as well as general roadway operations?

- YES

If yes, please describe these issues.

- The providing of Solid Waste service to the area is critical function for health and safety.

11. Is your agency considering future development plans that could be considered when making improvements within the Study Area? (such as adding new operations or facilities)

- NO

*This page left intentionally blank*

## D. STREET DESIGN CONCEPTS - POLLING RESULTS

*This page left intentionally blank*



# OLD FIG GARDEN

## COMMUNITY TRANSPORTATION AND LAND USE STUDY

### Workshop #2

### Polling of Street Design Options

May 23, 2012

#### Project Funding provided by:

California Department of Transportation -  
Community-Based Transportation  
Planning Grant



#### Project Sponsors:

Fig Garden Home Owners Association  
City of Fresno  
County of Fresno  
Fresno County Council of Governments

#### Consultant Team:

Community Design + Architecture  
with  
VRPA Technologies, Inc.  
Davey Resource Group



# DRAFT DESIGN OPTIONS

## Ashlan Avenue

1. Road Diet (reduction from 4 to 3 lanes) on segments located in City Area
2. Options for pedestrian and bicycle accommodation along County Island segments

## Palm Avenue

1. Road Diet (reduction from 4 to 3 lanes) or adding sidewalks only

## Fruit Avenue

1. Options for adding pedestrian and bicycle accommodation





# DRAFT DESIGN OPTIONS

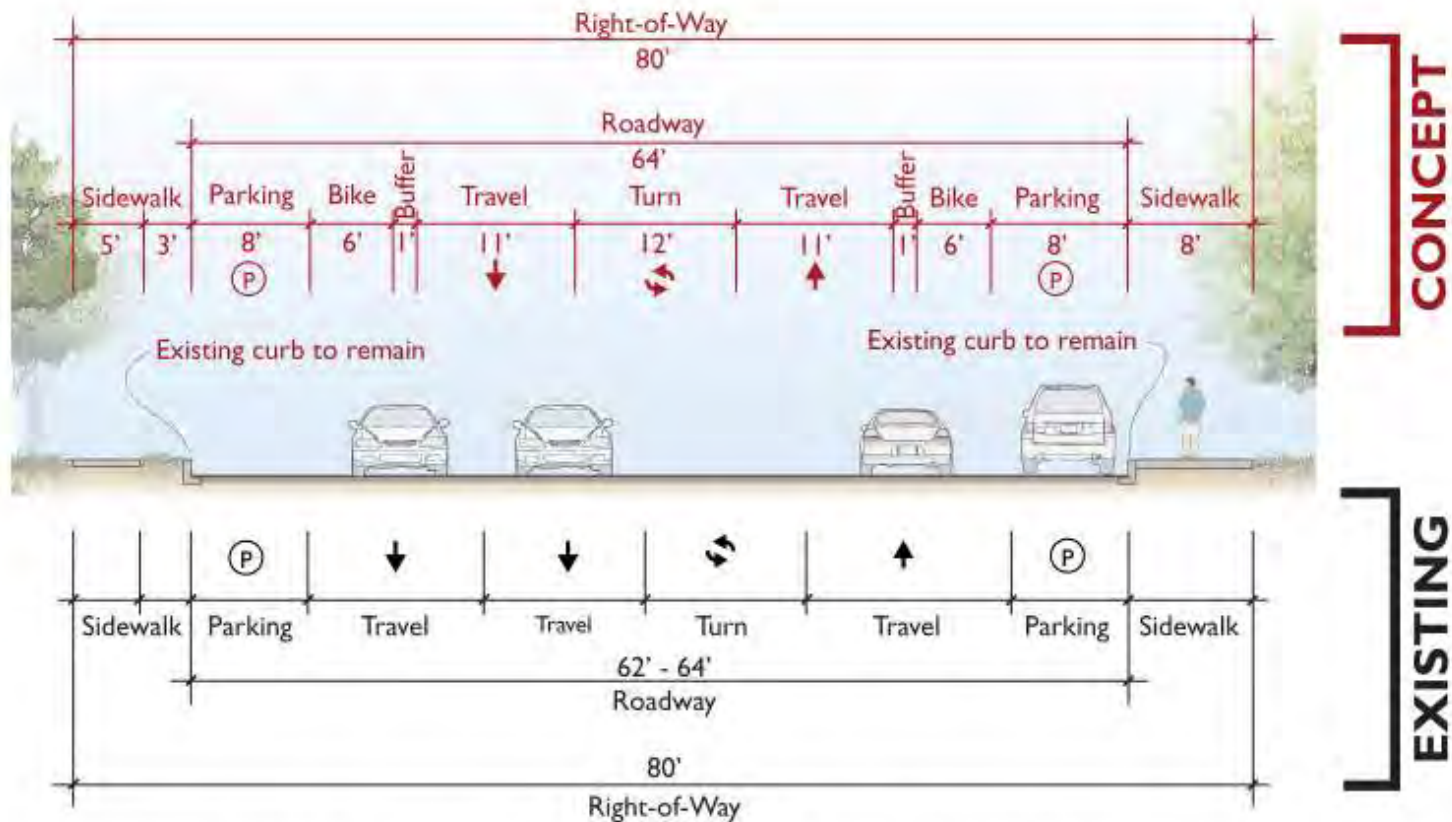
## Ashlan Avenue

Blackstone to West



# DRAFT DESIGN OPTIONS

## Ashlan Avenue – Road Diet **Blackstone to Maroa**



**Ashlan Between Maroa & Del Mar Ave. - Looking East**



# DRAFT DESIGN OPTIONS

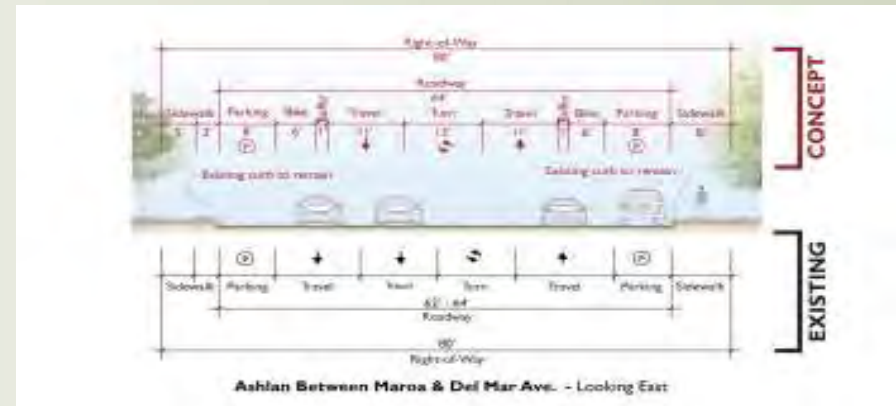
## Ashlan Avenue – Road Diet **Blackstone to Maroa**

### Pros:

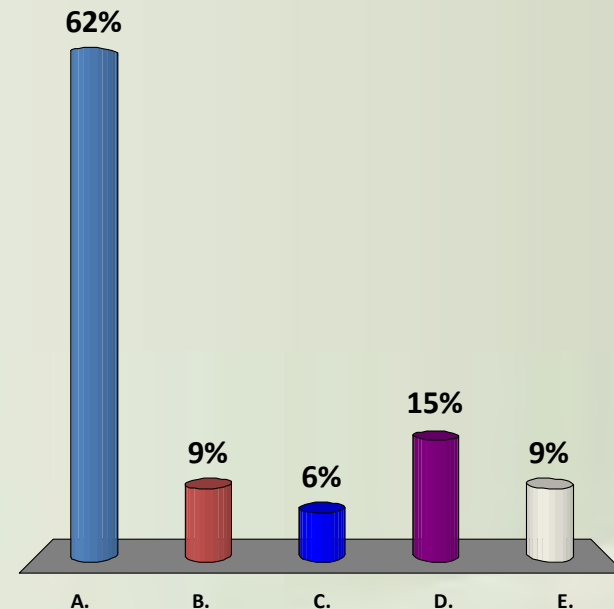
- “Invites” less traffic at Ashlan/Blackstone intersection
- Accommodates bicycle users along this segment of Ashlan

### Cons:

- Less efficient traffic operation at Ashlan/Blackstone intersection
- Increased delay for vehicles on Ashlan between Blackstone and Maroa



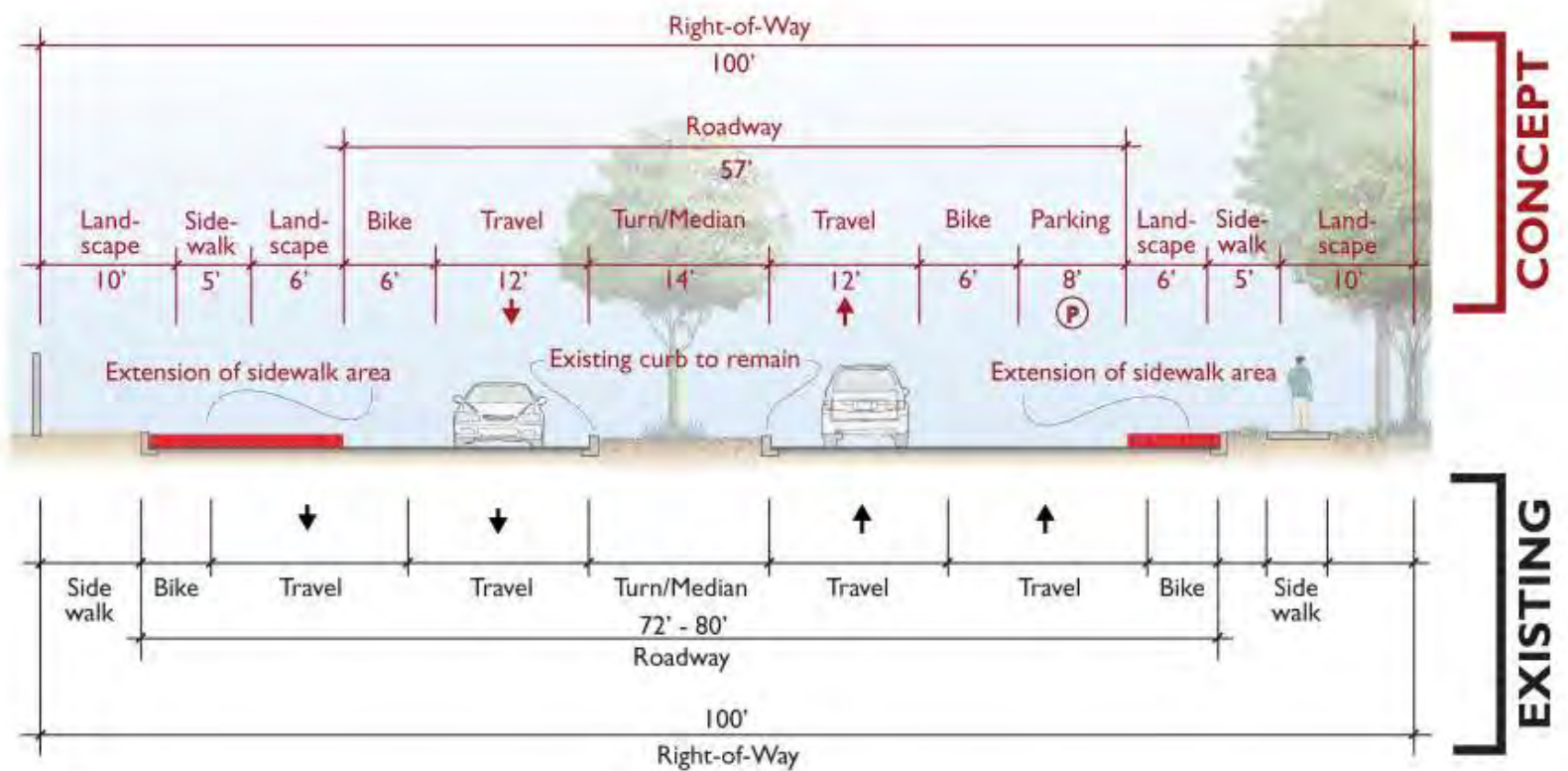
- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

# DRAFT DESIGN OPTIONS

## Ashlan Avenue – Road Diet **West to Fruit**



Ashlan Between Fruit & West Ave. - Looking East





# DRAFT DESIGN OPTIONS

## Ashlan Avenue – Road Diet West to Fruit

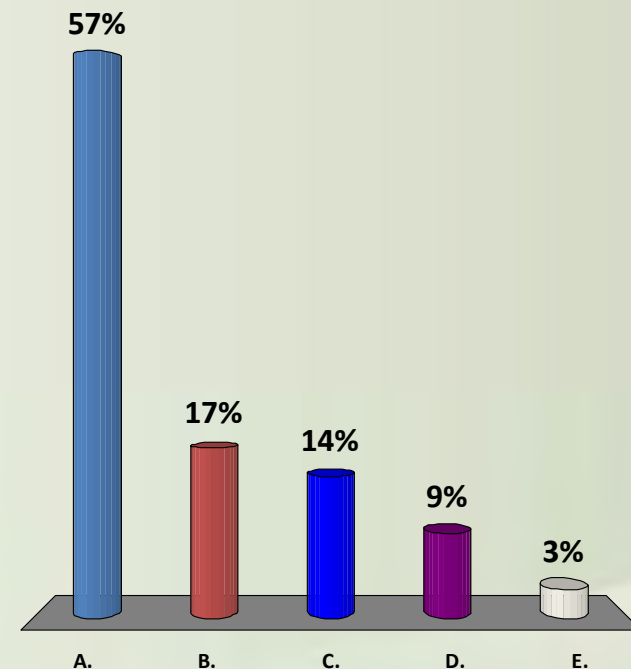
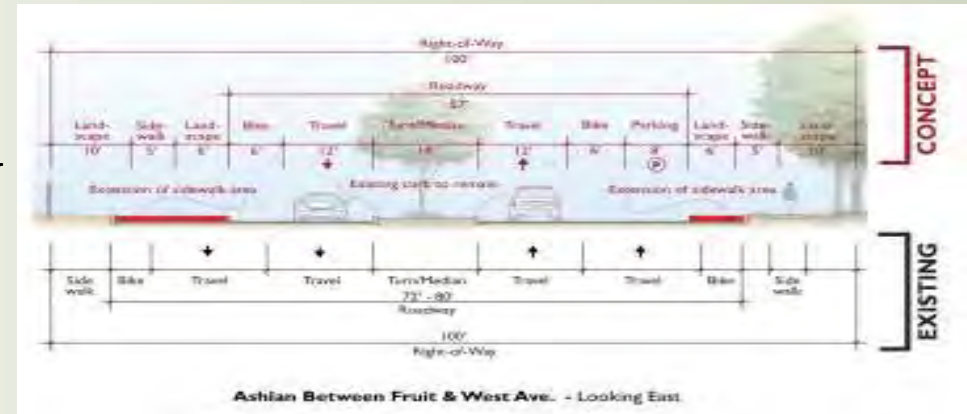
### Pros:

- “Invites” less traffic at Ashlan/West intersection
- Visually narrows roadway – not as inviting to speeding
- Accommodates new trees – more consistency with other parts of Ashlan
- Provides inviting pedestrian space

### Cons:

- Less efficient traffic operation at Ashlan/West intersection
- Increased delay for vehicles on Ashlan between West and Fruit
- Implementation costs

- A. Strongly Support  
B. Support  
C. Neutral  
D. Oppose  
E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

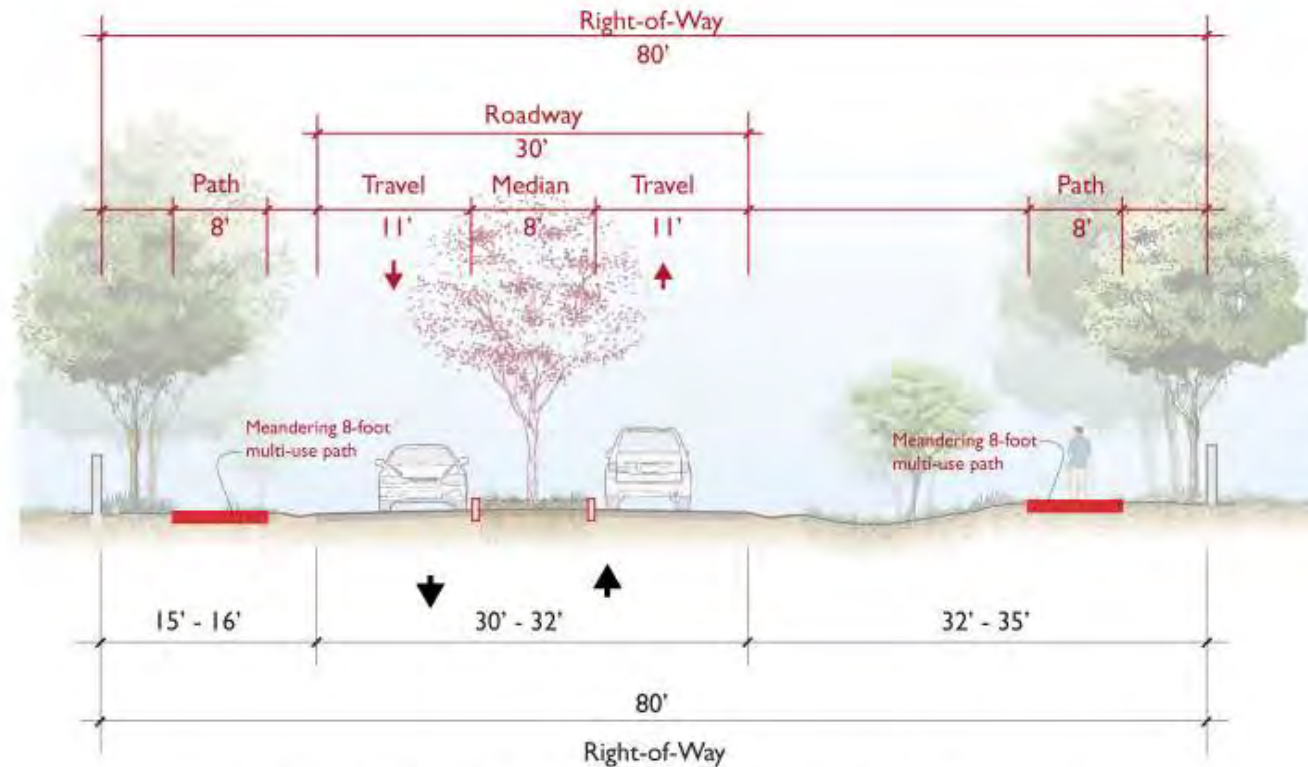
# DRAFT DESIGN OPTIONS

## Ashlan Avenue – **Fruit to Thorne** Option 1



# DRAFT DESIGN OPTIONS

## Ashlan Avenue – **Fruit to Thorne** Option 1



CONCEPT

EXISTING

Ashlan Between Fruit & N Thorne Ave. - Looking East



# DRAFT DESIGN OPTIONS

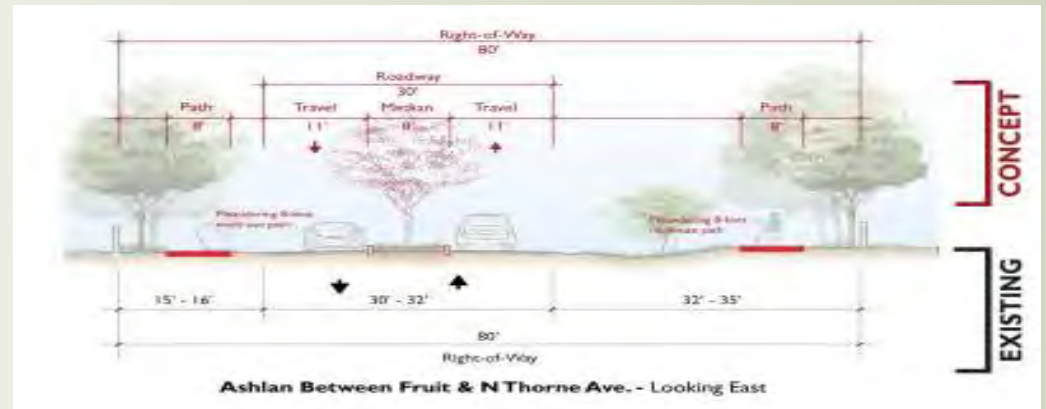
## Ashlan Avenue – Fruit to Thorne Option 1

### Pros:

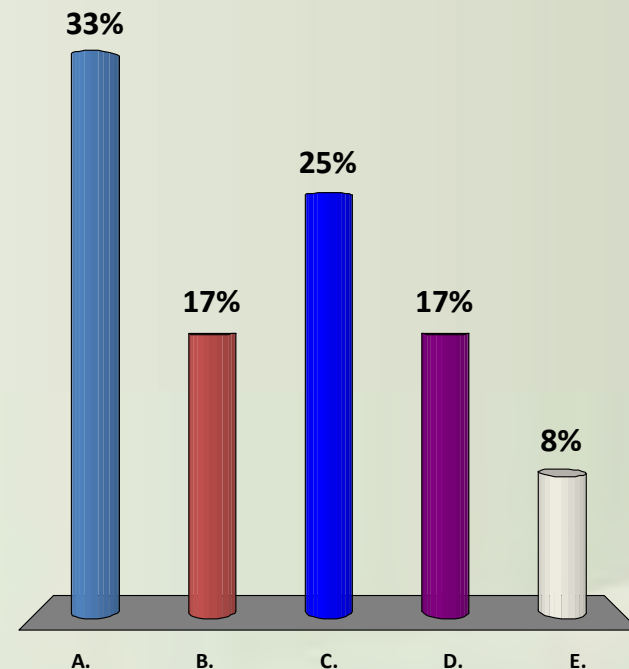
- Accommodates pedestrian travel
- Accommodates bicycle travel (8-foot multi-use path on both sides)
- Long 8-foot median with new trees
- Visually narrows roadway – not as inviting to speeding

### Cons:

- Requires more removal of existing landscaping (as compared to Option 2)
- Implementation and maintenance costs



- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose

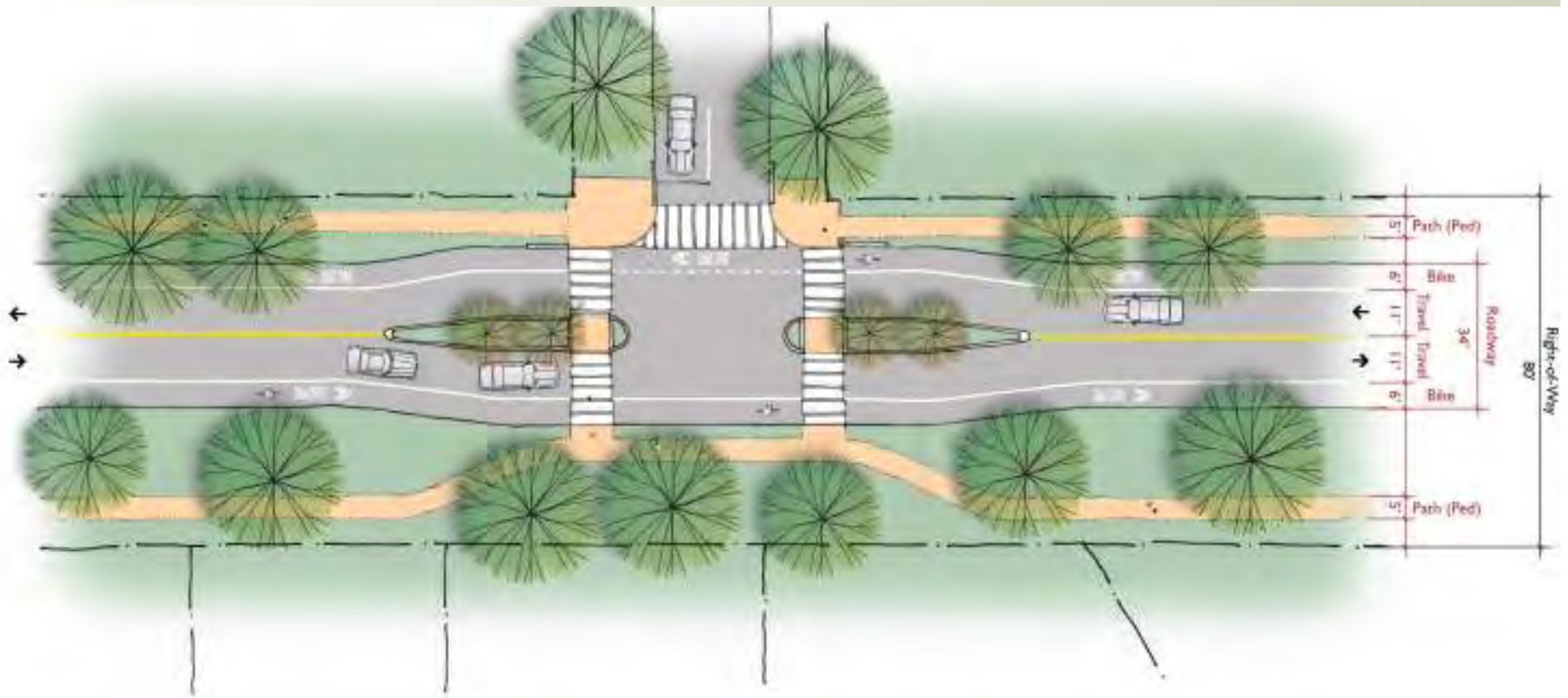


OLD FIG GARDEN – Community Transportation and Land Use Study



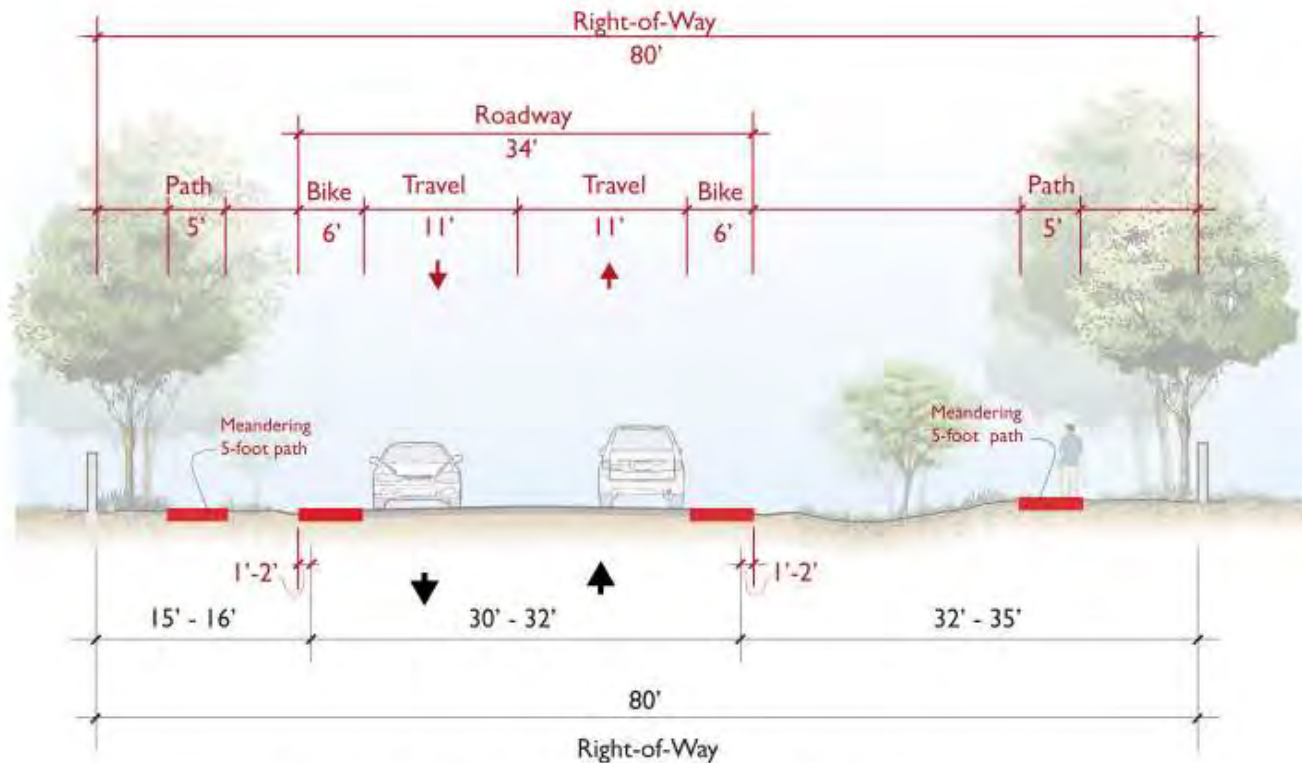
# DRAFT DESIGN OPTIONS

## Ashlan Avenue – **Fruit to Thorne** Option 2

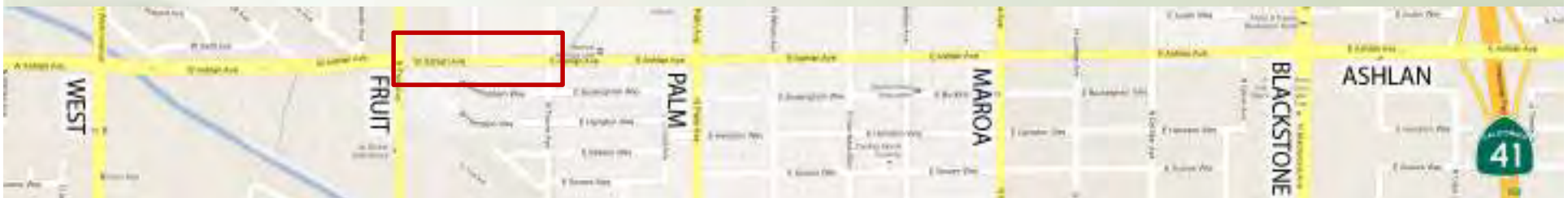


# DRAFT DESIGN OPTIONS

## Ashlan Avenue – **Fruit to Thorne** Option 2



**Ashlan Between Fruit & N Thorne Ave. - Looking East**



# DRAFT DESIGN OPTIONS

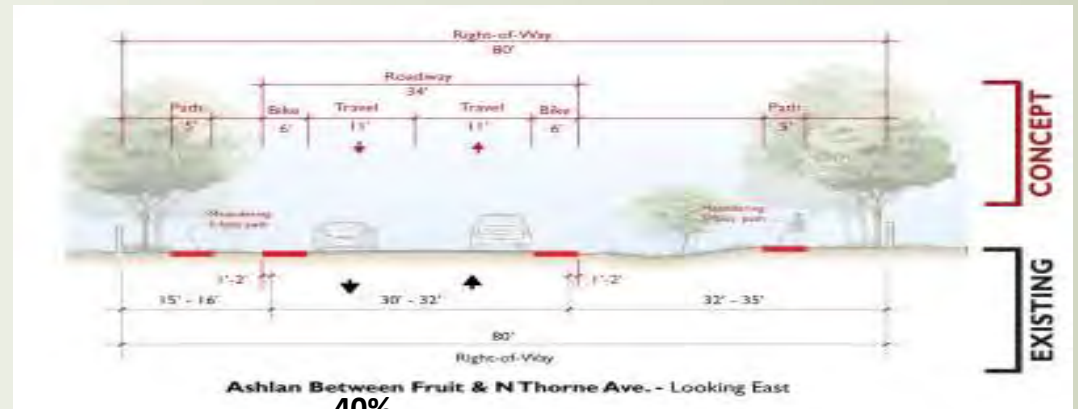
## Ashlan Avenue – Fruit to Thorne Option 2

### Pros:

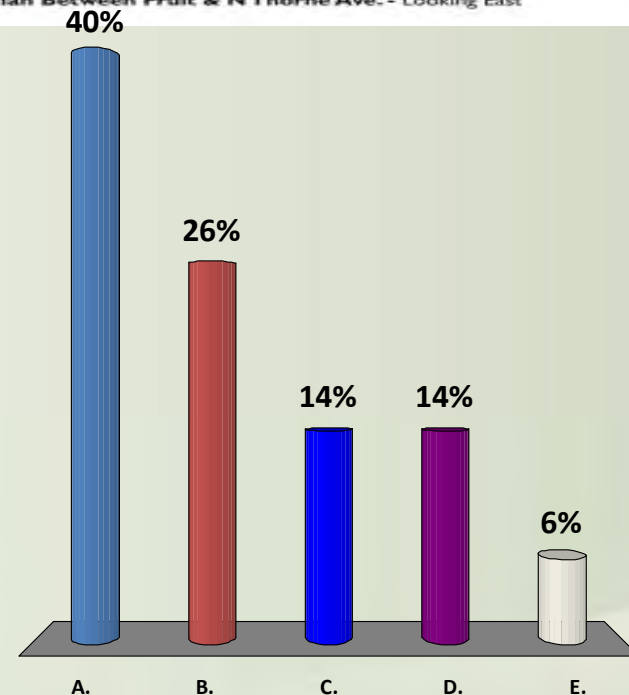
- Accommodates pedestrian travel (5-foot path)
- Accommodates bicycle travel (bicycle lanes)
- Lower implementation costs (compared to Option 1)

### Cons:

- Requires removal of some existing landscaping
- No visual narrowing of roadway



- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

# DRAFT DESIGN OPTIONS

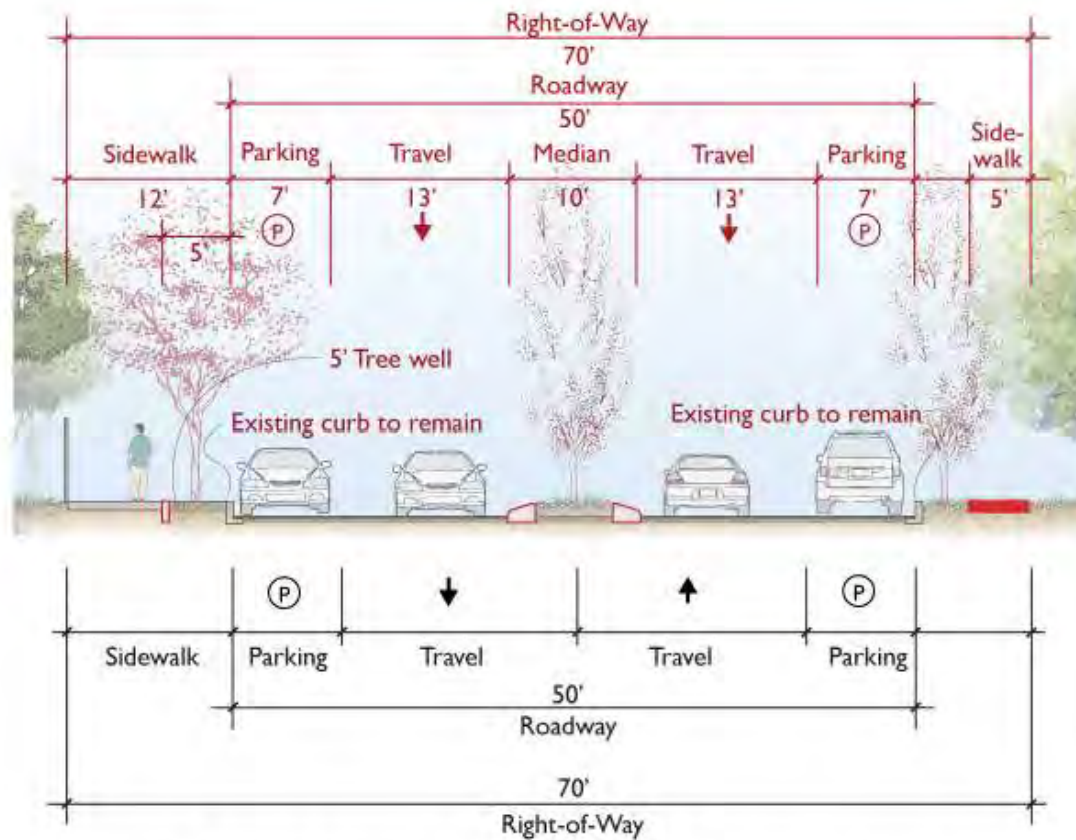
## Ashlan Avenue – Thorne to Palm Option 1



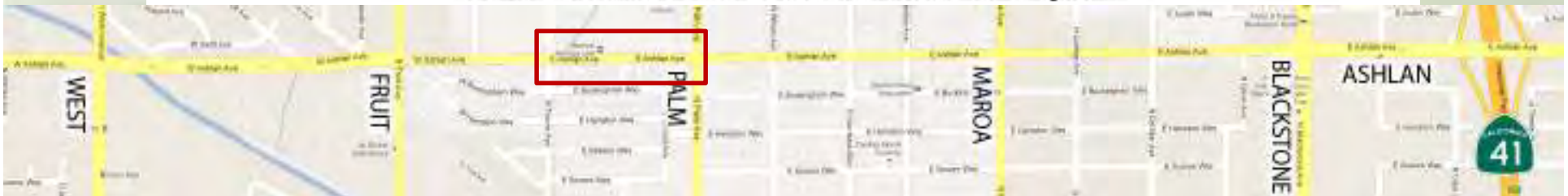


# DRAFT DESIGN OPTIONS

## Ashlan Avenue – **Thorne to Palm** Option 1



Ashlan Between Thorne & Palm Ave. - Looking East



# DRAFT DESIGN OPTIONS

## Ashlan Avenue – Thorne to Palm Option 1

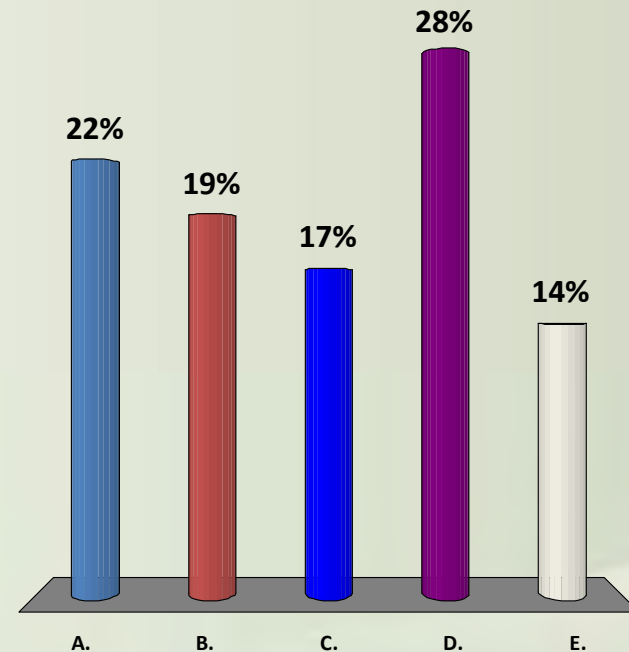
### Pros:

- Accommodates pedestrian travel and student drop-off on both sides of Ashlan
- Long 10-foot median with new trees
- Opportunity for additional street trees
- Visually narrows roadway – not as inviting to speeding

### Cons:

- Does not accommodate bicycle travel
- Requires some removal of existing landscaping
- Higher implementation and maintenance costs (compared to Option 2)

- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

# DRAFT DESIGN OPTIONS

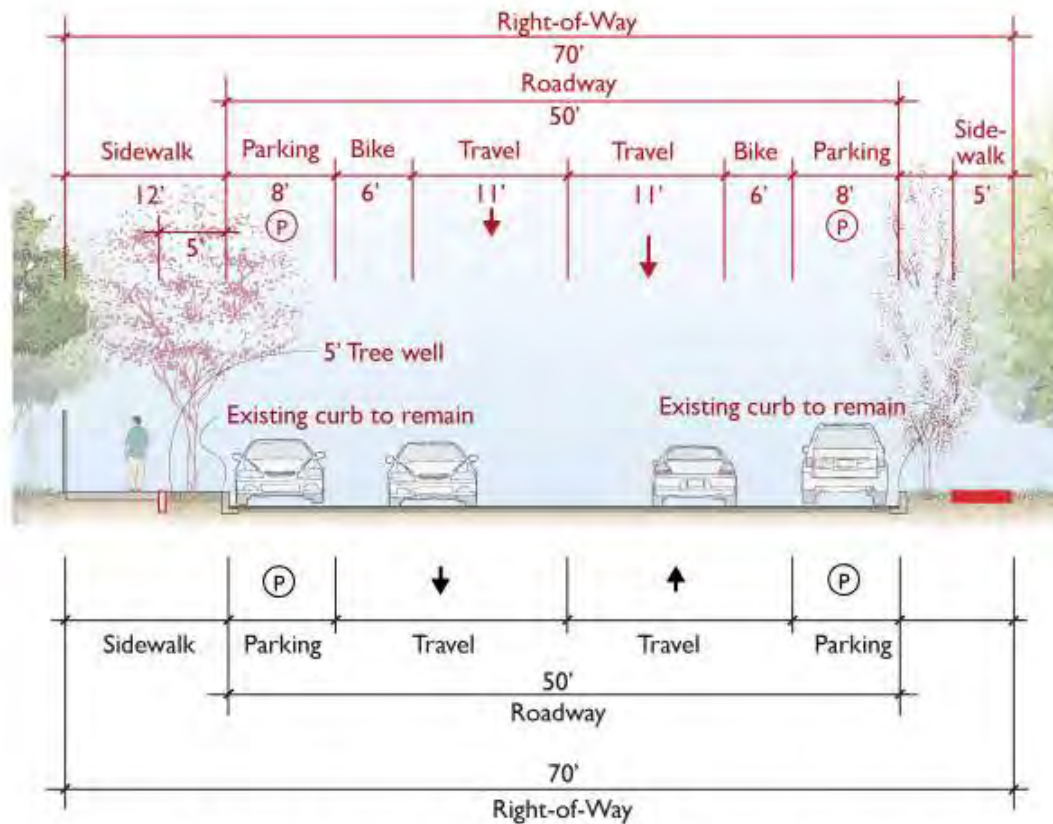
## Ashlan Avenue – **Thorne to Palm** Option 2



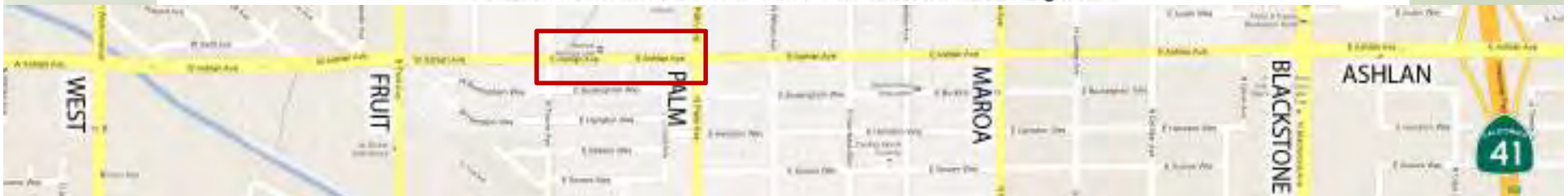


# DRAFT DESIGN OPTIONS

## Ashlan Avenue – **Thorne to Palm** Option 2



Ashlan Between Thorne & Palm Ave. - Looking East





# DRAFT DESIGN OPTIONS

## Ashlan Avenue – Thorne to Palm Option 2

### Pros:

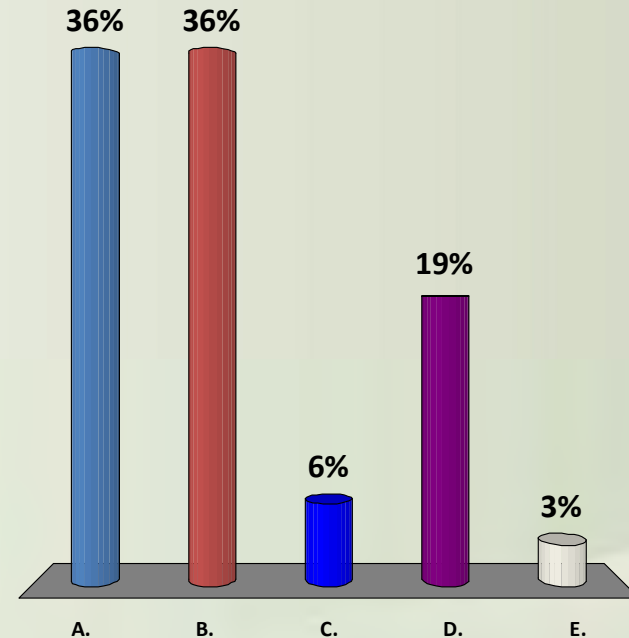
- Accommodates pedestrian travel and student drop-off on both sides of Ashlan
- Accommodates bicycle travel (bicycle lanes)
- Lower implementation and maintenance costs (compared to Option 1)

### Cons:

- Requires some removal of existing landscaping
- No visual narrowing of roadway



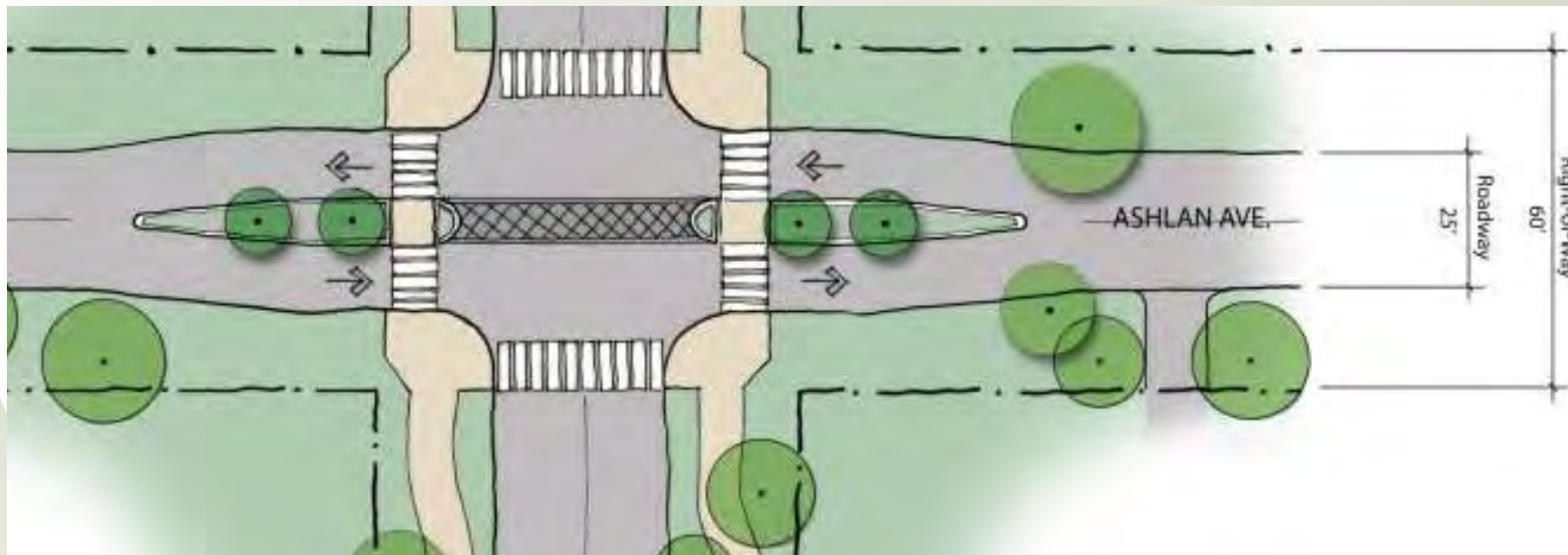
- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

# DRAFT DESIGN OPTIONS

## Intersection Design Concept on Ashlan – **Palm to Maroa**



# DRAFT DESIGN OPTIONS

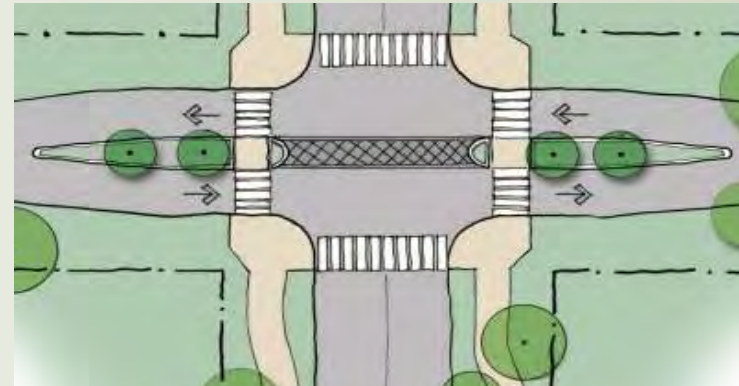
## Intersection Design Concept on Ashlan – **Palm to Maroa**

### Pros:

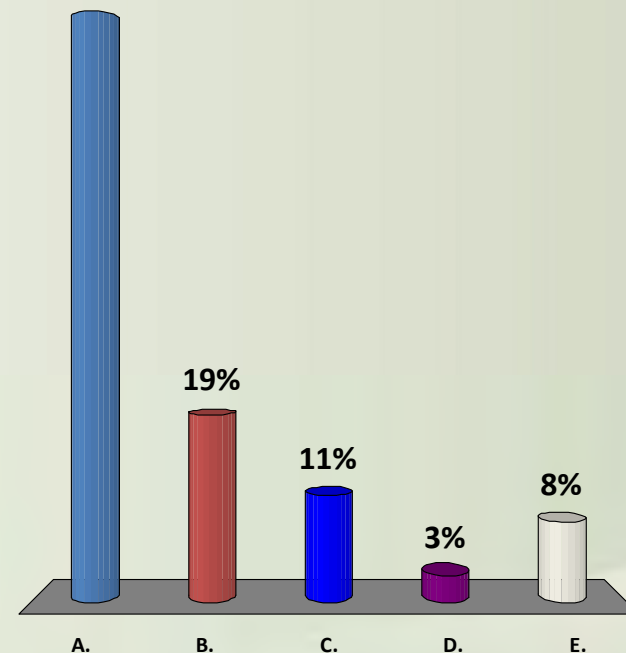
- Creates safe crossings across Ashlan
- Provides 8-foot wide (min.) refuge at center of street
- “Splaying” of travel lanes around median slows speeds
- Medians can be planted with new trees (in character with existing landscape appearance of Ashlan/Old Fig)

### Cons:

- Requires some removal of existing landscaping to accommodate corner improvements
- Implementation and maintenance costs



59%



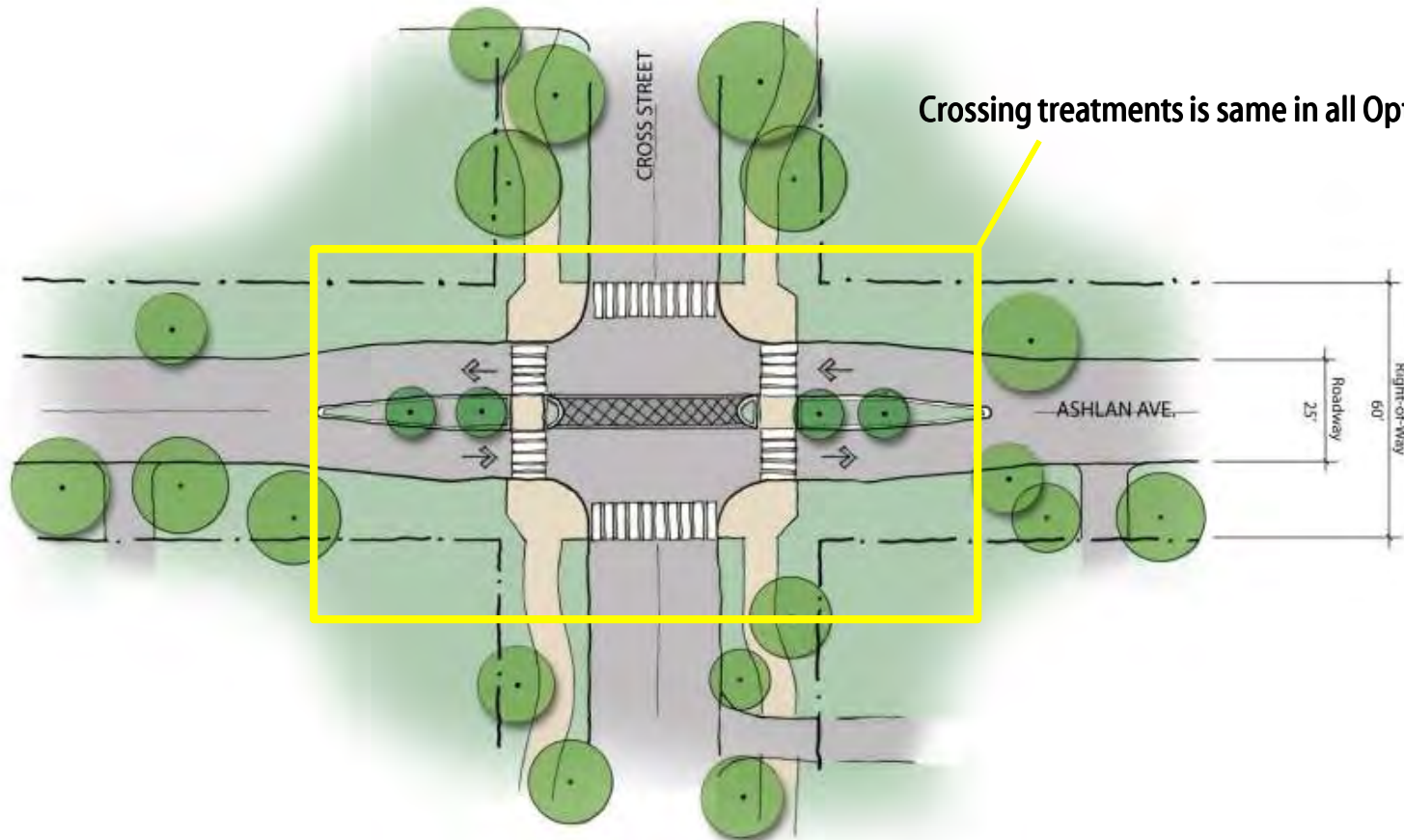
OLD FIG GARDEN – Community Transportation and Land Use Study

- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 1

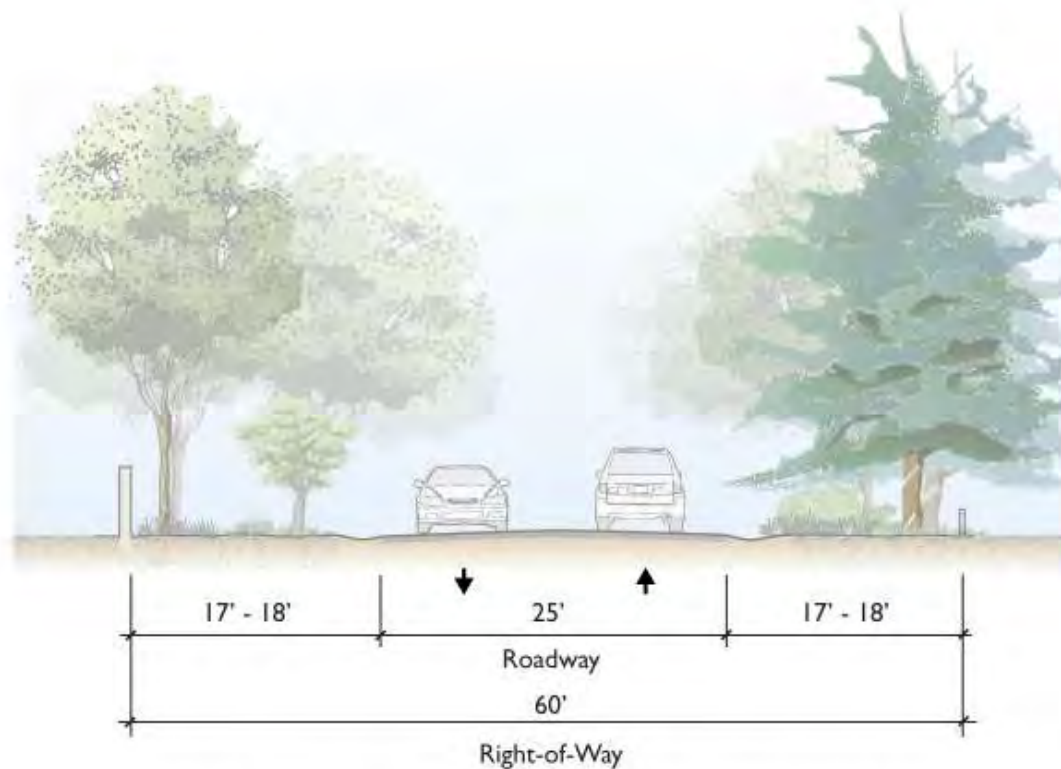


Option supported by the majority of Steering Committee members



# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 1



EXISTING

**Ashlan Between Palm & Maroa Ave. - Looking East**



# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 1

### Pros:

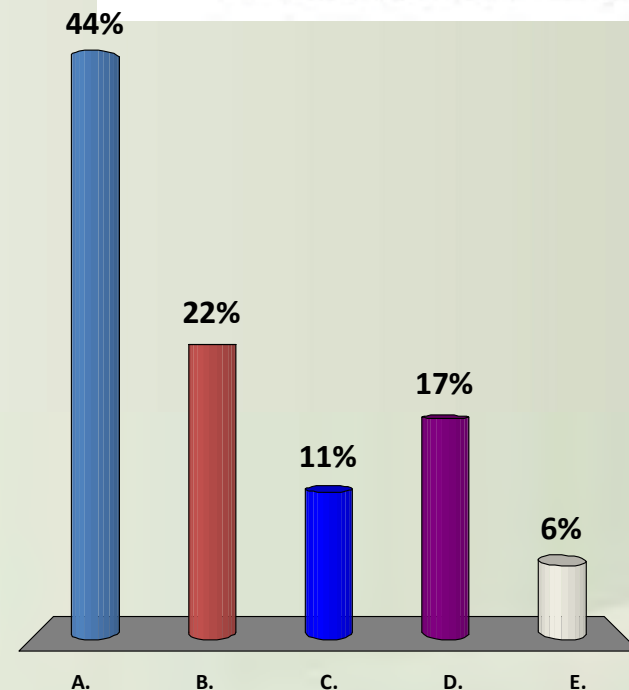
- Preserves all landscaping (except at intersections)
- No need to address right-of-way encroachments

### Cons:

- Does not accommodate pedestrian travel along this section of Ashlan
- Does not accommodate bicycle travel along this section of Ashlan



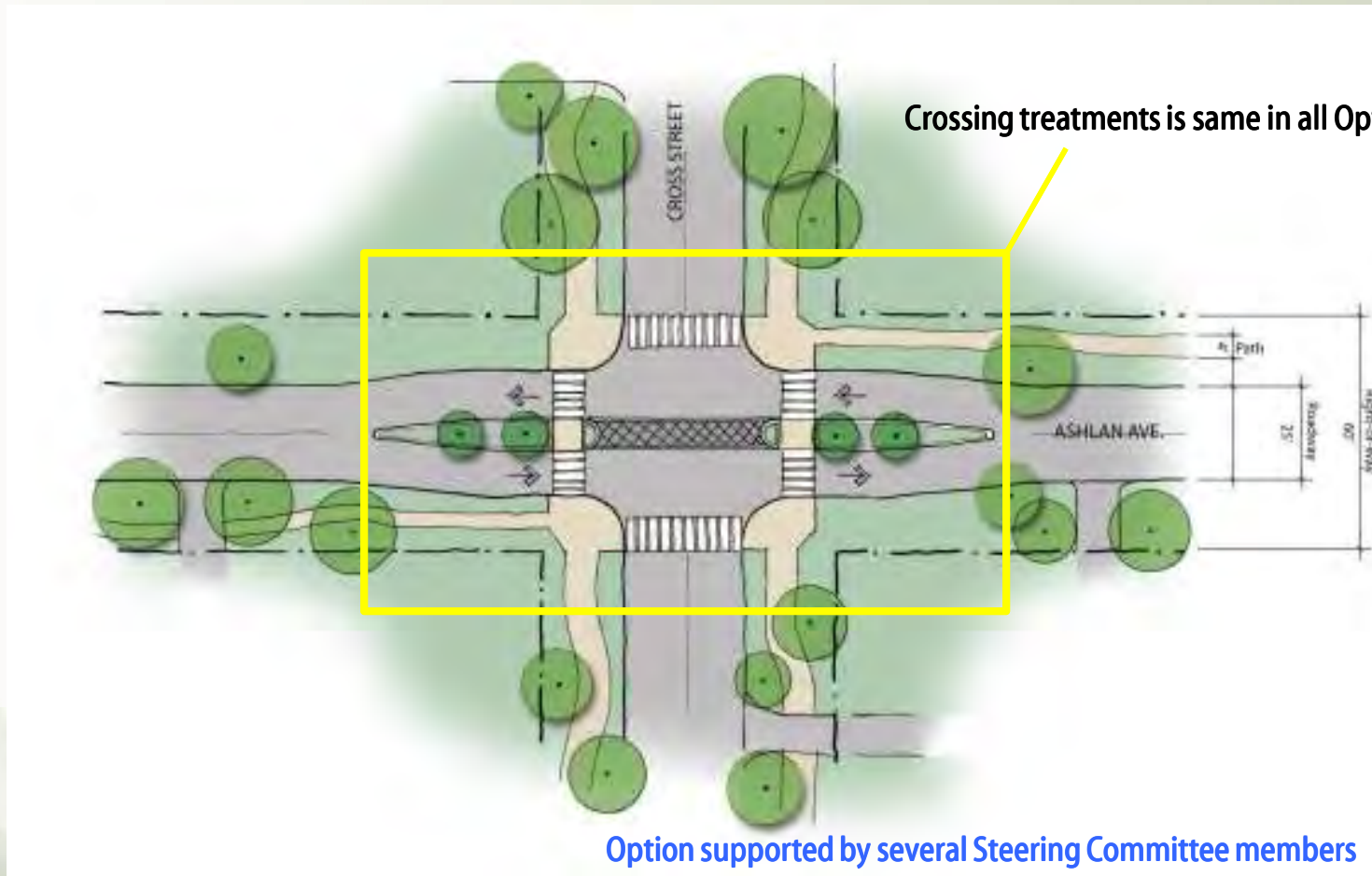
- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

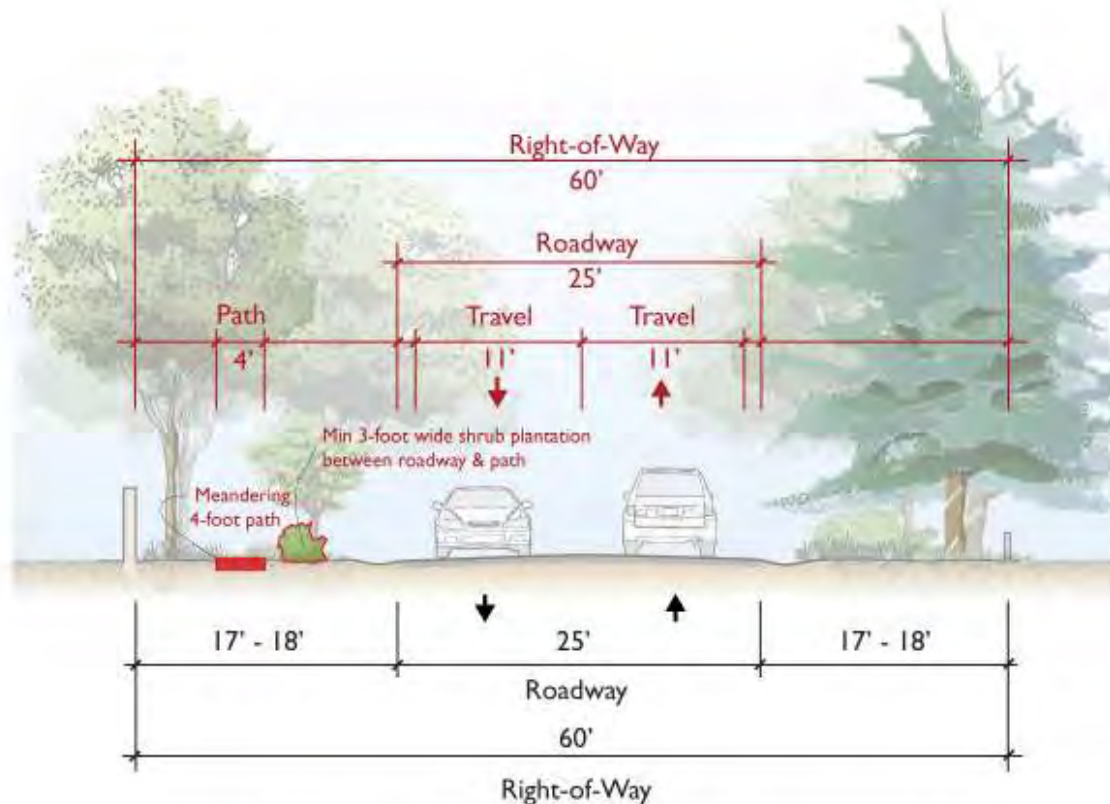
# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 2



# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 2



CONCEPT

EXISTING

Ashlan Between Palm & Maroa Ave. - Looking East





# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 2

### Pros:

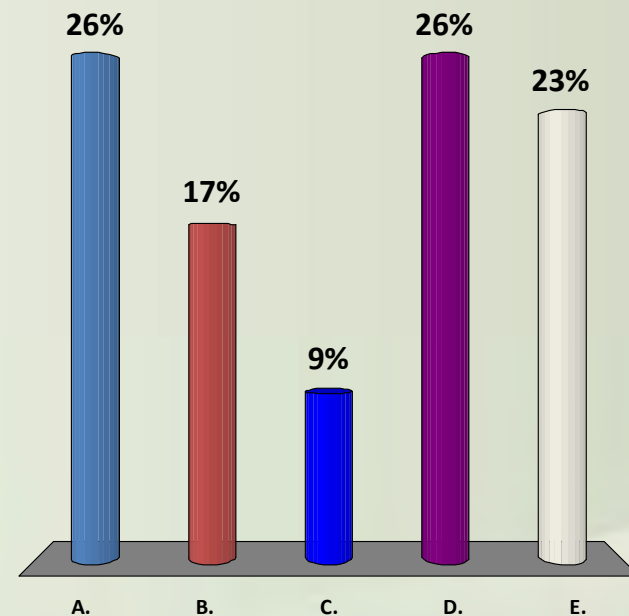
- Path on one side creates minimum pedestrian accommodation
- Preserves most of the existing landscaping
- Can work around most significant right-of-way encroachments

### Cons:

- No bicycle accommodation
- Requires some removal of existing landscaping
- Requires addressing some right-of-way encroachment issues



- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose

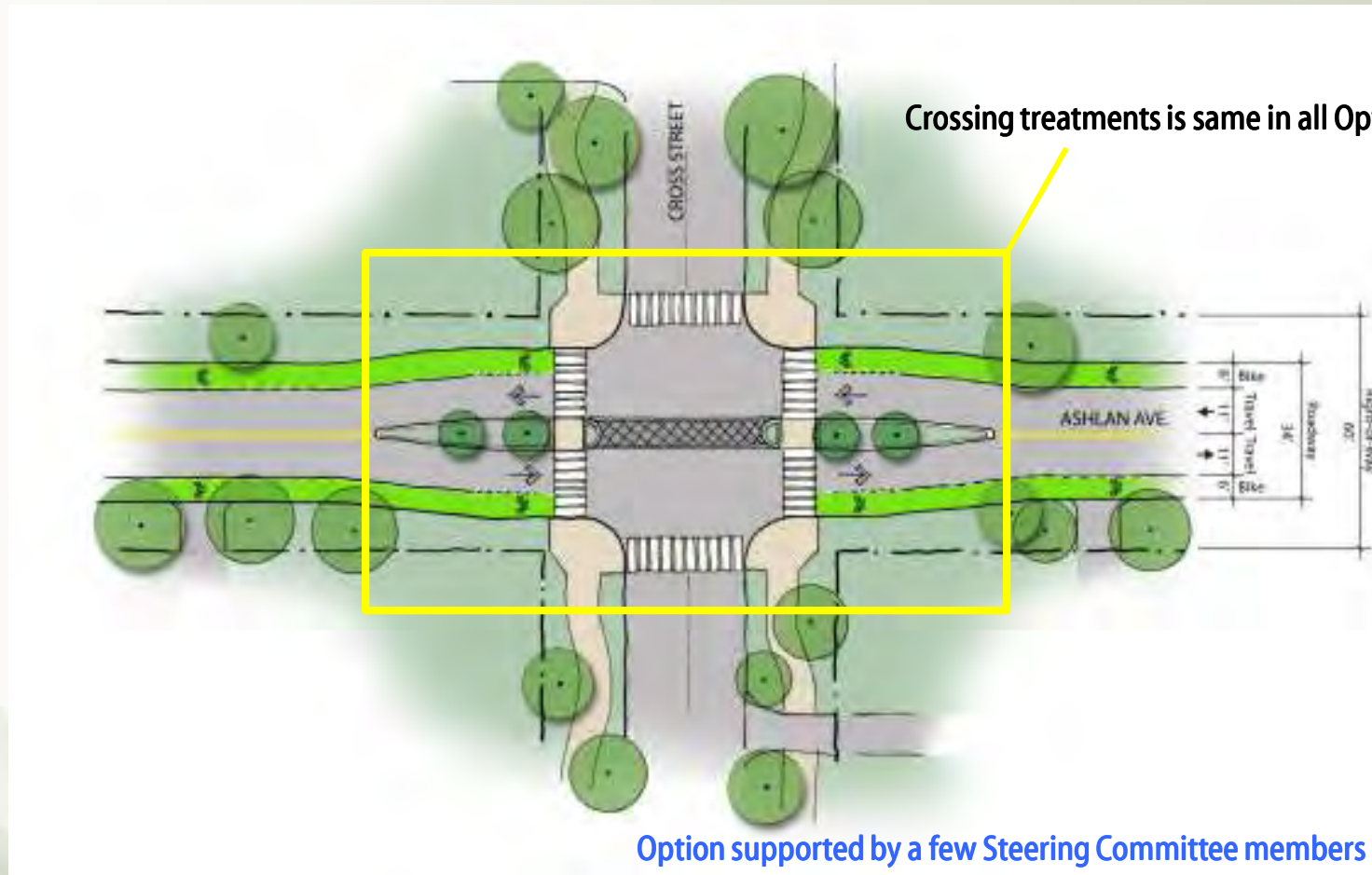


OLD FIG GARDEN – Community Transportation and Land Use Study



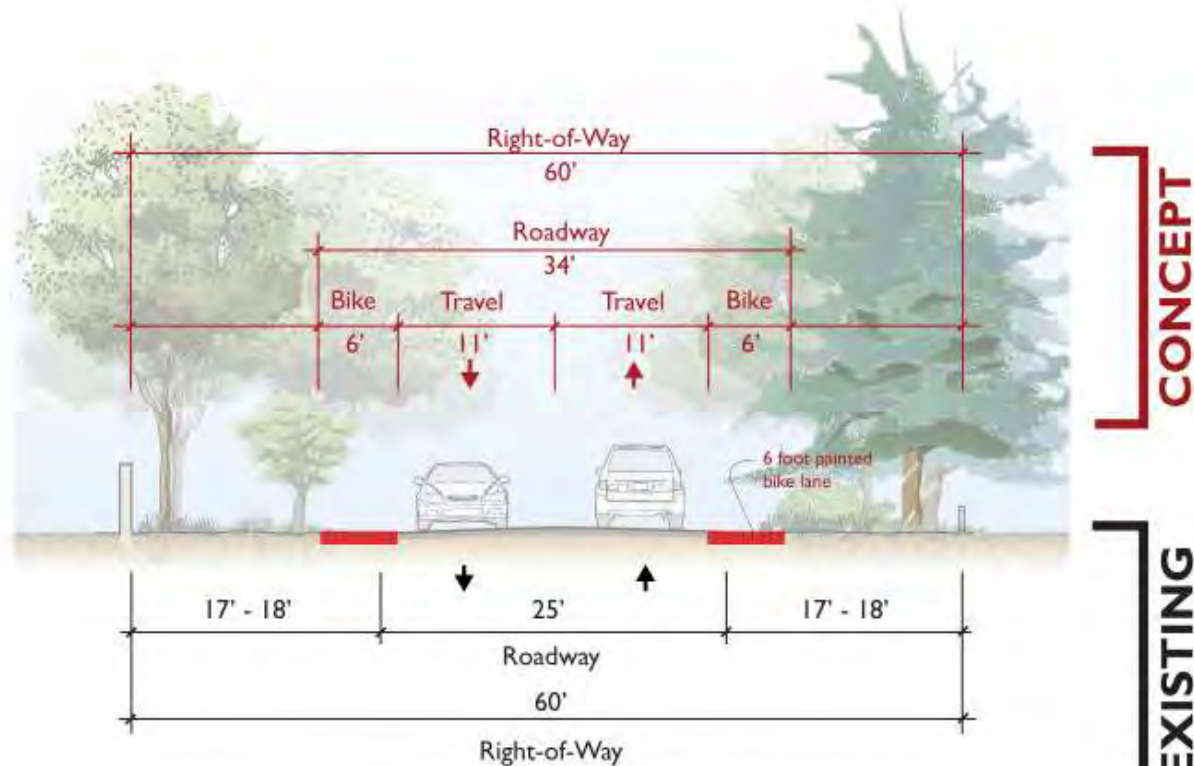
# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 3



# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 3



**Ashlan Between Palm & Maroa Ave. - Looking East**



# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 3

### Pros:

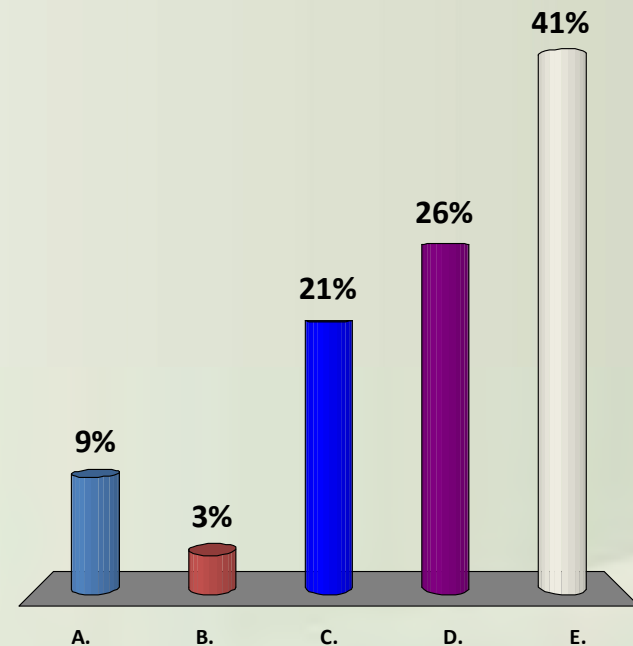
- Accommodates bicycle travel along this section of Ashlan

### Cons:

- Does not accommodate pedestrian travel along this section of Ashlan
- Requires removal of 4.5 feet of existing landscaping on either side of existing roadway edge to accommodate bicycle lanes.



- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose

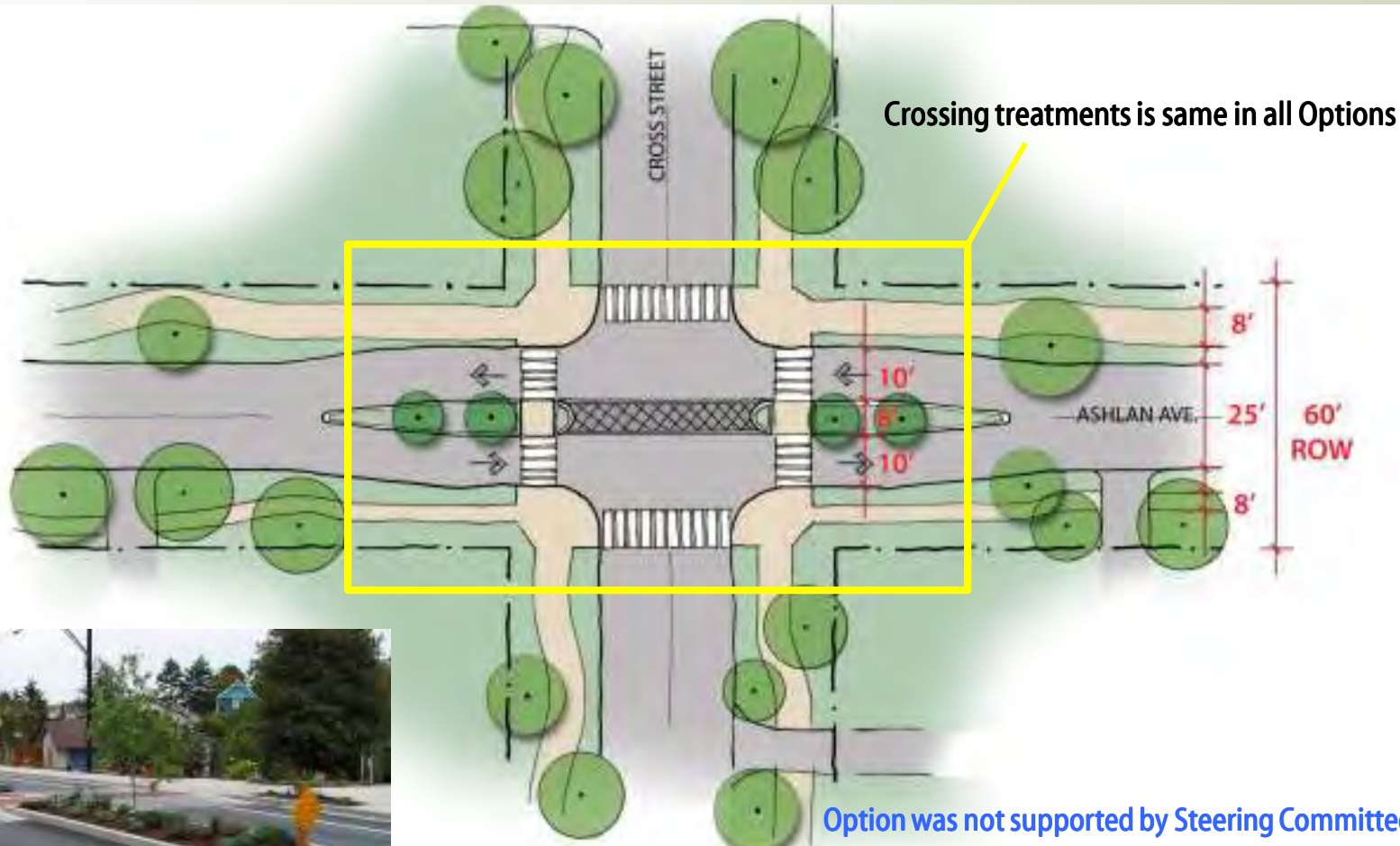


OLD FIG GARDEN – Community Transportation and Land Use Study



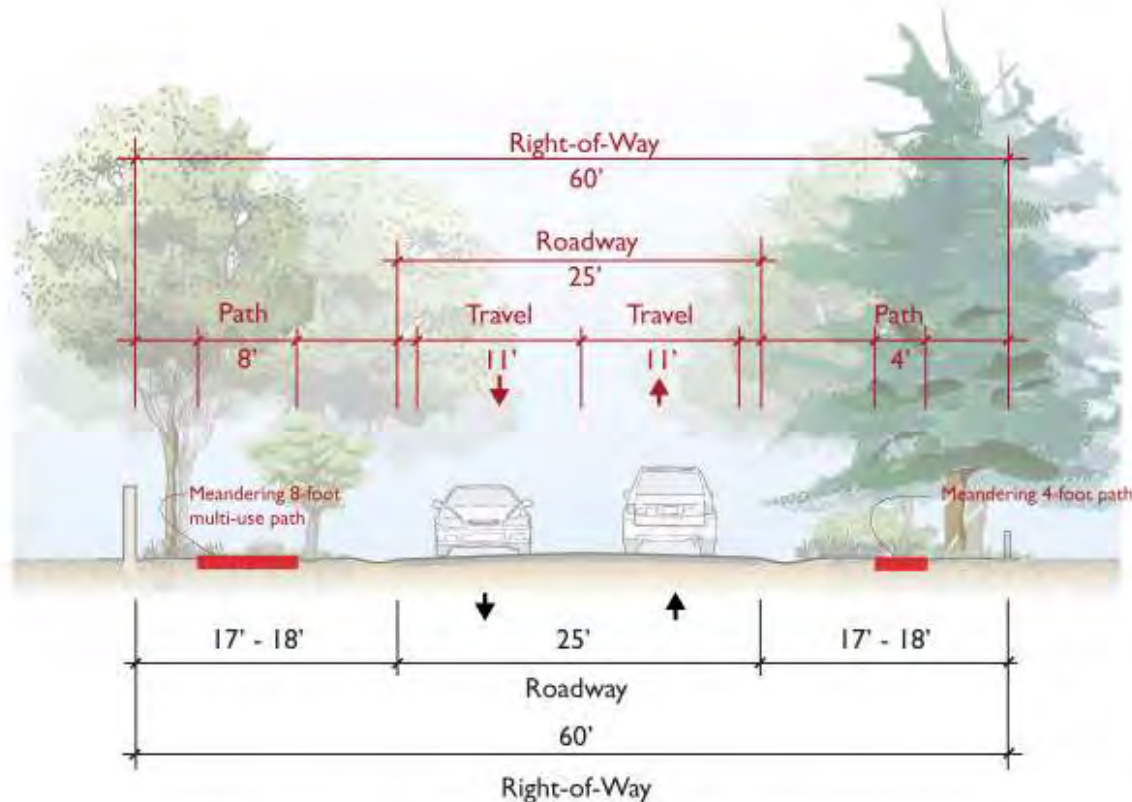
# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 4



# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 4



CONCEPT

EXISTING

Ashlan Between Palm & Maroa Ave. - Looking East



# DRAFT DESIGN OPTIONS

## Ashlan Avenue **Palm to Maroa** – Option 4

### Pros:

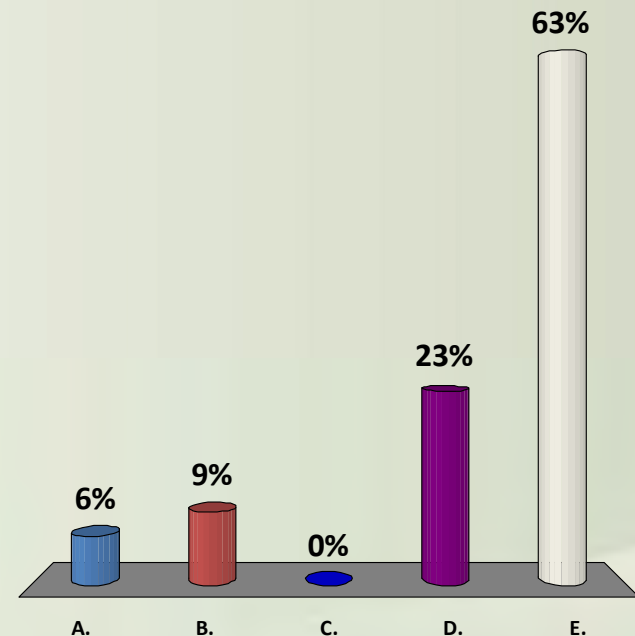
- Accommodates pedestrian travel on both sides of Ashlan
- Accommodates bicycle travel on one side of Ashlan (in 8-foot multi-use path)

### Cons:

- Requires removal of most right-of-way encroachments
- Requires removal of significant amounts of existing landscaping to accommodate paths



- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

# DRAFT DESIGN OPTIONS

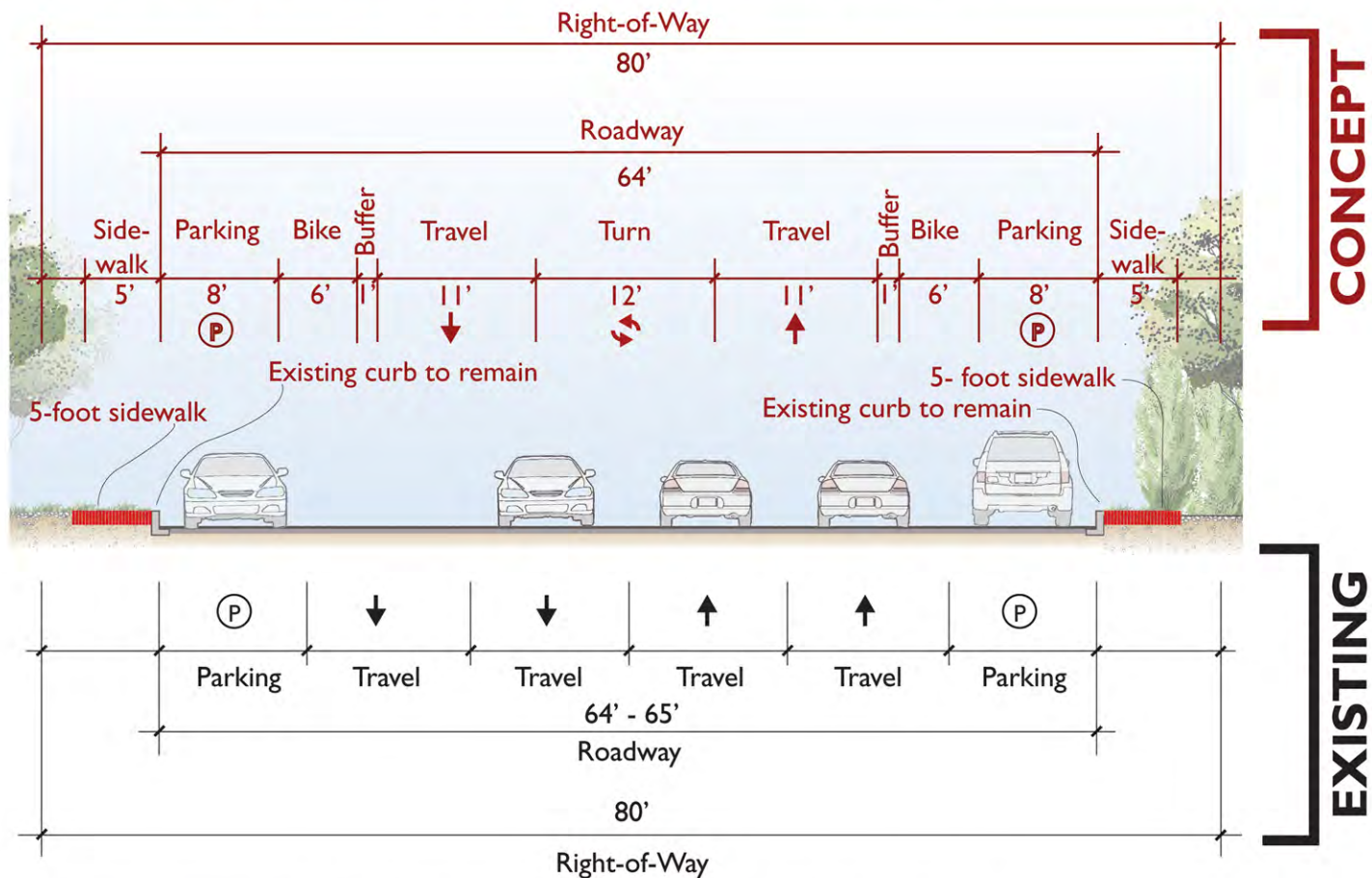
## Palm Avenue

Shields to Shaw



# DRAFT DESIGN OPTIONS

## Palm Avenue **Shields to Shaw** – Option 1



**Palm between Sussex Way and Hampton**

# DRAFT DESIGN OPTIONS

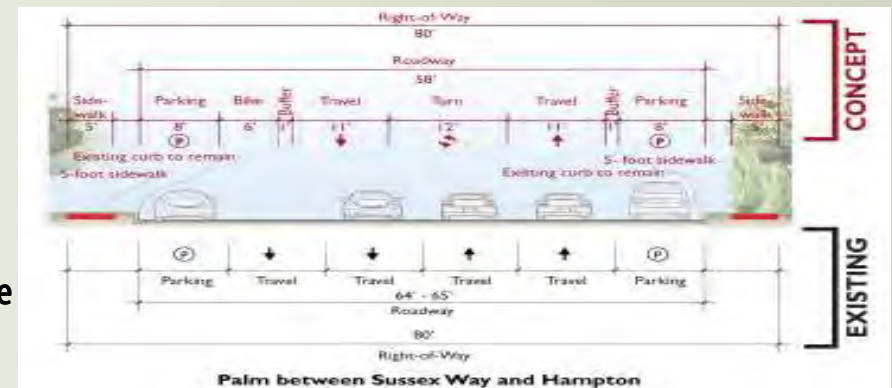
## Palm Avenue **Shields to Shaw** – Option 1

Pros:

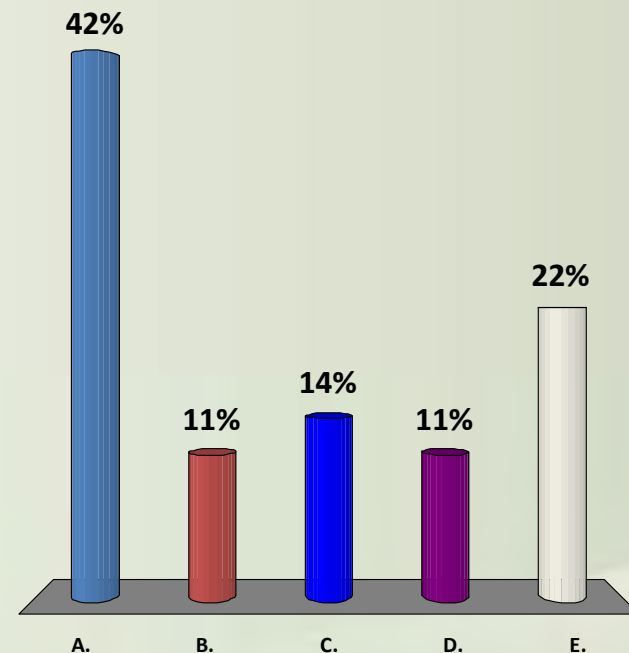
- Accommodates pedestrian travel along Palm
- Improves access to transit stops
- Accommodates bicycle travel along Palm

Cons:

- Requires some removal of existing landscaping to accommodate sidewalks
- Could result in some congestion under forecast traffic volumes (by 2030)
- Requires traffic calming measures along parallel routes



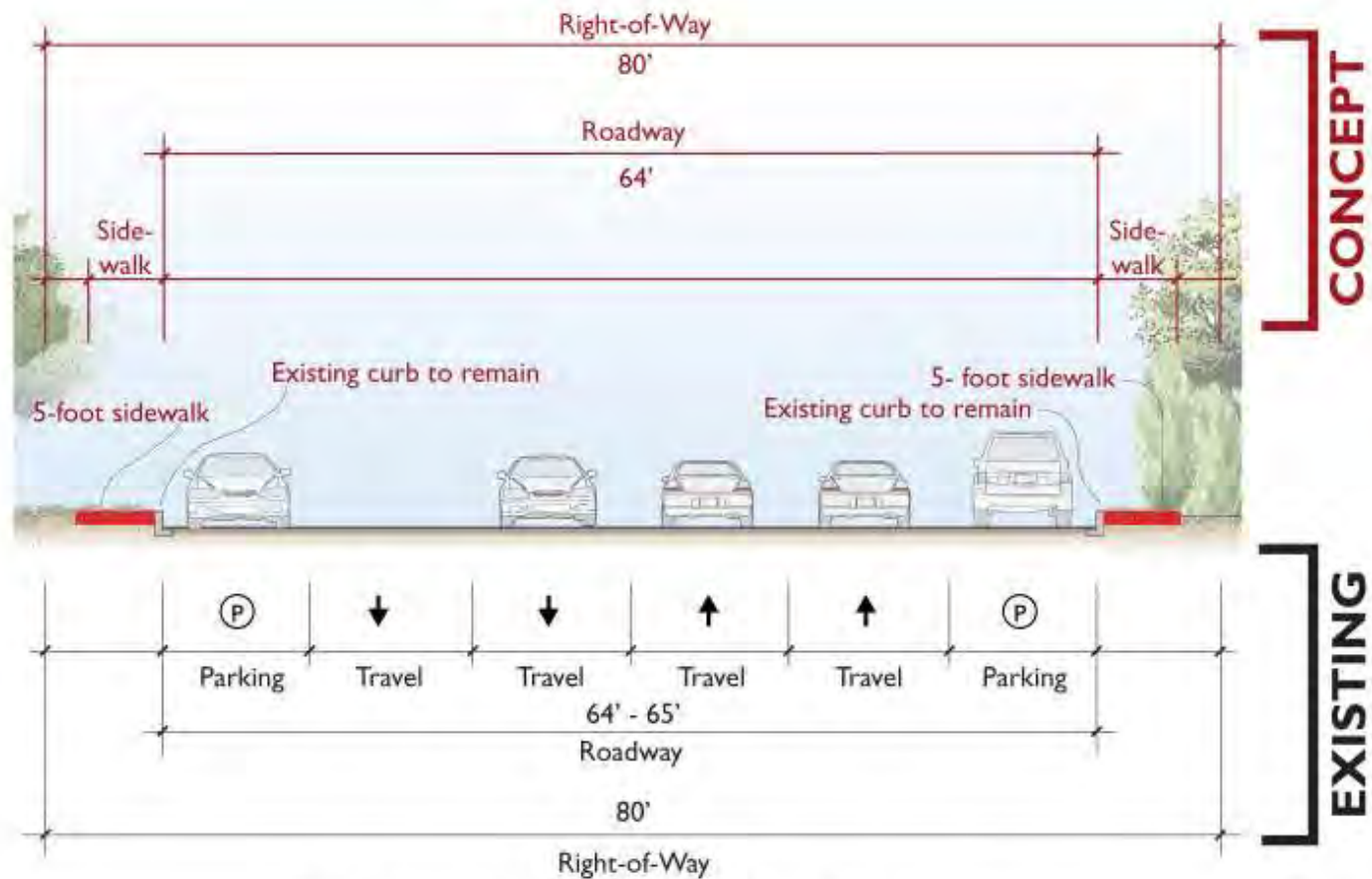
- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

# DRAFT DESIGN OPTIONS

## Palm Avenue **Shields to Shaw** – Option 2



**Palm between Sussex Way and Hampton**

# DRAFT DESIGN OPTIONS

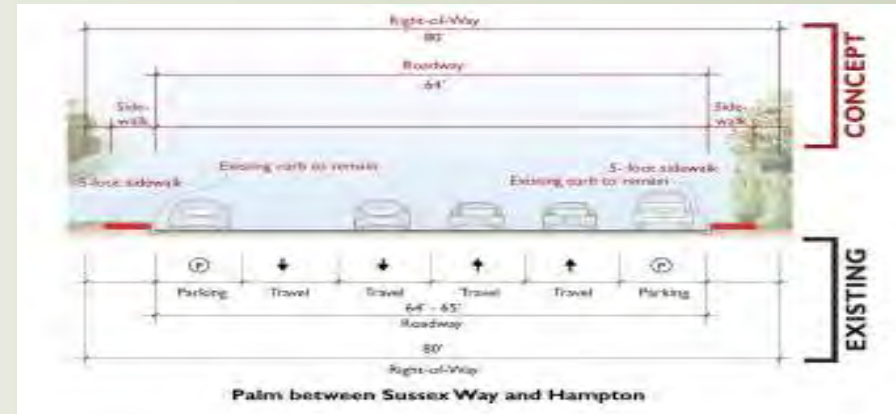
## Palm Avenue **Shields to Shaw** – Option 2

### Pros:

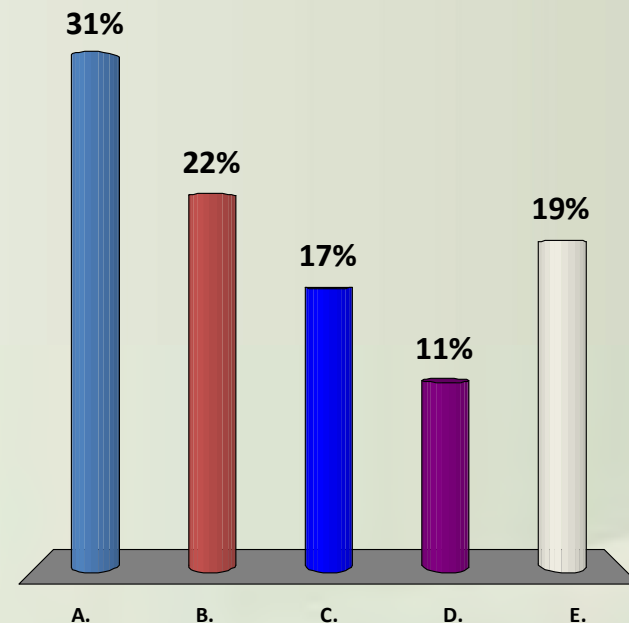
- Accommodates pedestrian travel along Palm
- Improves access to transit stops

### Cons:

- Does not accommodate bicycle travel along Palm
- Requires some removal of existing landscaping to accommodate sidewalks



- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

# DRAFT DESIGN OPTIONS

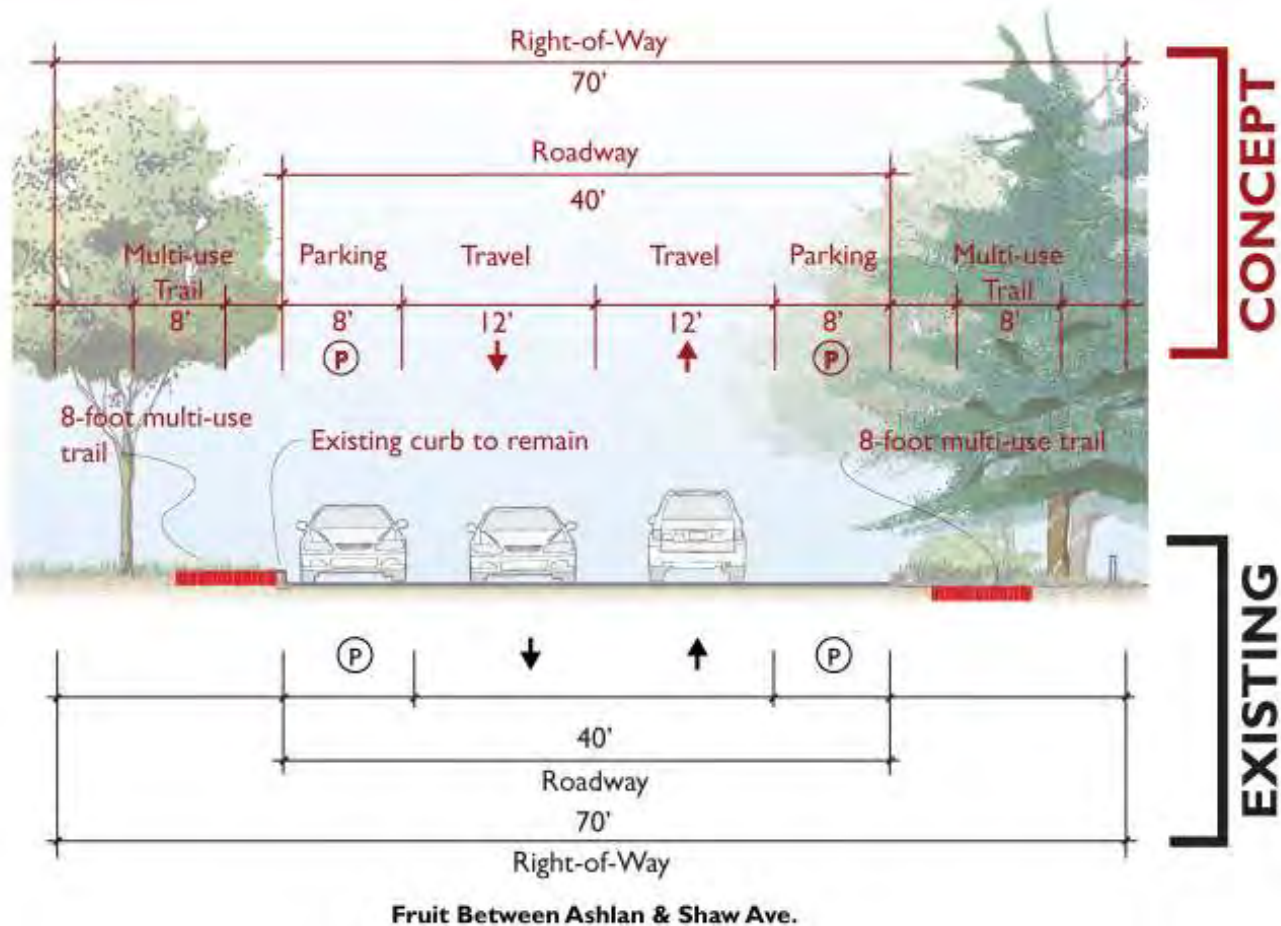
## Fruit Avenue

Shields to Shaw



# DRAFT DESIGN OPTIONS

## Fruit Ave **Ashlan to Shaw** - Option 1



# DRAFT DESIGN OPTIONS

## Fruit Ave **Ashlan to Shaw** - Option 1

### Pros:

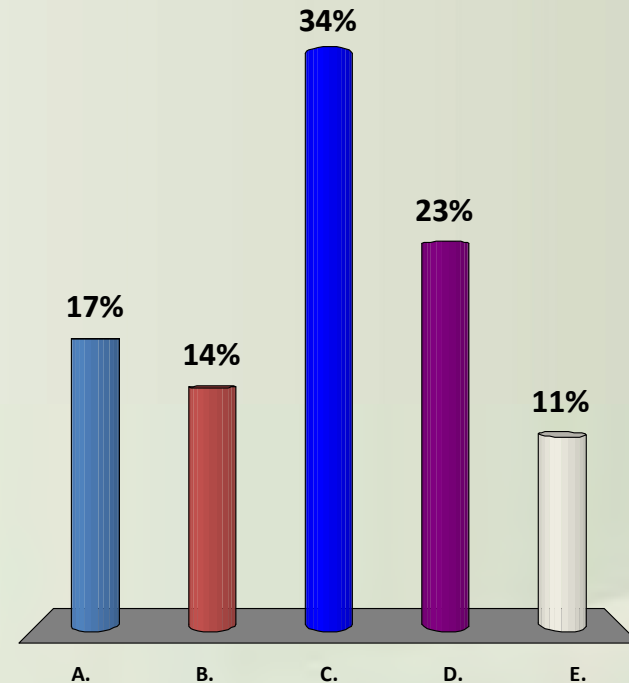
- Accommodates pedestrian travel along Fruit
- Improves access to transit stops
- Accommodates bicycle travel along Palm (8-foot multi-use path)

### Cons:

- Requires the removal of existing landscaping to accommodate multi-use paths



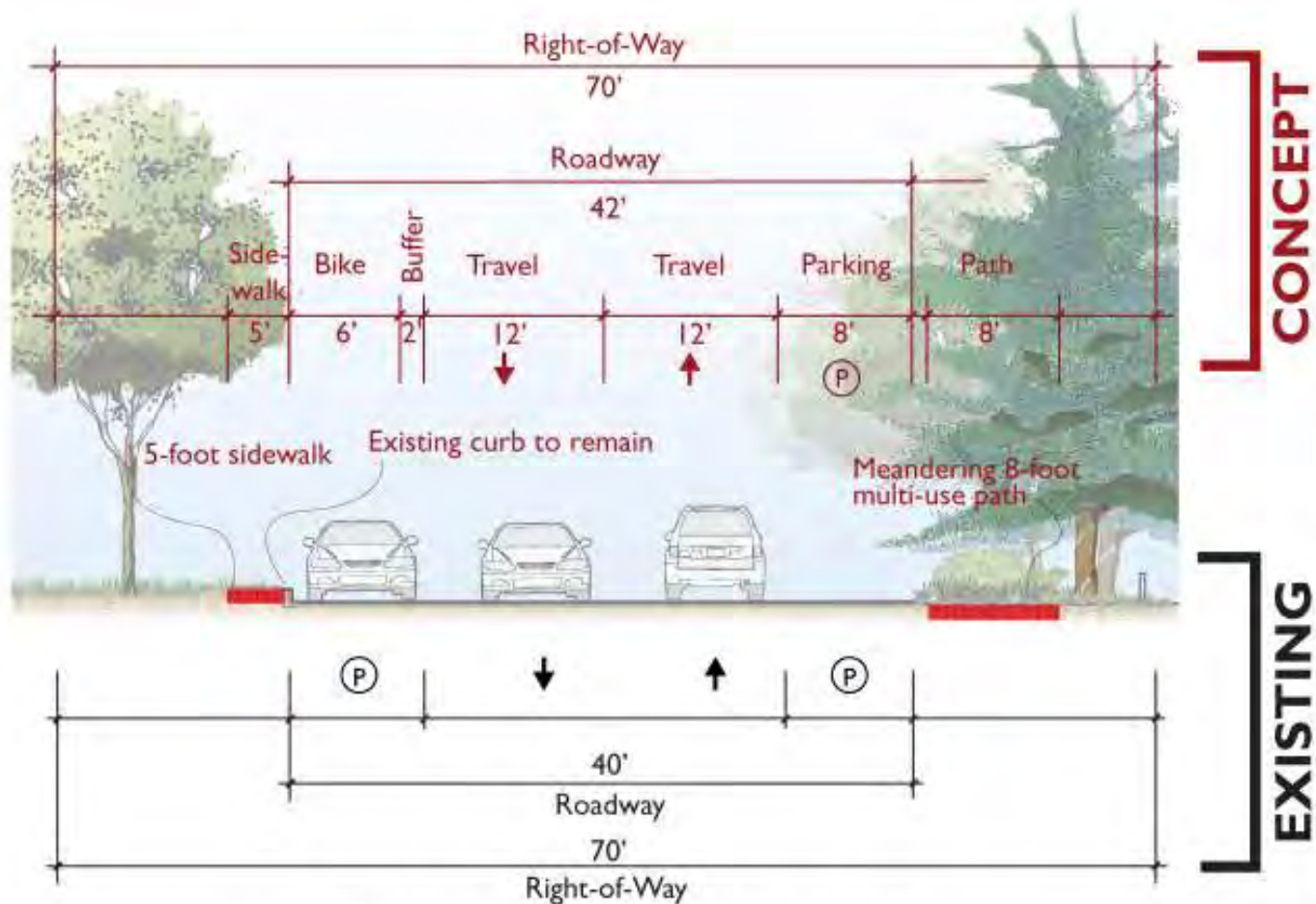
- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

# DRAFT RECOMMENDATIONS

## Fruit Ave **Ashlan to Shaw** - Option 2



Fruit btw Gettysburg and Indianapolis - Alternative 2



# DRAFT DESIGN OPTIONS

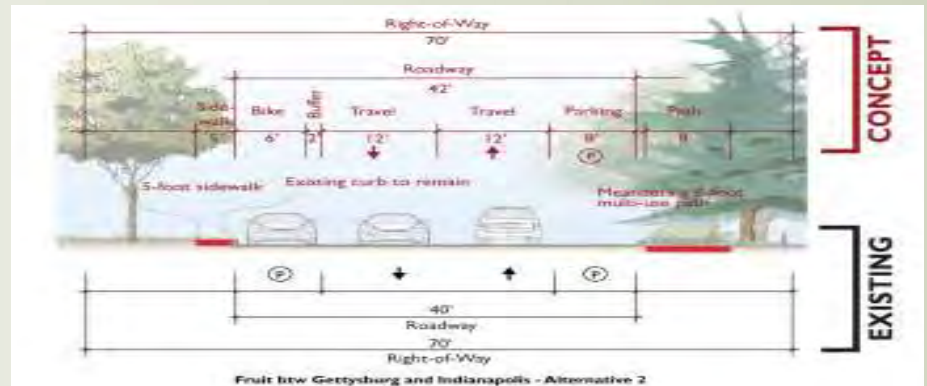
## Fruit Ave **Ashlan to Shaw** - Option 2

### Pros:

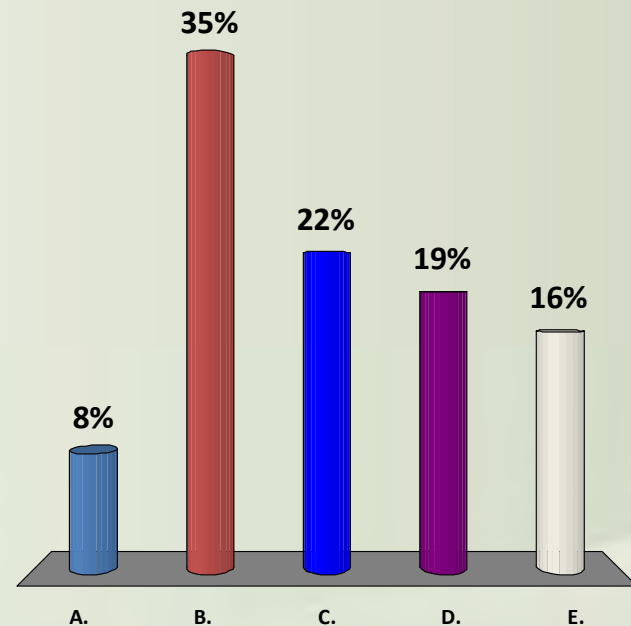
- Accommodates pedestrian travel
- Improves access to transit stops
- Accommodates bicycle travel (bike lane on City side; multi-use path on County side)

### Cons:

- Requires the removal of some existing landscaping to accommodate sidewalk/multi-use path
- Removal of on-street parking on City side



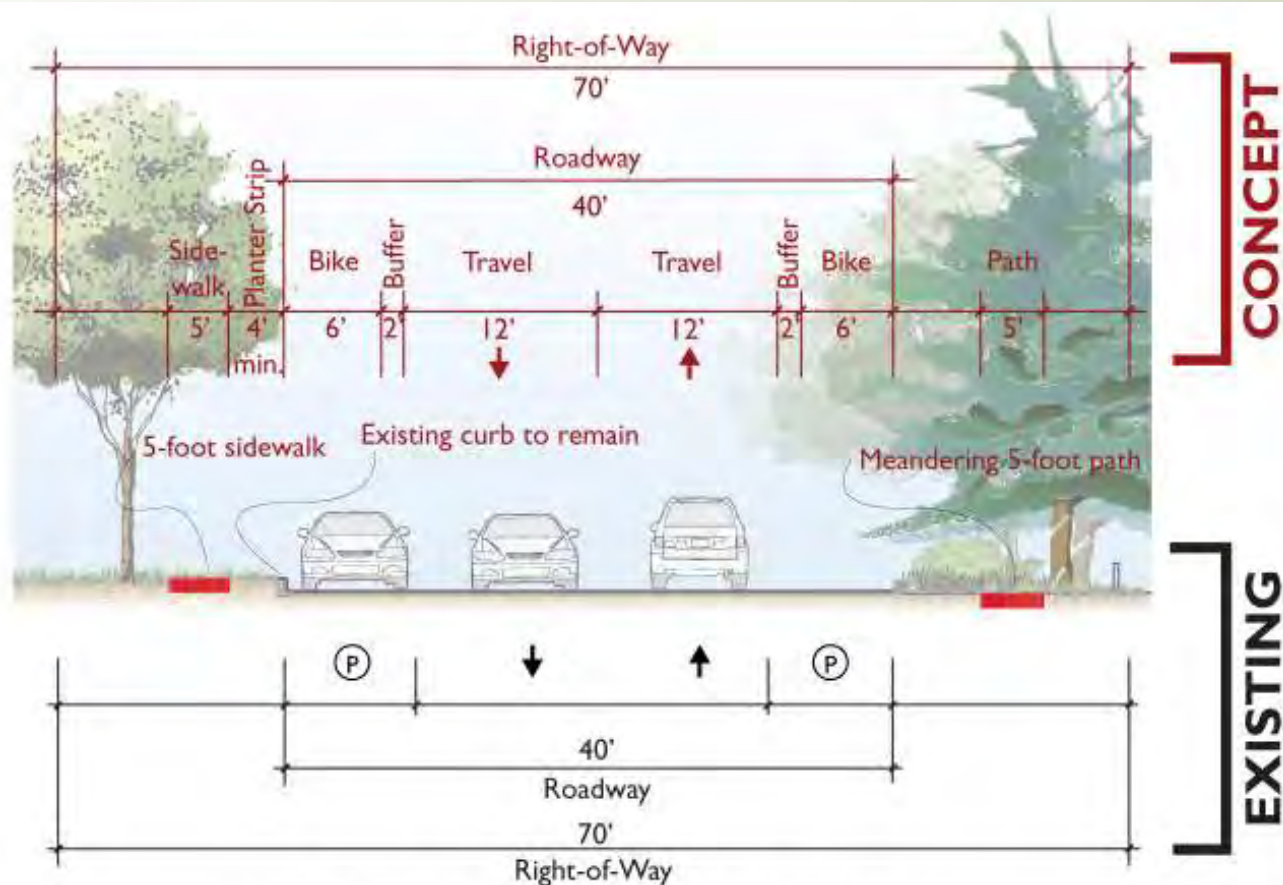
- A. Strongly Support
- B. Support
- C. Neutral
- D. Oppose
- E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

# DRAFT DESIGN OPTIONS

## Fruit Ave **Ashlan to Shaw** – Option 3



# DRAFT DESIGN OPTIONS

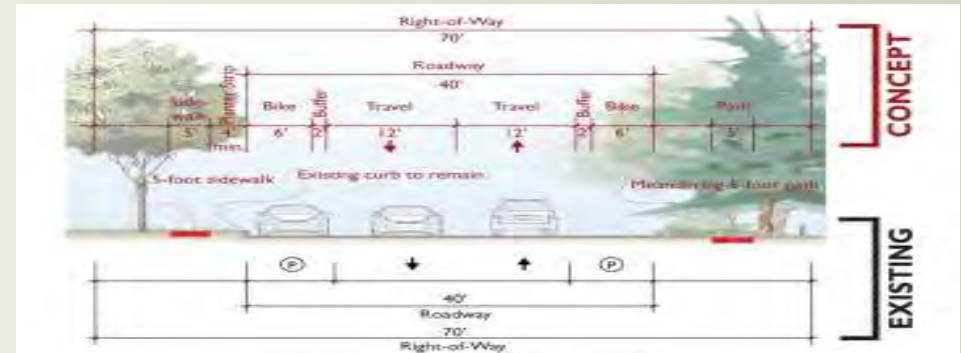
## Fruit Ave Ashlan to Shaw – Option 3

### Pros:

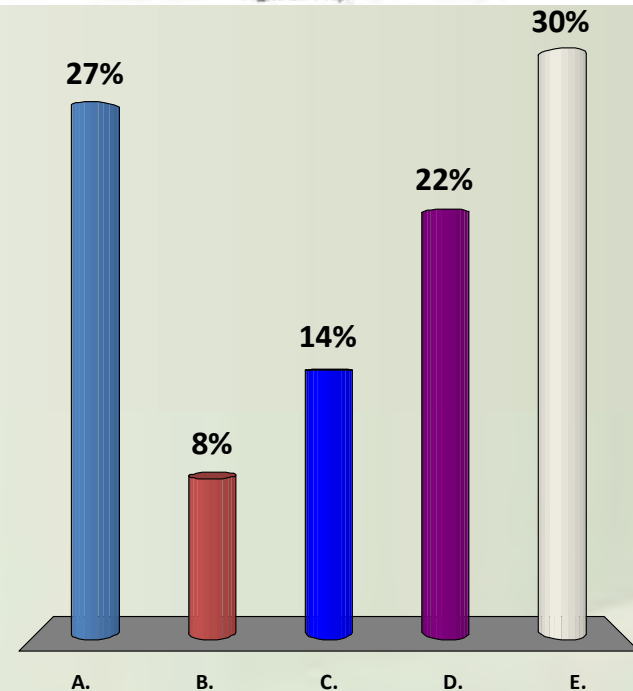
- Accommodates pedestrian travel
- Improves access to transit stops
- Accommodates bicycle travel (bike lanes)

### Cons:

- Remove on-street parking (potential issue with County administration)
- Requires the removal of some existing landscaping to accommodate pedestrian paths



- A. Strongly Support  
B. Support  
C. Neutral  
D. Oppose  
E. Strongly Oppose



OLD FIG GARDEN – Community Transportation and Land Use Study

*This page left intentionally blank*

## E. CHRISTMAS TREE LANE SURVEY

*This page left intentionally blank*

# OLD FIG GARDEN COMMUNITY TRANSPORTATION AND LAND USE STUDY

## Christmas Tree Lane Survey - December 2011

What night did you visit Christmas Tree Lane?		
Answer Options	Response Percent	Response Count
Tuesday, December 13th (Walk Night)	66.4%	85
Saturday, December 3rd (Walk Night)	6.3%	8
Wednesday, December 14th (Drive Night)	19.5%	25
Drive Night other than December 14th	1.6%	2
Drove or walked the Lane more than 1 night this year	6.3%	8
<i>answered question</i>		<b>128</b>

### What night did you visit Christmas Tree Lane?



- Tuesday, December 13th (Walk Night)
- Saturday, December 3rd (Walk Night)
- Wednesday, December 14th (Drive Night)
- Drive Night other than December 14th
- Drove or walked the Lane more than 1 night this year

## Christmas Tree Lane Survey

If you drove to Christmas Tree Lane and walked the Lane, where did you park your vehicle?

Answer Options	Response Percent	Response Count
Fig Garden Shopping Center and used the Shuttle to	9.5%	8
Fig Garden Shopping Center and walked to Christmas	32.1%	27
Manchester Center and walked to the Lane	3.6%	3
Parked in residential areas off of Shields Avenue	0.0%	0
Parked in residential areas off of Ashlan Avenue	6.0%	5
Parked in residential areas off of Gettysburg Avenue	19.0%	16
Parked along other side streets along the Lane	29.8%	25
<i>answered question</i>		<b>84</b>

If you drove to Christmas Tree Lane and walked the Lane, where did you park your vehicle?



- Fig Garden Shopping Center and used the Shuttle to Access the Lane at Shields Avenue
- Fig Garden Shopping Center and walked to Christmas Tree Lane at Palm Avenue
- Manchester Center and walked to the Lane
- Parked in residential areas off of Shields Avenue
- Parked in residential areas off of Ashlan Avenue
- Parked in residential areas off of Gettysburg Avenue
- Parked along other side streets along the Lane



## Christmas Tree Lane Survey

Where did you access or enter Christmas Tree Lane if you drove your vehicle?

Answer Options	Response Percent	Response Count
At the south entrance on Shields Avenue at Christmas	50.0%	10
Along Ashlan Avenue at Christmas Tree Lane (Van Ness	12.5%	3
Along Gettysburg Avenue at Christmas Tree Lane (Van	12.5%	3
Accessed the Lane along another side street	25.0%	5
<i>answered question</i>		<b>21</b>

Where did you access or enter  
Christmas Tree Lane if you  
drove your vehicle?



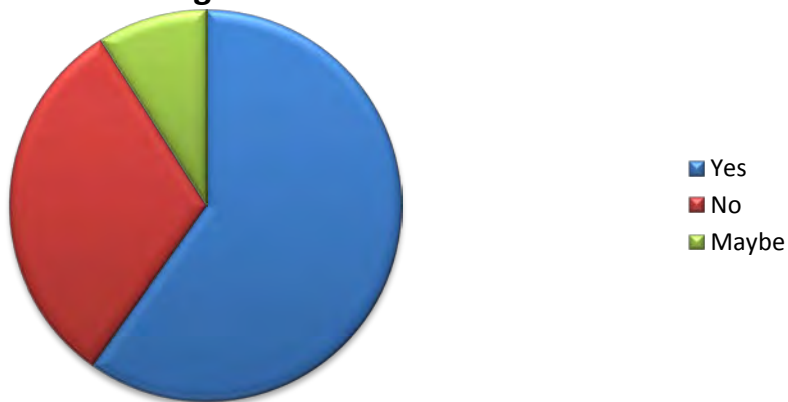
- At the south entrance on Shields Avenue at Christmas Tree Lane (Van Ness Blvd.)
- Along Ashlan Avenue at Christmas Tree Lane (Van Ness Blvd.)
- Along Gettysburg Avenue at Christmas Tree Lane (Van Ness Blvd.)
- Accessed the Lane along another side street

## Christmas Tree Lane Survey

If there were an improved trail along the side of the Lane, would you be willing to walk or bike on a Drive Night?

Answer Options	Response Percent	Response Count
Yes	59.8%	73
No	31.1%	38
Maybe	9.0%	11
<i>answered question</i>		122

If there were an improved trail along the side of the Lane, would you be willing to walk or bike on a Drive Night?



## Christmas Tree Lane Survey

Would additional directional signage help improve walk and drive access to the Lane?

Answer Options	Response Percent	Response Count
Yes	43.8%	56
No	46.9%	60
Maybe/Not sure	9.4%	12
<i>answered question</i>		<b>128</b>

Would additional directional signage help improve walk and drive access to the Lane?



■ Yes

■ No

■ Maybe/Not sure

## Christmas Tree Lane Survey

What is the most important improvement that could make the Walk Night experience more safe and convenient?

Answer Options	Response Percent	Response Count
Lighting at intersections	21.4%	25
Portable toilets	34.2%	40
Pedestrian control at intersections	9.4%	11
Restrictions of bikes, wagons, and scooters	17.9%	21
Additional CHP or City Police presence in the area	17.1%	20
<i>answered question</i>		<b>117</b>

Some had multiple answers

What is the most important improvement that could make the Walk Night experience more safe and convenient?



- Lighting at intersections
- Portable toilets
- Pedestrian control at intersections
- Restrictions of bikes, wagons, and scooters
- Additional CHP or City Police presence in the area

## Christmas Tree Lane Survey

What is the most important improvement that could make driving the Lane more safe and convenient?

Answer Options	Response Percent	Response Count
More CHP/Fresno Police traffic control and presence in	36.8%	16
Traffic barriers at Gettysburg restricting east-west traffic	36.8%	16
Better directional signage	26.3%	10
<i>answered question</i>		<b>42</b>

What is the most important improvement that could make driving the Lane more safe and convenient?



- More CHP/Fresno Police traffic control and presence in the area
- Traffic barriers at Gettysburg restricting east-west traffic across the Lane

## Christmas Tree Lane Survey

Where is your residence located?

Answer Options	Response Percent	Response Count
Old Fig Garden area	21.9%	28
In Fresno but outside of the Old Fig Garden area	42.2%	54
In Clovis	14.1%	18
In Fresno County outside of the cities of Fresno and Clovis	17.2%	22
Outside of Fresno County	4.7%	6
<i>answered question</i>		<b>128</b>

Where is your residence located?



- Old Fig Garden area
- In Fresno but outside of the Old Fig Garden area
- In Clovis
- In Fresno County outside of the cities of Fresno and Clovis

## F. OLD FIG GARDEN STREET TREE SURVEY

*This page left intentionally blank*



## Methodology

### Data Collection

Tree data was collected by a Certified Arborist, using Davey Resource Group's Work Planning Software to assist in tracking and locating trees on the ground and collecting attributes about each tree. Attributes include species, DBH (diameter at breast height), maintenance needs, and condition rating as recommended by the Best Management Practices of the International Society of Arboriculture.

### Sample Inventory and i-Tree Streets Analysis

A sample inventory was done on the county island portion of the Fresno Fig Study Area. *i-Tree Streets*<sup>1</sup> supports analysis of sample tree inventories that are conducted using a simple random sample of street segments. Four-hundred-twenty (420) street segments were identified as being included in the study area. The i-Tree Random Selection tool in ArcGIS® was used to process these segments to determine a random selection of sample segments. For communities between 50,000 and 100,000 people, the recommended minimum sample is 5%. Fifty-two (52) street segments were inventoried in the Fresno Fig study area for an overall sample of 12%.<sup>2</sup>

The collected data was used in conjunction with *i-Tree's Streets*, a STRATUM Analysis Tool (*Streets* v4.0.3; i-Tree v4.1.3), to estimate the overall size, composition, condition, and maintenance needs of the urban forest resource.

### Complete inventory of Primary Streets

In addition to the i-Tree sample inventory, which considered the entire county island, a complete inventory was completed for the following primary streets within the study area:

- Ashlan Avenue
- Fruit Avenue
- Gettysburg Avenue
- Maroa Avenue
- Palm Avenue
- Swift Avenue
- Van Ness Avenue
- Wishon Avenue

---

<sup>1</sup> i-Tree, <http://www.itreetools.org/>

<sup>2</sup> **Standard Error:** Standard error (Standard Error of the Mean, or SEM) is a calculation of how accurately a sample mean estimates the population mean. The formula is  $SEM = SD / \sqrt{N}$  where SD = "standard deviation" of the sample, and N = sample size.

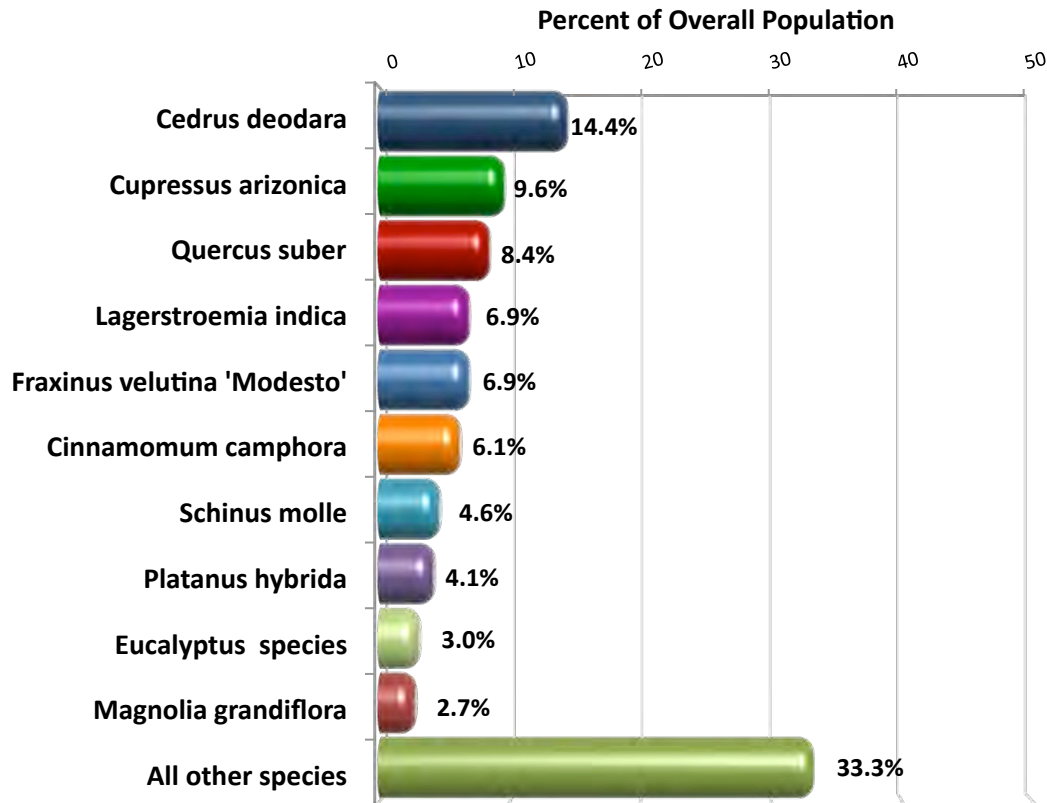
## County Island i-Tree Results

### Summary of Street Tree Structure

The county island in the Old Fig Garden neighborhood study area is estimated to include 5,654 street trees (Table 1). The following information characterizes this resource:

- The sample inventory found a total of 66 distinct tree species. The predominant tree species are estimated to be *Cedrus deodara* (Deodar Cedar, 14.4%), *Cupressus arizonica* (Arizona Cypress, 9.6%), and *Quercus suber* (Cork oak, 8.4%)
- The Overall condition of this resource is fair to good, with approximately 47% of the population in fair condition and 45% in good or better condition.
- 90% of the population is recommended for routine pruning, including an estimated 4,168 large trees and 905 small trees.
- 6% of trees are recommended for priority pruning.
- 2% of trees are recommended for removal.

### Species Frequency

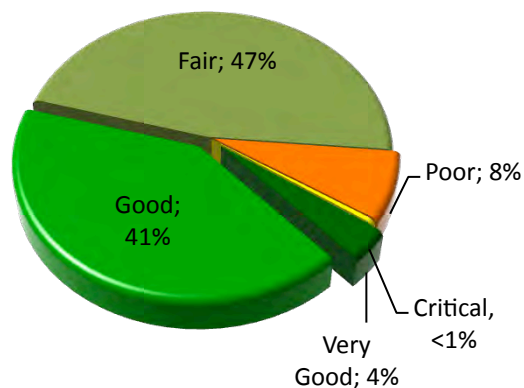


**Table 1. Population Summary**

Species	DBH Class (in)										Total Trees	SE
	0-3	3-6	6-12	12-18	18-24	24-30	30-36	36-42	42-48	>48		
Broadleaf Deciduous Large (BDL)												
Fraxinus velutina 'Modesto'	0	0	8	48	121	186	24	0	0	0	388	(±104)
Platanus hybrida	0	8	48	40	89	40	8	0	0	0	234	(±99)
Acer saccharinum	0	0	0	0	16	40	8	0	8	0	73	(±32)
Carya illinoensis	8	0	24	24	0	0	0	0	0	0	57	(±22)
BDL OTHER	0	8	40	57	16	24	0	0	0	0	145	(±42)
BDL Total	8	16	121	170	242	291	40	0	8	0	897	(±167)
Broadleaf Deciduous Medium (BDM)												
Pistacia chinensis	8	24	65	16	8	0	0	0	0	0	121	(±47)
Morus alba	8	0	0	48	32	0	0	0	0	0	89	(±39)
Triadica sebifera	0	24	16	0	16	0	0	0	0	0	57	(±34)
BDM OTHER	40	0	65	32	0	8	0	0	0	0	145	(±43)
BDM Total	57	48	145	97	57	8	0	0	0	0	412	(±82)
Broadleaf Deciduous Small (BDS)												
Lagerstroemia indica	339	40	8	0	0	0	0	0	0	0	388	(±171)
Prunus cerasifera	0	105	0	0	0	0	0	0	0	0	105	(±52)
BDS OTHER	65	24	40	16	0	0	0	0	0	0	145	(±58)
BDS Total	404	170	48	16	0	0	0	0	0	0	638	(±228)
Broadleaf Evergreen Large (BEL)												
Quercus suber	0	48	65	97	137	65	65	0	0	0	477	(±216)
Eucalyptus species	0	0	0	16	48	16	32	24	32	0	170	(±122)
Eucalyptus polyanthemos	8	16	24	24	0	24	8	8	8	0	121	(±67)
Quercus agrifolia	16	8	16	24	32	24	0	0	0	0	121	(±46)
Quercus virginiana	0	48	24	0	0	0	0	0	0	0	73	(±50)
BEL OTHER	0	8	8	8	24	24	0	0	0	0	73	(±40)
BEL Total	24	129	137	170	242	153	105	32	40	0	1,034	(±303)
Broadleaf Evergreen Medium (BEM)												
Cinnamomum camphora	24	24	40	81	57	16	57	48	0	0	347	(±192)
Schinus molle	8	0	0	16	16	24	48	73	57	16	258	(±190)
Magnolia grandiflora	8	0	57	48	40	0	0	0	0	0	153	(±100)
BEM OTHER	8	0	24	0	8	8	0	0	0	0	48	(±23)
BEM Total	48	24	121	145	121	48	105	121	57	16	808	(±279)
Broadleaf Evergreen Small (BES)												
Ligustrum lucidum	8	65	24	0	0	0	0	0	0	0	97	(±48)
BES OTHER	32	16	0	0	0	0	0	0	0	0	48	(±21)
BES Total	40	81	24	0	0	0	0	0	0	0	145	(±52)

Species	DBH Class (in)										Total Trees	SE
	0-3	3-6	6-12	12-18	18-24	24-30	30-36	36-42	42-48	>48		
Conifer Evergreen Large (CEL)												
Cedrus deodara	24	65	242	210	121	97	32	16	8	0	816	(±269)
Sequoia sempervirens	16	0	40	24	8	0	8	0	0	0	97	(±41)
CEL OTHER	0	8	16	48	40	16	8	8	0	0	145	(±44)
CEL Total	40	73	299	283	170	113	48	24	8	0	1,058	(±268)
Conifer Evergreen Medium (CEM)												
Cupressus arizonica	0	8	48	226	145	89	24	0	0	0	541	(±507)
CEM OTHER	0	0	0	0	0	0	0	0	0	0	0	0
CEM Total	0	8	48	226	145	89	24	0	0	0	541	(±507)
Palm Evergreen Large (PEL)												
PEL OTHER	0	0	8	0	0	8	0	0	0	0	16	(±11)
PEL Total	0	0	8	0	0	8	0	0	0	0	16	(±11)
Palm Evergreen Medium (PEM)												
PEM OTHER	0	8	0	0	0	0	0	0	0	0	8	(±8)
PEM Total	0	8	0	0	0	0	0	0	0	0	8	(±8)
Palm Evergreen Small (PES)												
Washingtonia robusta	0	8	16	16	16	16	0	0	0	0	73	(±26)
PES OTHER	0	0	24	0	0	0	0	0	0	0	24	(±17)
PES Total	0	8	40	16	16	16	0	0	0	0	97	(±30)
Neighborhood Total												
Neighborhood Total	622	565	993	1,123	993	727	323	178	113	16	5,654	(±706)

## Condition



## ***Maintenance Needs***

Based on the sample inventory, the Fig Garden area has an estimated 5,655 trees. The maintenance needs of these trees are summarized in the chart below

Maintenance Need	# of Trees	Standard Error	% of Pop.
Large Tree Routine Pruning	4,168	(±589)	73.71
Small Tree Routine Pruning	905	(±206)	16.00
Training Pruning	120	(±61)	2.14
Priority 1 Pruning	81	(±29)	1.43
Priority 2 Pruning	267	(±84)	4.71
Priority 1 Removal	24	(±17)	0.43
Priority 2 Removal	24	(±13)	0.43
Priority 3 Removal	65	(±33)	1.14
	<b>5,654</b>		<b>100%</b>

### ***Routine Pruning***

Routine pruning is an important part of normal tree maintenance. Routine pruning is defined as scheduled maintenance pruning that is performed to promote tree health and longevity, improve and maintain structure, reduce and manage the risk of tree failure, and to provide for clearance, and/or satisfy specific aesthetic criteria. Routine pruning may include some, or all, of the following maintenance tasks: crown cleaning, crown raising, crown reduction, thinning, reducing end weight, structural pruning, and/or restoration.

**Small Tree Routine.** Trees prescribed for small tree routine maintenance are small stature, mature trees that can be evaluated and pruned from the ground.

Fig Garden has an estimated 905 trees that require small tree routine pruning and maintenance.

**Large Tree Routine.** Trees prescribed for large tree routine maintenance are large enough to require bucket truck access or manual climbing.

Fig Garden has an estimated 4,168 trees that require large tree routine pruning and maintenance.

### ***Training Prune***

Training pruning for young and newly planted trees is the best investment for promoting long-term success, reducing costs, and maximizing the benefits and sustainability of an urban forest. Appropriate and timely training of young trees promotes healthy, sound growth and can substantially reduce future costs.

Training pruning focuses on the timely removal of smaller branches that, if allowed to mature, would result in undesirable or weak structure and/or future conflicts with infrastructure, visibility, or traffic. Because structural pruning removes smaller branches, typically less than two inches in diameter and generally not greater than four inches (depending on species), wounding of the tree is reduced,

promoting a quicker healing process, less stress on the tree, and stronger structure at maturity. The removal of smaller branches is less costly, requiring smaller crews, less equipment, and substantially reducing woody biomass and disposal costs. In addition, structural pruning can typically be performed with hand tools, creating a safer work environment for tree care personnel. Most importantly, appropriate structural pruning can substantially prolong the useful life of mature trees and reduce the risk and liability of structural failure.

Fig Garden has an estimated 120 trees that require training pruning.

### ***Priority Pruning***

Priority pruning is recommended for trees that have an increased level of risk associated with a defective or failing main stem, scaffold, or large branch, or existing hazardous deadwood, hangers, or broken branches. Typically, this translates into an increased risk of failure due to decline, poor structure or decay, and the presence of a target, such as people or property. Priority pruning consists of the removal of any dead, dying, decayed, poorly structured or weakened branches in order to reduce or eliminate the probability of failure.

Priority pruning should be completed as quickly as possible based on the level of priority, with precedence given to Priority 1 pruning.

**Priority 1 Prune.** Trees that have broken or hanging limbs, hazardous deadwood, and dead, dying, or diseased limbs or leaders greater than 4" in diameter.

Fig Garden has an estimated eighty-one (81) trees that require Priority 1 pruning.

**Priority 2 Prune.** Trees that have dead, dying, diseased, or weakened branches between two and four inches in diameter, and are potential safety hazards.

Fig Garden has an estimated two-hundred-sixty-seven (267) trees that require Priority 2 pruning.

### ***Removal***

Trees designated for removal have defects that cannot be cost-effectively or practically treated. The majority of the trees in this category have a large percentage of dead crown and pose an elevated risk of failure. Any hazards that could be seen as potential dangers to persons or property and seen as potential liabilities would be in this category. Large dead and dying trees that are high liability risks are included in this category. These trees are the first ones that should be removed.

**Priority 1 Removal.** Trees designated for Priority 1 removal should be removed within 12 months.

Fig Garden has an estimated 24 Priority 1 removals.

**Priority 2 or 3 Removal.** Trees designated for Priority 2 or Priority 3 removal should be removed as quickly as possible following the removal of any trees designated Priority 1.

Fig Garden has an estimated 89 Priority 2 or 3 removals.

## Summary of Fresno Fig Study Area Street Tree Surveys

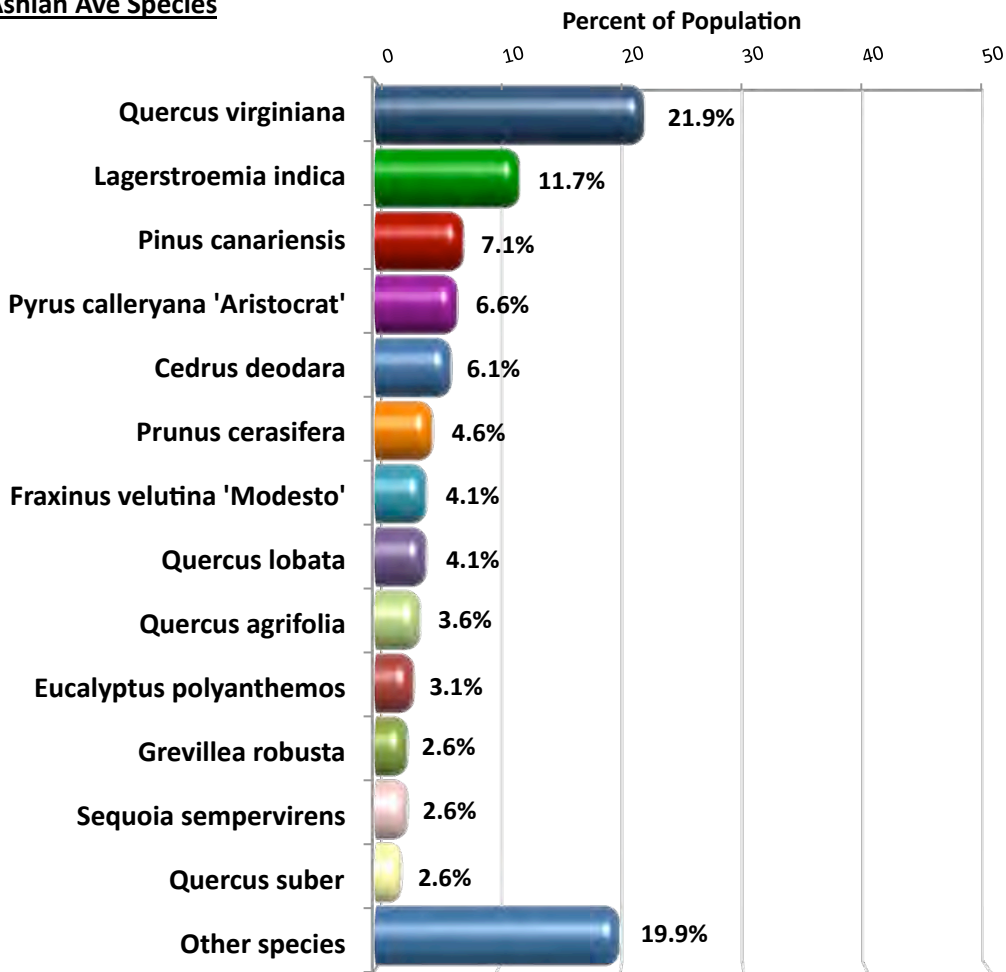
### Ashlan Avenue

Ashlan Avenue is primarily a two-lane street and a main thoroughfare through the Fig Garden neighborhood. It is commercial at the east and west boundaries of the surveyed area, but residential throughout the center. Traffic is heavy, and the residential area is not improved with curbs or sidewalks. Many of the plantings appear random and to have been installed as desired by homeowners.

### Species Frequency

A total of 196 street trees were surveyed on Ashlan Avenue. The most prevalent species is *Quercus virginiana* (Live oak) at 22%, followed by *Lagerstroemia indica* (Crape myrtle) at 12%, and *Pinus canariensis* (Canary Island pine) at 7%.

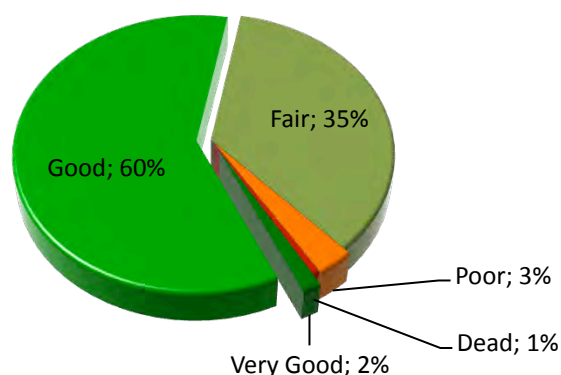
#### Ashlan Ave Species



## Condition

The street trees on Ashlan Avenue are in overall good condition, with 61% of trees in good or better condition and 35% in fair condition. The survey found six (6) trees (3%) in poor condition, and one (1) tree that is dead.

### Ashlan Ave Condition



## Maintenance Needs

One-hundred-eighty-six (186) trees (95%) on Ashlan Avenue need routine pruning, including one-hundred-forty-six (146) large trees and forty (40) small trees. One (1) tree needs Priority 2 pruning and five (5) trees are recommended for a training prune. A total of four (4) trees are recommended for removal, including one (1) Priority 2 Removal and three (3) Priority 3 Removals.

Ashlan Ave Maintenance Needs	# of Trees	% of Pop
Large Tree Routine Pruning	146	74.49
Small Tree Routine Pruning	40	20.41
Training Pruning	5	2.55
Priority 2 Pruning	1	0.51
Priority 2 Removal	1	0.51
Priority 3 Removal	3	1.53
	196	100%



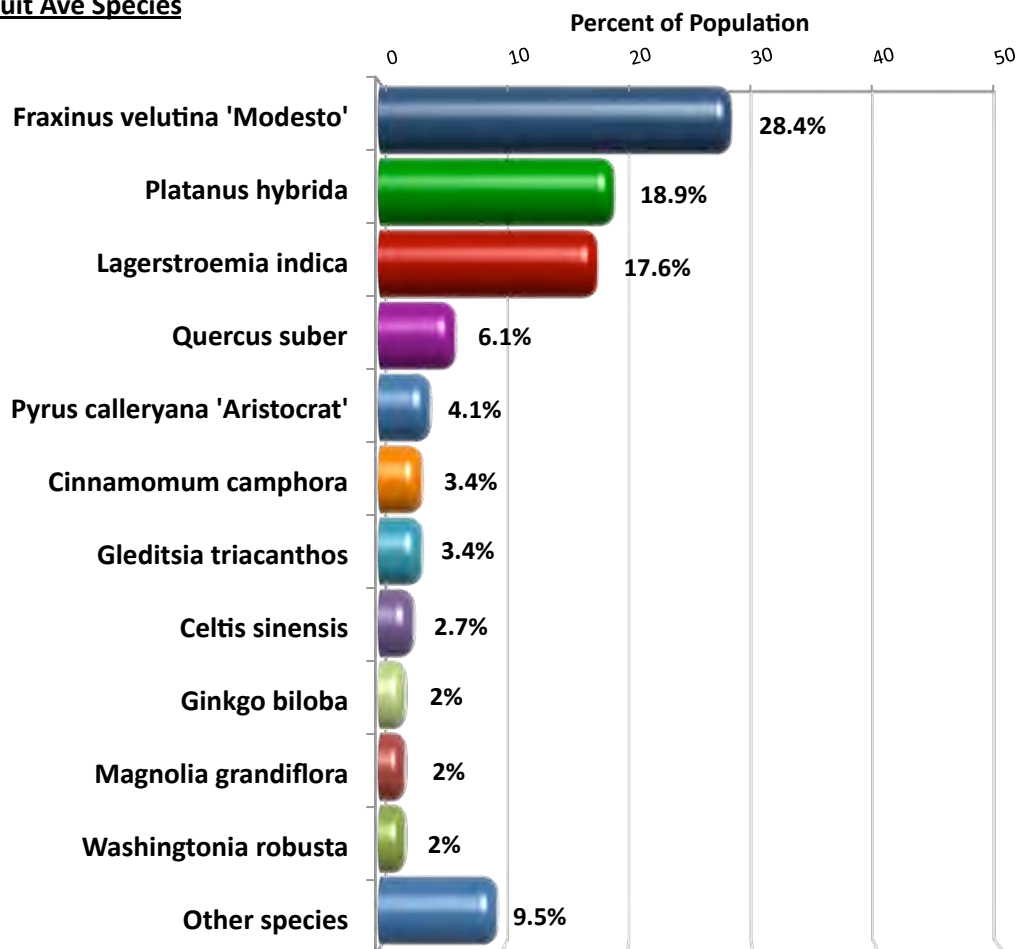
## Fruit Avenue

Fruit Avenue is a two-lane residential street that borders the Fig Garden neighborhood on the west. The street is mostly unimproved on the west side. Several blocks have a cohesive planting theme.

### Species Frequency

A total of 148 street trees were surveyed on Fruit Avenue. The most prevalent species is *Fraxinus velutina* 'Modesto' (Modesto ash) at 28%, followed by *Platanus hybrida* (London planetree) at 19%, and *Lagerstroemia indica* (Crapemyrtle) at 18%.

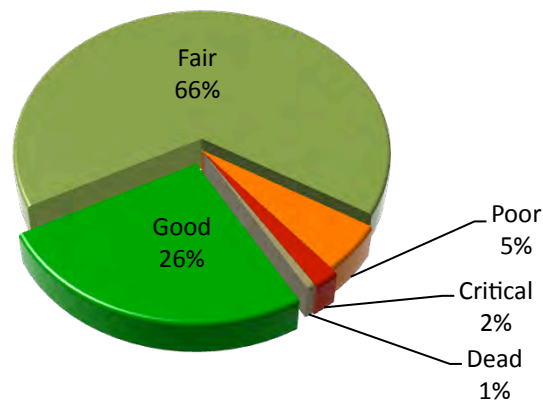
#### Fruit Ave Species



## Condition

The street trees on Fruit Avenue are in overall fair condition, with 66% of surveyed trees in fair condition and 26% in good condition. The survey found eleven (11) trees (7%) in poor or critical condition, and one (1) tree that is dead.

### Fruit Ave Condition



## Maintenance Needs

One-hundred-thirty-six (136 ) trees (93%) on Fruit Avenue need routine pruning, including one-hundred-ten (110) large trees and twenty-seven (27) small trees. Two (2) trees need priority pruning and three (3) trees are recommended for a training prune. A total of six (6) trees are recommended for removal, including four (4) Priority 1 Removal and two (2) Priority 3 Removals.

Fruit Ave Maintenance Needs	# of Trees	% of Pop
Large Tree Routine Pruning	110	74.32
Small Tree Routine Pruning	27	18.24
Training Pruning	3	2.03
Priority 1 Pruning	1	0.68
Priority 2 Pruning	1	0.68
Priority 1 Removal	4	2.70
Priority 3 Removal	2	1.35
	148	100%

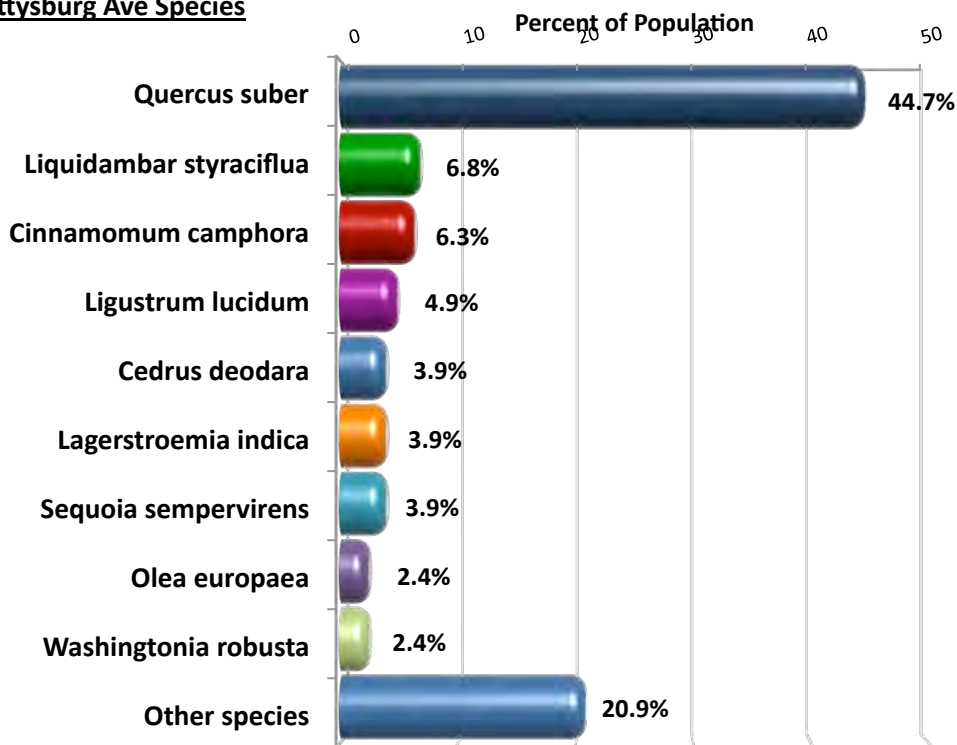
## Gettysburg Avenue

Gettysburg Avenue is a mostly unimproved, two-lane residential street with a substantial mature canopy. There is a public school on this street.

### Species Frequency

A total of two-hundred-six (206) street trees were surveyed on Gettysburg Avenue. The most prevalent species is *Quercus suber* (Cork oak) at 45%, followed by *Liquidambar styraciflua* (Sweetgum) at 7%, and *Cinnamomum camphora* (Camphor) at 6%.

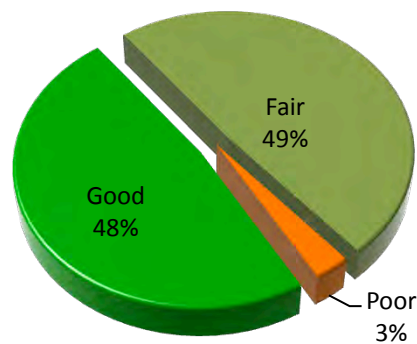
#### Gettysburg Ave Species



## Condition

The street trees on Gettysburg Avenue are in overall fair condition, with 49% of surveyed trees in fair condition and 48% in good condition. The survey found six (6) trees (3%) in poor condition.

### Gettysburg Ave Condition



## Maintenance Needs

Two-hundred (200) trees (97%) on Gettysburg Avenue need routine pruning, including one-hundred-eighty-nine (189) large trees and eleven (11) small trees. One (1) tree is recommended for Priority 1 Pruning and here (3) trees are recommended for Priority 3 Removal.

Gettysburg Ave Maintenance Needs	# of Trees	% of Pop
Large Tree Routine Pruning	189	91.75
Small Tree Routine Pruning	11	5.34
Priority 1 Pruning	1	0.49
Priority 3 Removal	5	2.43
	206	100%

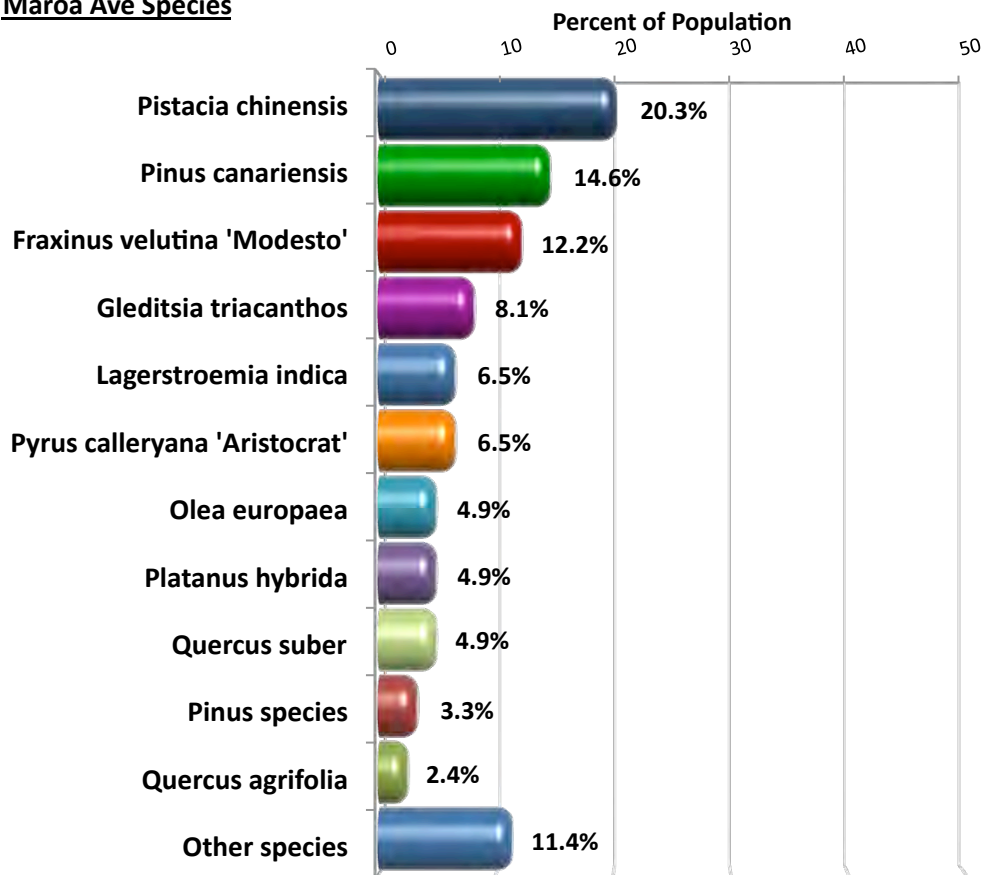
## Maroa Avenue

Maroa Avenue is a two-lane residential street without curb or sidewalk improvements. Several blocks have few or no street trees.

### Species Frequency

A total of one-hundred-twenty-three (123) street trees were surveyed on Maroa Avenue. The most prevalent species is *Pistacia chinensis* (Chinese pistache) at 20%, followed by *Pinus canariensis* (Canary Island pine) at 15%, and *Fraxinus velutina* 'Modesto' (Modesto ash) at 12%.

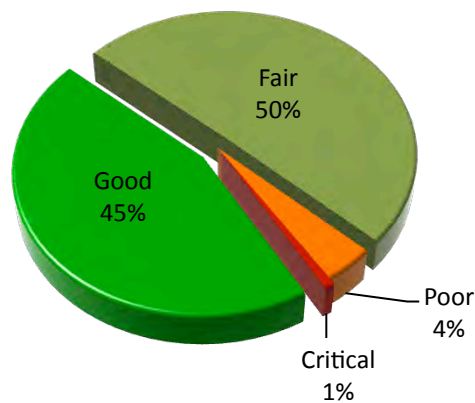
#### Maroa Ave Species



## Condition

The street trees on Maroa Avenue are in overall fair condition, with 50% of surveyed trees in fair condition and 45% in good condition. The survey found six (6) trees (5%) in poor or critical condition.

### Maroa Ave Condition



## Maintenance Needs

One-hundred-twenty (120) trees (98%) on Maroa Avenue need routine pruning, including one-hundred-ten (110) large trees and ten (10) small trees. One (1) tree needs Training Pruning. One (1) tree is recommended for Priority 1 Pruning and 1 tree is recommended for Priority 3 Removal.

Maroa Ave Maintenance Needs	# of Trees	% of Pop
Large Tree Routine Pruning	110	89.43
Small Tree Routine Pruning	10	8.13
Training Pruning	1	0.81
Priority 1 Pruning	1	0.81
Priority 3 Removal	1	0.81
	123	100%

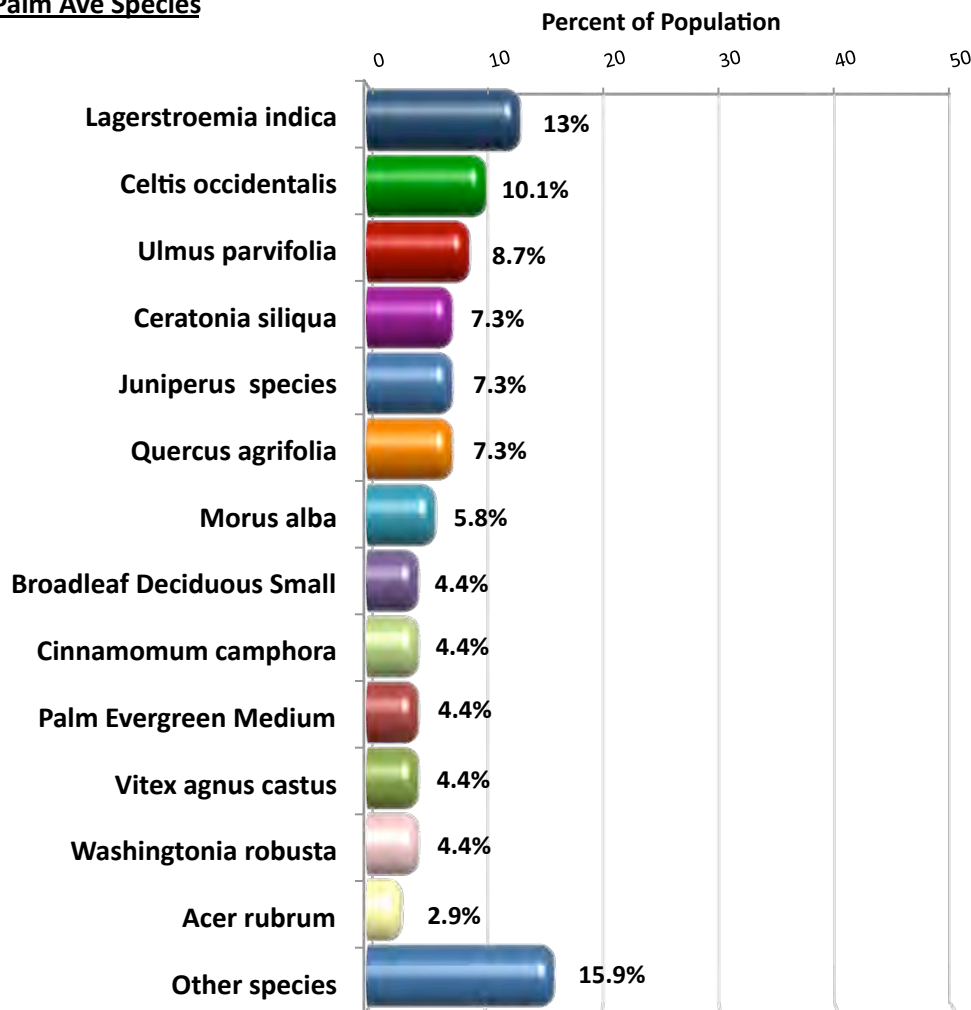
## ***Palm Avenue***

Palm Avenue is a busy 4-lane street with traffic lights. While the street is lined with residences, it is not pedestrian-friendly. There are very few street trees on Palm Avenue.

### ***Species Frequency***

A total of sixty-nine (69) street trees were surveyed on Palm Avenue. The most prevalent species is *Lagerstroemia indica* (Crape myrtle) at 13%, followed by *Celtis occidentalis* (Northern hackberry) at 10%, and *Ulmus parvifolia* (Chinese elm) at 9%.

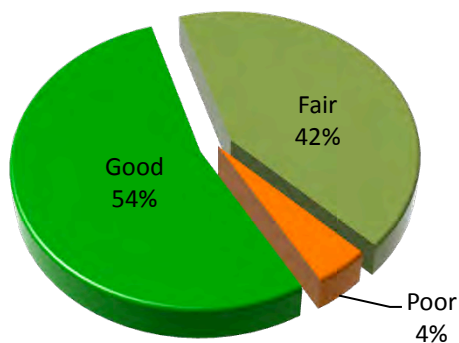
#### **Palm Ave Species**



## Condition

The street trees on Palm Avenue are in overall good condition, with 54% of surveyed trees in good condition and 42% in fair condition. The survey found three (3) trees (4%) in poor condition.

### Palm Ave Condition



## Maintenance Needs

Sixty-eight (68) trees (99%) on Palm Avenue need routine pruning, including forty-seven (47) large trees and twenty-one (21) small trees. Two (2) are recommended for Priority 2 Pruning.

Palm Ave Maintenance Needs	# of Trees	% of Pop
Large Tree Routine Pruning	47	68.12
Small Tree Routine Pruning	21	30.43
Priority 2 Pruning	1	1.45
	69	100%



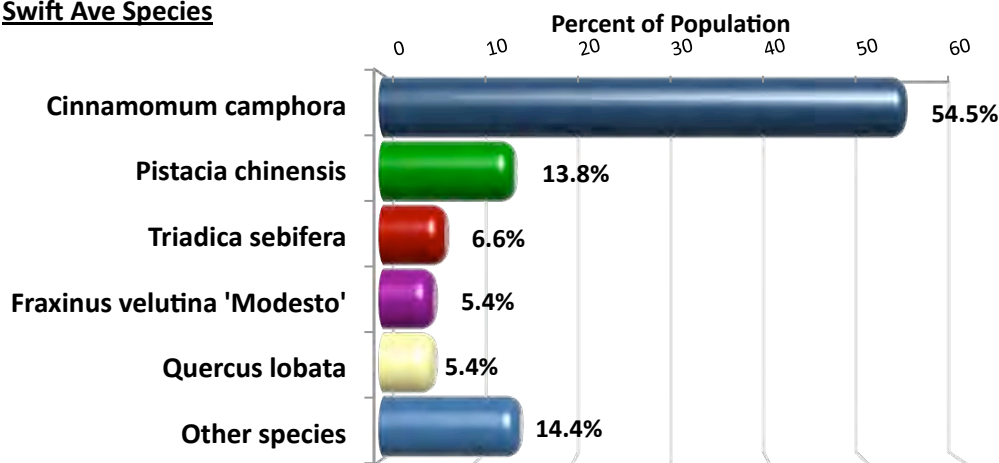
## Swift Avenue

Swift Avenue is a mostly unimproved, two-lane residential street. There is a public school and much of the street is lined with mature trees.

### Species Frequency

A total of one-hundred-sixty-seven (167) street trees were surveyed on Swift Avenue. The most prevalent species is *Cinnamomum camphora* (Camphor) at 54%, followed by *Pistacia chinensis* (Chinese pistache) at 14%, and *Triadica sebifera* (Tallowtree) at 7%.

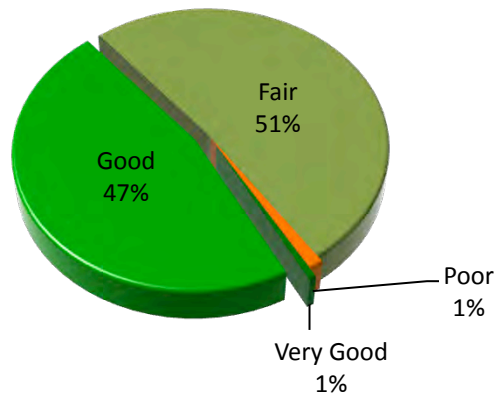
#### Swift Ave Species



### Condition

The street trees on Swift Avenue are in overall fair to good condition, with 51% of surveyed trees in fair condition and 47% in good or better condition. The survey found two (2) trees (1%) in poor condition.

### Swift Ave Condition



### Maintenance Needs

One-hundred-fifty-six (156) trees (93%) on Swift Avenue need routine pruning, including one-hundred-forty-eight (148) large trees and eight (8) small trees. One (1) tree needs Training Pruning. Eight (8) trees are recommended for Priority 2 Pruning and two (2) trees are recommended for Priority 3 Removal.

Swift Ave Maintenance Needs	# of Trees	% of Pop
Large Tree Routine Pruning	148	88.62
Small Tree Routine Pruning	8	4.79
Training Pruning	1	0.60
Priority 2 Pruning	8	4.79
Priority 3 Removal	2	1.20
	167	100%

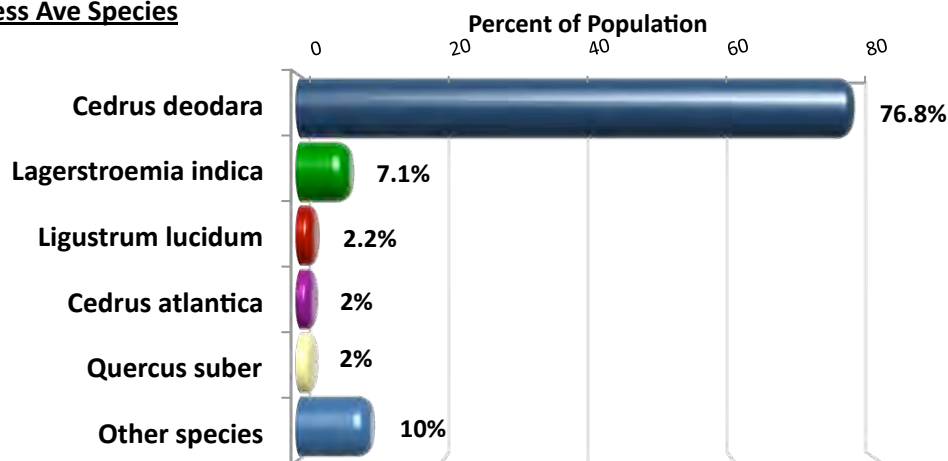
## Van Ness Avenue

Van Ness Avenue (a.k.a. Christmas Tree Lane) is a well maintained, two-lane residential street. The street is unimproved with curbs or sidewalks. While there is no clearly defined ROW, the street is lined with deodar cedars from beginning to end. Traffic is not generally too heavy, but apparently picks up during the Holiday Season.

### Species Frequency

A total of four-hundred-ten (410) street trees were surveyed on Van Ness Avenue. The most prevalent species is *Cedrus deodara* (Deodar cedar) at 77%, followed by *Lagerstroemia indica* (Crape myrtle) at 7%, and *Ligustrum lucidum* (Chinese privet) at 2%.

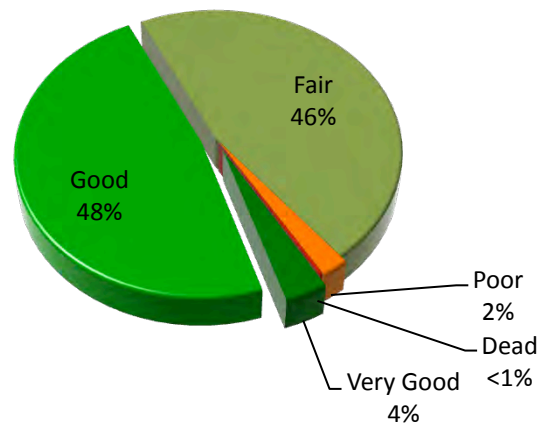
#### Van Ness Ave Species



### Condition

The street trees on Van Ness Avenue are in overall good condition, with 52% of trees in good or better condition and 46% in fair condition. The survey found nine (9) trees (2%) in poor condition, and one (1) tree that is dead.

### Van Ness Ave Condition



### Maintenance Needs

Three-hundred-eighty-two (382) trees (93%) on Van Ness Avenue need routine pruning, including three-hundred-thirty-five (335) large trees and forty-seven (47) small trees. Twenty-six (26) trees need priority pruning and two (2) trees are recommended for removal.

Van Ness Ave Maintenance Needs	# of Trees	% of Pop
Large Tree Routine Pruning	335	81.71
Small Tree Routine Pruning	47	11.46
Priority 1 Pruning	6	1.46
Priority 2 Pruning	20	4.88
Priority 1 Removal	1	0.24
Priority 3 Removal	1	0.24
	410	100%

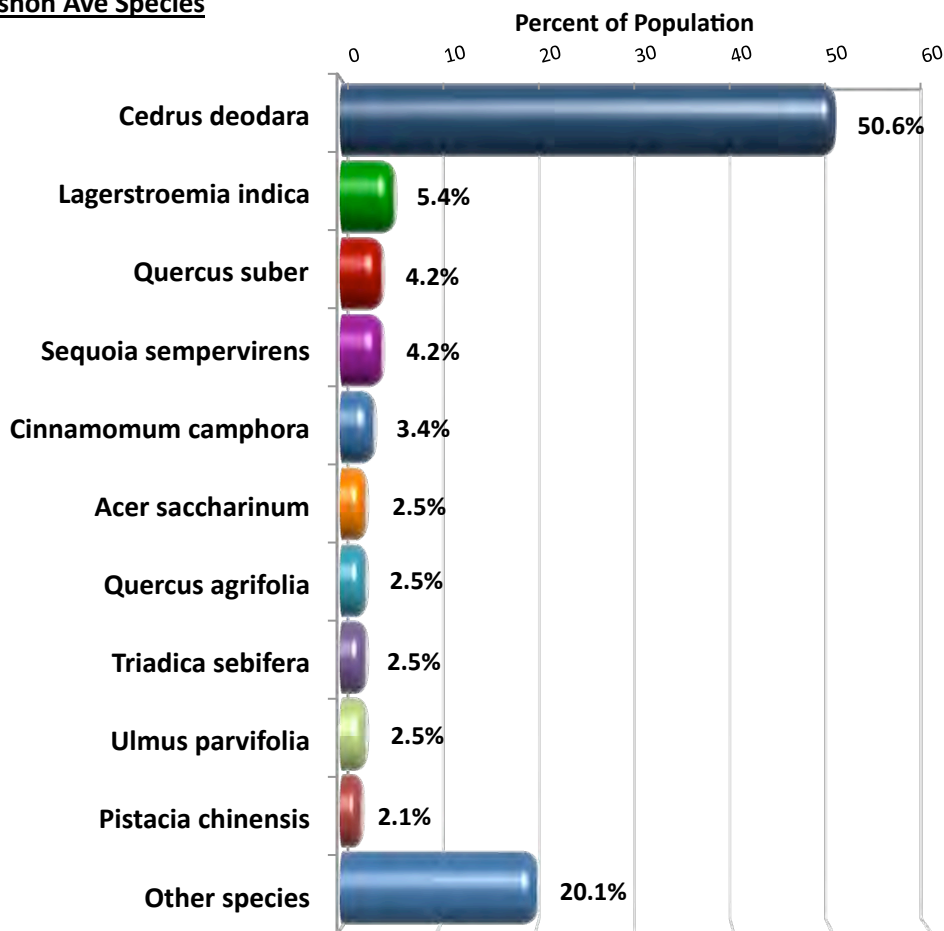
## Wishon Avenue

Wishon Avenue is a quiet, two-lane residential street without either improvements or a clearly defined Right of Way.

### Species Frequency

A total of two-hundred-thirty-nine (239) street trees were surveyed on Wishon Avenue. The most prevalent species is *Cedrus deodara* (Deodar cedar) at 51%, followed by *Lagerstroemia indica* (Crapemyrtle) at 5%, and *Quercus suber* (Cork oak) at 4%.

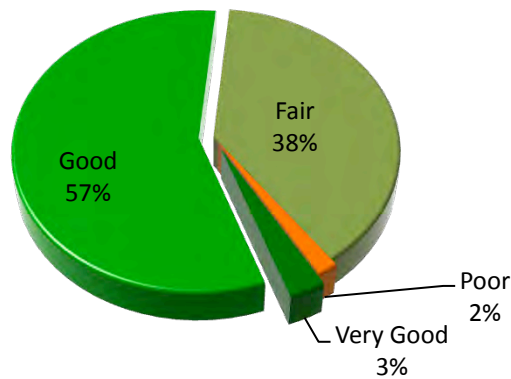
#### Wishon Ave Species



## Condition

The street trees on Wishon Avenue are in overall good condition, with 60% of trees in good or better condition and 38% in fair condition. The survey found four (4) trees (2%) in poor condition.

### Wishon Ave Condition



## Maintenance Needs

Two-hundred-twenty-eight (228) trees (95%) on Wishon Avenue need routine pruning, including one-hundred-ninety-eight (198) large trees and thirty (30) small trees. Seven (7) trees need priority pruning and three (3) trees need training. One (1) tree is recommended for removal.

Wishon Ave Maintenance Needs	# of Trees	% of Pop
Large Tree Routine Pruning	198	82.85
Small Tree Routine Pruning	30	12.55
Training Pruning	3	1.26
Priority 1 Pruning	1	0.42
Priority 2 Pruning	6	2.51
Priority 3 Removal	1	0.42
	239	100%

## Predominant Species by Street

The following table illustrates the predominant species and the average condition rating of that species determined by the complete inventory of primary streets within the study area.

Primary Street	Predominant Species	Average Condition Rating
Ashlan Avenue	<i>Quercus virginiana</i>	Fair
Fruit Avenue	<i>Fraxinus velutina</i> 'Modesto'	Poor
Gettysburg Avenue	<i>Quercus suber</i>	Fair
Maroa Avenue	<i>Pistacia chinensis</i>	Fair
Palm Avenue	<i>Lagerstroemia indica</i>	Fair
Swift Avenue	<i>Cinnamomum camphora</i>	Fair
Van Ness Avenue	<i>Cedrus deodara</i>	Fair
Wishon Avenue	<i>Cedrus deodara</i>	Fair

The following table illustrates the predominant species on other streets within the study area. For these streets, the primary species was identified remotely using Google Maps with Street View. The condition rating is based on the overall rating for that species throughout the study area, determined by the i-Tree sample inventory. Where 2 species are listed, their predominance is equal. Where none is indicated, no single species dominated the population.

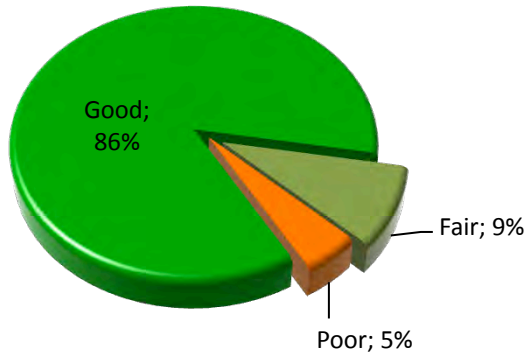
Street	Predominant Species	Average Condition Rating*
Wilson Avenue	<i>Platanus hybrida</i>	Fair
Rialto Avenue	<i>Eucalyptus viminalis</i>	Fair
Fairmont Avenue	<i>Cinnamomum camphora</i>	Fair
Arthur Avenue	<i>Cupressus arizonica</i>	Fair
Indianapolis Avenue (Fruit to Van Ness)	<i>Schinus molle</i>	Poor
Indianapolis Avenue (Van Ness to Glenn)	None	Fair
Holland Avenue (Maroa to Palm)	<i>Grevillea robusta</i>	Fair
Holland Avenue (Palm to Thorne)	<i>Fraxinus velutina</i> 'Modesto'	Poor
Hampton Way	None	Fair
Griffith Way	<i>Cedrus deodara</i> <i>Fraxinus velutina</i> 'Modesto'	Fair Poor
Saginaw Way	<i>Eucalyptus viminalis</i>	Fair
Lansing Way	<i>Platanus hybrida</i>	Fair
N. Vagedes Avenue	<i>Fraxinus velutina</i> 'Modesto'	Poor
Sussex Way	<i>Cupressus arizonica</i>	Fair
Buckingham Way	<i>Quercus suber</i>	Fair
Garland Avenue	<i>Cedrus deodara</i>	Fair
Fedora Avenue	<i>Cedrus deodara</i>	Fair

Fountain Way	<i>Cinnamomum camphora</i>	Fair
	<i>Fraxinus velutina</i> 'Modesto'	Poor

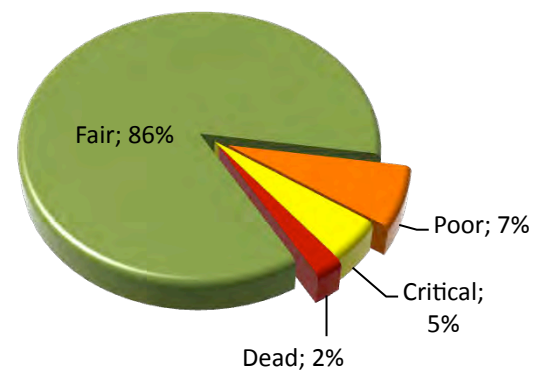
\*Average Condition Rating is based on i-Tree sample inventory overall results for that species throughout the study area

### Predominant Species - Condition Charts

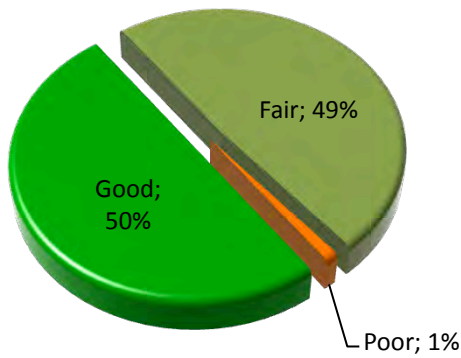
**Quercus virginiana - Ashlan Ave.**



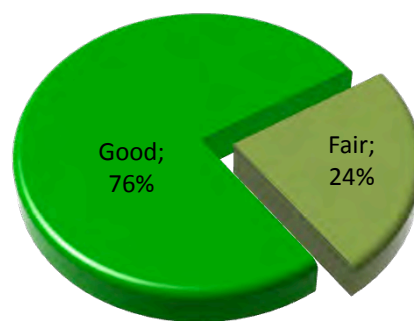
**Fraxinus velutina 'Modesto' - Fruit Ave.**



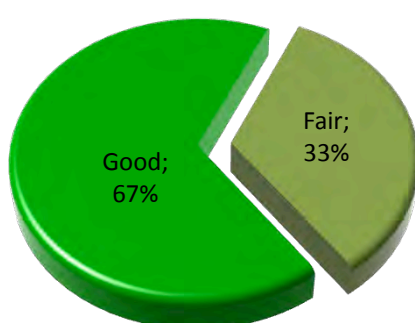
**Quercus suber - Gettysburg Ave.**



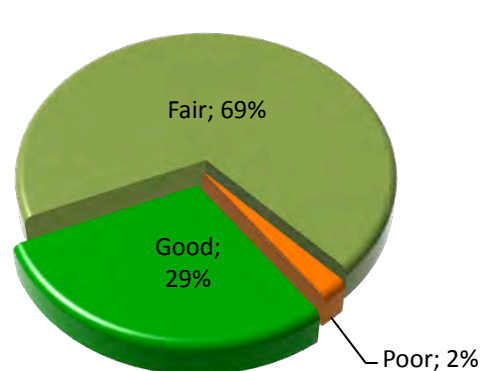
**Pistachia chinensis - Maroa Ave.**



**Lagerstroemia indica - Palm Ave.**



**Cinnamomum camphora - Swift Ave.**

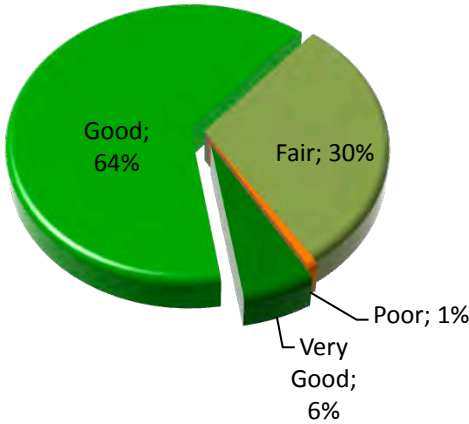




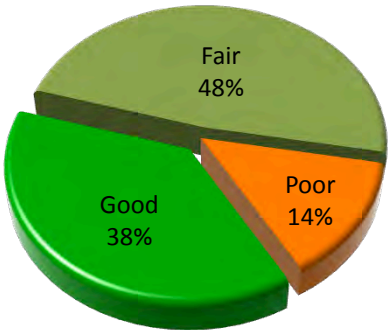
**Cedrus deodara - Van Ness Ave.**



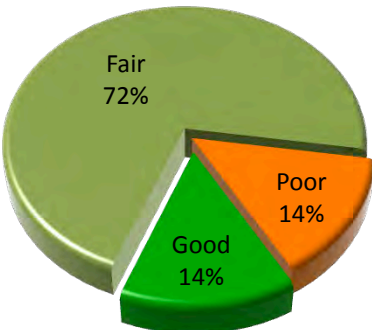
**Cedrus deodara - Wishon Ave.**



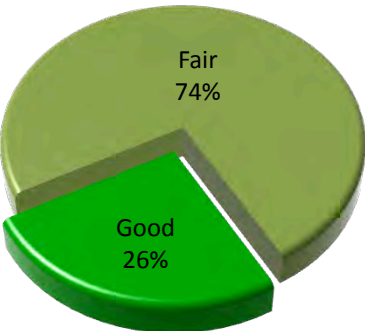
**Platanus hybrida**



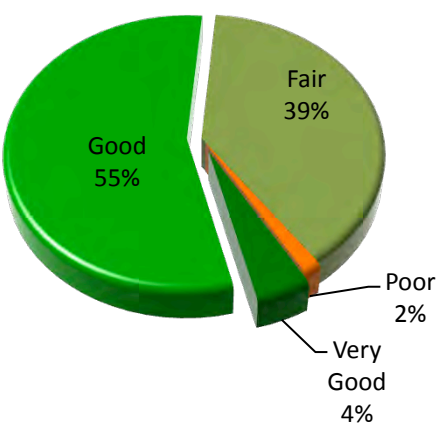
**Eucalyptus viminalis**



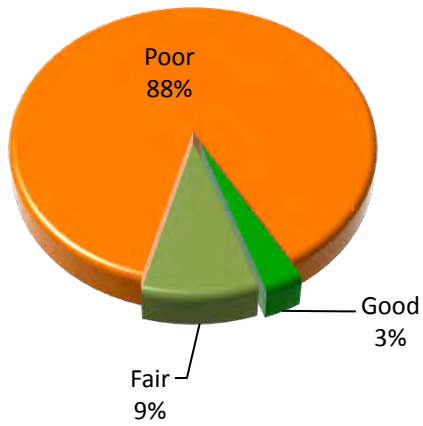
**Cinnamomum camphora**



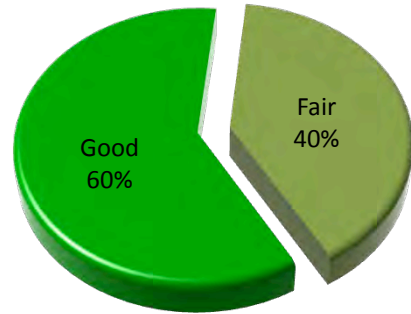
**Cupressus arizonica**



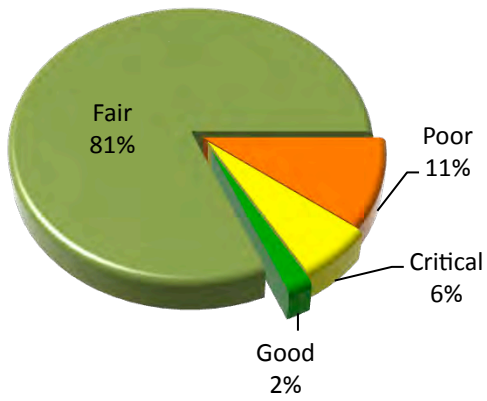
**Schinus molle**



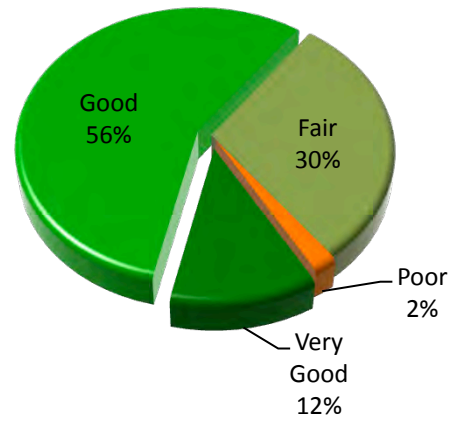
**Grevillea robusta**



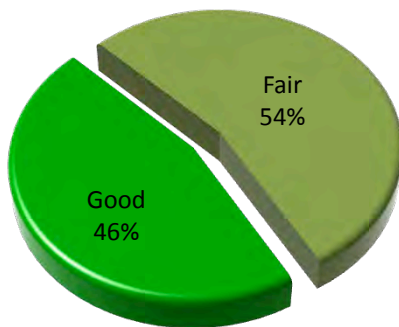
**Fraxinus velutina 'Modesto'**



**Cedrus deodara**



**Quercus suber**



## ***Recommendations for Future Care***

### **Species Diversity**

Maintaining a diverse population within an urban forest is important. Dominance of any single species or genus can have catastrophic consequences in the event of storms, drought, disease, pests, or other stressors, which can severely affect an urban forest and the flow of benefits and costs over time. No single species should represent greater than 10% of the population, while no single genus more than 20% (Clark Et al, 1997)<sup>3</sup>.

**Age Distribution.** The distribution of individual tree ages within a tree population influences present and future costs as well as the flow of benefits. An unevenly-aged population allows managers to allocate annual maintenance costs more uniformly over many years and assures continuity in overall tree canopy coverage and associated benefits. A desirable distribution has a high proportion of young trees to offset establishment and age-related mortality as the percentage of older trees declines over time (Richards, 1982/83)<sup>4</sup>. This ideal, albeit uneven, distribution suggests the largest fraction of trees (+/-40% of the total) should be young, with diameters less than eight inches, while only 10% should be in the large diameter classes (>24 inches).

**Trees under utilities.** To promote safety and reduce maintenance costs, and to minimize the risk of tree caused power outages, plant smaller statured, utility-friendly trees where overhead utilities exist.

**Planting guidelines.** Trees should be installed according to best management practices and industry standards outlined by the American National Standards Institute (ANSI) A300 Transplanting Standard - Part 6 (2005 or most current).

### **Pruning Standards**

All tree pruning performed should be supervised, or performed, by an International Society of Arboriculture (ISA) Certified Arborist or Certified Tree Worker and should conform to all ANSI A300 Standards for Tree Care Operations, including ANSI A300 Pruning Standard - Part 1 (2008 or most current) and ANSI Z133.1 Safety Standard (2006 or most current).

### ***Pruning Cycles***

Appropriate and timely pruning is critical to tree health in order to realize maximum benefits, increase service life, and to promote public safety. Depending upon budget resources, species, and design requirements an appropriate pruning cycle for mature trees is every five to seven years. Trees with special design requirements and some species may need to be pruned more often to maintain desirable characteristics.

### ***Regular Inspections***

When an urban forest is proactively managed, including structural and training pruning of young trees and routine pruning, the need for most priority pruning and other reactive operations should be

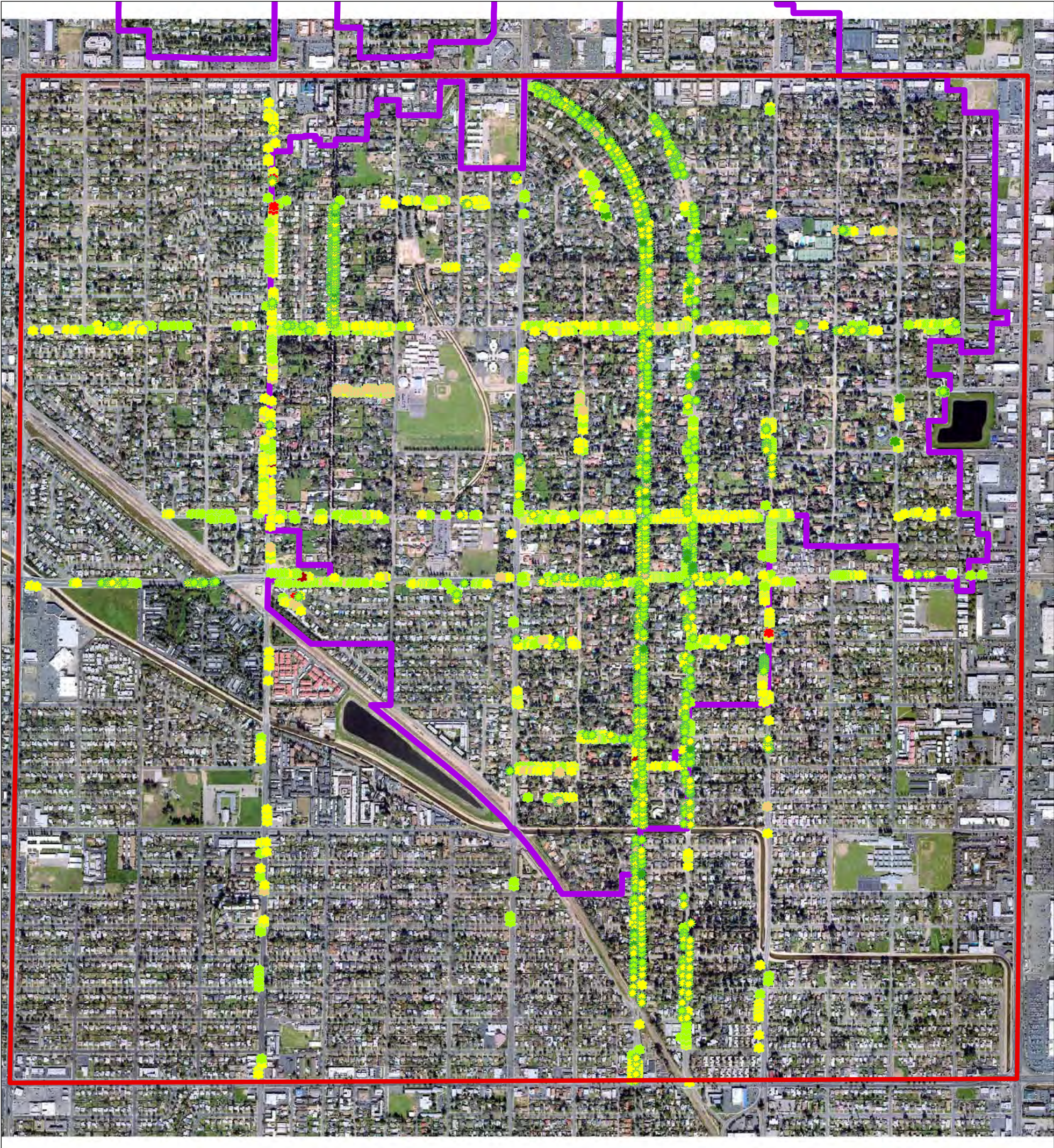
---

<sup>3</sup> Clark JR, Matheny NP, Cross G, Wake V. 1997. A model of urban forest sustainability. J Arbor 23(1):17-30.

<sup>4</sup> Richards NA. 1982/83. Diversity and stability in a street tree population. Urban Ecology. 7:159-171.

reduced. However all trees should be regularly inspected, especially following major storms or high winds, in order to identify maintenance needs before they reach a critical stage. In addition, as trees become over-mature, careful monitoring of condition, branch attachments, and areas of cavity and decay is necessary to identify and mitigate risk factors as they develop.





**Condition**



CityLimits



Study Area

**Tree Species**

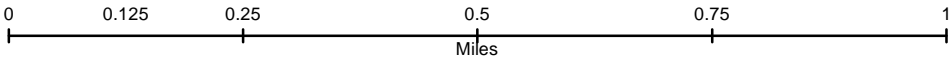


Deciduous



Evergreen

**Tree Inventory  
Overview Map**





## ***Fresno Fig Neighborhood Planting and Planning History***

### **Origins (1910-1920)**

James Clayton Forkner came to California circa 1906. He lived and worked in the Los Angeles area for four years and, in 1910, obtained a one-year option to purchase 6,000 acres of “outlaw land,” or “hog wallow” north of the city of Fresno, from the Bullard Company. By 1913, his holdings had increased to 12,000 acres including most of present-day north Fresno.

When Forkner purchased the property, the soil was hardpan and unsuitable for farming. However, Forkner had learned that beneath the hard pan was soil ideal for growing fig trees<sup>2</sup>. Mr. Forkner used 660,000 tons of dynamite to blast through the hard pan and expose the rich soil below. His crew of 400 men and Ford tractors, worked feverishly to create a system of canals and irrigation ditches, fed by the Kings River, to supply water to the fig gardens.

In 1919, Forkner and local farmer, Wylie M. Giffen subdivided a portion of the 12,000 acres into the Forkner Giffen Subdivisions No. 1 and 2. The parcels were initially one-acre “suburban” lots and were planted with Kadota fig trees. Easy access to downtown Fresno was facilitated through the Fresno Traction Company street car line which ran up the center of the tract, to the San Joaquin River. Today, this charming neighborhood includes grand homes built in the early 1920s as well as more modest cottages. “Old Fig Garden” is a part of a larger “county island” which is completely surrounded by the City of Fresno. (K. Hattersley-Drayton, personal communication, June 1, 2012).

Forkner envisioned a neighborhood with a verdant tree canopy. In 1919, Mr. Forkner hired Horace Cotton, a landscape architect from San Francisco, to design the plantings that would line the streets of the Forkner Giffen Tract. Each street would be planted with a selected tree species<sup>4</sup>. They lined the main street, Van Ness Boulevard, with Deodar cedar (*Cedrus deodara*) trees that typically grow to fifty to seventy feet tall when mature. Garland, Fedora, and Daytona Avenues are also lined with cedars. Rialto, Saginaw, and Pontiac Avenues are lined with manna gum (*Eucalyptus viminalis*). Sussex Way was planted with Arizona Cypress (*Cupressus arizonica*). Gettysburg Avenue and Buckingham Way are comprised of cork oak (*Quercus suber*). Swift Avenue is lined with camphor (*Cinnamomum camphora*) trees, while Indianapolis Avenue is lined with the California pepper tree (*Schinus molle*)<sup>5</sup>.

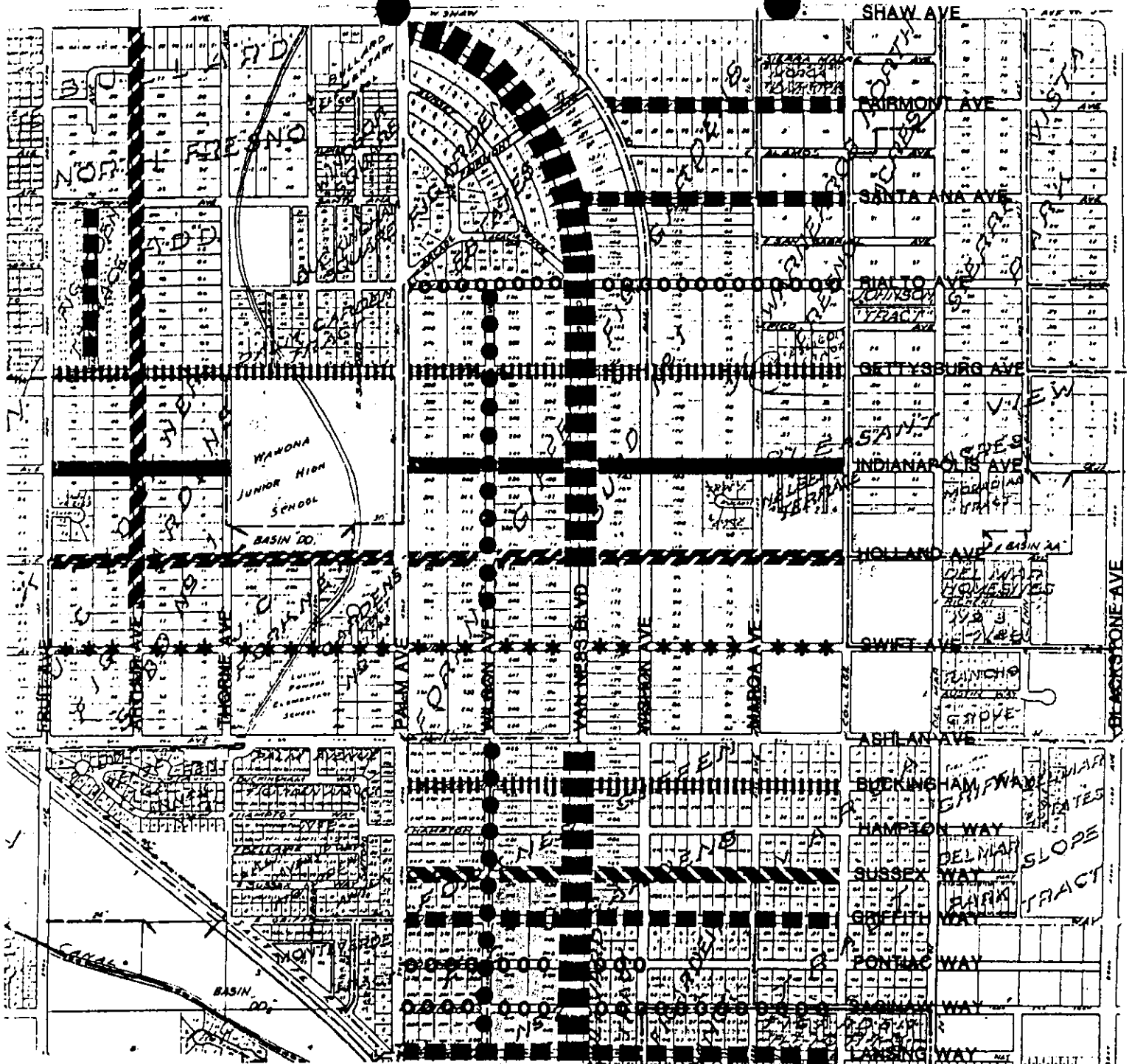
A recent inventory of trees in the neighborhood indicated that secondary plantings, likely planted in the 1950s and 60s, include Modesto ash (*Fraxinus velutina*) and Canary Island pine (*Pinus canariensis*). The Modesto ash trees are found on several of the streets, including Fairmont, Santa Ana, Griffith and Lansing<sup>5</sup>. Tertiary plantings, from the last two or three decades, include the London plane (*Platanus acerifolia*) and crape myrtle (*Lagerstroemia*).

A 1991 inventory of trees along Ashlan Avenue, conducted by HortScience, showed a wide variety of landscape trees of different species and ages. While the fig is not the dominant tree in the neighborhood, many can be found along the streets and in the back yards of the properties.

In 2000, the Fig Garden Homeowner Association Beautification Ordinances were instated to help preserve trees and enforce some minimum urban standards of property maintenance. Recent maintenance includes replacing street trees and planting areas without street trees<sup>7</sup>.

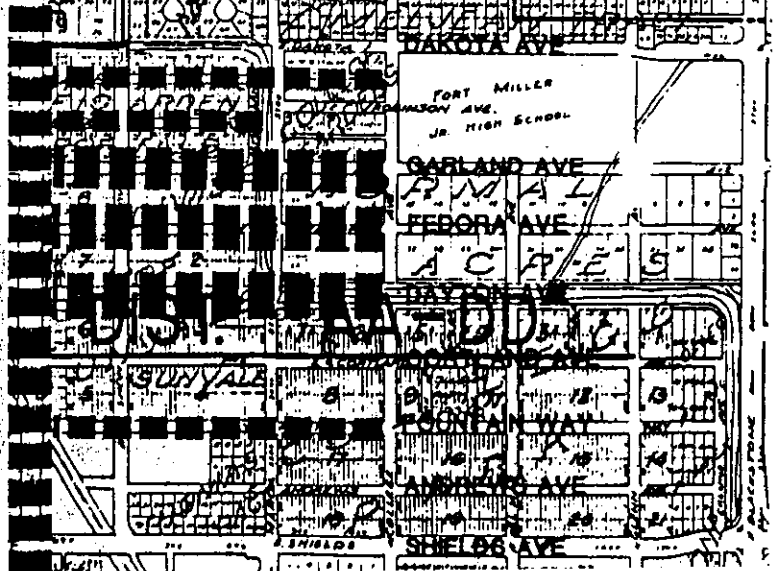
## References

1. Honeyman, Kirsten (2011). "Living the Good Life in Fresno's Mediterranean Climate". Fresno Magazine. <http://www.fresnomag.com/gardeningsolutions>. Retrieved 2012-1-5
2. Laval, Pop (1960). "JC Forkner and the Development of the Fig Gardens". Fresno Guide <http://poplavalfoundation.org/index.php?id=32> Retrieved 2011-12-8
3. Brennan, Georgeanne (2008). "J.C. Forkner, The Smyrna Fig, and His Fig Gardens". Culinary Historians of New York; Volume 21, No.2. [http://www.culinaryhistoriansny.org/files/Newsletters/CHNY\\_Newsletter\\_2008\\_Spring.pdf](http://www.culinaryhistoriansny.org/files/Newsletters/CHNY_Newsletter_2008_Spring.pdf) Retrieved 2011-12-20
4. McFarland, J. Randall (2010). "Approve Historic Designation of the Old Fig Garden Residential Area as a Historic District". County of Fresno Board of Supervisors Agenda Item. [http://www2.co.fresno.ca.us/0110a/Questys\\_Agenda/MG174491/AS174492/AS174496/AI174881/DO174882/DO\\_174882.PDF](http://www2.co.fresno.ca.us/0110a/Questys_Agenda/MG174491/AS174492/AS174496/AI174881/DO174882/DO_174882.PDF) Retrieved 2012-1-3
5. Fig Tree Maps.pdf. Document. Source Unknown. Retrieved from Karana Hattersley-Drayton, City of Fresno, 2011-12-22
6. Rehart, Catherine Morison (1996). The Valley's Legends and Legacies. P. 186. Quill Driver Books. [http://books.google.com/books?id=cCpk\\_P3d-h0C&q=forkner#v=snippet&q=forkner&f=false](http://books.google.com/books?id=cCpk_P3d-h0C&q=forkner#v=snippet&q=forkner&f=false) Retrieved 2012-01-03
7. FGHA (2011). <http://oldfig.org/> Retrieved 2011-12-8



## PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME
	CEDRUS DEODORA	DEODAR CEDAR
	CINNAMOMUM CAMPHORA	CAMPHOR TREE
	CUPRESSUS ARIZONICA	ARIZONIA CYPRESS
	EUCALYPTUS VIMINALIS	MANNA GUM
	FRAXINUS V. "MODESTO"	MODESTO ASH
	GREVILLEA ROBUSTA	SILK OAK
	PLATANUS RACEMOSA	CALIF. SYCAMORE
	QUERCUS SUBRA	CORK OAK
	SCHINUS MOLLE	CALIF. PEPPER TREE





## OLD FIG GARDEN TREES

As we all know, a big part of the charm of Old Fig Garden is the trees. Originally Old Fig Garden was planted with particular trees assigned to certain streets. This added continuity to the street. The streets that have the majority of their original planting are the most beautiful and the most inviting. Over the years some trees have died or have been removed for one reason or another.

We encourage residents of Old Fig Garden to help re-establish the street tree planting as it was originally instituted.

Below is a partial list of the trees and the streets they occupy:

<u>Deador Cedar</u>	<u>Camphor Tree</u>	<u>Manna Gum</u>
Van Ness	Swift	Rialto
Wishon		Saginaw
<u>Modesto Ash</u>	<u>California Pepper</u>	<u>Cork Oak</u>
Vagedes	Indianapolis	Gettysburg
Safford		Buckingham
Harrison		
Santa Ana		
Lansing		
Griffith		
<u>Arizona Cypress</u>	<u>Calif. Sycamore</u>	<u>Silk Oak</u>
Arthur	Wilson	Holland
Sussex	Santa Ana	
<u>Chinese Hackberry</u>		
Thorne		

### Care of Newly Planted & Young Trees

- Make a basin around tree slightly larger than rootball.
- Water trees once or twice a week during hot weather. Trees prefer infrequent deep watering.
- Due to difference in soils, check trees often to prevent drying or over watering.

## GOOD NEIGHBORS

We all agree that Old Fig Garden is a unique and special place to live. In order to maintain its unique character we must all do our part. Please remember to remove trash cans, dumpsters, and other trash receptacles from the street and away from public view by the end of the pick up day. Unsightly bins and trash receptacles that remain in public view detract from the character of our neighborhood to the detriment of us all. In addition, please remember to pick up trash not only in your own yard, but in the road right-of-way surrounding your property.

Finally, please take a few moments to see that all tree and landscaping in the right-of-way are adequately watered and cared for. This is particularly important as warmer weather approaches.

Thank you for your help in keeping Old Fig Garden a very special place.

## WALKERS, JOGGERS AND DOGS

One of the unique qualities of Old Fig Garden is the ability to walk and jog through our neighborhood. Please remember to keep all dogs fenced in or on a leash in order to keep them from bothering other joggers and walkers. Recently, we have received several reports of unleashed dogs bothering/attacking walkers and those riding bicycles as well as dogs darting out in the road in the path of cars. As a protection to your dogs and as a courtesy to others, please obey the leash laws.

*This page left intentionally blank*

## G. STEERING COMMITTEE GUIDELINES

*This page left intentionally blank*

# **Old Fig Garden**

## **Community Transportation and Land Use Study**

### **Steering Committee**

#### *Final Committee Guidelines*

#### **1. Purpose and Responsibilities**

The following describes the purpose and responsibilities of the Old Fig Garden Steering Committee (Steering Committee, Committee).

##### ***Purpose***

The purpose of the Steering Committee is to support the Project Management and Consultant Team in their development and preparation of a Transportation and Land Use Study (Study) for the Old Fig Garden project area as identified in the RFP and Caltrans Grant Application for the project.

It is vital to the success of the process that the Steering Committee help to generate consensus about the study's recommendations that is based on the input of an informed and active local constituency and provides for the comprehensive input of all involved stakeholders, agencies, and organizations.

While the Steering Committee will provide comments and input on questions related to existing conditions and issues as well as the development of recommendations for solutions to identified issues, the final decisions on the potential approval of recommendations, such as zoning, policies, and improvement standards potentially reflected in the Study's final report, will be the responsibility of the Fresno County Board of Supervisors, the Fresno Council of Governments Policy Board, and the Fresno City Council.

The Old Fig Garden Steering Committee consists of the following members:

- City of Fresno (1 representative\*)
- County of Fresno (1 representative\*)
- Fresno Council of Governments (1 representative\*)
- Caltrans (1 representative\*)
- Old Fig Garden Home Owners Association (5 representatives)
- Other project area representatives (7 representatives)

\* If more than one representative from a given agency are present, only one such representative shall take part in the Committee's consensus related discussions.

##### ***Responsibilities***

Steering Committee members are responsible for representing the interests and concerns of the organizations, institutions, or constituencies that have appointed them. Therefore, Steering

Committee members will be expected to consult with these entities and constituencies on a regular basis concerning the discussions and recommendations of the Steering Committee.

Steering Committee members are expected to remain on the Steering Committee for the duration of the Project. If a member leaves the Steering Committee for any reason, he/she will be replaced with another member from the same organization.

Additions to the Steering Committee: During the course of its deliberations, the Steering Committee may determine that it's in the best interests of achieving a quality and informed outcome to add additional members with different perspectives to the Steering Committee. Such new members may be added by consensus of the Steering Committee.

Steering Committee members are expected to listen to presentations and/or review materials and provide comments on project goals and principles, stakeholder involvement/public outreach, and draft elements for the final Old Fig Garden Transportation and Land Use Study.

## **2. Meetings**

The following items are intended to guide the conduct of Old Fig Garden Steering Committee meetings.

### ***Agendas***

Project Management Team staff will distribute meeting agendas and background materials one week before the scheduled meeting date. The final agenda will be issued a minimum of 72 hours ahead of the meeting date. Agendas will be developed by the Project Management and Consultant Teams in consultation with the Steering Committee Chair.

The agenda typically will include the following:

- Starting Time and Meeting Location
- Introductions
- Review and Approval of Draft Action Minutes from the Last Meeting – (Suggested modifications should be called ahead.)
- Scheduled Agenda Items
- Public Comments
- Confirm Date and Time of Next Meeting – (If a regular meeting time is not set.)

### ***Attendance***

There will be five (5) Steering Committee Meetings over the course of the Old Fig Garden Community Land Use and Transportation Study. A tentative meeting schedule will be set at the first meeting. The final meeting dates will be scheduled on a meeting-to-meeting basis, depending on what works best for the Committee members and staff. Steering Committee members must make a good faith effort to attend all meetings. If a member is unable to attend a meeting, they should notify the Steering Committee Chair (Ms. Louise Yenovkian) a minimum of 24 hours before the meeting is scheduled to convene. Members that must miss a meeting may submit written comments.

All meetings of the Steering Committee will be open to the public. However, only Steering Committee members or their alternates may participate in consensus decisions related to input provided by the Committee. Observers must identify themselves when they speak.

### **Chair and Vice-Chair**

At the first meeting of the Steering Committee, a Chair and Vice-Chair will be appointed by a majority of the Committee members present through a process of nomination and seconding followed, if more than one person is nominated and seconded, by a show of hands. The Chair, or the Vice-Chair when the Chair is absent, will be responsible for conducting all meetings and serving as Committee liaison to staff between meetings.

### **Meeting Notes**

Draft meeting notes will be prepared and distributed with agendas before the next meeting. Approval of minutes shall occur at the next meeting with the support of the majority of members present.

### **Ground Rules**

Ground rules provide a common understanding so that Committee discussions proceed effectively. The rules help efficiently use participants' time and resources in achieving consensus. These ground rules serve as the group's "agreement" for collaboration and consensus building.

Effective communication is important to understand various viewpoints. Accordingly, the Old Fig Garden Steering Committee members are encouraged to listen to other Committee members, staff, guests, and the public when they speak. Following is a set of "ground rules" that should be observed:

- Treat each other with respect and courtesy at all times.
- Stay focused, on topic and be succinct.
- Keep open minds; think outside the box.
- Keep the focus on solving the problem.
- Focus will be on issues, not individuals.
- Come prepared to meetings (reading advance materials, etc.).
- Meetings will start and end on time, unless extended by action or the Committee.
- Focus will be on areas of high priority (defined by the Steering Committee), as time is limited.
- Cell phones will be turned off at the beginning of meetings
- The Chair will take control of the meeting to ensure ground rules are followed.
- Steering Committee members are asked to refrain from making statements to members of the news media about the project. Rather, the Steering Committee will elect a spokes person from among its members (or alternatively designate the Chair to fill this role) who will be the sole person representing the views of the Committee to the media in a careful and balanced manner.

When presentations are being made to the Committee, they should proceed without interruption. Questions and comments should be made following the completion of the presentation. In the event that a meeting becomes chaotic, any member may *Call for Order*, a non-debatable action.

### 3. Decision-Making Through Consensus

In general, the Old Fig Garden Steering Committee will strive to make decisions through achieving consensus on those agenda items for which Project Management Team, the Committee Chair, and Consultants seek input.

Consensus is an agreement made without voting. It involves everyone clearly understanding the situation to be decided, analyzing all of the relevant facts together and then jointly developing solutions representing the group's best thinking. Consensus building is characterized by active listening, healthy debate, and the testing of options.

The goal of a consensus decision is to reach a decision that everyone can accept. Not everyone will like the solution equally well or will have an equal commitment to it. Consensus generates a decision about which everyone says "I can live with it".

#### Levels of Consensus

Consensus is achieved if all participants indicate that they are at levels 1 through 4.

1. I can say an **unqualified 'yes'** to the decision.
2. I find the decision **perfectly acceptable**. It is the best of the real options we have available to us.
3. **I can live with the decision**. However I'm not especially enthusiastic about it.
4. I will **stand aside** and not block the decision. I will support it because I trust the wisdom of the group. However, I do not fully agree with the decision and need to register my view about it.
5. I do not agree with the decision and feel the need to **block** the decision being accepted as consensus.

Consensus is reached when no one is left in category 5, or when those individuals stand aside and let the decision move forward. Consensus is not designed to achieve 100 percent agreement, rather create an outcome that represents the best feasible course of action, given the circumstances.

It is expected that the Steering Committee will arrive at consensus through discussion. Silence implies agreement. It is important that every member has the time to express his or her thoughts on any matter. The Committee Chair should invite comment from those members who may not have spoken. At the end of a discussion that was started with the goal of reaching consensus by the Committee, the Chair will ask all Committee members to indicate their level of consensus, using the above list. These indications will be used to determine whether the Committee has reached consensus or whether discussion has to be continued,

At times there will be a minority view in which one or more individuals are not in agreement with the consensus, even after a generous discussion of a topic. If that is the case, the minority should state if they wish to have the minutes/report reflect their exception both by name of the member(s) dissenting from the consensus and their reason(s).



#### **4. Public Comment**

The public may provide comment at specified times throughout the course of Steering Committee meetings, which include:

- During the course of a discussion on an agenda item.
- During the Public Comment agenda item.

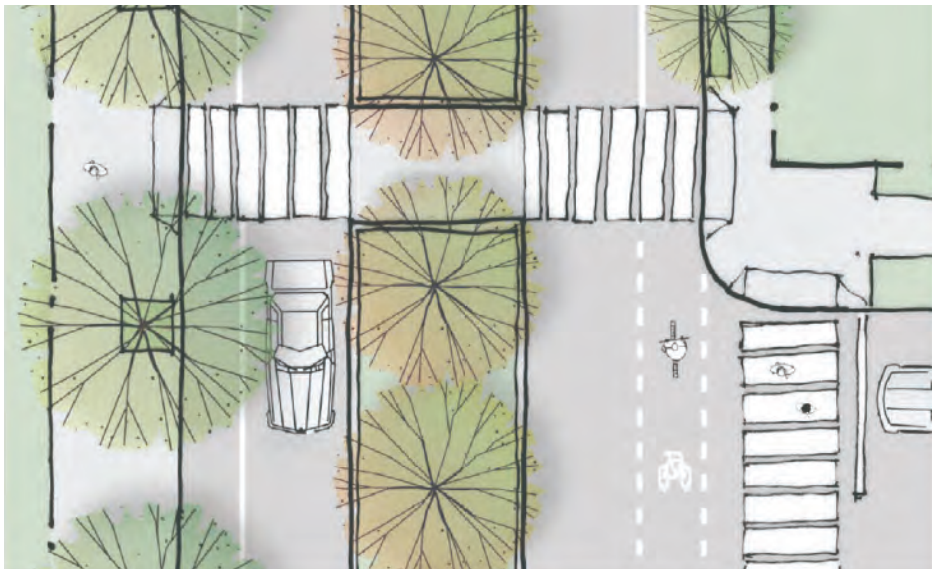
The Chair may limit to three minutes the length of time a member of the public speaks on a particular agenda item. Generally, guests who have been invited to contribute to the discussion of an agenda item may speak for a time specified by the Chair.

The Steering Committee should consider all public comments but is not obligated to respond to public comments.

*This page left intentionally blank*

## H. TRAFFIC IMPACT STUDY

*This page left intentionally blank*



# Old Fig Garden Community Transportation Study

## *Traffic Impact Study*

### **Prepared for:**

Fig Garden Homeowners Association  
County of Fresno  
City of Fresno  
Fresno Council of Governments

### **Prepared by:**

VRPA Technologies, Inc.  
4630 W. Jennifer, Suite 105  
Fresno, CA 93722



*January, 2013*



## Table of Contents

Section	Description	Page
1.0	Introduction	1-1
2.0	Methodology	2-1
3.0	Existing Conditions (2012)	3-1
4.0	Future Conditions (2030)	4-1
5.0	Traffic Impacts and Mitigation	5-1

## List of Figures

- 1-1 Recommended Project Transportation Improvements
- 3-1 Existing (2012) Average Daily Traffic and Level of Service
- 4-1 Trip Distribution
- 4-2 Project Traffic
- 4-3 Future (2030) Average Daily Traffic and Level of Service

## 1.0 Introduction

This report provides a traffic impact study of proposed improvements recommended in the Old Fig Garden Community Transportation Study. Figure 1-1 summarizes the recommended transportation improvements, referred to throughout this traffic impact study as the “Project”. The improvements consist primarily of traffic calming features, pedestrian, and bicycle improvements intended to reduce speeds and discourage through traffic on certain streets and to facilitate pedestrian and bicycle travel throughout the study area. As traffic speeds are reduced and through traffic is discouraged along certain study area streets, corresponding traffic increases are expected to occur on the main through roadways in the study area (Shaw Avenue, Shields Avenue, West Avenue, Palm Avenue, and Blackstone Avenue). The purpose of this traffic impact analysis is to document the expected changes in traffic levels, determine the potential for traffic impacts, and propose mitigation measures to mitigate any expected traffic impacts of the project.

The remainder of this report provides a description of study methodology, existing (2012) conditions (2012), future (2030) conditions, and traffic impacts/mitigation.



# Old Fig Garden Community Transportation Study

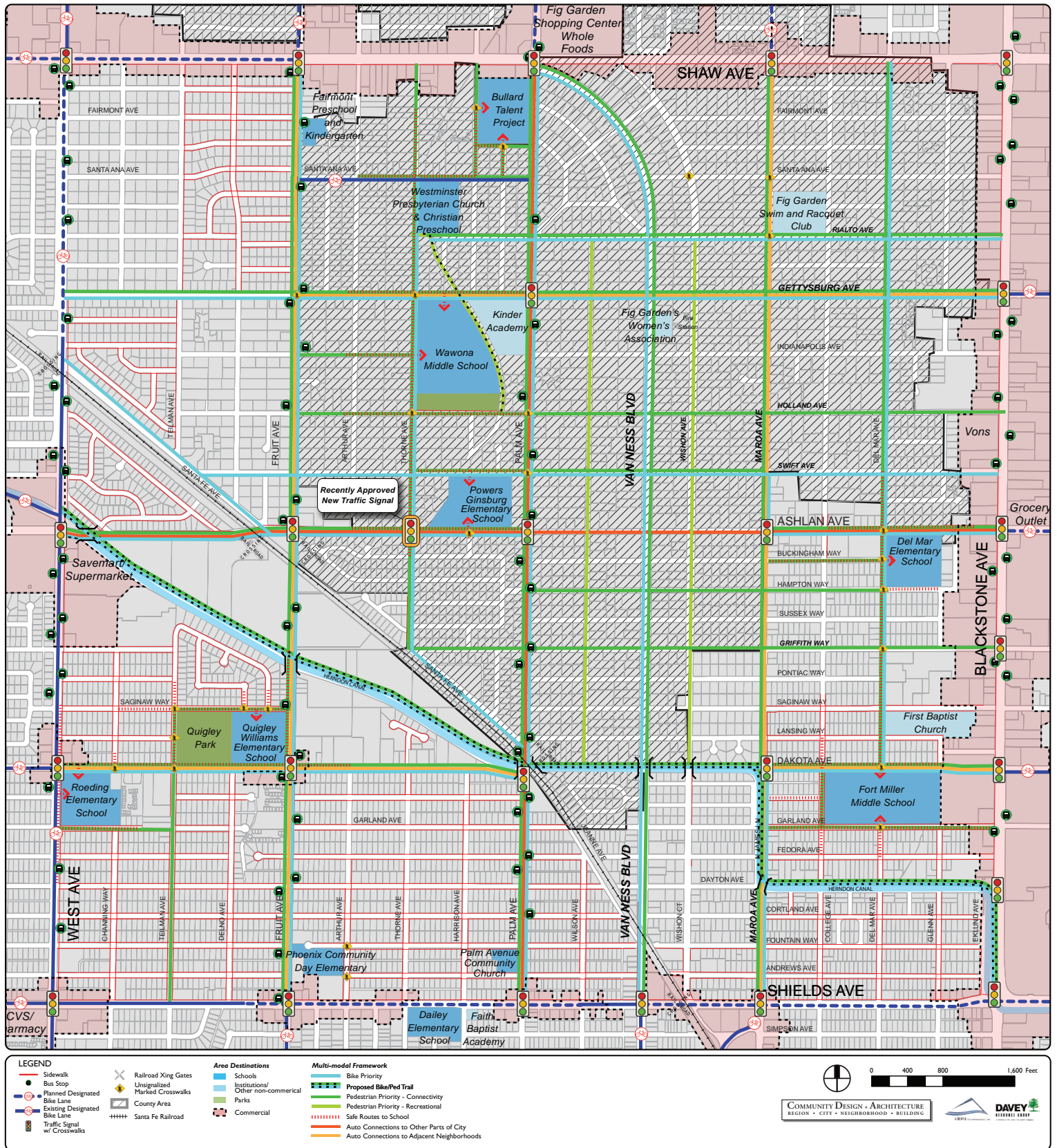


Figure 1-1 Recommended Project Transportation Improvements



## 2.0 Methodology

This chapter provides an overall description of the methodology and assumptions used in preparing the traffic impact study for the improvements recommended in the Old Fig Garden Community Transportation Study. It is divided into sections that describe various aspects of the analysis.

### 2.1 Study Area

The traffic analysis study area was the same as overall project study area and was bounded on the north by Shaw Avenue, on the east by Blackstone Avenue, on the south by Shields Avenue, and on the west by West Avenue. This study area was shown previously in Figure 1-1.

### 2.2 Traffic Analysis Scenarios

The following traffic analysis scenarios were analyzed:

- ◆ Existing (2012)
- ◆ Future (2030) Without Project
- ◆ Future (2030) With Project

It is typical in a traffic impact study to analyze conditions in a future year in order to determine the potential impacts of the project over time in combination with other changes that are expected to occur in the transportation system. In the case of this project, the future year selected for study was 2030, the horizon year of the Fresno Council of Governments (Fresno COG) regional transportation model at the time the traffic impact study was initiated (November 2011).

### 2.3 Roadway Network/Programmed Roadway Improvements

A traffic impact analysis would typically include any roadway improvements that planned and funded, but not yet built. Within the project study area, the only major relevant roadway improvement is the installation of a traffic signal at the intersection of Ashlan Avenue and Thorne Avenue. This improvement was funded by Caltrans as part of a safe routes to school program. While no other specific roadway improvements were assumed to occur within the study area, the analysis of future 2030 conditions includes traffic forecasts from the Fresno COG regional transportation model that incorporates transportation improvements expected throughout Fresno County through 2030.

### 2.4 Traffic Counts and Traffic Forecasts

Traffic counts for existing conditions were based on available counts from Fresno COG, Fresno County, and the City of Fresno at the time of initiation of the traffic study (November 2011). Traffic forecasts for 2030 conditions were based on current traffic forecasts from the Fresno COG regional transportation model at this same time. All traffic counts and forecasts were based on Average Daily Traffic conditions for key roadway segments in the study area.

## **2.5 Roadway Capacity Analysis**

Roadway capacity analysis was conducted for roadway segments based on the Modified HCM-Based LOS Tables (originally developed by the Florida Department of Transportation and modified to reflect local conditions in Fresno County and the City of Fresno).

In traffic engineering methodology, levels of service ranging from level of service A to level of service F are used to describe traffic operations. Level of service A represents relatively low traffic levels with minimal delays. Level of service F represents high levels of traffic with substantial traffic congestion and delays. Level of service D is typically used as the design standard for peak hour conditions in urban and suburban areas and this level of service is applicable in the study area. It should be noted that Fresno County allows level of service D in areas under the City of Fresno sphere of influence (including the project study area), but the preferred level of service standard throughout the County is level of service C.

Given the level of service discussion provided above, the potential for traffic impacts was considered to occur wherever level of service E or F traffic conditions were expected. A level of service result of A through D was considered to be within the range of traffic conditions where no traffic impacts would occur.

### 3.0 Existing Conditions (2012)

Existing (2012) Average Daily Traffic Counts are shown in Figure 3-1. These counts were obtained from the Fresno Regional Traffic Monitoring Report posted on the Fresno Council of Governments (Fresno COG) website at the outset of the traffic analysis (November 2011). Some counts used in the study were from prior years and a growth factor of 2% per year was used to convert traffic counts to 2012 conditions. Also shown in Figure 3-1 are calculated levels of service for locations where traffic counts were available.

The results shown in Figure 3-1 indicate existing peak hour traffic congestion along Shaw Avenue, west of Blackstone Avenue, where level of service E traffic conditions were indicated. All other study area roadways were indicated to operate at level of service D or better.



# Old Fig Garden Community Transportation Study

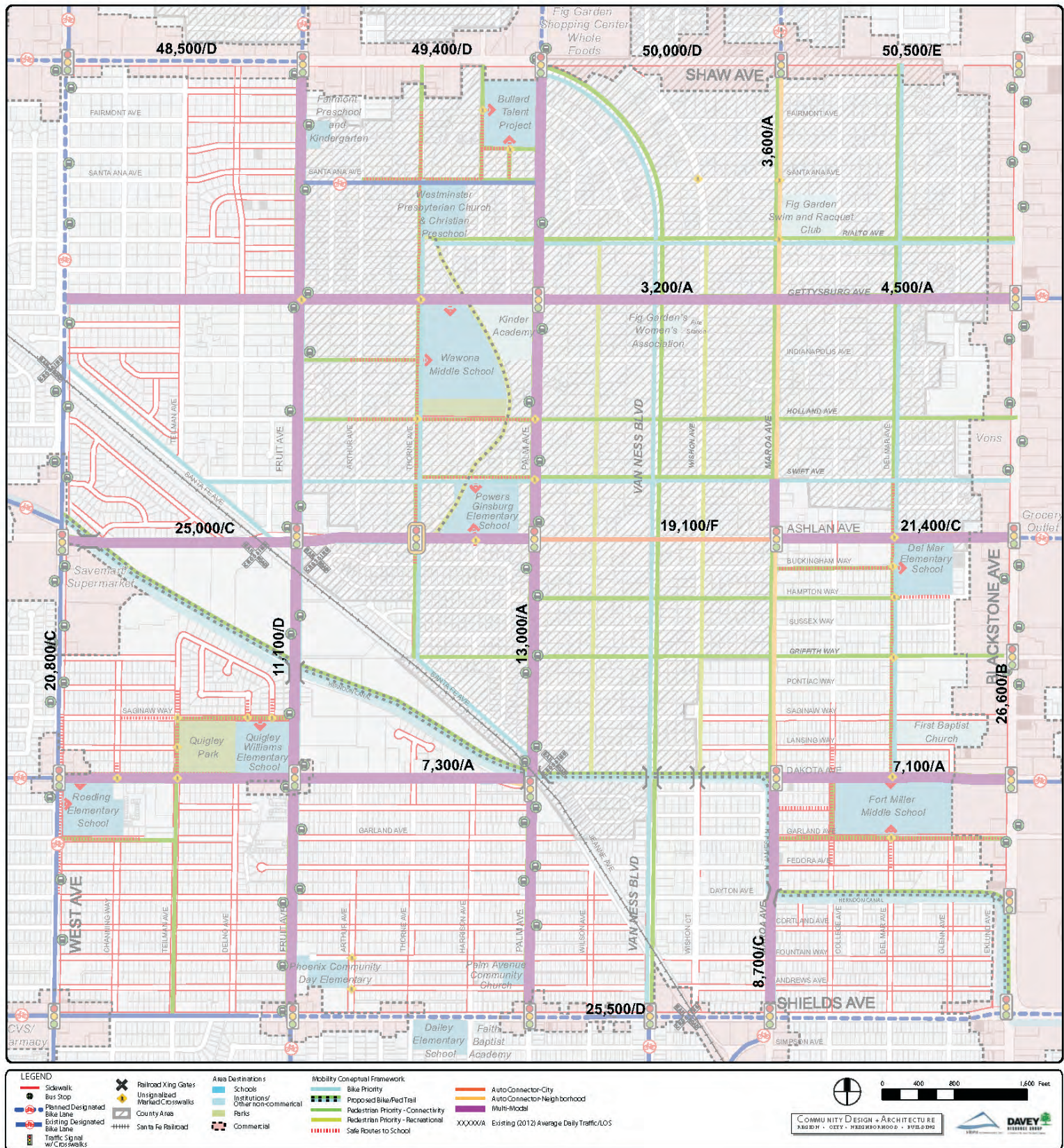


Figure 3-1 Existing (2012) Average Daily Traffic and Level of Service



## 4.0 Future (2030) Conditions

This chapter provides analysis of future 2030 conditions with and without the project, as described in the separate sections below.

### 4.1 Future (2030) Conditions Without Project

Future Average Daily Traffic forecasts for 2030 conditions without the project were obtained for study area roadways from the regional transportation model prepared by the Fresno Council of Governments (Fresno COG). Traffic forecasts used in this study were from the current regional travel model at the initiation of the traffic analysis in November 2011.

Although the traffic analysis used traffic counts and traffic forecasts that were current at the outset of the study, various traffic counts and traffic forecasts became available later on in the study process. These traffic counts and traffic forecasts were reviewed to take note of any major discrepancies. However, none of the subsequent traffic counts or traffic forecasts were considered to trigger any need for changes in the recommendations or conclusions of the study.

During the detailed implementation of project improvements, supplemental traffic analysis may be required, depending on the nature of the proposed improvement and the requirements of the agency with jurisdiction over the roadway in question (either the City of Fresno or Fresno County). When supplemental traffic analysis is necessary, the gathering of new traffic counts and/or traffic forecasts would be recommended, as appropriate.

A comparison of traffic forecasts with and without the project is provided in the following section.

### 4.2 Future (2030) Conditions With Project

The recommended project improvements will tend to slow speeds and calm traffic on selected study area streets. This will have the effect of reducing traffic on these roadways. Major roadways in the study area where no improvements are being made are expected to experience a corresponding increase in traffic as trips are re-routed to avoid streets with traffic calming features in place.

Key roadways were analyzed to determine the effect of the re-routing of traffic described above. Roadways that where traffic calming was expected to reduce traffic included Gettysburg Avenue, Ashlan Avenue, Dakota Avenue, Fruit Avenue, and Maroa Avenue. Roadways that were expected to experience an increase in traffic included Shaw Avenue, Shields Avenue, West Avenue, Palm Avenue, and Blackstone Avenue.

The methodology used for re-routing of traffic can be described as follows:

- ◆ Ashlan Avenue has been recommended to receive the most substantial level of traffic calming in the study area and traffic levels were assumed to be reduced by 10% as a result of the improvements
- ◆ For other study area roadways have been recommended to receive traffic calming improvements, the assumed reduction in traffic levels was 5%.

## Old Fig Garden Community Transportation Study

### *Traffic Impact Study*

- ◆ In the east-west direction of travel, 60% of the trips re-routed from Ashlan Avenue and 100% of the trips re-re-routed from Gettysburg Avenue were assumed to be distributed to Shaw Ave. In addition, 40% of the trips re-routed from Ashlan Avenue and 100% of the trips re-re-routed from Dakota Avenue were assumed to be distributed to Shields Ave.
- ◆ In the north-south direction of travel, Palm Avenue was assumed to receive 40% of the total re-routed trips, while West Avenue and Blackstone Avenue were each assumed to receive 30% of the total re-routed trips.

The calculations described above are documented in Figures 4-1 through 4-3. Figure 4-1 documents the trip distribution expected to occur as a result of traffic calming. Resulting project trips are shown in 4-2. Future 2030 traffic with and without the project is shown in Figure 4-3.

Figure 4-3 also shows expected levels of service with and without the project. Many of the study area roadways are expected to operate at level of service D or better. Exceptions occur along Shaw Avenue between West Avenue and Blackstone Avenue, Ashlan Avenue between Fruit Avenue and Maroa Avenue, and Shields Avenue between Palm Avenue and Blackstone Avenue. The potential for traffic impacts and mitigation is documented in the following chapter.



# Old Fig Garden Community Transportation Study

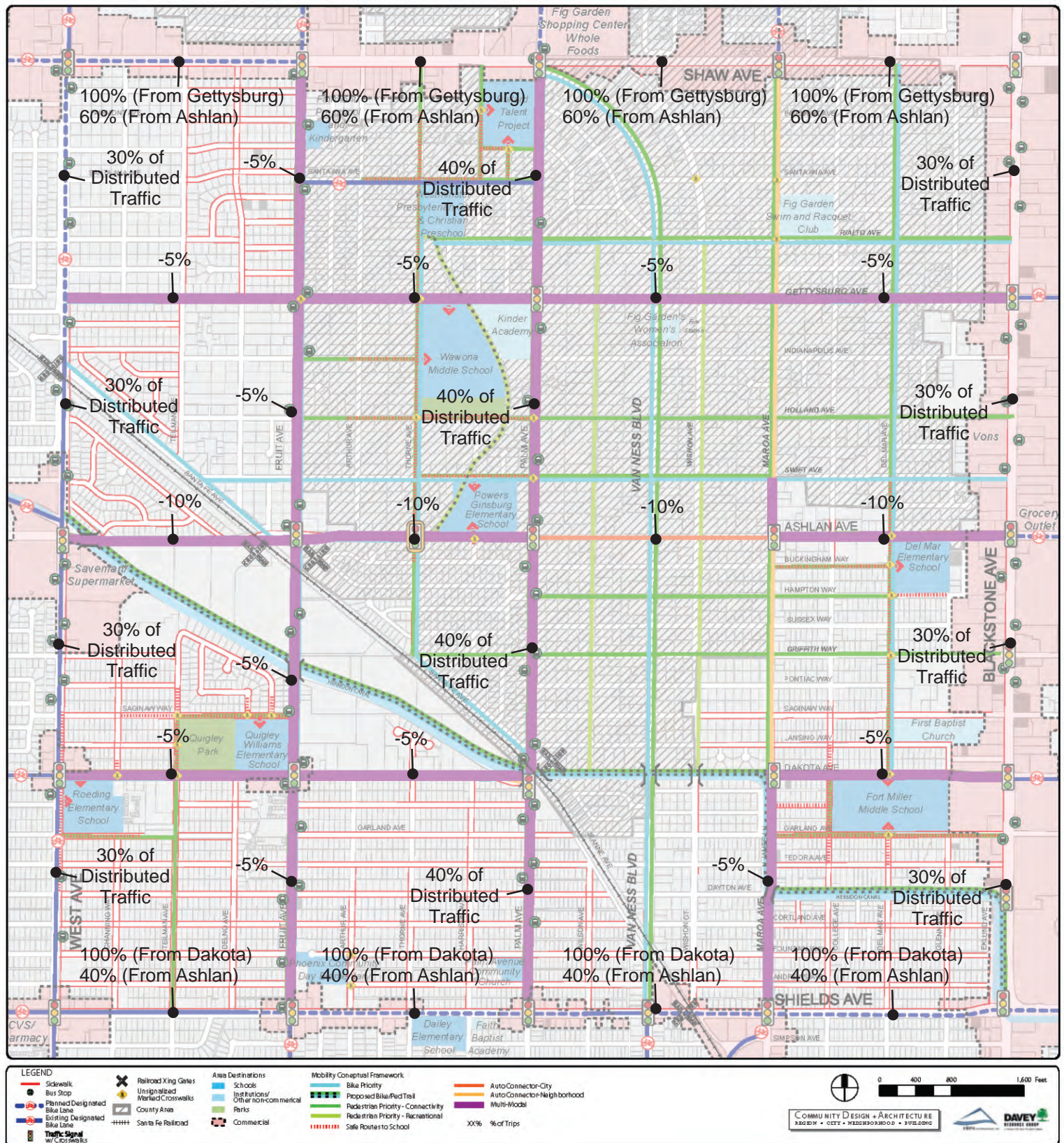
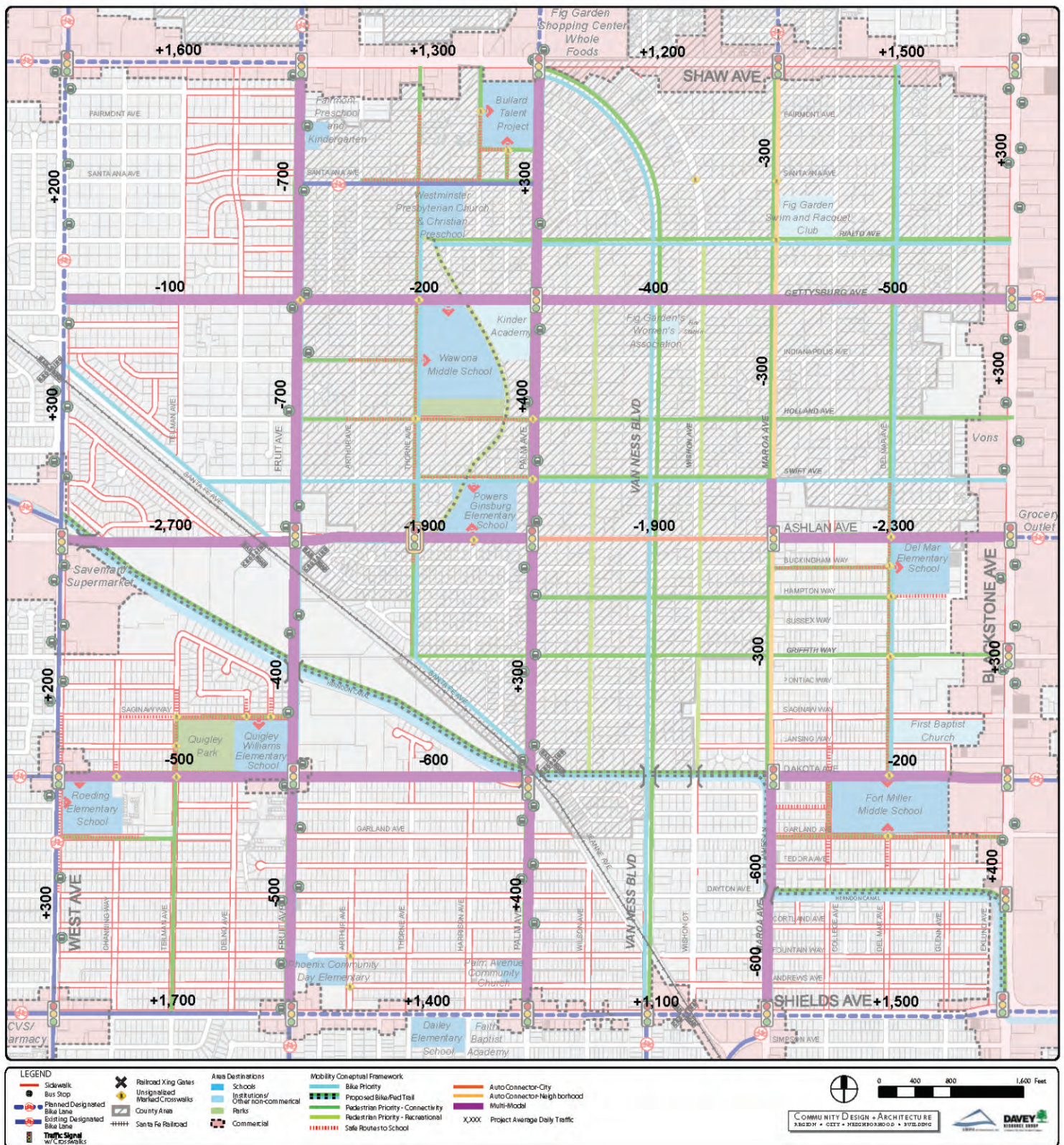


Figure 4-1 Trip Distribution



# Old Fig Garden Community Transportation Study



*Figure 4-2 Project Traffic*



# Old Fig Garden Community Transportation Study

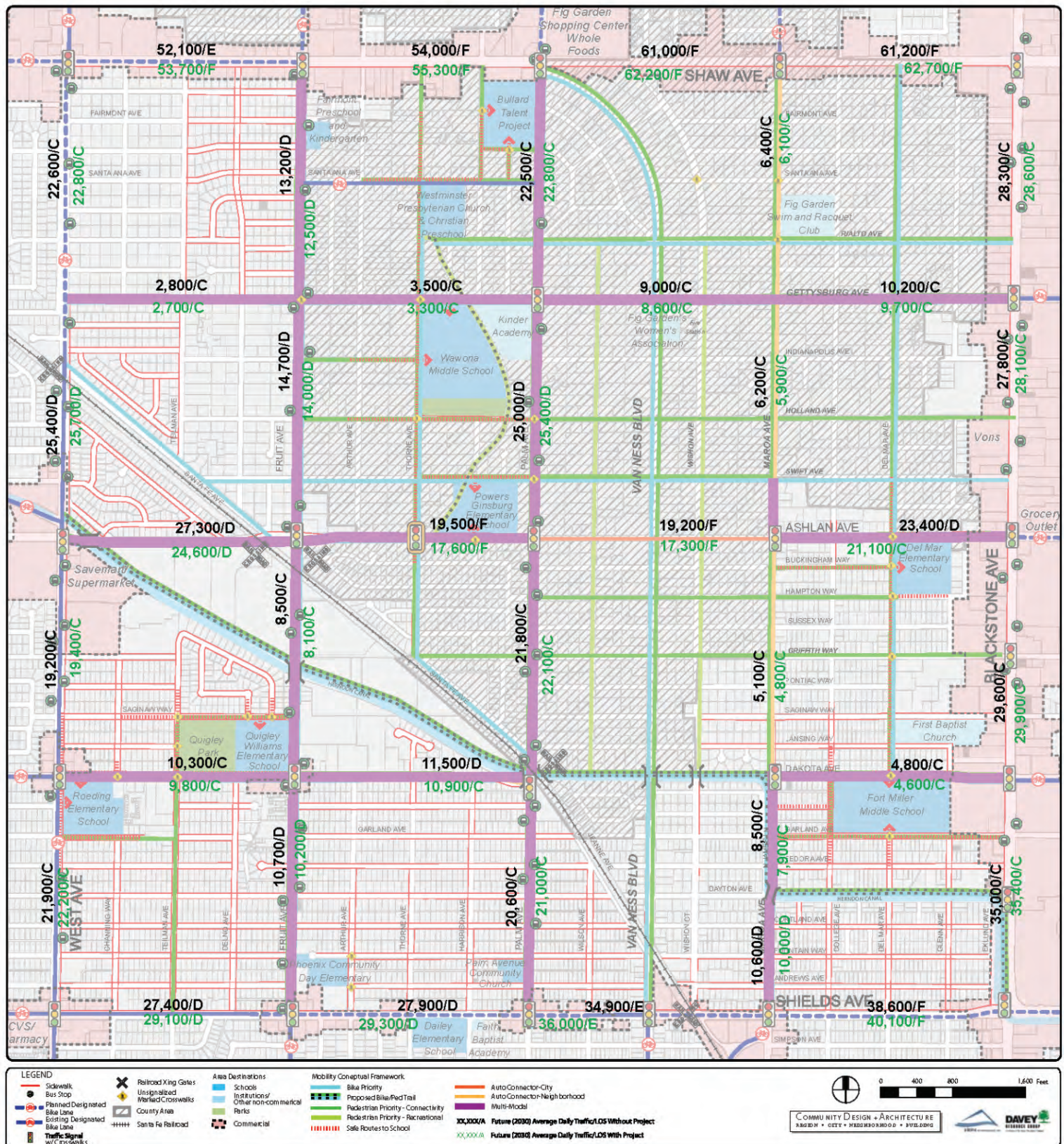


Figure 4-3 Future (2030) Average Daily Traffic and Level of Service



## 5.0 Traffic Impacts and Mitigation

This chapter provides an analysis of traffic impacts and mitigation.

### 5.1 Analysis of Impacts

The results shown in Chapter 4 indicated a number of roadway segments that would be expected to experience level of service E or F for 2030 conditions with the project. A separate discussion of each follows:

- ◆ For the segment of Shaw Avenue from West Avenue to Blackstone Avenue, level of service E or F conditions are expected with or without the project. Therefore, the project would be contributing project to a roadway segment that would already be expected to experience traffic congestion. However, the project would only be expected to increase traffic by 2% to 3%.
- ◆ For the segment of Ashlan Avenue between Fruit Avenue and Maroa Avenue, level of service F conditions would be expected with or without the project. However, the project would be expected to reduce traffic levels along this roadway segment. Therefore, the project would be expected to reduce traffic congestion and there would be no traffic impact resulting from the implementation of the project.
- ◆ For the segment of Shields Avenue from Palm Avenue to Blackstone Avenue, level of service E or F conditions are expected with or without the project. Therefore, the project would be contributing project to a roadway segment that would already be expected to experience traffic congestion. However, the project would only be expected to increase traffic by 3% to 4%.

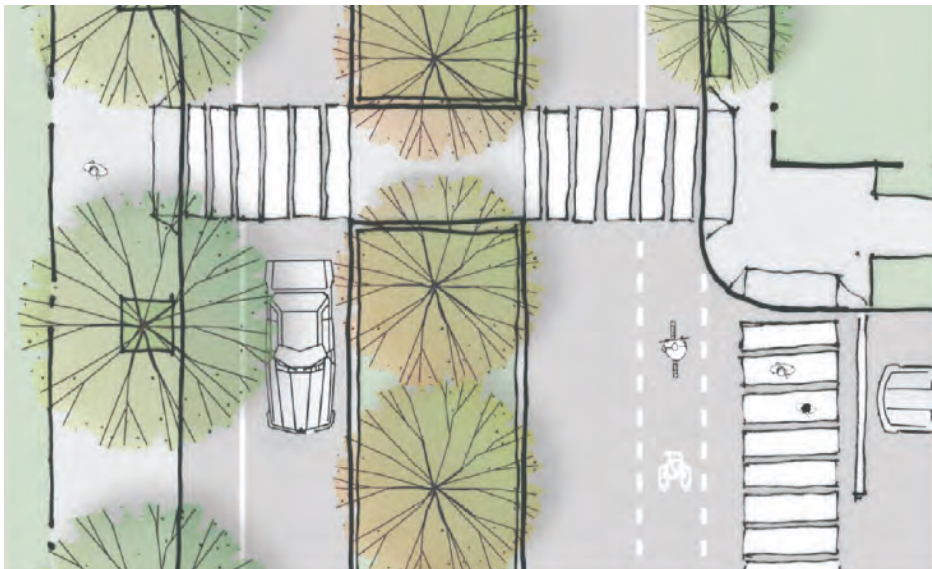
While the project is expected to increase traffic along Shaw Avenue and Shields Avenue, the relatively small traffic increases along these roadways were not considered to cause a traffic impact.

### 5.2 Mitigation

Since the project is not considered to have any traffic impacts, no mitigation measures are recommended.

## I. AIR QUALITY STUDY

*This page left intentionally blank*



# Old Fig Garden Community Transportation Study

## *Air Quality Assessment*

### **Prepared for:**

Fig Garden Homeowners Association  
County of Fresno  
City of Fresno  
Fresno Council of Governments

### **Prepared by:**

VRPA Technologies, Inc.  
4630 W. Jennifer, Suite 105  
Fresno, CA 93722



*December, 2012*



# Table of Contents

Section	Description	Page
1.0	Introduction	1
1.1	Description of the Region/Project	1
1.2	Purpose and Need	5
1.3	Regulatory	5
1.3.1	Federal Agencies	5
1.3.2	Federal Regulations	6
1.3.3	State Agencies	7
1.3.4	State Regulations	8
1.3.5	Regional Agencies	12
1.4	Air Quality Standards	16
1.4.1	Ozone	16
1.4.2	Suspended PM	18
1.4.3	Carbon Monoxide	19
1.4.4	Nitrogen Dioxide	20
1.4.5	Sulfur Dioxide	21
1.4.6	Lead	21
1.4.7	Toxic Air Contaminants	22
1.4.8	Existing TCMs and Air Quality Mitigation	23
2.0	Air Quality Impacts and Significance Criteria	23
2.1	Methodology	23
2.2	Criteria for Significance	23
2.3	Short-Term (Construction) Emissions	24
2.3.1	Construction Measures	26

## Appendices

Appendix A – Road Construction Emissions Model Worksheets

## List of Tables

1	Federal and State Standards	10
2	On-Road Motor Vehicle Budgets from the 2007 Ozone Plan	14
3	On-Road Motor Vehicle PM-10 Emission Budgets	14
4	On-Road Motor Vehicle PM-2.5 Emission Budgets	14
5	Maximum Pollutant Levels at Fresno's First Street Monitoring Station	15
6	Fresno County Attainment Status	16
7	SJVAPCD Air Quality Thresholds of Significance	24
8	Project Construction Emissions	25

## List of Figures

1	Regional Location	2
2	Project Location	3
3	California Air Basins	9



This Air Quality Assessment has been prepared for the purpose of quantifying air emissions from the proposed Old Fig Garden Community Transportation and Land Use Study (Project). The proposed area of study is identified as West Avenue to Blackstone Avenue (east-west) and Shaw Avenue to Shields Avenue (north-south) in the City of Fresno.

## 1.0 Introduction

### 1.1 Description of the Region/Project

The goal of the Old Fig Garden Community Transportation and Land Use Study is to address local land use and transportation concerns associated with continued increase of traffic in and around Old Fig Garden and the planned land use changes along Blackstone and Shaw Avenues along the boundaries of the community.

The proposed Project lies within the central portion of the San Joaquin Valley. The proposed Project is located on the Valley floor at an elevation of approximately 249 feet above sea level with the surrounding area mostly flat. Figures 1 and 2 show the location of the Project along with major roadways and highways.

Fresno County is located in one of the most polluted air basins in the country – the San Joaquin Valley Air Basin. The surrounding topography includes foothills and mountains to the east and west. These mountain ranges direct air circulation and dispersion patterns. Temperature inversions can trap air within the Valley, thereby preventing the vertical dispersal of air pollutants. In addition to topographic conditions, the local climate can also contribute to air quality problems. Climate in Fresno County is classified as Mediterranean, with moist cool winters and dry warm summers.

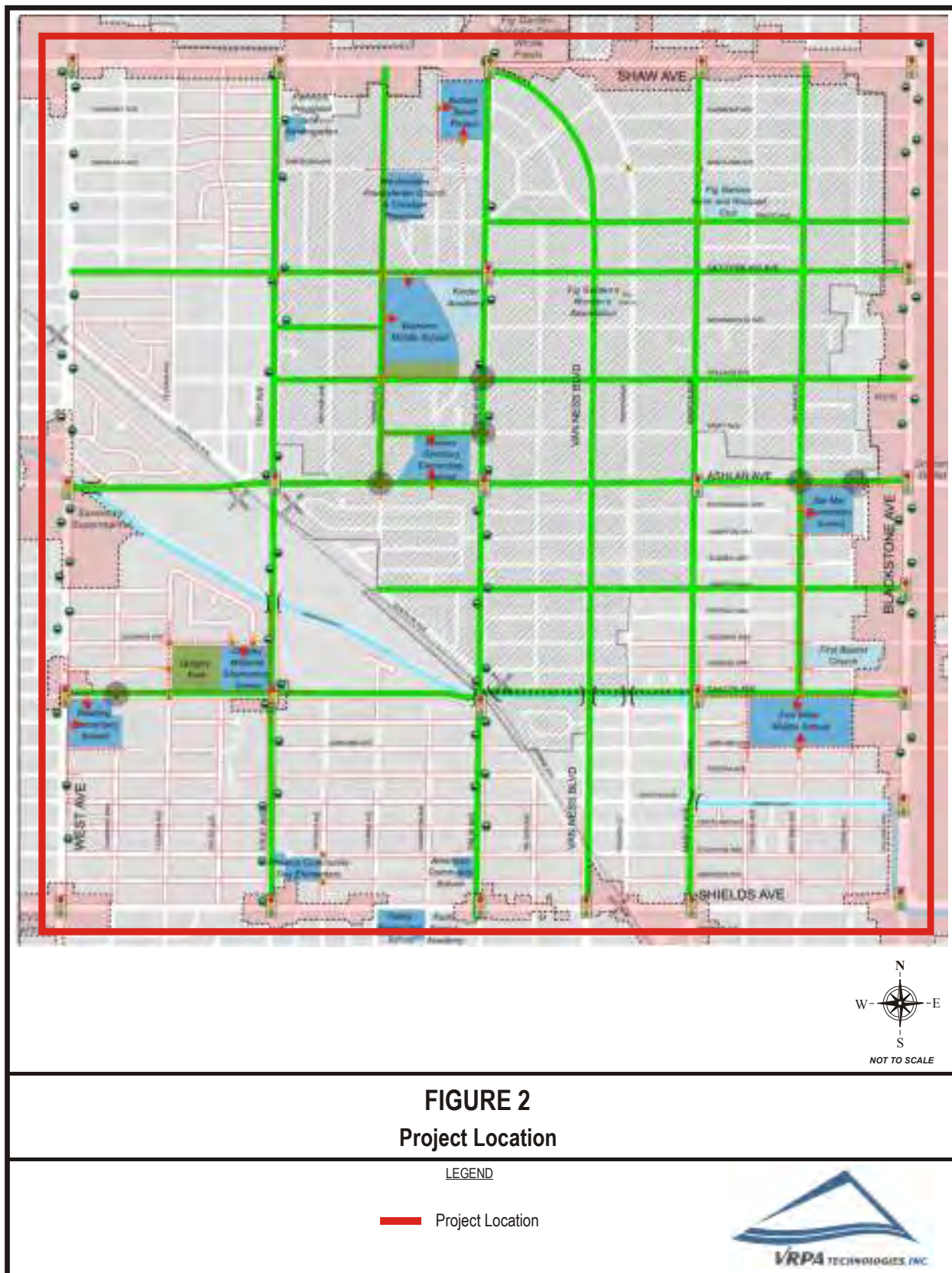
Ozone, classified as a “regional” pollutant, often afflicts areas downwind of the original source of precursor emissions. Ozone can be easily transported by winds from a source area. Peak ozone levels tend to be higher in the southern portion of the Valley, as the prevailing summer winds sweep precursors downwind of northern source areas before concentrations peak. The separate designations reflect the fact that ozone precursor transport depends on daily meteorological conditions.

Other primary pollutants, CO, for example, may form high concentrations when wind speed is low. During the winter, Fresno County experiences cold temperatures and calm conditions that increase the likelihood of a climate conducive to high CO concentrations.

Precipitation and fog tend to reduce or limit some pollutant concentrations. Ozone needs sunlight for its formation, and clouds and fog block the required radiation. CO is slightly water-soluble so precipitation and fog tends to “reduce” CO concentrations in the atmosphere. PM-10 is somewhat “washed” from the atmosphere with precipitation. Precipitation in the San Joaquin Valley is strongly influenced by the position of the semi-permanent subtropical high-pressure belt located off the Pacific coast. In the winter, this high-pressure system moves southward, allowing Pacific storms to move through the San Joaquin Valley. These storms bring in moist, maritime air that produces considerable precipitation on the western, upslope side of the Coast Ranges. Significant precipitation also occurs on the western side of the Sierra Nevada. On the valley floor, however, there is some down slope flow from the Coast Ranges and the resultant evaporation of moisture from associated warming results in a minimum of precipitation. Nevertheless, the majority of







the precipitation falling in the San Joaquin Valley is produced by those storms during the winter. Precipitation during the summer months is in the form of convective rain showers and is rare. It is usually associated with an influx of moisture into the San Joaquin Valley through the San Francisco area during an anomalous flow pattern in the lower layers of the atmosphere. Although the hourly rates of precipitation from these storms may be high, their rarity keeps monthly totals low.

Precipitation on the San Joaquin Valley floor and in the Sierra Nevada decreases from north to south. Stockton in the north receives about 20 inches of precipitation per year, Fresno in the center, receives about 10 inches per year, and Bakersfield at the southern end of the valley receives less than 6 inches per year. This is primarily because the Pacific storm track often passes through the northern part of the state while the southern part of the state remains protected by the Pacific High. Precipitation in the San Joaquin Valley Air Basin (SJVAB) is confined primarily to the winter months with some also occurring in late summer and fall. Average annual rainfall for the entire San Joaquin Valley is approximately 5 to 16 inches. Snowstorms, hailstorms, and ice storms occur infrequently in the San Joaquin Valley and severe occurrences of any of these are very rare.

The winds and unstable air conditions experienced during the passage of storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high pressure and light winds allow cold moist air to pool on the San Joaquin Valley floor. This creates strong low-level temperature inversions and very stable air conditions. This situation leads to the San Joaquin Valley's famous Tule Fogs. The formation of natural fog is caused by local cooling of the atmosphere until it is saturated (dew point temperature). This type of fog, known as radiation fog is more likely to occur inland. Cooling may also be accomplished by heat radiation losses or by horizontal movement of a mass of air over a colder surface. This second type of fog, known as advection fog, generally occurs along the coast.

Conditions favorable to fog formation are also conditions favorable to high concentrations of CO and PM-10. Ozone levels are low during these periods because of the lack of sunlight to drive the photochemical reaction. Maximum CO concentrations tend to occur on clear, cold nights when a strong surface inversion is present and large numbers of fireplaces are in use. A secondary peak in CO concentrations occurs during morning commute hours when a large number of motorists are on the road and the surface inversion has not yet broken.

The water droplets in fog, however, can act as a sink for CO and nitrogen oxides (NO<sub>x</sub>), lowering pollutant concentrations. At the same time, fog could help in the formation of secondary particulates such as ammonium sulfate. These secondary particulates are believed to be a significant contributor of winter season violations of the PM-10 and PM-2.5 standards.

In addition to climatic conditions (wind, lack of rain, etc.), air pollution can be caused by human/socioeconomic conditions. Air pollution in the SJVAB can be directly attributed to human activities, which cause air pollutant emissions. Human causes of air pollution in the Valley consist of population growth, urbanization (gas-fired appliances, residential wood heaters, etc.), mobile sources (i.e., cars, trucks, airplanes, trains, etc.), oil production, and agriculture. These are called anthropogenic, or human-caused, sources of emissions. The most significant factors, which are accelerating the decline of air quality in the SJVAB, are the Valley's rapid population growth and its associated increases in traffic, urbanization, and industrial activity.





Carbon monoxide emissions overwhelmingly come from mobile sources in the San Joaquin Valley; on-road vehicles contribute 65 percent, while other mobile vehicles, such as trains, planes, and off-road vehicles, contribute another 17 percent.

Motor vehicles account for significant portions of regional gaseous and particulate emissions. Local large employers such as industrial plants can also generate substantial regional gaseous and particulate emissions. In addition, construction and agricultural activities can generate significant temporary gaseous and particulate emissions (dust, ash, smoke, etc.).

The principal factors that affect air quality in and around Fresno County are:

- ◆ The sink effect, climatic subsidence and temperature inversions and low wind speeds
- ◆ Automobile and truck travel
- ◆ Increases in mobile and stationary pollutants generated by local urban growth

## 1.2 Purpose and Need

The goal of the Old Fig Garden Community Transportation and Land Use Study is to address local land use and transportation concerns associated with continued increase of traffic in and around Old Fig Garden and the planned land use changes along Blackstone and Shaw Avenues along the boundaries of the community.

## 1.3 Regulatory

Air quality within the Project area is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies primarily responsible for improving the air quality within Fresno County are discussed below along with their individual responsibilities.

### 1.3.1 Federal Agencies

#### ◆ U.S. Environmental Protection Agency (EPA)

The federal Clean Air Bill first adopted in 1967 and periodically amended since then, established federal ambient air quality standards. A 1987 amendment to the Bill set a deadline for the attainment of these standards. That deadline has since passed. The other federal Clean Air Bill Amendments, passed in 1990, share responsibility with the State in reducing emissions from mobile sources. The Environmental Protection Agency (EPA) is responsible for enforcing the 1990 amendments.

The Federal Clean Air Act (FCAA) and the national ambient air quality standards identify levels of air quality for six “criteria” pollutants, which are considered the maximum levels of ambient air pollutants considered safe, with an adequate margin of safety, to protect public health and welfare. The six criteria pollutants include ozone, CO, nitrogen dioxide, sulfur dioxide, particulate matter 10 microns in size and smaller (PM<sub>10</sub>), and lead.



The EPA requires each state to prepare and submit a State Implementation Plan (SIP) that describes how the state will achieve the federal standards by the specified dates, depending on the severity of the air quality within the state or basin. Based on the provisions contained in the 1990 amendment, EPA designated the entire San Joaquin Valley as non-attainment for two pollutants: ozone and particle matter less than 10 microns in size or PM<sub>10</sub>.

The EPA approved San Joaquin Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010, even though the San Joaquin Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard. Fresno County is considered to be in nonattainment of ozone and PM<sub>2.5</sub> standards.

### 1.3.2 *Federal Regulations*

#### ◆ **National Environmental Policy Act (NEPA)**

The National Environmental Policy Act (NEPA) provides general information on the effects of federally funded projects. The act was implemented by regulations included in the Code of Federal Regulations (40CFR6). The code requires careful consideration concerning environmental impacts of federal actions or plans, including projects that receive federal funds. The regulations address impacts on land uses and conflicts with state, regional, or local plans and policies, among others. They also require that projects requiring NEPA review seek to avoid or minimize adverse effects of proposed actions and to restore and enhance environmental quality as much as possible.

#### ◆ **Transportation Conformity Analysis**

Transportation conformity requirements were added to the FCAA in the 1990 amendments, and the EPA adopted implementing regulations in 1997. See §176 of the FCAA (42 U.S.C. §7506) and 40 CFR Part 93, Subpart A. Transportation conformity serves much the same purpose as general conformity: it ensures that transportation plans, transportation improvement programs, and projects that are developed, funded, or approved by the United States Department of Transportation or that are recipients of funds under the Federal Transit Act or from the Federal Highway Administration (FHWA), conform to the SIP as approved or promulgated by EPA.

Currently, transportation conformity applies in nonattainment areas and maintenance areas. Under transportation conformity, a determination of conformity with the applicable SIP must be made by the agency responsible for the project, such as the Metropolitan Planning Organization (MPO), the Council of Governments (COG), or a federal agency. The agency making the determination is also responsible for all the requirements relating to public participation. Generally, a project will be considered in conformance if it is in the transportation improvement plan and the transportation improvement plan is incorporated in the SIP. If an action is covered under transportation conformity, it does not need to be separately evaluated under general conformity.

#### ◆ **Transportation Control Measures**

One particular aspect of the SIP development process is the consideration of potential control measures as a part of making progress towards clean air goals. While most SIP control measures are



aimed at reducing emissions from stationary sources, some are typically also created to address mobile or transportation sources. These are known as Transportation Control Measures (TCMs). TCM strategies are designed to reduce vehicle miles traveled and trips, or vehicle idling and associated air pollution. These goals are achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

### 1.3.3 State Agencies

#### ◆ California Air Resources Board (ARB)

The California Air Resources Board (ARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing its own air quality legislation called the California Clean Air Act (CCAA), adopted in 1988. The ARB was created in 1967 from the merging of the California Motor Vehicle Pollution Control Board and the Bureau of Air Sanitation and its Laboratory.

The ARB has primary responsibility in California to develop and implement air pollution control plans designed to achieve and maintain the National Ambient Air Quality Standards (NAAQS) established by the EPA. Whereas the ARB has primary responsibility and produces a major part of the SIP for pollution sources that are statewide in scope, it relies on the local air districts to provide additional strategies for sources under their jurisdiction. The ARB combines its data with all local district data and submits the completed SIP to the EPA. The SIP consists of the emissions standards for vehicular sources and consumer products set by the ARB, and attainment plans adopted by the Air Pollution Control Districts (APCDs) and Air Quality Management District's (AQMDs) and approved by the ARB.

States may establish their own standards, provided the state standards are at least as stringent as the NAAQS. California has established California Ambient Air Quality Standards (CAAQS) pursuant to California Health and Safety Code (CH&SC) [§39606(b)] and its predecessor statutes.

The CH&SC [§39608] requires the ARB to “identify” and “classify” each air basin in the state on a pollutant-by-pollutant basis. Subsequently, the ARB designated areas in California as nonattainment based on violations of the CAAQSs. Designations and classifications specific to the SJVAB can be found in the next section of this document. Areas in the state were also classified based on severity of air pollution problems. For each nonattainment class, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment categories, attainment plans are required to demonstrate a five-percent-per-year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. In addition, air districts in violation of CAAQS are required to prepare an Air Quality Attainment Plan (AQAP) that lays out a program to attain and maintain the CCAA mandates.

Other ARB duties include monitoring air quality. The ARB has established and maintains, in conjunction with local APCDs and air quality management districts, a network of sampling stations (called the State and Local Air Monitoring [SLAMS] network), which monitor the present pollutant levels in the ambient air.





Fresno County is in the ARB-designated, SJVAB. A map of the SJVAB is provided in Figure 3. In addition to Fresno County, the SJVAB includes San Joaquin, Kern, Kings, Madera, Merced, Stanislaus, and Tulare Counties.

Federal and State standards for criteria pollutants are provided in Table 1.

### 1.3.4 *State Regulations*

#### ◆ **ARB Mobile-Source Regulation**

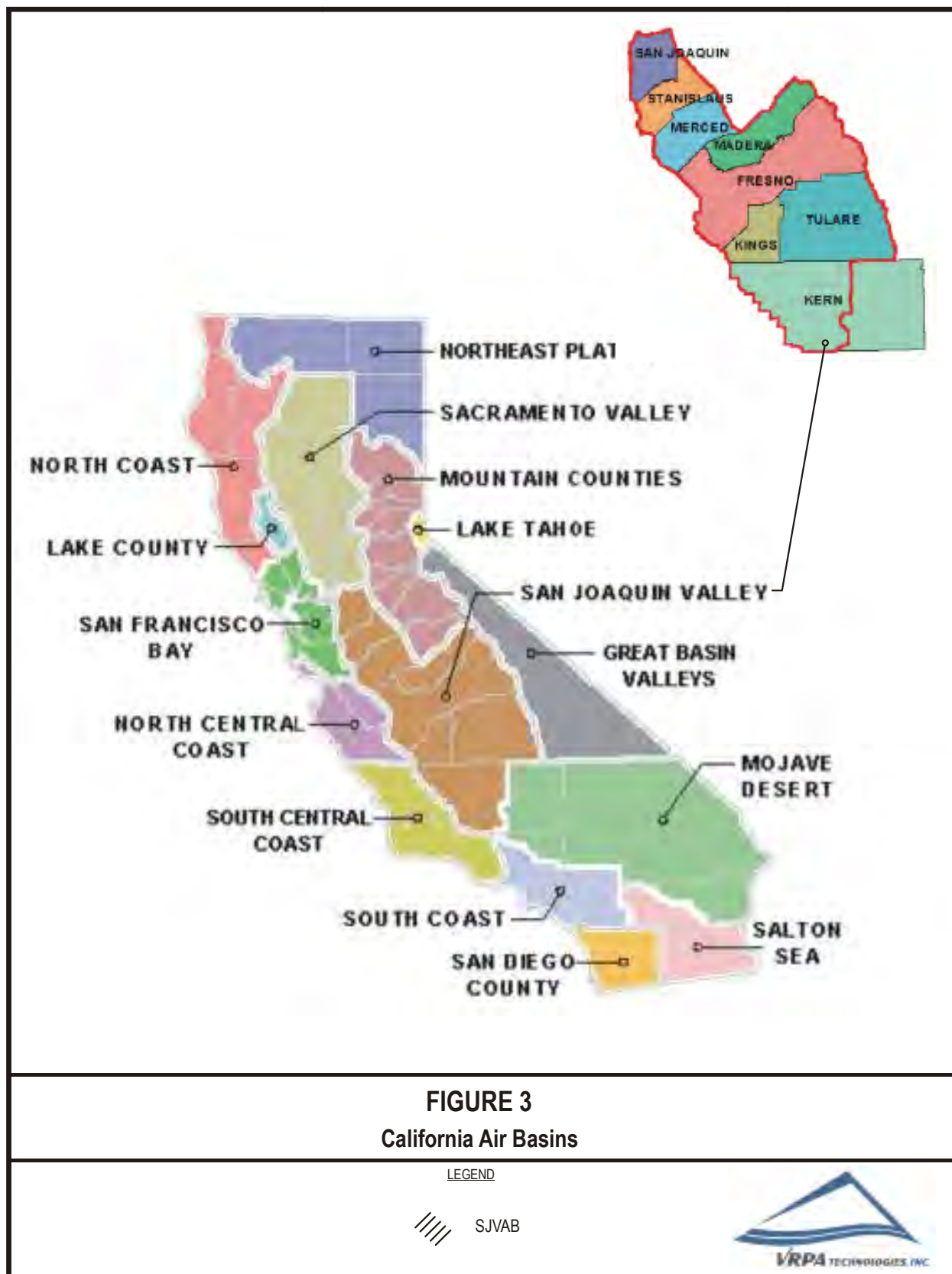
The State of California is responsible for controlling emissions from the operation of motor vehicles in the state. Rather than mandating the use of specific technology or the reliance on a specific fuel, the ARB's motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved. Towards this end, the ARB has adopted regulations, which required auto manufacturers to phase in less polluting vehicles.

#### ◆ **California Clean Air Act**

The CCAA was first signed into law in 1988. The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the state's air quality goals, planning and regulatory strategies, and performance. The CCAA establishes more stringent ambient air quality standards than those included in the FCAA. The ARB is the agency responsible for administering the CCAA. The ARB established ambient air quality standards pursuant to the CH&SC [§39606(b)], which are similar to the federal standards. The San Joaquin Valley Air Pollution Control District (SJVAPCD) is one of 35 air quality management districts that have prepared air quality management plans to accomplish a five percent annual reduction in emissions documenting progress toward the state ambient air quality standards.

#### ◆ **Tanner Air Toxics Act**

California regulates Toxic Air Contaminants (TACs) primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB can designate a substance as a TAC. To date, ARB has identified more than 21 TACs and has adopted EPA's list of Hazardous Air Pollutants (HAPs) as TACs. Most recently, diesel PM was added to the ARB list of TACs. Once a TAC is identified, ARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology (BACT) to minimize emissions.



**TABLE 1**  
**Federal and State Standards**

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> )	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—		
Fine Particulate Matter (PM <sub>2.5</sub> )	24 Hour	—	—	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	15 µg/m <sup>3</sup>		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—	—	
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>8</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	
Sulfur Dioxide (SO <sub>2</sub> ) <sup>3</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> )	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>9</sup>	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) <sup>9</sup>	—	
Lead <sup>10,11</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m <sup>3</sup> (for certain areas) <sup>11</sup>	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles <sup>12</sup>	8 Hour	See footnote 12	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>10</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

See footnotes on next page ...



**Footnotes:**

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than one. For PM<sub>2.5</sub>, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. To attain the 1-hour national standard, the 3-year average of the 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
9. On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
10. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
11. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
12. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.





The AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. ARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, ARB adopted a new public-transit bus-fleet rule and emission standards for new urban buses. These rules and standards provide for (1) more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines; (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and (3) reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule. Upcoming milestones include the low-sulfur diesel-fuel requirement, and tighter emission standards for heavy-duty diesel trucks (2007) and off-road diesel equipment (2011) nationwide.

#### ◆ California Environmental Quality Act (CEQA)

CEQA defines a significant impact on the environment as a substantial, or potentially substantial, adverse change in the physical conditions within the area affected by the project. Land use is a required impact assessment category under CEQA. CEQA documents generally evaluate land use in terms of compatibility with the existing land uses and consistency with local general plans and other local land use controls (zoning, specific plans, etc).

### 1.3.5 Regional Agencies

#### ◆ San Joaquin Valley Air Pollution Control District

The SJVAPCD is the agency responsible for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within Fresno County and throughout the SJVAB. The District also has responsibility for monitoring air quality and setting and enforcing limits for source emissions. The ARB is the agency with the legal responsibility for regulating mobile source emissions. The District is precluded from such activities under State law.

The District was formed in mid-1991 and prepared and adopted the San Joaquin Valley Air Quality Attainment Plan (AQAP), dated January 30, 1992, in response to the requirements of the State CCAA. The CCAA requires each non-attainment district to reduce pertinent air contaminants by at least five percent (5%) per year until new, more stringent, 1988 State air quality standards are met.

Activities of the SJVAPCD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the FCAA and CCAA.

The SJVAPCD has prepared the *2007 Ozone Plan* to achieve Federal and State standards for improved air quality in the SJVAB regarding ozone. The *2007 Ozone Plan* provides a comprehensive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate matter precursors throughout the SJVAB. The 2007 Ozone Plan calls for major advancements in pollution



control technologies for mobile and stationary sources of air pollution. The *2007 Ozone Plan* calls for a 75-percent reduction in ozone-forming oxides of nitrogen emissions.

The SJVAPCD has also prepared the *2007 PM<sub>10</sub> Maintenance Plan and Request for Redesignation* (2007 PM<sub>10</sub> Plan). On April 24, 2006, the SJVAPCD submitted a Request for Determination of PM<sub>10</sub> Attainment for the Basin to the ARB. The ARB concurred with the request and submitted the request to the EPA on May 8, 2006. On October 30, 2006, the EPA issued a Final Rule determining that the Basin had attained the NAAQS for PM<sub>10</sub>. However, the EPA noted that the Final Rule did not constitute a redesignation to attainment until all of the FCAA requirements under Section 107(d)(3) were met.

The SJVAPCD has prepared the *2008 PM<sub>2.5</sub> Plan* to achieve Federal and State standards for improved air quality in the San Joaquin Valley Air Basin. The *2008 PM<sub>2.5</sub> Plan* provides a comprehensive list of regulatory and incentive based measures to reduce PM<sub>2.5</sub>.

In addition to the *2007 Ozone Plan*, the *2008 PM<sub>2.5</sub> Plan*, and the *2007 PM<sub>10</sub> Plan*, the SJVAPCD prepared the *Guide for Assessing and Mitigation Air Quality Impacts* (GAMAQI). The GAMAQI is an advisory document that provides Lead Agencies, consultants, and project applicants with analysis guidance and uniform procedures for addressing air quality impacts in environmental documents. Local jurisdictions are not required to utilize the methodology outlined therein. This document describes the criteria that SJVAPCD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for determining whether or not projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. The SJVAPCD is currently in the process of updating the GAMAQI and was used as a guidance document for this analysis.

Each of the SJVAPCD plans (2007 Ozone Plan, 2008 PM<sub>2.5</sub> Plan, and 2007 PM<sub>10</sub> Maintenance Plan, which relies on the 2003 PM<sub>10</sub> Plan for emissions reductions measures) identifies a "budget" for measuring progress toward achieving attainment of the national air quality standard. A "budget" is, in effect, an emissions "threshold" or "not to exceed value" for specific years in which progress toward attainment of the standard must be measured. These specific years can also be described as "budget years" and are established to ensure achievement of the "budget" to demonstrate continued progress toward attainment of the national air quality standard. The term "base year" also reflects a "threshold" or "not to exceed" value against which future emissions from the 2011 RTP are measured.

The EPA defines specific years in which attainment of the federal standards must be reached, and therefore each of these SJVAPCD plans for which the SJVAB is nonattainment contains different "budget years" in which progress must be made toward achievement of the federal standards. These years are documented below. Again the emissions budgets in Tables 2 through 4 below reflect "thresholds" or "not to exceed" values in the "budget years" for the identified pollutant in order to achieve attainment.



**TABLE 2**  
**On-Road Motor Vehicle Budgets from the 2007 Ozone Plan**  
**(Summer tons/day)**

County	2014		2017		2020	
	ROG	NOx	ROG	NOx	ROG	NOx
Fresno	12.9	37.2	11.1	29.1	8.0	16.9

Source: San Joaquin Valley Air Pollution Control District, "2007 Ozone Plan", 2007

**TABLE 3**  
**On-Road Motor Vehicle PM-10 Emissions Budgets**  
**(Tons per average annual day)**

County	2020	
	PM10	NOx
Fresno	16.1	23.2

Source: San Joaquin Valley Air Pollution Control District, "2007 PM10 Maintenance Plan", 2007

**TABLE 4**  
**On-Road Motor Vehicle PM-2.5 Emissions Budgets**  
**(Tons per average annual day)**

County	2014		2017		2019	
	PM2.5	NOx	PM2.5	NOx	PM2.5	NOx
Fresno	1.0	30.7	0.9	24.9	0.9	21.3

Source: San Joaquin Valley Air Pollution Control District, "2008 PM2.5 Plan", 2008

The SJVAPCD has adopted numerous rules and regulations to implement its air quality plans. Following, are significant rules that will apply to the proposed project.

- **Regulation VIII – Fugitive PM10 Prohibitions**

Regulation VIII is comprised of District Rules 8011 through 8081, which are designed to reduce PM<sub>10</sub> emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc.

- **Rule 8021 – Construction, Demolition, Excavation, and Other Earthmoving Activities**

District Rule 8021 requires owners or operators of construction projects to submit a Dust Control Plan to the District if at any time the project involves non-residential developments of five or more acres of disturbed surface area or moving, depositing, or relocating of more than 2,500 cubic yards per day of bulk materials on at least three days of the project.





- **Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations**

If asphalt paving will be used, then paving operations of the proposed project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

### **San Joaquin Valley Air Basin Monitoring**

The SJVAB consists of eight counties, from San Joaquin County in the north to Kern County in the south. SJVAPCD and the ARB maintain numerous air quality monitoring sites throughout each County in the Air Basin to measure ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>. It is important to note that the federal ozone 1-hour standard was revoked by the EPA and is no longer applicable for federal standards. The closest monitoring station to the Project is located at Fresno's First Street Monitoring Station. The station monitors particulates, ozone, carbon monoxide, and nitrogen dioxide. Monitoring data for the past three years is summarized in Table 5.

Table 6 identifies Fresno County's attainment status. As indicated, Fresno County is nonattainment for Ozone (1 hour and 8 hour) and PM. In accordance with the FCAA, EPA uses the design value at the time of standard promulgation to assign nonattainment areas to one of several classes that reflect the severity of the nonattainment problem; classifications range from marginal nonattainment to extreme nonattainment. The FCAA contains provisions for changing the classifications using factors such as clean air progress rates and requests from States to move areas to a higher classification. On April 16, 2004 EPA issued a final rule classifying the SJVAB as extreme nonattainment for Ozone, effective May 17, 2004 (69 FR 20550). The (federal) 1-hour ozone standard was revoked on June 6, 2005. However, many of the requirements in the 1-hour attainment plan (SIP) continue to apply to the SJVAB. The current ozone plan is the (federal) 8-hour ozone plan adopted in 2007. The SJVAB was reclassified from a "serious" nonattainment area for the 8-hour ozone standard to "extreme" effective June 4, 2010.

**TABLE 5**  
**Maximum Pollutant Levels at Fresno's**  
**First Street Monitoring Station**

Pollutant	Time Averaging	2009	2010	2011	Standards	
		Maximums	Maximums	Maximums	National	State
Ozone (O <sub>3</sub> )	1 hour	0.121 ppm	0.127 ppm	0.119 ppm	-	0.09 ppm
Ozone (O <sub>3</sub> )	8 hour	0.104 ppm	0.107 ppm	0.096 ppm	0.075 ppm	0.070 ppm
Carbon Monoxide (CO)	8 hour	2.07 ppm	2.03 ppm	2.29 ppm	9.0 ppm	9.0 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	1 hour	0.068 ppm	0.077 ppm	0.062 ppm	100 ppb	.018 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Average	0.014 ppm	0.013 ppm	0.012 ppm	53 ppb	0.030 ppm
Particulates (PM <sub>10</sub> )	24 hour	71.9 µg/m <sup>3</sup>	88.6 µg/m <sup>3</sup>	94.3 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>
Particulates (PM <sub>10</sub> )	Federal Annual Arithmetic Mean	30.7 µg/m <sup>3</sup>	25.8 µg/m <sup>3</sup>	29.2 µg/m <sup>3</sup>	-	20 µg/m <sup>3</sup>
Particulates (PM <sub>2.5</sub> )	24 hour	82.3 µg/m <sup>3</sup>	58.3 µg/m <sup>3</sup>	77.3 µg/m <sup>3</sup>	35 µg/m <sup>3</sup>	-
Particulates (PM <sub>2.5</sub> )	Federal Annual Arithmetic Mean	15.1 µg/m <sup>3</sup>	13.0 µg/m <sup>3</sup>	15.4 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>

Source: CARB Website, 2013



**TABLE 6**  
**Fresno County Attainment Status**

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone - 1 Hour	Revoked in 2005	Nonattainment/Severe
Ozone - 8 Hour	Nonattainment/Extreme <sup>a</sup>	No State Standard
PM10	Attainment	Nonattainment
PM2.5	Nonattainment	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Unclassified	Attainment
Lead (Particulate)	Attainment/Unclassified	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified

a. Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).

Source: SJVAPCD Website, 2013

## 1.4 Air Quality Standards

The EPA uses six "criteria pollutants" as indicators of air quality, and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called the NAAQS.

The SJVAPCD operates regional air quality monitoring networks that provide information on average concentrations of pollutants for which State or federal agencies have established ambient air quality standards. Descriptions of the six pollutants of importance in Fresno County follow.

### 1.4.1 Ozone

The most severe air quality problem in the Air Basin is the high level of ozone. Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. Here, ground level, or "bad" ozone, is an air pollutant that damages human health, vegetation, and many common materials. It is a key ingredient of urban smog. The troposphere extends to a level about 10 miles up, where it meets the second layer, the stratosphere. The stratospheric, or "good" ozone layer, extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

"Bad" ozone is what is known as a photochemical pollutant. It needs reactive organic gases (ROG), NO<sub>x</sub>, and sunlight. ROG and NO<sub>x</sub> are emitted from various sources throughout Fresno County. In order to reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors.

Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.



Ozone is a regional air pollutant. It is generated over a large area and is transported and spread by wind. Ozone, the primary constituent of smog, is the most complex, difficult to control, and pervasive of the criteria pollutants. Unlike other pollutants, ozone is not emitted directly into the air by specific sources. Ozone is created by sunlight acting on other air pollutants (called precursors), specifically NO<sub>x</sub> and ROG. Sources of precursor gases to the photochemical reaction that form ozone number in the thousands. Common sources include consumer products, gasoline vapors, chemical solvents, and combustion products of various fuels. Originating from gas stations, motor vehicles, large industrial facilities, and small businesses such as bakeries and dry cleaners, the ozone-forming chemical reactions often take place in another location, catalyzed by sunlight and heat. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins. Approximately 50 million people lived in counties with air quality levels above the EPA's health-based national air quality standard in 1994. The highest levels of ozone were recorded in Los Angeles, closely followed by the San Joaquin Valley. High levels also persist in other heavily populated areas, including the Texas Gulf Coast and much of the Northeast.

While the ozone in the upper atmosphere absorbs harmful ultraviolet light, ground-level ozone is damaging to the tissues of plants, animals, and humans, as well as to a wide variety of inanimate materials such as plastics, metals, fabrics, rubber, and paints. Societal costs from ozone damage include increased medical costs, the loss of human and animal life, accelerated replacement of industrial equipment, and reduced crop yields.

### Health Effects

While ozone in the upper atmosphere protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone can adversely affect the human respiratory system. Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. Ozone also damages natural ecosystems, such as: forests and foothill communities; agricultural crops; and some man-made materials, such as rubber, paint, and plastic. High levels of ozone may negatively affect immune systems, making people more susceptible to respiratory illnesses, including bronchitis and pneumonia. Ozone accelerates aging and exacerbates pre-existing asthma and bronchitis and, in cases with high concentrations, can lead to the development of asthma in active children. Active people, both children and adults, appear to be more at risk from ozone exposure than those with a low level of activity. Additionally, the elderly and those with respiratory disease are also considered sensitive populations for ozone.

People who work or play outdoors are at a greater risk for harmful health effects from ozone. Children and adolescents are also at greater risk because they are more likely than adults to spend time engaged in vigorous activities. Research indicates that children under 12 years of age spend nearly twice as much time outdoors daily than adults. Teenagers spend at least twice as much time as adults in active sports and outdoor activities. In addition, children inhale more air per pound of body weight than adults, and they breathe more rapidly than adults. Children are less likely than adults to notice their own symptoms and avoid harmful exposures.

Ozone is a powerful oxidant—it can be compared to household bleach, which can kill living cells (such as germs or human skin cells) upon contact. Ozone can damage the respiratory tract, causing inflammation and irritation, and it can induce symptoms such as coughing, chest tightness, shortness of breath, and



worsening of asthmatic symptoms. Ozone in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. Exposure to levels of ozone above the current ambient air quality standard leads to lung inflammation and lung tissue damage and a reduction in the amount of air inhaled into the lungs.

The ARB found ozone standards in Fresno County nonattainment of Federal and State standards.

#### 1.4.2 *Suspended PM (PM<sub>10</sub> and PM<sub>2.5</sub>)*

Particulate matter pollution consists of very small liquid and solid particles that remain suspended in the air for long periods. Some particles are large or concentrated enough to be seen as soot or smoke. Others are so small they can be detected only with an electron microscope. Particulate matter is a mixture of materials that can include smoke, soot, dust, salt, acids, and metals. Particulate matter is emitted from stationary and mobile sources, including diesel trucks and other motor vehicles; power plants; industrial processes; wood-burning stoves and fireplaces; wildfires; dust from roads, construction, landfills, and agriculture; and fugitive windblown dust. PM<sub>10</sub> refers to particles less than or equal to 10 microns in aerodynamic diameter. PM<sub>2.5</sub> refers to particles less than or equal to 2.5 microns in aerodynamic diameter and are a subset of PM<sub>10</sub>. Particulates of concern are those that are 10 microns or less in diameter. These are small enough to be inhaled, pass through the respiratory system and lodge in the lungs, possibly leading to adverse health effects.

In the western United States, there are sources of PM<sub>10</sub> in both urban and rural areas. Because particles originate from a variety of sources, their chemical and physical compositions vary widely. The composition of PM<sub>10</sub> and PM<sub>2.5</sub> can also vary greatly with time, location, the sources of the material and meteorological conditions. Dust, sand, salt spray, metallic and mineral particles, pollen, smoke, mist, and acid fumes are the main components of PM<sub>10</sub> and PM<sub>2.5</sub>. In addition to those listed previously, secondary particles can also be formed as precipitates from chemical and photochemical reactions of gaseous sulfur dioxide (SO<sub>2</sub>) and NO<sub>x</sub> in the atmosphere to create sulfates (SO<sub>4</sub>) and nitrates NO<sub>3</sub>. Secondary particles are of greatest concern during the winter months where low inversion layers tend to trap the precursors of secondary particulates.

The ARB 2008 PM<sub>2.5</sub> Plan builds upon the aggressive emission reduction strategy adopted in the 2007 Ozone Plan and strives to bring the valley into attainment status for the 1997 NAAQS for PM<sub>2.5</sub>. The 2008 PM<sub>2.5</sub> Plan indicates that all planned reductions (from the 2007 Ozone Plan and state controls) plus significant reductions from new measures will be needed to attain the annual standard.

The following new controls considered in the 2008 PM<sub>2.5</sub> Plan include:

- ◆ Tighter restrictions on residential wood burning and space heating
- ◆ More stringent limits on PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions from industrial sources
- ◆ Measures to reduce emissions from prescribed burning and agricultural burning
- ◆ More effective work practices to control PM<sub>2.5</sub> in fugitive dust

The control strategy in this plan would also bring the valley closer to attainment status for the 2006 daily PM<sub>2.5</sub> standard. The district presented the draft 2008 PM<sub>2.5</sub> Plan to the District Governing Board on April 17, 2008, following a 30-day public comment period. This plan was delivered to the EPA in April 2008.



### Health Effects

PM<sub>10</sub> and PM<sub>2.5</sub> particles are small enough—about one-seventh the thickness of a human hair, or smaller—to be inhaled and lodged in the deepest parts of the lung where they evade the respiratory system’s natural defenses. Health problems begin as the body reacts to these foreign particles. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health-related effects include reduced visibility and soiling of buildings. PM<sub>10</sub> can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body’s ability to fight infections. PM<sub>10</sub> and PM<sub>2.5</sub> can aggravate respiratory disease and cause lung damage, cancer, and premature death.

Although particulate matter can cause health problems for everyone, certain people are especially vulnerable to adverse health effects of PM<sub>10</sub>. These “sensitive populations” include children, the elderly, exercising adults, and those suffering from chronic lung disease such as asthma or bronchitis. Of greatest concern are recent studies that link PM<sub>10</sub> exposure to the premature death of people who already have heart and lung disease, especially the elderly. Acidic PM<sub>10</sub> can also damage manmade materials and is a major cause of reduced visibility in many parts of the United States.

The ARB found PM<sub>10</sub> standards in Fresno County in attainment of Federal standards and nonattainment for State standards. The ARB found PM<sub>2.5</sub> standards in Fresno County nonattainment of Federal and State standards.

#### **1.4.3 Carbon Monoxide (CO)**

Carbon monoxide (CO) is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. CO is an odorless, colorless, poisonous gas that is highly reactive. CO is a byproduct of motor vehicle exhaust, contributes more than two thirds of all CO emissions nationwide. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. These emissions can result in high concentrations of CO, particularly in local areas with heavy traffic congestion. Other sources of CO emissions include industrial processes and fuel combustion in sources such as boilers and incinerators. Despite an overall downward trend in concentrations and emissions of CO, some metropolitan areas still experience high levels of CO.

### Health Effects

CO enters the bloodstream and binds more readily to hemoglobin than oxygen, reducing the oxygen-carrying capacity of blood and thus reducing oxygen delivery to organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease. Healthy individuals are also affected but only at higher levels of exposure. At high concentrations, CO can cause heart difficulties in people with chronic diseases and can impair mental abilities. Exposure to elevated CO levels is associated with visual impairment, reduced work capacity, reduced manual dexterity, poor learning ability, difficulty performing complex tasks, and in prolonged, enclosed exposure, death.



The adverse health effects associated with exposure to ambient and indoor concentrations of CO are related to the concentration of carboxyhemoglobin (COHb) in the blood. Health effects observed may include an early onset of cardiovascular disease; behavioral impairment; decreased exercise performance of young, healthy men; reduced birth weight; sudden infant death syndrome (SIDS); and increased daily mortality rate.

Most of the studies evaluating adverse health effects of CO on the central nervous system examine high-level poisoning. Such poisoning results in symptoms ranging from common flu and cold symptoms (shortness of breath on mild exertion, mild headaches, and nausea) to unconsciousness and death.

The ARB found CO standards in Fresno County in attainment of Federal standards and unclassified for State standards.

#### 1.4.4 Nitrogen Dioxide (NO<sub>2</sub>)

Nitrogen oxides (NO<sub>x</sub>) is a family of highly reactive gases that are primary precursors to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO<sub>x</sub> is emitted from combustion processes in which fuel is burned at high temperatures, principally from motor vehicle exhaust and stationary sources such as electric utilities and industrial boilers. A brownish gas, NO<sub>x</sub> is a strong oxidizing agent that reacts in the air to form corrosive nitric acid, as well as toxic organic nitrates.

##### Health Effects

NO<sub>x</sub> is an ozone precursor that combines with Reactive Organic Gases (ROG) to form ozone. See the ozone section above for a discussion of the health effects of ozone.

Direct inhalation of NO<sub>x</sub> can also cause a wide range of health effects. NO<sub>x</sub> can irritate the lungs, cause lung damage, and lower resistance to respiratory infections such as influenza. Short-term exposures (e.g., less than 3 hours) to low levels of nitrogen dioxide (NO<sub>2</sub>) may lead to changes in airway responsiveness and lung function in individuals with preexisting respiratory illnesses. These exposures may also increase respiratory illnesses in children. Long-term exposures to NO<sub>2</sub> may lead to increased susceptibility to respiratory infection and may cause irreversible alterations in lung structure. Other health effects associated with NO<sub>x</sub> are an increase in the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO<sub>2</sub> may lead to eye and mucus membrane aggravation, along with pulmonary dysfunction. NO<sub>x</sub> can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals due to production of particulate nitrates. Airborne NO<sub>x</sub> can also impair visibility. NO<sub>x</sub> is a major component of acid deposition in California. NO<sub>x</sub> may affect both terrestrial and aquatic ecosystems. NO<sub>x</sub> in the air is a potentially significant contributor to a number of environmental effects such as acid rain and eutrophication in coastal waters. Eutrophication occurs when a body of water suffers an increase in nutrients that reduce the amount of oxygen in the water, producing an environment that is destructive to fish and other animal life.

NO<sub>2</sub> is toxic to various animals as well as to humans. Its toxicity relates to its ability to combine with water to form nitric acid in the eye, lung, mucus membranes, and skin. Studies of the health impacts of NO<sub>2</sub> include experimental studies on animals, controlled laboratory studies on humans, and observational studies.





In animals, long-term exposure to  $\text{NO}_x$  increases susceptibility to respiratory infections, lowering their resistance to such diseases as pneumonia and influenza. Laboratory studies show susceptible humans, such as asthmatics, exposed to high concentrations of  $\text{NO}_2$ , can suffer lung irritation and, potentially, lung damage. Epidemiological studies have also shown associations between  $\text{NO}_2$  concentrations and daily mortality from respiratory and cardiovascular causes as well as hospital admissions for respiratory conditions.

$\text{NO}_x$  contributes to a wide range of environmental effects both directly and when combined with other precursors in acid rain and ozone. Increased nitrogen inputs to terrestrial and wetland systems can lead to changes in plant species composition and diversity. Similarly, direct nitrogen inputs to aquatic ecosystems such as those found in estuarine and coastal waters can lead to eutrophication as discussed above. Nitrogen, alone or in acid rain, also can acidify soils and surface waters. Acidification of soils causes the loss of essential plant nutrients and increased levels of soluble aluminum, which is toxic to plants. Acidification of surface waters creates conditions of low pH and levels of aluminum that are toxic to fish and other aquatic organisms.

The ARB found  $\text{NO}_2$  standards in Fresno County in attainment of Federal and State standards.

#### 1.4.5 Sulfur Dioxide ( $\text{SO}_2$ )

The major source of sulfur dioxide ( $\text{SO}_2$ ) is the combustion of high-sulfur fuels for electricity generation, petroleum refining and shipping. High concentrations of  $\text{SO}_2$  can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated  $\text{SO}_2$  levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer-term exposures to high concentrations of  $\text{SO}_2$ , in conjunction with high levels of PM, include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs' defenses.  $\text{SO}_2$  also is a major precursor to  $\text{PM}_{2.5}$ , which is a significant health concern and a main contributor to poor visibility. In humid atmospheres, sulfur oxides can react with vapor to produce sulfuric acid, a component of acid rain.

The ARB found  $\text{SO}_2$  standards in Fresno County as unclassified for Federal standards and attainment for State standards.

#### 1.4.6 Lead (Pb)

Lead, a naturally occurring metal, can be a constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. Lead was used until recently to increase the octane rating in automobile fuel. Since the 1980s, lead has been phased out in gasoline, reduced in drinking water, reduced in industrial air pollution, and banned or limited in consumer products. Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels; however, the use of leaded fuel has been mostly phased out. Since this has occurred the ambient concentrations of lead have dropped dramatically.

Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It





accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children. Effects on the nervous systems of children are one of the primary health risk concerns from lead. In high concentrations, children can even suffer irreversible brain damage and death. Children 6 years old and under are most at risk, because their bodies are growing quickly.

The ARB found Lead standards in Fresno County in attainment of Federal and State standards.

#### 1.4.7 Toxic Air Contaminants (TACs)

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

Existing air quality concerns within Fresno County and the entire SJVAB are related to increases of regional criteria air pollutants (e.g., ozone and particulate matter), exposure to toxic air contaminants, odors, and increases in greenhouse gas emissions contributing to climate change. The primary source of ozone (smog) pollution is motor vehicles. Particulate matter is caused by dust, primarily dust generated from construction and grading activities, and smoke which is emitted from fireplaces, wood-burning stoves, and agricultural burning.

#### ◆ Odors

Typically odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a



person may use the word “strong” to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

#### ◆ Sensitive Receptors

A sensitive receptor is a location where human populations, especially children, seniors, and sick persons, are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals and schools.

#### 1.4.8 Existing TCMs and Air Quality Mitigation

The FCAA defines a TCM as including, but not limited to: programs for improved public transit; high occupancy vehicle lanes; employer-based transportation management plans; trip reduction ordinances; traffic flow improvements; park-a-ride lots; programs to restrict vehicle use during peak periods; rideshare services; bicycle and pedestrian programs; programs to control vehicle idling; flexible work schedules; programs and ordinances to facilitate non-automobile travel; and programs to encourage the voluntary removal of pre-1980 light duty vehicles and trucks. Best available control measures (BACM) are an example of a transportation control measure.

## 2.0 Air Quality Impacts and Significance Criteria

### 2.1 Methodology

The impact assessment for air quality focuses on potential effects the Project might have on air quality within the Fresno County region. The SJVAPCD has established thresholds of significance for determining environmental significance. These thresholds separate a project’s short-term emissions from its long-term emissions. The short-term emissions are mainly related to the construction phase of a project, which are recognized to be short in duration. The long-term emissions are primarily related to the activities that will occur indefinitely as a result of project operations. It should be noted that the proposed Project does not generate or increase traffic in the study area. As a result, an evaluation of long-term emissions was not conducted as a part of this assessment. Impacts of short-term (construction) emissions will be evaluated on the basis of the SJVAPCD significance criteria.

### 2.2 Criteria for Significance

According to the California Environmental Quality Act (CEQA), a project will normally have a significant adverse impact on air quality if it will “violate any ambient air quality standard, conflict with or obstruct implementation of an applicable air quality plan, result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, create substantial objectionable odors,



contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations.”

For regional pollutants such as ozone, PM<sub>10</sub>, sulfur dioxide, or nitrogen dioxide, the impact of new development cannot be predicted in terms of concentrations, but is addressed in terms of changes in the regional burden of emissions.

For purposes of this environmental assessment, an impact is considered significant if one or more of the following conditions occur from implementation of the Project:

- ◆ Regional air quality emission exceed standards;
- ◆ Local air quality emission exceed standards;
- ◆ Conflict/obstruct implementation of an applicable air quality plan;
- ◆ Result in a cumulatively considerable net increase of any criteria pollutant in non-attainment area;
- ◆ Significant construction related air quality impacts occur; and/or
- ◆ The creation of objectionable odors.

The District has established thresholds for certain pollutants shown in Table 7.

**TABLE 7**  
**SJVAPCD Air Quality Thresholds of Significance**

Project Type	Ozone Precursor Emissions (tons/year)					
	CO	NO <sub>x</sub>	ROG	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Short-term Effects (Construction)	100	10	10	27	15	15

Source: SJVAPCD 2013

### 2.3 Short-Term (Construction) Emissions

Short-term impacts are mainly related to the construction phase of a project and are recognized to be short in duration. Construction air quality impacts are generally attributable to dust generated by equipment and vehicles. Fugitive dust is emitted both during construction activity and as a result of wind erosion over exposed earth surfaces. Clearing and earth moving activities do comprise major sources of construction dust emissions, but traffic and general disturbances of soil surfaces also generate significant dust emissions. Further, dust generation is dependent on soil type and soil moisture.

Adverse effects of construction activities cause increased dust-fall and locally elevated levels of total suspended particulate. Dust-fall can be a nuisance to neighboring properties or previously completed developments surrounding or within the Project area and may require frequent washing during the construction period. Further, asphalt-paving materials used during construction will present temporary, minor sources of hydrocarbons that are precursors of ozone.

PM<sub>10</sub> emissions can result from construction activities of the project. The SJVAPCD requires implementation of effective and comprehensive control measures, rather than a detailed quantification of emissions. The SJVAPCD has determined that compliance with Regulation VIII for all sites and other



control measures will constitute sufficient mitigation to reduce PM<sub>10</sub> impacts to a level considered less-than significant.

Ozone precursor emissions are also an impact of construction activities and can be quantified through calculations. Numerous variables factored into estimating total construction emission include: level of activity, length of construction period, site characteristics, weather conditions, predominant soil type, and amount of materials to be transported onsite or offsite. Additional exhaust emissions would be associated with the transport of workers and materials. Because the specific mix of construction equipment is not presently known for this project, construction emissions from equipment were estimated using the Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model. The proposed roadway and pedestrian improvements were input into the model in order to estimate the emissions that will be generated during the construction phase. Results of the analysis are shown in Table 8.

**TABLE 8**  
**Project Construction Emissions (tons/year)**

Summary Report	CO	NO <sub>x</sub>	ROG	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction Emissions Per Year	5.31	5.90	0.84	0.92	0.39
SJVAPCD Level of Significance	100	10	10	15	15
Does the Project Exceed Standard?	No	No	No	No	No

The annual emissions from construction of the project will be less than the applicable SJVAPCD emission thresholds for criteria pollutants. The construction emissions are therefore considered less than significant with the implementation of Regulation VIII control measures.

The Fresno area and the San Joaquin Valley are designated non-attainment for particulates for both state and federal standards. Fugitive particle emissions will occur during construction and control measures are required and enforced by the District under Regulation VIII. With the implementation of control measures, short-term emissions are considered less than significant. According to the GAMAQI, the fugitive dust control rules listed below apply to this project:

- ◆ **Rule 8011** - Fugitive dust administrative requirements for the control of fine particulate matter
- ◆ **Rule 8021** - Fugitive dust requirements for the control of fine particulate matter from construction, demolition, excavation, extraction, and earthmoving activities
- ◆ **Rule 8071** - Fugitive dust requirements for the control of fine particulate matter from vehicle and/or equipment parking, shipping, receiving, transfer, fueling, and service areas one are or larger

Further, the project should include the following local municipal code requirements:

- ◆ Water sprays or chemical suppressants must be applied to all unpaved roads to control fugitive emissions



- ◆ All access roads and parking areas must be covered with asphalt-concrete paving

Compliance with the District's Regulation VIII and the local municipal code would reduce particulate emissions impacts to levels that are considered less than significant.

### 2.3.1 Construction Measures

Compliance with Regulation VIII under the San Joaquin Valley Air District for all construction sites will constitute sufficient measures to reduce PM<sub>10</sub> impacts to a level considered less-than significant.

The following measures from the GAMAQI are required to be implemented at all construction sites:

- ◆ All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- ◆ All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- ◆ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- ◆ When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- ◆ All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.
- ◆ Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
- ◆ Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

Additional enhanced control measures are desirable where feasible and include:

- ◆ Limit traffic speeds on unpaved roads to 15 mph; and
- ◆ Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

Additional mitigation measures should be considered for reducing emissions from construction emissions. The District's GAMAQI suggests the following measures:

- ◆ Use of alternative fueled or catalyst equipped diesel construction equipment;
- ◆ Minimize idling time (e.g., 10 minute maximum);
- ◆ Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use;
- ◆ Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a



- portable generator set);
- ◆ Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways; and
- ◆ Implement activity management (e.g. rescheduling activities to reduce short-term impacts).

The use of Best Management Practices (BMPs) would reduce or eliminate environmental impacts from construction activities. The applicable BMPs for project construction include the following measures:

- ◆ Construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications. Low-sulfur fuel should be used in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.
- ◆ Where available, use electricity from power poles rather than temporary diesel- or gasoline-powered generators.
- ◆ Construction activities that affect traffic flow on the arterial roadways shall be scheduled to off-peak hours to the extent possible. Additionally, construction trucks shall be directed away from congested streets or sensitive receptor areas.
- ◆ Where possible, enforce truck parking restrictions; provide onsite services to minimize truck traffic in or near residential areas, including services such as meal or cafeteria.
- ◆ Wash off trucks as they leave the right-of-way as necessary to control fugitive dust emissions.
- ◆ Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly.
- ◆ Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.
- ◆ Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulate in the area.

# **APPENDIX A**

## Road Construction Emissions Model Worksheets



# Road Construction Emissions Model

Version 7.1.2

## Data Entry Worksheet

Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells C10 through C25.

### Input Type

Project Name	OFG Project	Enter a Year between 2009 and 2025 (inclusive)
Construction Start Year	2020	
Project Type	2	1 New Road Construction 2 Road Widening 3 Bridge/Overpass Construction
Project Construction Time	18.0	months
Predominant Soil/Slie Type: Enter 1, 2, or 3	1	1. Sand Gravel 2. Weathered Rock-Earth 3. Blasted Rock
Project Length	9	miles
Total Project Area	4.9	acres
Maximum Area Disturbed/Day	0.5	acres
Water Trucks Used?	1	1. Yes 2. No
Soil Imported		yd <sup>3</sup> /day
Soil Exported		yd <sup>3</sup> /day
Average Truck Capacity	20.0	yd <sup>3</sup> (assume 20 if unknown)

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.



To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

Emission Estimates for -> OFG Project											
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)	
Grubbing/Land Clearing	6.3	37.2	43.0	7.1	2.1	5.0	2.9	1.8	1.0	6,519.0	
Grading/Excavation	6.7	42.3	47.0	7.3	2.3	5.0	3.1	2.0	1.0	7,507.5	
Drainage/Utilities/Sub-Grade	6.2	38.2	42.5	7.2	2.2	5.0	3.0	1.9	1.0	6,651.2	
Paving	4.5	31.9	26.5	1.3	1.3	-	1.2	1.2	-	5,064.2	
Maximum (pounds/day)	6.7	42.3	47.0	7.3	2.3	5.0	3.1	2.0	1.0	7,507.5	
Total (tons/construction project)	1.2	7.7	8.3	1.3	0.4	0.8	0.5	0.4	0.2	1,343.2	
Notes: Project Start Year -> 2020											
Project Length (months) ->	18										
Total Project Area (acres) ->	5										
Maximum Area Disturbed/Day (acres) ->	1										
Total Soil Imported/Exported (yd³/day)->	0										
PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.											
Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.											
Emission Estimates for -> OFG Project											
Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)	
Grubbing/Land Clearing	2.9	16.9	19.5	3.2	0.9	2.3	1.3	0.8	0.5	2,963.2	
Grading/Excavation	3.1	19.2	21.4	3.3	1.0	2.3	1.4	0.9	0.5	3,412.5	
Drainage/Utilities/Sub-Grade	2.8	17.4	19.3	3.3	1.0	2.3	1.3	0.9	0.5	3,023.3	
Paving	2.1	14.5	12.1	0.6	0.6	-	0.5	0.5	-	2,301.9	
Maximum (kilograms/day)	3.1	19.2	21.4	3.3	1.0	2.3	1.4	0.9	0.5	3,412.5	
Total (megagrams/construction project)	1.1	7.0	7.6	1.1	0.4	0.8	0.5	0.3	0.2	1,218.3	
Notes: Project Start Year -> 2020											
Project Length (months) ->	18										
Total Project Area (hectares) ->	2										
Maximum Area Disturbed/Day (hectares) ->	0										
Total Soil Imported/Exported (meters³/day)->	0										
PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.											
Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.											



## J. IMPLEMENTATION MATRIX

*This page left intentionally blank*

Fig Garden Funding Matrix

Projects			Timing (pending approved funding)			Potential Funding Sources											
No.	Project / Project Element	Short-Term (1 to 2 yrs.)	Mid-Term (2 to 5 yrs.)	Long-Term (> 5 yrs.)	* MAP 21 CMAQ	MAP 21 Transportation Alternatives	MAP 21 HSIP	* MAP 21 STP	* MAP 21 Caltrans SRTS	* MAP 21 Recreation al Trails	* City or County Fresno Measure C Roads	* City or County of Fresno Measure C Bike Alloc.	State Bicycle Transportation Account	State Transportation Development Act	City of Fresno Development t Impact Fees	Home Owners Association	Other Privately Raised Funds
Ped-Bike Safety Enhancements on Curbless Neighborhood Streets																	
Bike Priority Streets																	
1	"Sharrows" on Pavement (striping only)	X						X				X	X	X			
2	Striped Bike Lanes (through 6 feet total of roadway widening)		X					X				X	X	X			
Pedestrian Priority Streets																	
1	Two Painted 6-foot Paths (through 6 feet total of roadway widening)		X					X			X						
2	Single Painted 5-foot Path (on existing roadway)		X					X			X						
3	Two Separated 5-foot Paths		X					X			X						
4	Singel Separated 5-foot Path		X					X			X						
Combined Pedestrian and Bicycle Priority Streets																	
1	Two Painted 6-foot Paths (through 6 feet total of roadway widening) plus "Sharrows"		X					X			X	X	X	X			
2	Single Painted 5-foot Path and "Sharrows" on existing roadway		X					X			X	X	X	X			
3	Two Separated 4-foot Paths and Striped Bike Lanes (through 6 feet total of roadway widening)		X					X			X	X	X	X			
4	Single Separated 4-foot Path and Striped Bike Lanes (through 6 feet total of roadway widening)		X					X			X	X	X	X			
5	Two Separated 5-foot Paths and "Sharrows" on existing roadway		X					X			X	X	X	X			
6	Single Separated 5-foot Path and "Sharrows" on existing roadway		X					X			X	X	X	X			
Neighborhood Traffic Calming Treatments																	
1	Test Installations of TC Features	X															
2	Mini Traffic Circle - No Landscaping		X					X									
3	Mini Traffic Circle - Add Landscaping		X	X												X	X
4	Midblock Median - No Landscaping		X					X			X						
5	Midblock Median - Add Landscaping		X	X												X	X
6	Midblock Median with Refuge - No Landscaping		X					X			X						
7	Midblock Median with Refuge - Add Landscaping		X	X												X	X
8	Neighborhood Entry Speed Table			X													
9	Roadway Edge Striping	X									X					X	X
10	Enhanced Stop Markings	X						X			X						
Individual Crossing Improvements along Priority Streets (near Bus Stops and Schools)																	
1	Curb Extensions		X					X	X		X						
2	High-Visibility Crosswalk Markings	X						X	X		X						
3	Additional Signage	X						X	X		X						
Ashlan Avenue (Road Diet - Blackstone to Maroa)																	
1	New Bike Lanes (through restriping of roadway)	X										X	X	X			
2	Sidewalk Widening (north side)		X								X						
3	New Street Trees		X								X				X		
Ashlan Avenue (Maroa to Palm)																	
1	Midblock Median with Refuge - No Landscaping		X								X						
2	Midblock Median with Refuge - Add Landscaping		X	X							X						
3	Roadway Edge Striping	X									X						
Ashlan Avenue (Palm to Thorne)																	
1	New Sidewalk (on south side)		X								X						
2	New Bike Lanes (through restriping of roadway)	X										X	X	X			
3	Midblock Median with Refuge - No Landscaping		X								X						
4	Midblock Median with Refuge - Add Landscaping		X	X							X					X	X
5	New Street Trees		X								X					X	X
Ashlan Avenue (Thorne to Fruit)																	
1	New Sidewalks (on north and south side)		X								X						
2	New Bike Lanes (through 2- to 4-foot roadway widening and restriping)		X									X	X	X			
3	Midblock Median with Refuge - No Landscaping		X								X						
4	Midblock Median with Refuge - Add Landscaping		X	X							X					X	X
Ashlan Avenue (Road Diet - Fruit to West)																	
1	Widened Sidewalks (on north and south side)			X													
2	Restriping of Roadway (includes new parking lane on south side)		X								X						
4	New Street Trees		X													X	X
Fruit Avenue (South of Ashlan)																	
1	Widening and Buffering of Existing Bike Lanes (restriping)	X															
Fruit Avenue (North of Ashlan)																	
1	New Sidewalk (on west side)		X								X			X			
2	New Multiuse Path (on east side)		X									X	X	X			
3	New On-Street Bike Lane (west side)		X									X	X	X			
Palm Avenue																	
1	New Sidewalks (east and west side)		X								X						
Recreational /Multi-Modal Trails																	
1	Ped-Bike Trail along Herndon Canal between Maroa and Palm			X						X							
2	Ped-Bike Trail Along remainder of Herndon Canal			X						X		X	X	X			
3	Recreation al Trail along Enterprise Holland Canal			X						X						X	X
4	Safety Enhancement of Ped-Bike Trail Crossings at Intersections			X						X		X					
Other Safety Enhancements																	
1	Pedestrian-Scale Lighting along Pedestrian Priority Routes			X							X					X	X
2	Sidewalk Gap Closure along Residential Streets (that already have curbs)	X	X	X							X						
3	Pedestrian- and Bicycle-friendly Railroad Underpass on Van Ness (reconstruction)			X							X	X	X	X			

\* Hyperlink is for the primary informational website. Additional hyperlinks for program are provided below.

Funding Source Web References

Potential Funding Sources	Web Information	Web Link(s)
MAP 21* – Congestion Mitigation and Air Quality Improvement Program (CMAQ)	Program apportionment recommendation of the Office of Federal California Department of Transportation program information Federal Highway Administration program information	<a href="http://www.dot.ca.gov/hq/transprog/map21/FACT_SHEETS/Program_Restructuring/CMAQ_Fact_Sheet_10.31.12_rev.pdf">http://www.dot.ca.gov/hq/transprog/map21/FACT_SHEETS/Program_Restructuring/CMAQ_Fact_Sheet_10.31.12_rev.pdf</a> <a href="http://www.dot.ca.gov/hq/transprog/federal/cmaq/Official_CMAQ_Web_Page.htm">http://www.dot.ca.gov/hq/transprog/federal/cmaq/Official_CMAQ_Web_Page.htm</a> <a href="http://www.fhwa.dot.gov/map21/cmaq.cfm">http://www.fhwa.dot.gov/map21/cmaq.cfm</a>
MAP 21* – Transportation Alternatives Program (TAP)	Federal Highway Administration program information	<a href="http://www.fhwa.dot.gov/map21/tap.cfm">http://www.fhwa.dot.gov/map21/tap.cfm</a>
MAP 21* – Highway Safety Improvement Program (HSIP)	Federal Highway Administration program information	<a href="http://www.fhwa.dot.gov/map21/hsip.cfm">http://www.fhwa.dot.gov/map21/hsip.cfm</a>
MAP 21* – Surface Transportation Program (STP)	Federal Highway Administration program information Federal Highway Administration program implementation guidance information	<a href="http://www.fhwa.dot.gov/map21/stp.cfm">http://www.fhwa.dot.gov/map21/stp.cfm</a> <a href="http://www.fhwa.dot.gov/map21/guidance/guidestp.cfm">http://www.fhwa.dot.gov/map21/guidance/guidestp.cfm</a>
MAP 21* – Caltrans Safe Routes to School (SRTS)	Caltrans program information	<a href="http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/srts.htm">http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/srts.htm</a> See MAP 21–TAP for additional allocation information
MAP 21* – Recreational Trails	Federal Highway Administration program information Federal Highway Administration information on authorized funding	<a href="http://www.fhwa.dot.gov/environment/recreational_trails/">http://www.fhwa.dot.gov/environment/recreational_trails/</a> <a href="http://www.fhwa.dot.gov/environment/recreational_trails/overview/map21.cfm">http://www.fhwa.dot.gov/environment/recreational_trails/overview/map21.cfm</a>
City or County Fresno – Measure C Roads	Information on the 2006 Measure C Transportation Expenditures Extension	<a href="http://www.measurec.com/">http://www.measurec.com/</a>
City of County Fresno – Measure C Bike Allocation	Fresno Council of Governments program information	<a href="http://www.fresnocog.org/measure-c">http://www.fresnocog.org/measure-c</a>
State – Bicycle Transportation Account (BTA)	Caltrans program information	<a href="http://www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm">http://www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm</a>
State – Transportation Development Act (TDA)	California Department of Transportation program information	<a href="http://www.dot.ca.gov/hq/MassTrans/State-TDA.html">http://www.dot.ca.gov/hq/MassTrans/State-TDA.html</a>