# Appendix B
# Streetscape Master Plan

## Greenback Lane

**ADOPTED January 12, 2016**


***Prepared by the Sacramento County, Department of Transportation***

Michael J. Penrose, Director

Daniel Shoeman, Chief of Engineering and Planning

Staff:

Ron Vicari

Pat Carpenter

Jim Schubert

Heather Yee


*Supplemental community outreach materials can be found at the* ***Greenback Lane Special Planning Area General Website:-***

**http://www.per.saccounty.net/LandUseRegulationDocuments/Pages/GLOVE_GreenbackLane_OrangeVale_Envisions.aspx**

*Taking Downtown Orangevale from this…*


*…To envisioning this Downtown Orangevale:*

# Table of Contents



**List of Figures**

**List of Tables**



**Supplemental Community Outreach Materials**

- Community Meeting #1: Mar 18, 2015 - Powerpoint Presention and Vision Boards
- Community Meeting #1: Mar 18, 2015 - Community Survey, Results, and Comments
- Community Meeting #2: Sept 30, 2015 - Powerpoint Presention and Vision Boards
- CPAC Meeting: Oct. 6, 2015 - Powerpoint Presention and Vision Boards
- Planning Commission: Dec. 14, 2015 - Powerpoint Presention

*The above community outreach materials can be found at the **Greenback Lane Special Planning Area General Website:-***

**http://www.per.saccounty.net/LandUseRegulationDocuments/Pages/GLOVE_GreenbackLane_OrangeVale_Envisions.aspx**

# Appendix B
# Streetscape Master Plan for Downtown Orangevale

## 1 Introduction

As a representative of the Orangevale community, the GLOVE group had been actively working on an Special Planning Area (SPA) Amendment to create a business community that would thrive in Orangevale. In order to further progress the vision of a Downtown Orangevale, the GLOVE group sought to create a Streetscape Master Plan that would intertwine with the proposed SPA amendment and bring the concepts to the public space. The Sacramento County Department of Transportion, the Department of Community Development, and GLOVE worked together to create a Streetscape Master Plan for the roadway corridor that reflects the community's vision for a Downtown Orangevale.

A Streetscape Master Plan is a design and planning document which provides definition and guidelines to implement streetscape improvements. Using sketches, photos and words to describe what a Streetscape could look like, a Streetscape Master Plan reflects and supports the goals, objectives and vision of the Community. The streetscape refers to physical components which, when combined, make up the roadway environment. A streetscape is essentially a walking, cycling and driving experience and is the central spine which connects the surrounding body of residents and businesses. Modal circulation and cognitive perception presents the "Downtown Orangevale" experience to the traveler. A streetscape is likely the first impression that a visitor has to a community because it is the travel path one takes to arrive and move about.

**Figure 1 Vision of Downtown Orangevale**

In concept, the streetscape contributes value, direction, character and identity to the community which travels along it. In this case, the Streetscape will be designed to convey the sense of "Downtown Orangevale". Ultimately, the Streetscape can help create a Downtown Orangevale destination that one wants to "go-to" rather than simply "drive-through". Some scenarios include:

- Actually parking your car and walking within this district as a consumer
- Perhaps walking your dog to go get coffee, or do some shopping, have lunch, etc..
- Dropping off your car to be serviced and instead of waiting at the service facility or leaving right away, perhaps finding someplace nearby to eat and possibly shop.
- Creating a walkable community where people seek to spend time together and with merchants.
- Cycling or taking a bus from adjacent neighborhoods to ease traffic congestion and promote healthy alternatives.

## 1.1 PROJECT AREA

The SPA covers a large area and also encompasses land uses and designations. The following image (Figure 2) shows the Dowtown Orangevale area The proposed Streetscape Master Plan limits are on Greenback Lane, from Chestnut Avenue to the Folsom City/Sacramento County Border (in orange). Components of the streetscape plan can be extended to Greenback Lane within the Folsom City limits by applying the plan vision eastward all the way to the intersection of Greenback Lane and Madison Avenue (portion in shaded yellow).

The community group also considered recommendations for Main Avenue – Orangevale Avenue to Madison Avenue (portions colored blue and red), and it was acknowledged that Main Avenue is a very intregral part of the Downtown Orangevale vision. While many of the recommended streetscape treatments described for Greenback Lane can be translated to Main Avenue, there are also many unique possiblilites for Main Avenue. Main Avenue will certainly benefit with further master planning efforts to refine on-street pedestrian circulation, interface with existing businesses, and the identification of a cohesive Main Avenue identity. Main Avenue lends itself easily to temporary uses other than just vehicle transport. For example, a "Main Avenue Village" concept was discussed where festivals and street faires could be promoted, perhaps focusing on unique community themes such as Pow-Wow days, car shows, parades, holiday vendor displays with food trucks, pop-up "art-at-the Orange" events, etc.

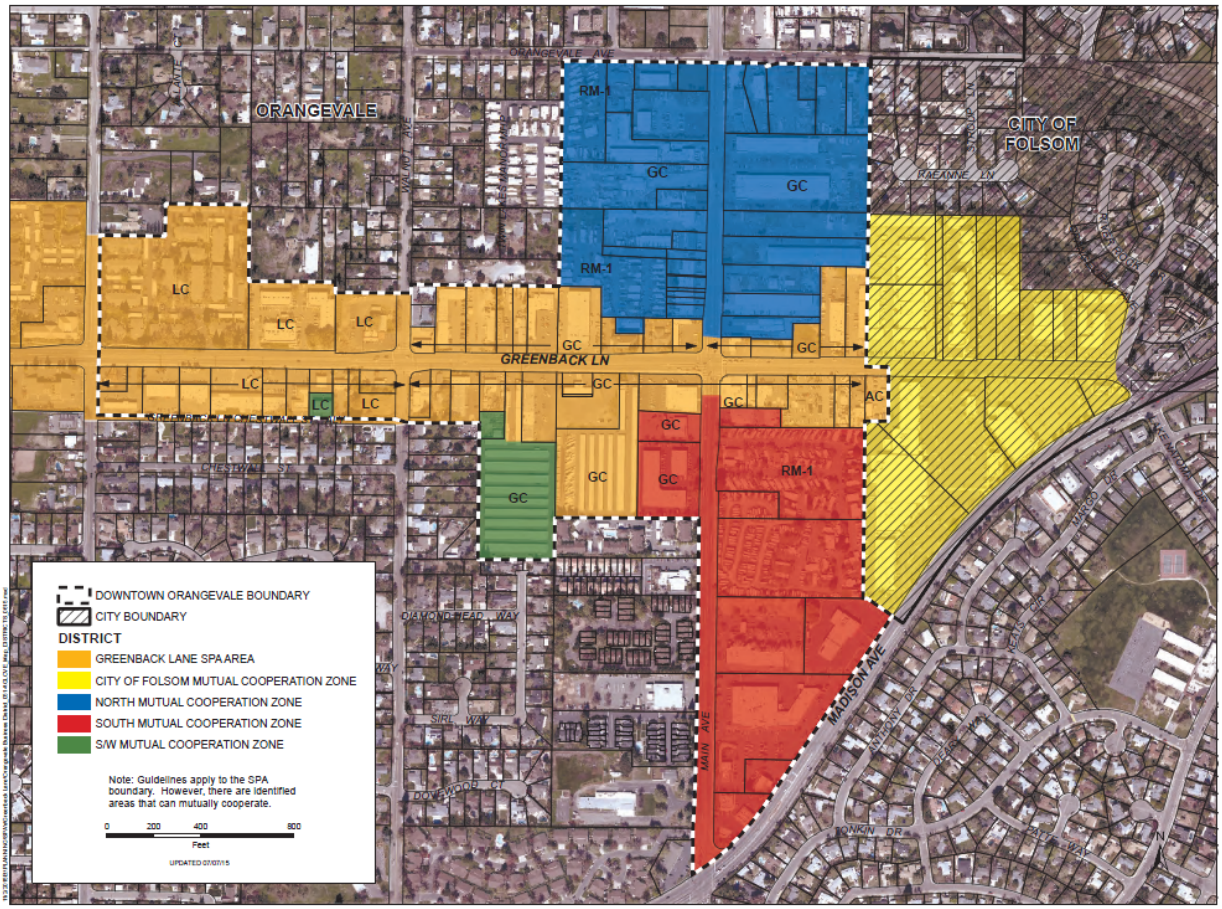



**Figure 2 Downtown Orangevale Boundary, SPA Area, and Mutual Cooperation Zones**

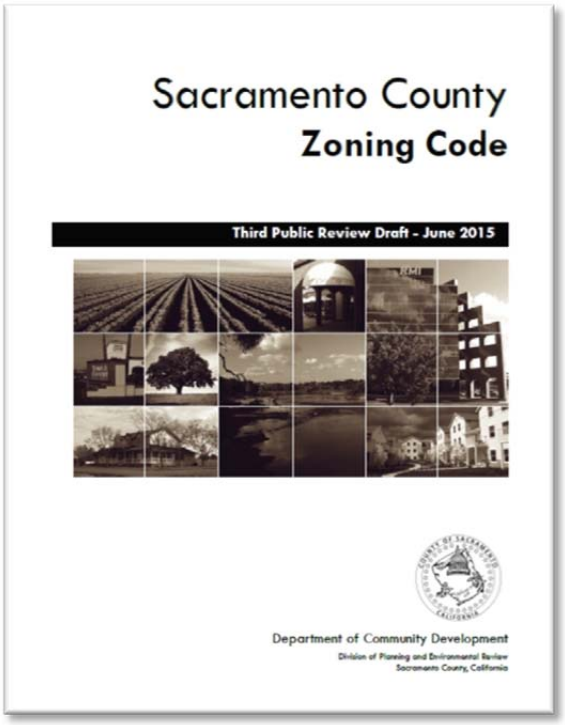
## 1.2 RECENT ACTIONS IN SUPPORT OF MASTER PLAN RECOMMENDATIONS

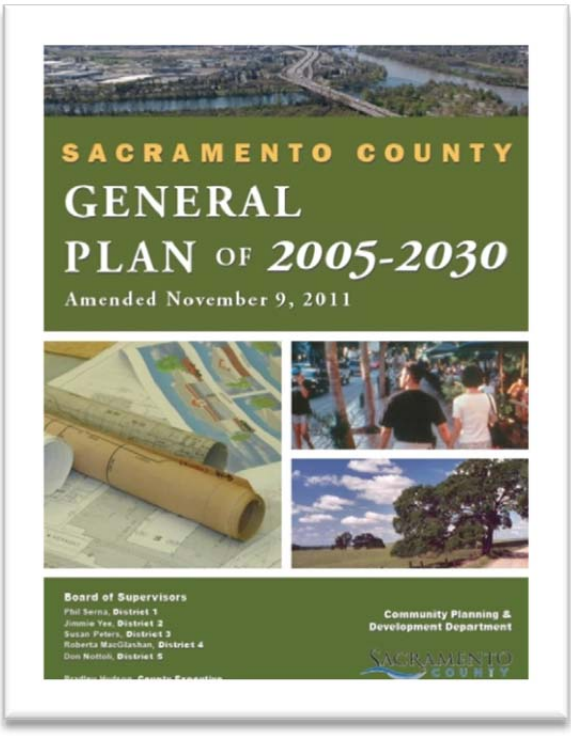
When the GLOVE group was initially formed, the following documents had not been published. Since then the County has moved forward with planning policies and documents that support a community similar to what the GLOVE group and Orangevale community want to achieve.

***New Development Code, Approved 2015***

On July 22, 2015, the Sacramento County Board of Supervisors approved the first major update to the County's Development Code in 30 years. This vote was the final step in a multi-year process to update the Zoning Code and Design Guidelines, which make up the Development Code.

The Zoning Code establishes land use zones and standards and regulations for development in those zones, within unincorporated Sacramento County. The new Zoning Code contains many procedural changes in a user-friendly format with clear standards, illustrations and a simple land use entitlement process.




***2030 General Plan, Approved 2011***

The General Plan is a set of policies, programs and maps that form a blueprint for physical development in the unincorporated County. The plan addresses important community issues such as new growth, housing needs and environmental protection. It's policies are instrumental in planning infrastructure to accommodate future growth. State law requires that all California Counties and Cities adopt General Plans which include seven mandatory elements (chapters): Land Use, Circulation, Housing, Conservation, Open Space, Noise and Safety. Sacramento County also has six additional elements: Air Quality, Public Facilities, Hazardous Materials, Agricultural, Scenic Highways and the American River Parkway Plan.

On November 9, 2011, the Sacramento County Board of Supervisors adopted an updated General Plan. The planning horizon of the County's previous General Plan was 1990 to 2010; the updated General Plan's planning horizon looks out to 2030. Key changes include a new growth management strategy, a stronger focus on addressing existing communities and revitalizing aging commercial corridors, a new Economic Development Element, and strategies to reduce greenhouse gas emissions consistent with state law.

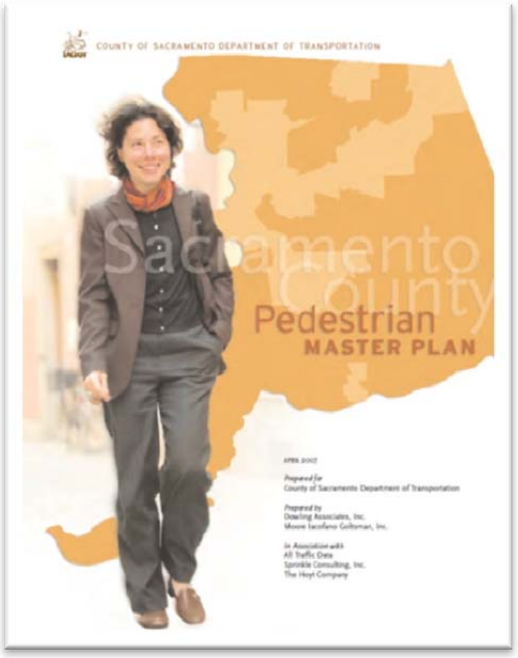

**Figure 3 2030 General Plan, Transportation Plan, November 2011.**
*An excerpt to show both Main Ave and Greenback Ln are designated as arterials—4 lane roadways.*

The General Plan introduced "Smart Growth Streets" with the goal of enabling safe and efficient mobility and access for all users while positively contributing to the adjacent corridor, surrounding community and natural environment. Both Greenback Ln and Main Avenue were identified as smart growth streets.

Smart growth design ojectives include:

- Incorporate "green infrastructure" to the greatest extent feasible.
- Create and/or improve community identity by coordinating improvements to the streetscape and the surrounding corridor to achieve a consistent look and feel or carry through a specific "theme."

- Create an “outdoor room” along the street to establish a sense of place and improve the comfort and overall experience of all users, particularly pedestrians and bicyclists.
- Create communities and corridors using a holistic perspective when considering land uses and the design context of street and corridor improvements.
- Encourage the use of shared driveways to reduce the total number of driveways along a Smart Growth Street to improve overall mobility and safety for all modes of travel.
- Encourage the use of shared parking facilities and reduced parking requirements.
- Design corridors that equitably accommodate all users, and complement the unique characteristics of the surrounding community and mix of uses.




***Pedestrian Master Plan, Approved 2007***

In November 2007, the Board of Supervisors approved the Sacramento County Pedestrian Master Plan (Ped-Plan) which establishes goals and strategies to increase pedestrian safety and improve walkability in the Sacramento County unincorporated area. Development of projects included in the Ped-Plan will enhance walking as a viable transportation alternative and help make Sacramento County a better place to live. Walkable communities add to personnel health and recreation, make neighborhoods more livable and help to reduce pollution.

Pedestrian Districts are defined and recommended within the Ped Plan. The main purpose of Pedestrian Districts is to emphasize pedestrian needs along sections of road where pedestrian demand is or could be high, based on adjacent land uses and transit activity. Some of the treatments that could be used within Pedestrian Districts include:

- Bicycle lanes
- Sidewalk enhancements and curb extensions
- Longer pedestrian intervals at signalized intersections
- Midblock crossings
- On-street parking
- Lower speed limits to 30 miles per hour or lower

- Pedestrian-scaled lighting
- Road diets
- Street trees or bus shelters

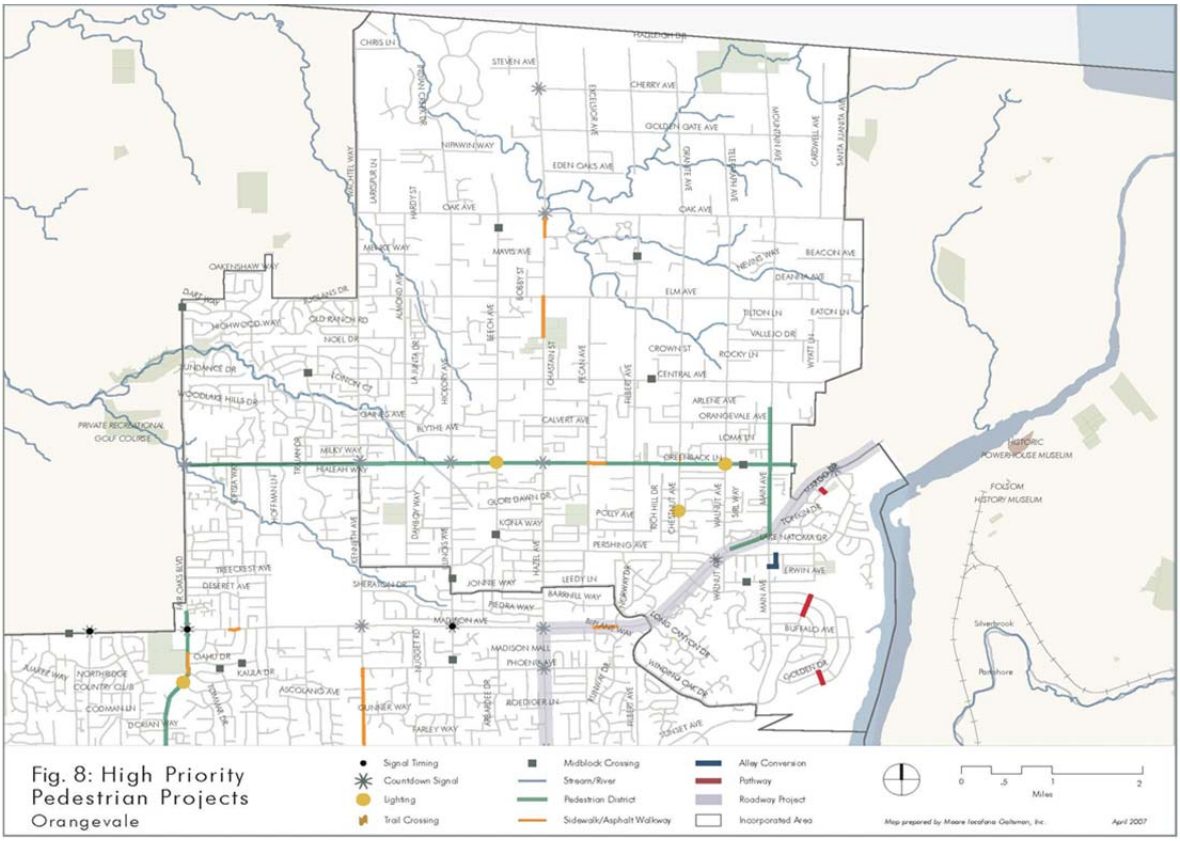



**Figure 4 High Priority Pedestrian Projects within Orangevale**

*This exhibit shows that both Greenback Laneand Main Avenue are designated as Pedestrian Districts and high priority within the Pedestrian Master Plan.*

### *Transportation Improvement Standards, Approved 2009*

Sacramento County Improvement Standards provide the requirements and standards that are to be applied to facilities proposed to be constructed within public rights-of-way within the unincorporated area. The Improvement Standards serve to regulate and guide the design and preparation of plans for streets, major roadways, drainage facilities, sewerage, traffic signals, street lighting, water supply facilities, landscaping and related public improvements. Streets in Sacramento County help to provide clean, safe and thriving neighborhoods and communities. Streets are a key element in providing greater mobility for all modes of travel including walking and bicycling. It is this vision of a safe and efficient transportation system, that serves our citizens and commerce, which guides the implementation of the provisions contained in the County Improvement Standards. Standards and requirements regarding roadways, sidewalks, bicycle lanes, traffic signs, traffic signals, and street trees can be found in chapter 4.

Any new streets must follow the current Improvement Standard. Whenever the Department of Transportation improves the roadway, the new design adheres to the Improvement Standard as much as possible. Through the streetscape master plan process, public input, and community consensus, the community can agree to incorporate different components to the roadway. This master plan will serve as a guideline for the proposed roadway.

The Transportation Improvement Standards established a criteria for the the pedestrian districts with an 8-foot sidewalk and a landscape buffer. The following figures are from the current Improvement Standard. Greenback Lane is designated and striped as an arterial, therefore, the following figures would be applicable to Greenback Lane. Differences between these figures and the proposed cross section for Greenback Lane will be discussed in the Streetscape Vision Section.

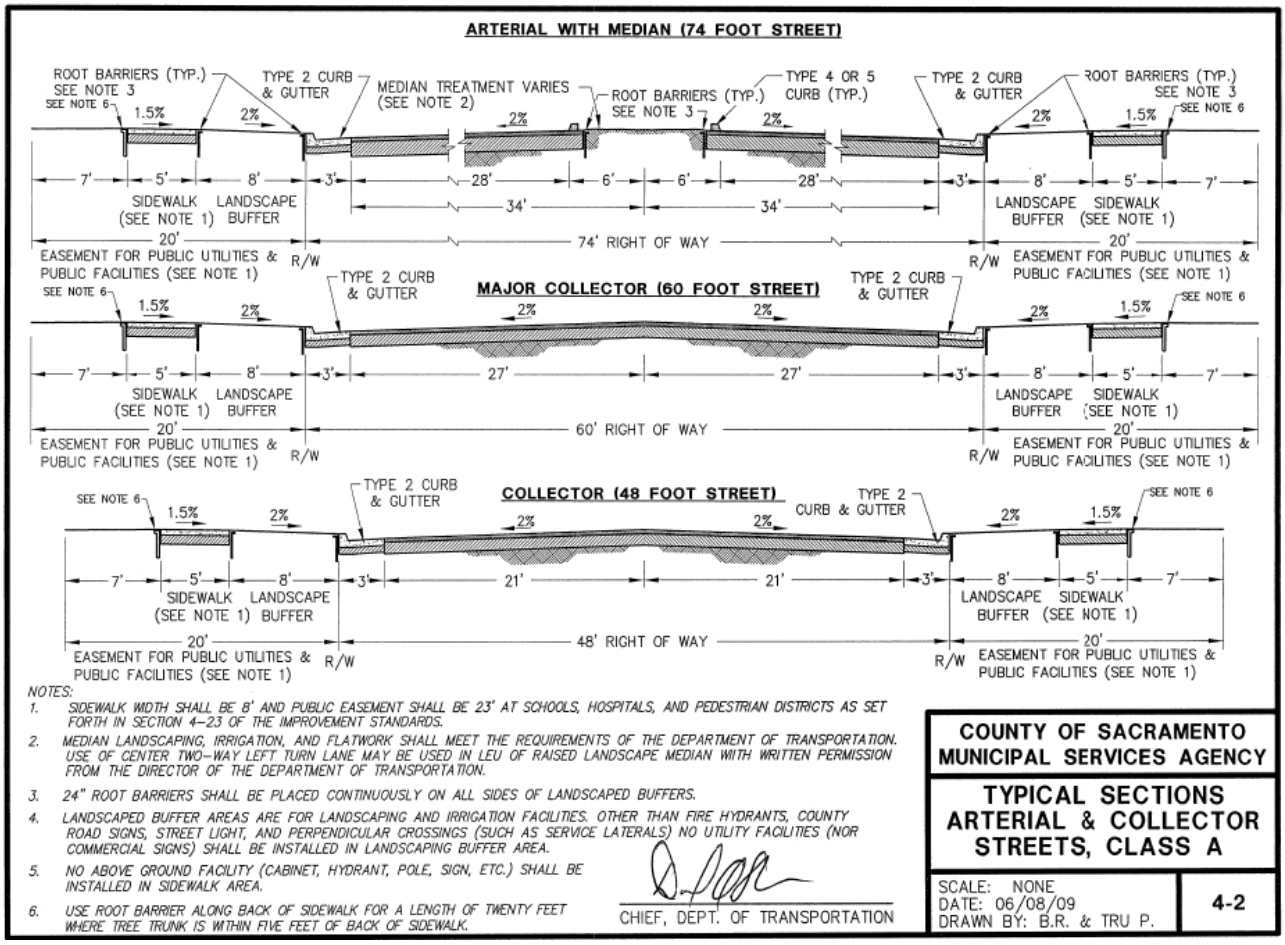



**Figure 5 Typical Arterial Section (top).**
*County of Sacramento Transportation Improvement Standard.*

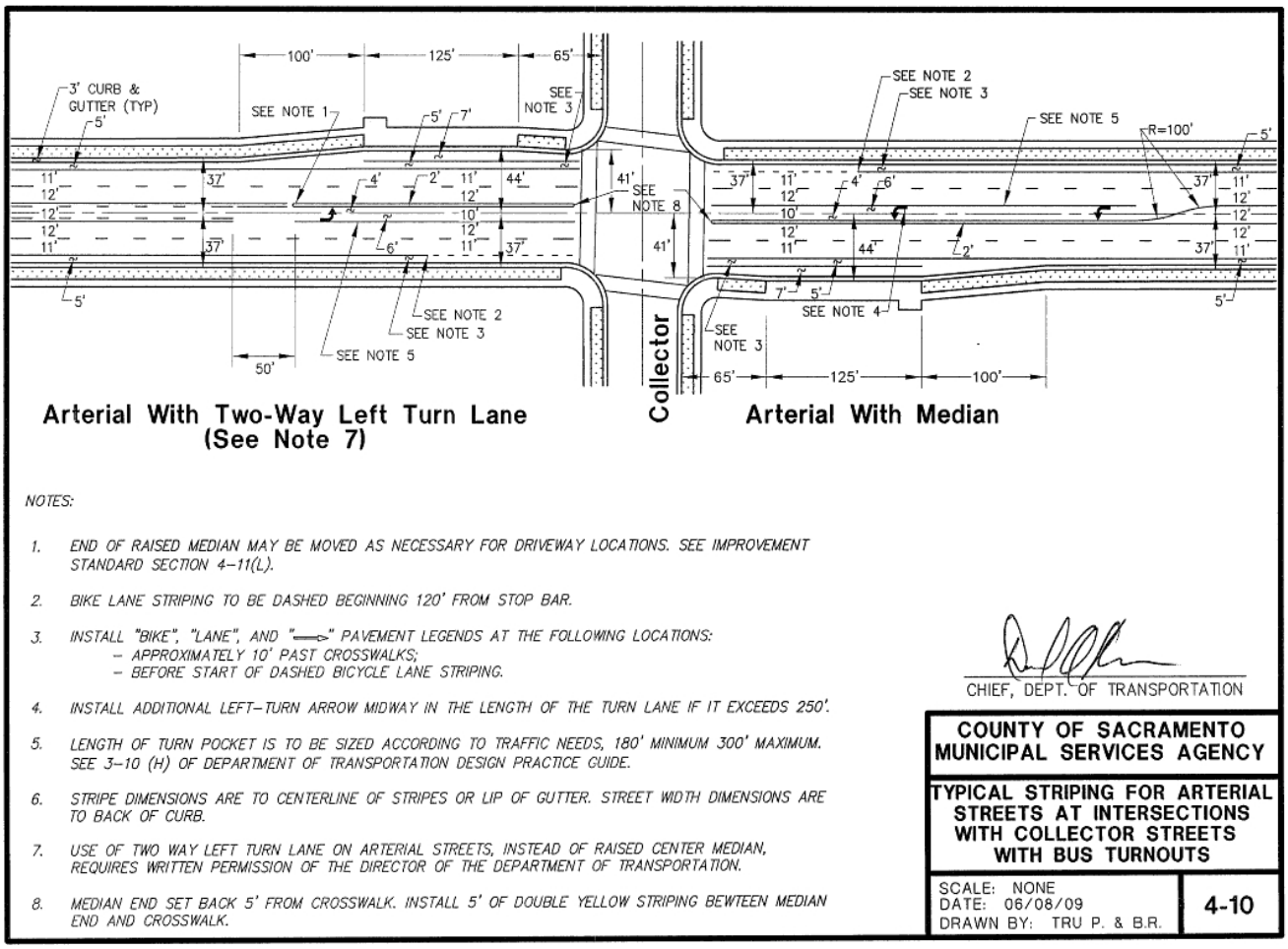



**Figure 6 Typical Striping for Arterial Intersection.**
*County of Sacramento Transportation Improvement Standard.*

## 1.3 GOALS AND OBJECTIVES

There are many different interests in the community and this Streetscape Master Plan is a balance of those interests intending to benefit everyone in the community. The process began with the identification of some goals:

1. **Strengthen the economic vitality of the business district by enhancing:**
    - Pedestrian connections and walkability
    - Bicycle infrastructure
    - Landscape and other streetscape components
    - Aesthetics and function of the streets
    - Vehicular access and parking for the district

- Sense of place and destination identity

2. **Create a shared vision that:**

   - Reinforces the business district identity
   - Unifies the district

This plan can serve as a push to revitalize this district corridor, bring more commerce to the area and jumpstart the economy as well as serve as a pleasant place to spend time. Once adopted, the plan will be used to:

- Create a shared vision for the business district
- Facilitate future funding opportunities
- Clarify priorities for the business district
- Allow phased improvements to contribute towards a larger objective
- Provide guidance while allowing future refinement of specific street design elements

Ultimately, the Streetscape can help create a Downtown Orangevale destination that one wants to "go-to" rather than simply "drive-through". The GLOVE group and Orangevale community desire a Dowtown Orangevale they can be proud of and want a place to spend both time and money.

### 1.3.1 PUBLIC MEETINGS AND PRESENTATIONS

***GLOVE meetings***

The Greenback Lane Orangevale Envisions Working Group (GLOVE) comprised of community stakeholders and a subcommittee task force, was brought together to share ideas, local knowledge and perspectives with the design team. GLOVE worked collaboratively with staff, the design team and fellow stakeholders to achieve a clear vision for the business district public realm, and help prioritize its recommendations so the plan is holistic and can be achieved over time. This Streetscape Working Group met regularly to develop components of the Streetscape Master Plan.

***Community Meeting - March 18, 2015***

The community meeting on March 18, 2015 served to introduce the SPA to the community as well as introduce the Streetscape Master Plan process and concepts. The stakeholder notification included newspaper advertisement notifications, a hard copy mailing to property owners in the immediate vicinity, an e-mail distribution to collected e-mail distribution lists, and by word of mouth from the GLOVE group.


**Figure 7 Community Meeting Presentation by GLOVE Member**

Approximately 78 people attended the community meeting. A brief power point presentation was made to the group, members of the GLOVE group presented to the collected audience. DOT staff prepared vision boards and were on hand to answer questions regarding the proposed streetscape vision. The vision boards included information on: (also included in the Appendix)

- The Role of Streets and Complete Streets
- Vision and Process
- Roadway Vision
- Pedestrian Access and Landscaped Medians
- Driveway Consolidation
- Median Alternatives
- Streetscape Components (think board)

**Figure 8 Community Meeting with Vision Boards**

A survey with questionnaire was circulated. 55 surveys were returned. (Both the comments and survey results are included in the Appendix of this plan) Some conlcusions can be drawn from the returned survey responses:

- Pedestrian access and mobility is important
- Community members are willing to make U-turns to get to their desired destination in exchange for landscaped medians.

- The consolidation of driveways are worthwhile to complete the vision of an improved pedestrian-friendly business district.
- A majority were in support of landscaped, partial medians.
- Consistent corridor identification within the roadway is important to the success of the business district.
- The majority would visit the business district more often if there were more of a sense of place and center of activity.

***Community Meeting – September 30, 2015***

The community meeting on September 30, 2015 served to present the Streetscape Master Plan to the Orangevale community. In an effort to reach as many community members as possible the meeting and presentation was held twice: once at 1 pm and again at 5 pm. Approximately 30 people attended each presentation. Overall, a total of 70 people attended both presentations.

**Figure 9 Members of the Orangevale Community listening to the Streetscape Master Plan Presentation**

Main concepts of the Streetscape Master Plan were presented to a collected audience with a power point presentation. The highlight of the presentation was a fly-over video of a computer generated view of the Dowtown Orangevale. DOT staff prepared vision boards and were on hand to answer questions regarding the proposed Streetscape Master Plan.

**Figure 10 Answering community member questions**

Most business owner inquiries were in regard to access to businesses and how streetscape features would ultimately affect them. Community members primarily had questions about landscape and identity components. Overall, the community was excited to see progress in their community. Comment cards were available, however, most attendees chose to voice their comments throughout the

meeting. The number of staff in attendance was able to discuss specific project aspects with concerned community members.

***Community Planning Advisory Comittee – October 6, 2015***

The Streetscape Master Plan was presented to the Community Planning Advisory Committee (CPAC) as an appendix to the SPA. The primary information presented to the CPAC was the proposed SPA, process, and a comparison of the present SPA with the proposed SPA amendment. A brief overview of the proposed Streetscape Master Plan was presented to the committee. The SPA amendment and the Streetscape Master Plan were approved by the CPAC by a vote of 5-1-1 (Approval-Disapproval-Absent).

***Planning Commission – December 14, 2015***

The Streetscape Master Plan was presented to the County of Sacramento Planning Commission as an appendix to the SPA. The primary information presented was the proposed SPA, process, and a comparison of the present SPA with the proposed SPA amendment. A brief overview of the proposed Streetscape Master Plan was presented. Board action: Determined the environmental analysis was adequate and complete and the Mitigated Negative Declaration was appropriate. Recommended approval of the Greenback Lane Special Planning Area, subject to the findings and conditions recommended by staff. The action was unanimously approved by the Planning Commission.

## 1.4 EXISTING CONDITIONS ALONG STUDY CORRIDOR

### 1.4.1 CONDITION OF EXISTING ROADWAY AND ISSUES

Greenback Lane in the project vicinity is designated as an arterial roadway and carries 20,000+ vehicles per day. The project segment speed limit is posted as 45 mph. According to both vehicle volumes and speed limit, Greenback Lane is appropriately designated as an arterial.

Main Avenue in the project vicinity is designated in the Sacramento County General Plan as an arterial roadway and carries a little over 8,000 vehicles per day. The project segment speed limit between Orangevale Avenue and Madison Avenue is posted as 35 mph. Based on current and projected vehicle volumes, there is a case that can be made to downgrade the roadway status of Main Avenue. Further discussions, including future street use, land use, and master planning should be studied prior to proceeding with a change of the roadway status.

The community expressed the following issues:

- Lack of continuous sidewalks and inconsistent sidewalks (width and quality)
- Continuous asphalt from the roadway to the storefronts
- Poor pavement quality
- The large number of overhead utility lines

- High vehicular speeds
- Lack of landscaping and trees in the project area
- High number of vagrants
- Lack of community and community identity
- Poor quality of pedestrian features and facilities

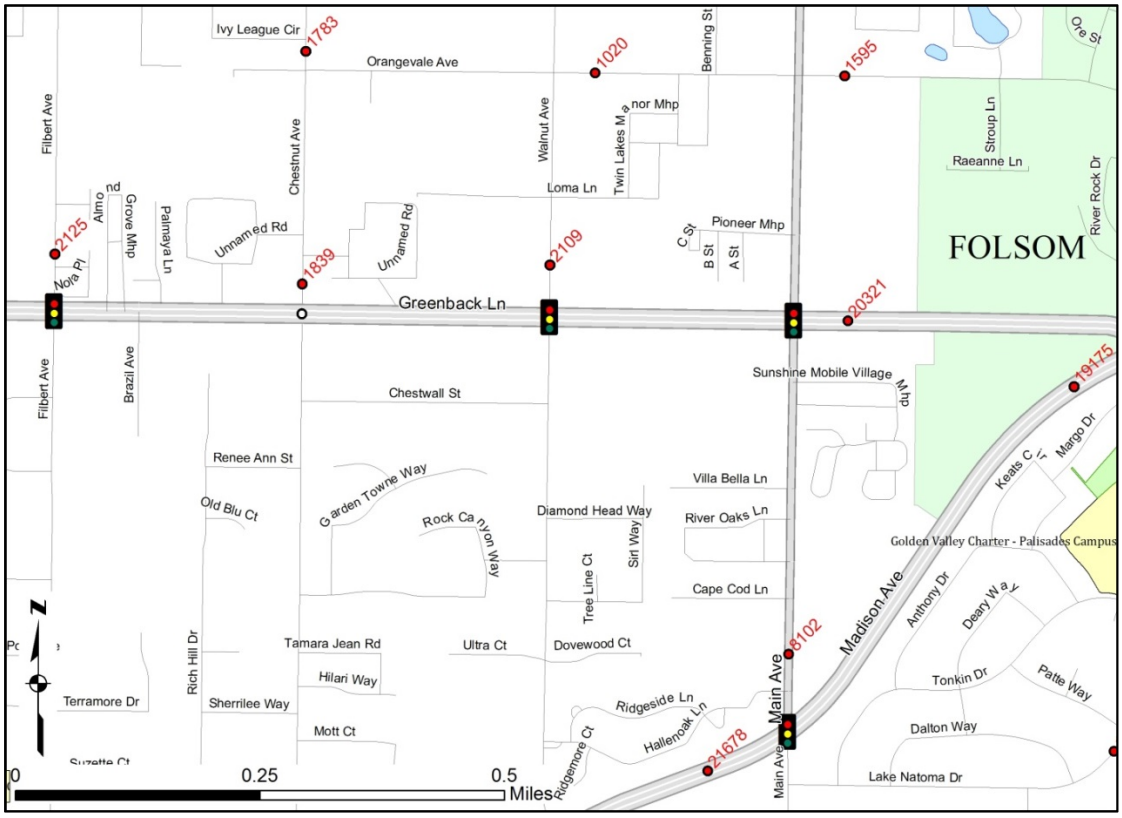



**Figure 11 Roadway Volumes in the Project Vicinity**

## 1.5 STREETSCAPE VISION

Greenback Lane is an intregral “thread” running throught the fabric of the community of Orangevale. The roadway was once a palm tree lined boulevard that connected large parcels of agricultural and residential land uses. Much of that early agricultural land was planted in citrus orchards, hence the use of the word “Orange” in the community’s namesake. Palm trees were often planted as “skyline” trees to stand tall and be seen from a distance in order to help demarcate roadway corridors, homesites and property lines hidden amongst the acres of lower lying orchard trees. Streets then were country lanes that connected large tracts of land.

“Town and Country” and “California Rancho” are styles that influenced the early Orangevale colonization, with corressponding streets that were rural connectors focused on automobile travelers and farm equipment traveling to and from locations that were spaced far apart. There was not much

need for sidewalks and bike lanes prior to the industrial technological boom which occurred after World War II.

The post-war boom resulted in the large fields of agricultural land being converted into sub-urban housing tracts, many for the new employees of Aerojet Corporation, with many new streets to connect them. Some of those streets included sidewalks to accommodate needs for walking and cycling to local destinations (schools, stores, churches, etc.). Greenback Lane remained as the arterial thread that the community travelled to and from along, and businessines located along it to provide convienent access to their services. Similarly, Main Avenue, which intersects with Greenback Lane, developed as a smaller commercial corridor with a less congested feel to it. This concentration of commercial and service businesses occurs on Greenback Lane between Chestnut Avenue and Madison Avenue, with Main Avenue businesses intersecting mid-way. This particular area of land use concentration therefore provides a natural destination atmosphere, an informal downtown demarcation. With implementation of the enhancements and identifiers described by this Streetscape Master Plan, "Downtown Orangevale" will be formalized and streetscape improvements made that will encourage the vision and goals of the Greenback Lane SPA and the Downtown Orangevale Development Guidelines.

Today there has been development of industrial, service and retail businesses to complement the early country character of Orangevale, giving a combined feeling of progress balanced with the historical rural steadfastness. Some streets have full improvements including sidewalks, curb and gutter storm-drain collection, street lights and traffic signals. Other streeets have remained "rural" with a basic roadway with stop signs, no street lights or sidewalks and simple roadside ditches for drainage.

Much of this development evolved during the post World War II era of the 1950's, an era referred to as "Mid-Century modern". This style is characterized by clean lines, minimalist aesthetics, organic and geometric shapes, muted colors, neon-style lighting and signage, and a sense of openness. Sometimes referred to as "retro," this style was popular from 1945 – 1975, when construction practices were highly influenced by the technological advancements of the automobile industry and the need to accommodate for modern day conveniences. Neon-lit signs envisioned within the business district recall the mid-20th century era's influence on entertainment, culture, and food and drink services that once thrived along Greenback Lane and other parts of the Sacramento region. Therefore, influence of the Mid-Century Modern style is a focus for signage and architecture in Downtown Orangevale to help establish a "sense of place" along Greenback Lane.

The vision for the streetscape for Greenback Lane and Main Avenue is to apply roadway development components to support and enhance the Downtown Oragevale identity, while allowing Smart Growth "complete street" accessibility for vehicles, pedestrians, cyclists and buses. Mid-Century Modern style will influence the streetscape theme, and the streetscape development components are generally described as:

- Landscaping (trees, shrubs and groundcovers),
- Hardscaping (sidewalks, plazas, bicycle lanes, vehicle lanes),

- Lighting (street lights, traffic signals, pedestrian level bollard lighting), and
- Architectural features (signage, monuments, gateway, detailed surfaces, art work)
- Effective use of space (travel paths, open area, “safe haven” zones, gathering points)

By incorporating these streetscape development components, with Smart Growth complete street accessibility, the streetscape vision for Greenback Lane and Main Avenue will continue to be the thread that connects the surrounding Downtown Orangevale fabric as Downtown Orangevale emerges following the Commercial Design Guidelines and the Greenback Lane Special Planning Area intent.

Currently, the Greenback Lane corridor between Chestnut Avenue and the City of Folsom/Sacramento County border is an aging corridor that has many commercial and industrial uses. The community would like to revitalize the corridor with additional shops, restaurants, cafes, and boutiques that could potentially serve more of the community. They would like a Smart Growth walkable, pedestrian and bicycle friendly “complete street” corridor because it is more inviting and would persuade more people to spend time in the business corridor while providing a more livable community.

Many of the concepts and ideas for this streetscape master plan and the Downtown Orangevale vision have been successfully implemented in other areas in the county as well as the country. The public process serves to engage the community, generate interest, and introduce long term visioning while tailoring improvements to meet their specific needs.

To achieve the Downtown Orangevale Streetscape Master Plan goals, Streetscape Components, or “tools” are used. A “Streetscape” is essentially a walking, cycling and driving experience. A Streetscape is the central spine which connects the surrounding body of residents and businesses, using both circulation and perception. Combining the various component tools together creates an overall experience that supports the goals and vision for Downtown Orangevale. These Streetscape components often include:

- Street and site lighting (for both safety purposes and decorative enhancement)
- Enhanced crosswalks and paving
- Painted traffic signal poles
- Pedestrian facilities (Promenade, Plazas and Connecting Walkways)
- Partial Medians and Driveway Consolidation for Traffic Calming and Pedestrian/Vehicular Safety
- Landscaping (Shade Trees, Signature trees, Shrubs, Groundcover, Colorful accent/interest)
- Community Identifiers and signage

Ultimately, the Streetscape can help create a Downtown Orangevale destination that one wants to “go-to” rather than simply “drive-through”.

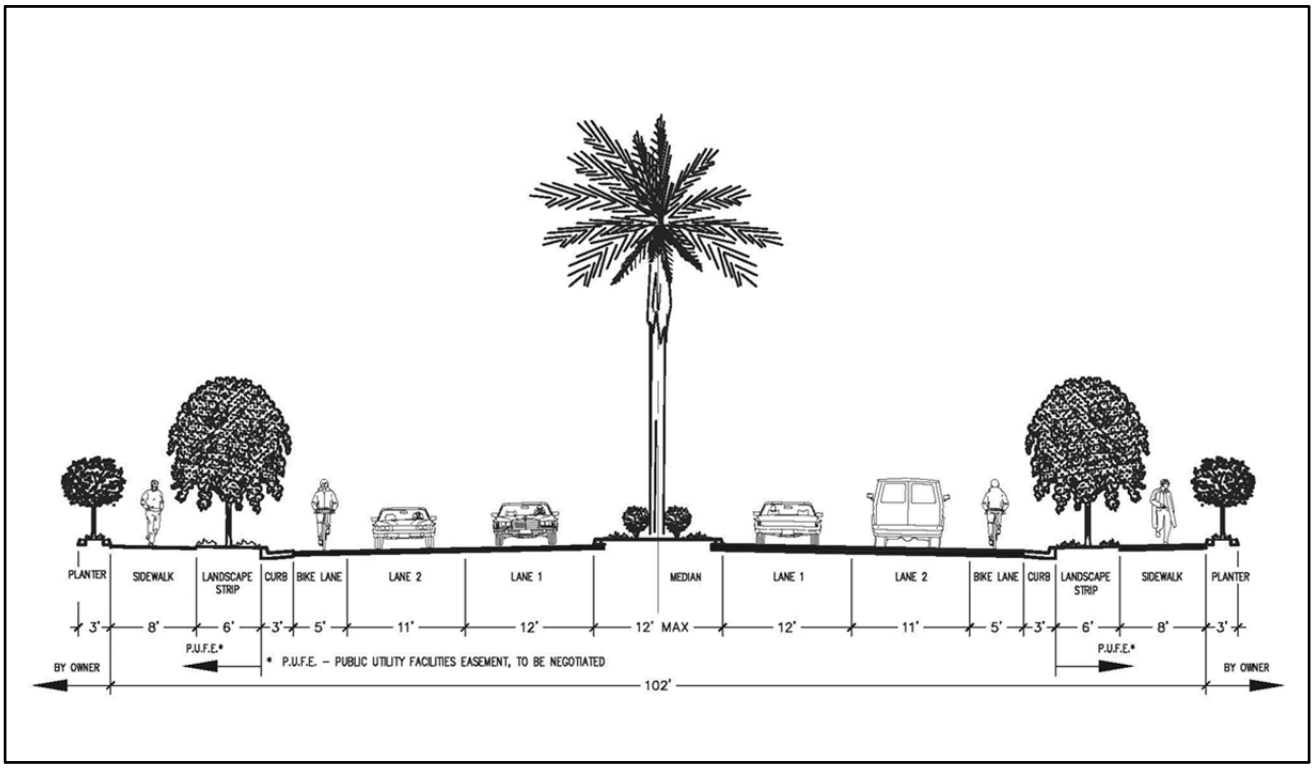



**Figure 12 Proposed Streetscape Cross Section**

*Greenback Lane complete street improvements within the Orangevale Business District*

A GLOVE member once said the area should feel like a "promenade" for pedestrians to walk about and for travelers in vehicles to notice storefronts. Where possible, there will be an 8' sidewalk providing ample room for pedestrians to walk and congregate in front of businesses. A 6' landscape strip between the sidewalk promenade and the street would provide shade trees, shrubs and groundcover to further create the outdoor space. This landscape strip serves to make the area more inviting, add to the identity of the area, and also serve as a buffer area between the pedestrian and vehicular traffic. To reduce impacts to existing businesses, the landscape strip differs from the County Improvement Standard by decreasing the landscape strip by 2', thus reducing the right-of-way requirement. There is a standard 5' bicycle lane to give adequate consideration to alternative modes. Two standard-width vehicle lanes in each direction are represented in the cross-section above, as well as a landscaped median with a two- way left-turn lane or left turn pocket with drive way consolidation, where possible. The benefits of medians include the channelization of traffic towards focused access points, traffic speed reduction and the reduction of vehicular conflicts with the promenade pedestrians, cyclists, and other vehicles all vying to turn in and out or crossover the numerous drive ways currently lining both sides of Greenback Lane.

Driveway consolidation is needed in the project area to improve pedestrian mobility and improve traffic flow and circulation. There are proponents within the community for absolutely no medians as well as proponents for a fully landscaped continuous median. The concept of a partial-median was introduced from this community process. With the community survey at one of the community meetings, the majority of the respondents approved the concept of a partial median. The partial-median will be a raised, 12' landscaped median with openings to provide access to businesses. The location of median breaks will depend on the focused entry points made possible with the consolidation of driveways, multiple-accessible businesses, and opportunity for cross access between properties.

Another concept introduced with this vision is a pedestrian entry plaza. The intent for this entry plaza is to invite the pedestrian into the businesses at a major junction. Vehicles passing by would also notice the entry plazas which will serve to "frame" views of the frontdoor entry to adjacent commercial development. The view to the front door of the business helps drivers find what they are looking for or invites travelers to stop and explore. The plaza would serve multiple businesses. Palm trees are used as a signature tree in the corridor and were traditionally used to demarcate the entrance to a farm or orange grove. In this case, palm trees will be used as the entry for pedestrians and frame views as seen from passing vehicles. Colored concrete will also be used to indicate a change for the pedestrian, a "red-carpet" if one can imagine, to alert the pedestrian to the businesses. While it will take many years to fully realize all of the SPA concepts, this pedestrian plaza concept can intertwine with the businesses in the present as well as the desired future placement. The colored concrete can be taken all the way to the doorway of a business.

**Figure 13 Pedestrian Plaza concept with businesses in the distance.**

As previously mentioned, there is a strong desire to underground the overhead utility lines. There will be a need to designate a PUFE (Public Utilities Facilities Easement) during the design phase of the project. The exact dimensions will be negotiated at the time of right-of-way acquisition, dependent upon the needs for utility facilities.

**Figure 14 Proposed Streetscape Vision (Example shown with partial median and left-turn pocket access)**

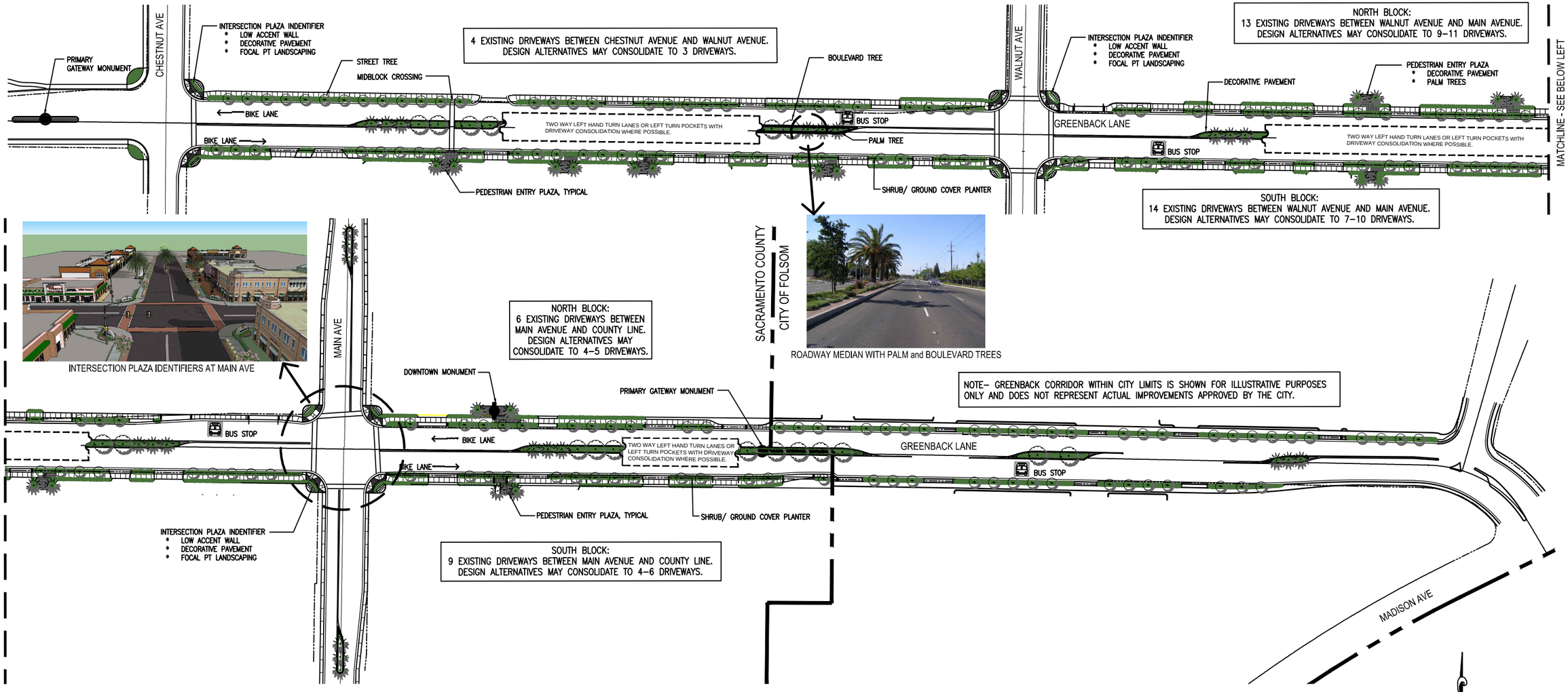
Eventually, the goals of Smart Growth streets concept and the SPA amendment is for new businesses to build street-front and the vehicular parking and circulation to be behind the businesses. The sidewalk will be a gathering place with wide sidewalks for people to gather and talk. The storefronts will be adjacent for street side dining and easily viewable shops.

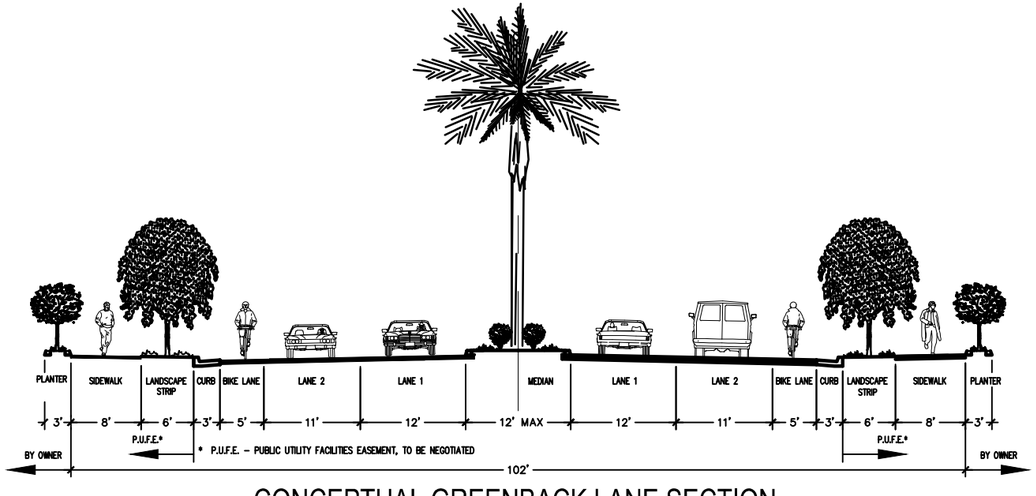
## 1.6 DESIGN GUIDELINES

### 1.6.1 Vehicular Traffic Calming Measures and Signalization

Raised partial medians should be utilized throughout the study area to improve safety for oncoming and cross-traffic. Partial medians should be planted with trees, shrubs and groundcover where allowed by existing regulations to reduce night-time glare, improve shading of pavement, capture rainwater and street drainage, and enhance aesthetics.

The partial median concept differs from the County of Sacramento Transportation Improvement Standard. The Improvement Standard requires a continuous median on arterial roadways. The partial median concept will consider left hand turns at both two-way left-turn lanes and left turn pockets mid-block between signalized intersections. This concept was developed pending the consolidation of driveways. The major driveways receiving the left - turn traffic should serve multiple businesses and properties. Cross access agreements and considerable driveway consolidation should play a role in the location of the receiving driveways. The following exhibit demonstrates how the median breaks can be spaced between major intersections utilizing a two-way left-turn lane.




CONCEPTUAL GREENBACK LANE SECTION

# DOWNTOWN ORANGEVALE
# CHESTNUT AVENUE TO MADISON AVENUE
# STREETSCAPE MASTER PLAN
# PARTIAL MEDIAN EXHIBIT

SEPTEMBER 2015

**Figure 15 Proposed Streetscape Vision (Example shown with two-way left-turn lane access)**

To increase pedestrian mobility, a pedestrian signal is proposed east of Chestnut Avenue. Pedestrian mobility is further increased with driveway consolidation and the increased use of landscaping for shade.

Traffic signals should be installed at major unsignalized intersections. Where possible, the street cross-section should conform to the proposed 102-foot right-of-way.

Where possible, for commercial lots on Greenback Lane , parking should be located along the sides or in rear of the buildings to create a more vibrant pedestrian environment on the street.

### 1.6.2 Community Identification

One way to establish a “go-to” downtown is to clearly identify where it is. Using a combination of branding and signage, identification “tools” are placed within the area to demarcate the boundaries and to establish a connection to the traveler. These tools include physical placement of signs, monument walls, gateways, intersection plazas, art and signature trees. Also known as streetscape amenities, the purpose of the streetscape amenity plan is to formulate a plan thaqt will create a community identity through strategic placement, repetition and cohesiveness. Streets are an “outdoor living space” and reflect the values of the community. The Streetscape Amenity Plan (Figure 16) shows where these identifiers could occur within the Downtown Orangevale area. Primary and Secondary Gateway identification is placed at perimeter locations as one enters the downtown Orangevale district. Intersection Plaza Identifiers with the Orangevale name then repeats the theme at each major

intersection as one travels through the corridor. Finally, a tall and iconic downtown Monument is placed at the “heart”: of Downtown Orangevale, serving to identify your arrival at the Downtown core.

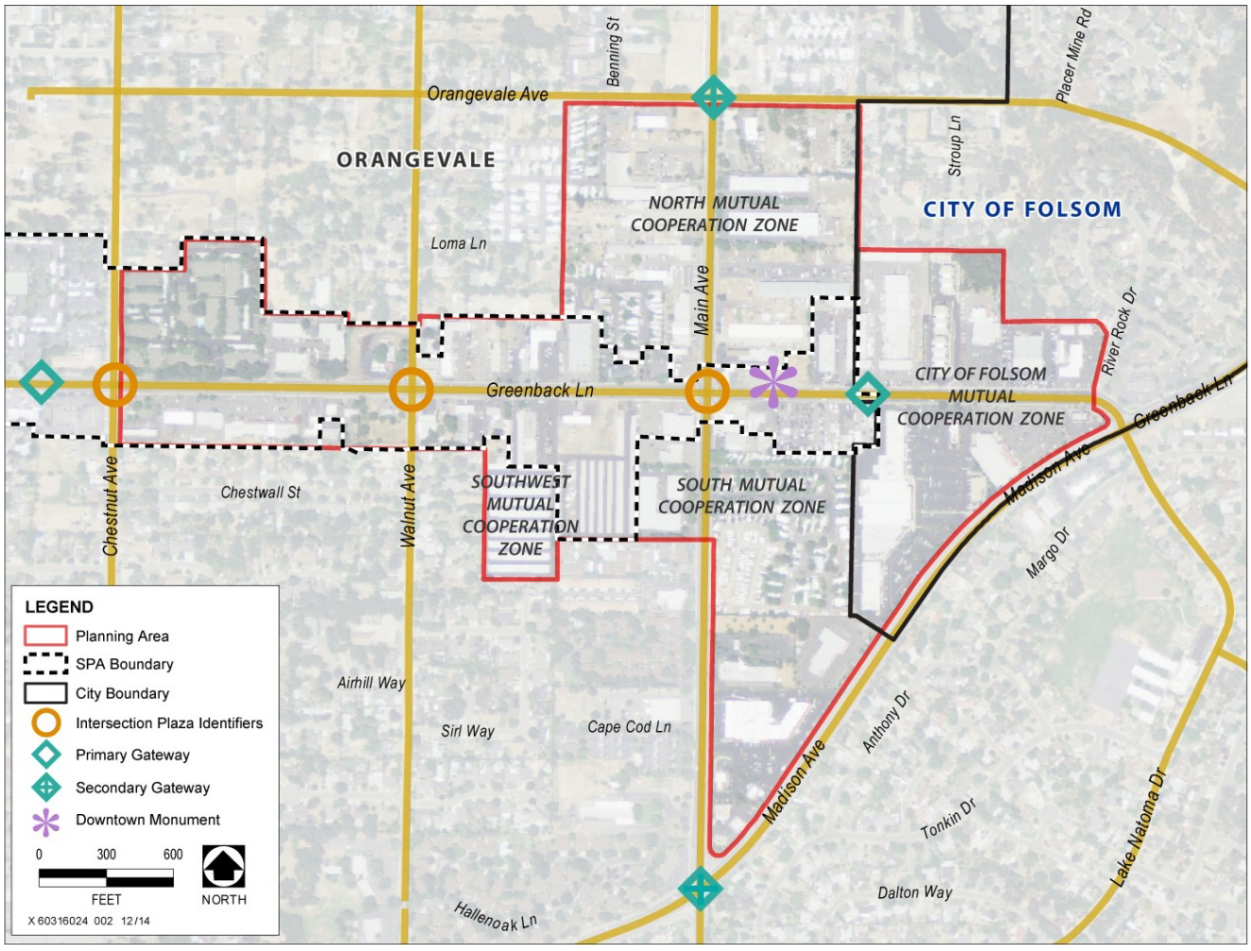
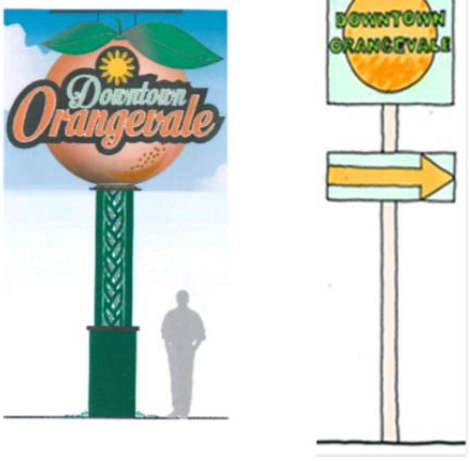



**Figure 16 Streetscape Amenity Plan within Downtown Orangevale**

### *Primary and Secondary Gateways*

Serving as entry points into the downtown area, Primary Gateways and Secondary Gateways are the "wayfinding" indicators to direct travelers to the Downtown Orangevale area. They give a "hint" that you are entering a distinct area and that you are on your way to the Downtown destination. They are smaller and simpler than the Downtown Monument and Intersection Plaza Identifiers, and are geared more toward passing motorists more than they are for pedestrians.


**Figure 17 Concept image of a Primary Gateway on Greenback Ln, west of Chestnut Ln**




Secondary Gateways serve as directional wayfinding signage. They serve to direct traffic to the district businesses as well as keep cut-through traffic on the thoroughfares external to the plan area.

**Figure 18 Primary and Secondary Gateway Concepts**

### *Downtown Monument and Intersection Plaza Identifiers*

These Identifiers are intended to provide a subtle yet bold statement that you are in a distinct area, Downtown Orangevale. They have a scale and unique design for Downtown Orangevale. When combined with other Streetscape components and the architecture of the surrounding buildings, the identifiers help set the character of Downtown Orangevale. They are designed with lighting so they can provide both day time identity and night time attraction.

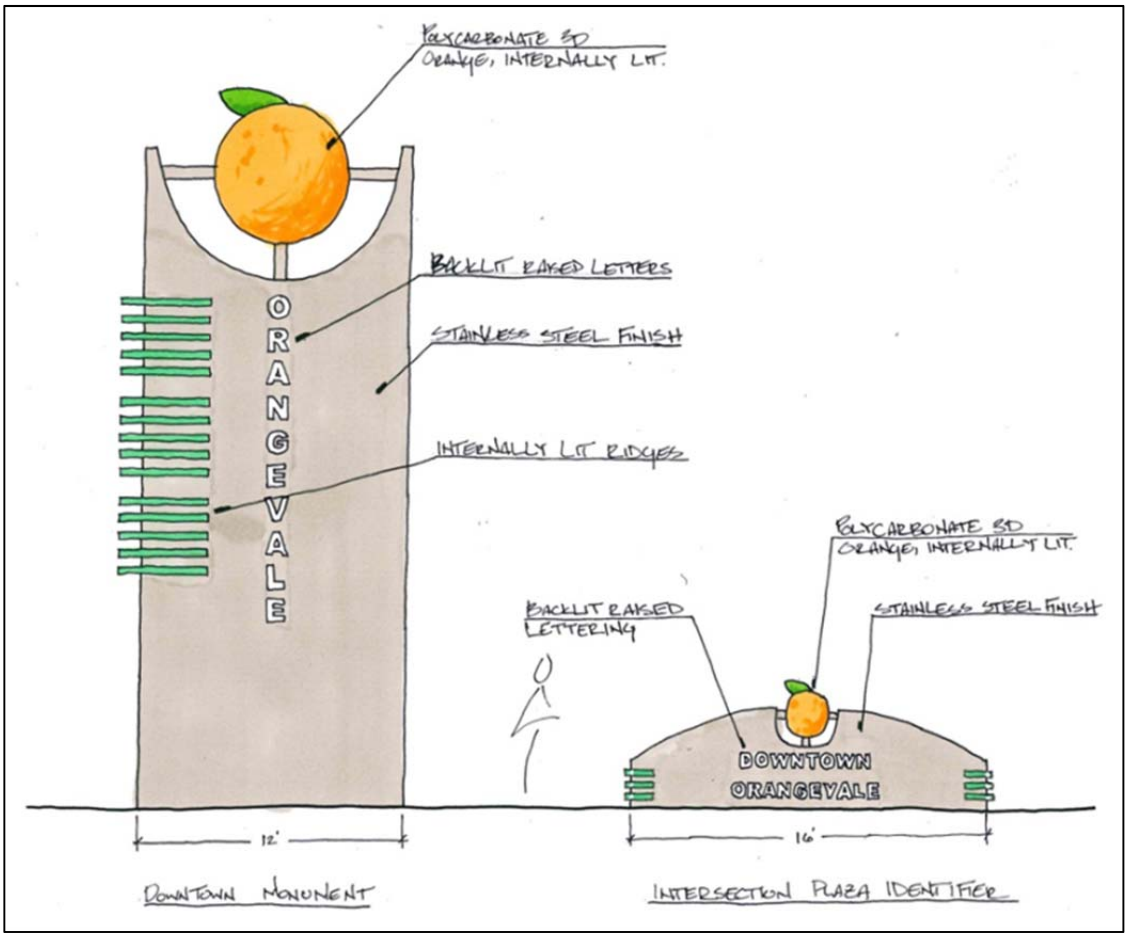



**Figure 19 Conceptual Rendering of a Downtown Monument and an Intersection Plaza Identifier**

The Downtown Monument is a tall "you are here" statement. It is enhanced with lighting and the artistic glowing "Orange" to mark the heart of Downtown and give travelers the sense that they have arrived. As you walk or drive through Downtown, the monument identifier gives you a guidepost of where you are and can serve as a gathering point for special events.


**Figure 20 Vision of the Downtown Monument placed in the community**

The intersection plaza identifiers are similar but more subtle and "grounded" in scale so that walkers and cyclists, and vehicles waiting at traffic signals can relate to them from an eye level view. They mimic the Downtown Monument and they will occur on all four corners of the major intersections within the downtown area, so they repeat themselves in order to provide cohesion and to remind you that you are still within the downtown corridor.

**Figure 21 Monument and intersection plaza identifiers envisioned within the Downtown Orangevale area**

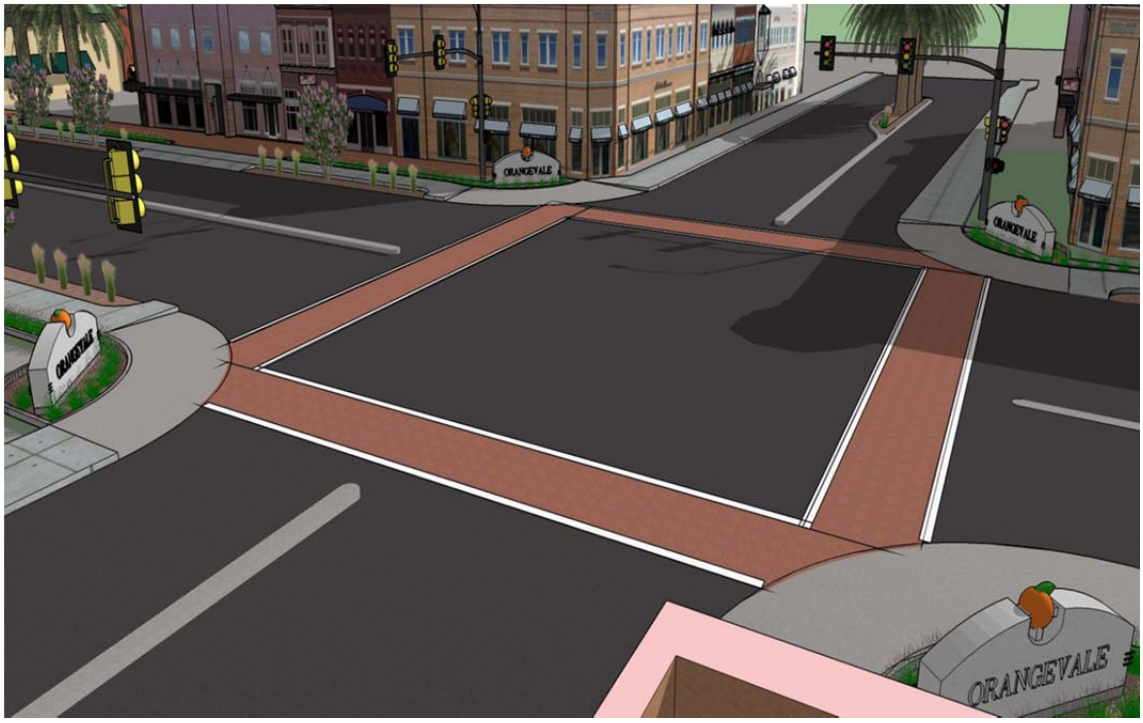



**Figure 22 Community Identification: Intersection Plaza Identifiers**

### 1.6.3 Pedestrian Promenade and Amenities

Eight foot or wider sidewalks are recommended in the commercial districts and pedestrian districts per the Ped Plan recommendations. They should be divided from the curb with a raised planting bed between the sidewalk and the street where feasible. Sidewalks should be shaded where possible. The Downtown Orangevale section has been designated a "Pedestrian District" in the Pedestrian Master Plan, the Sacramento County General Plan, and the Sacramento County Improvement Standards. Sidewalks and other amenitites should conform to the design guidelines presented in the Pedestrian Master Plan, which includes bus shelters, street trees, pedestrian scale lighting, longer pedestrian intervals at signalized intersections, mid-block crossings, reduced traffic lanes, and sidewalk enhancements.


**Figure 23 An example of streetscape features used as a gathering place**

### 1.6.4 Hardscape, Fences, and Barriers

Typically, texturedroadway pavement could be utilized at cross walks to both slow traffic and create a more aesthetic environment. Examples ofa thermoplastic imprint system are shown in the following figure.


**Figure 24 Examples of crosswalk paving with thermoplastic imprint**

Colored concrete is used as a tool to create visual interest as well as alert a pedestrian to an intersection (conflict zone) and in pedestrian entry plazas. A 2'x2' score pattern is used in the design to create an urban and business aesthetic.

### 1.6.5 Street Furniture and Fixtures

**Figure 25 Transit Stop with Coordinated Furnishings**

Benches, trash receptacles, bus stops, and street lights should be provided at regular intervals on both the north and south sides of Greenback Lane throughout the study area. Street furniture and fixtures should emphasie the desired character of the district. Cobra-head lights are present throughout the study area as well as street lights mounted on utility poles. Consistent street lighting as well as consistent poles are the focus of this master plan. The simple cobra-head street ights are from the mid-centry modern era that the focus group liked for this area. However, a decorative human-scale streetlights

should be located every 120 feet throughout the Downtown Orangevale area. Benches and trash receptacles should be placed approximately every 500 feet. All elements should be selected from a common design theme and be compatible with each other. Bus stops should be located every ½ mile within the downtown area.

### 1.6.6 Street Trees and Landscape Planting

The plant palettes in the following tables have been created for the study area to enhance the desired character of the streetscape and should be used In the medians and planting beds between the sidewalk and street. Distinctive palettes should be used for the Downtown Orangevale and the area outside Downtown Orangevale. Median plantings must be suitable for the harsh conditions often found in medians.

A separate planting list has been developed for use on private land adjacent to the streetscape to provide consistency between private property and the public right-of-way. These trees are recommended for front yards, side yards, parking lots, and other private property that is open to the road.

#### *Signature Trees*

Trees and landscaping are a subtle yet consistent component along the streetscape which establish the "outdoor room" and the downtown sense of place. One tool to identify the unique aspects of an area is to use "Signature Trees". The trees are distinguished from the other trees, which are typically used for shade and aesthetics, as they also provide a unique identity or "signature" of the Downtown district. These trees often reach to the skyline and can stand alone or in groupings to draw attention to themselves…thus further giving Downtown Orangevale a identification tool to establish its parameters.

**Figure 26 An example of how palm trees were used at the intersection of Fair Oaks Avenue and Palm Avenue**

In Orangevale, there were historically local plantings of Palm Trees that were associated with the early development of the area. These palms were planted for their scenic interest and to help locate homes and plantations within the open fields of agriculture.

**Table 1 Downtown Orangevale - Recommended Signature Tree List**

| LATIN NAME or COMMON NAME | IMAGE | TREE CHARACTERISTICS (MATURE HEIGHT, SPREAD, GROWTH RATE) | RECOMMENDED APPLICATION / NOTES |
|---|---|---|---|
| Palm Trees | | | |
| Phoenix canariensis or Canary Date Palm |  | Tall: 60 feet high; 20 feet spread; moderate growth | Evergreen<br>Large scale skyline<br>Street/Shade/Accent tree (historical to Orangevale)<br>Not under powerlines<br>In median and offset frontages.<br>Requires some maintenance to clear fronds/maintain appearance |
| Phoenix dactilifera or True Date Palm |  | Tall: 50 feet high; 15 feet spread; 16 inch diameter; moderate growth | Evergreen<br>Large scale skyline<br>Street/Shade/accent (skyline) tree<br>Not under powerlines.<br>In median and offset frontages. Requires<br>some maintenance to clear fronds/maintain appearance. |
| Washintonia filfera or California Fan Palm |  | Tall: 40 feet high; 10 feet spread; 3 feet diameter; moderate growth | Evergreen<br>Large scale skyline<br>Street/Accent (skyline) tree<br>Not under powerlines.<br>In median and offset frontages. Requires<br>some maintenance to clear fronds/maintain appearance. |

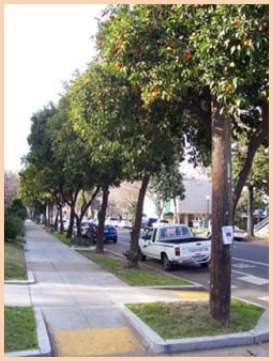
*Source:* Downtown Orangevale Commercial Business Guidelines

| Table 2 Recommended Small and Medium Palm Tree List for Landscaping on Individual Parcels | | | |
|---|---|---|---|
| **LATIN NAME or COMMON NAME** | **IMAGE** | **TREE CHARACTERISTICS (MATURE HEIGHT, SPREAD, GROWTH RATE)** | **RECOMMENDED APPLICATION / NOTES** |
| **Palm Trees** | | | |
| Chamaerops Humilis or Mediterranean Fan Palm |  | Small: 15 feet high; hardy; spread 15 ft.; clumping or multiple trunks, 4-5 ft. in diameter; slow growth | Evergreen<br>Small scale accent<br>Street/Shade/accent tree<br>Under powerlines.<br>In frontages. For landscaping on individual parcels; good for containers.<br>Requires little maintenance. |
| Trachycharpus Fortunei or Windmill Palm |  | Medium: 30 feet high; spread 6 ft.; good in poor soils | Evergreen<br>Medium scale Accent tree<br>Under taller powerlines.<br>In frontages. Requires little maintenance. |

*Source:* Downtown Orangevale Commercial Business Guidelines

| Table 3 Recommended Sreet Trees | | | |
|---|---|---|---|
| LATIN NAME or COMMON NAME | IMAGE | TREE CHARACTERISTICS (MATURE HEIGHT, SPREAD, GROWTH RATE) | RECOMMENDED APPLICATION / NOTES |
| Street and Frontage Trees | | | |
| Quercus coccinea<br>Scarlet Oak |  | Height: 60-80 feet<br>Spread: 40-50 feet<br>Moderate growth | Deciduous<br>Large scale.<br>Street/Shade/accent (fall color) tree<br>Not under powerlines.<br>In median. Some maintenance to prune when young and acorn drop. |
| Valley Oak<br>Quercus Lobata |  | Height: 50 feet<br>Spread: 50 feet<br>Moderate growth | Deciduous<br>Large scale.<br>Street/Shade tree<br>Not under powerlines.<br>In median. Some maintenance to prune when young and acorn drop. |
| Tilia Americana<br>American Linden |  | Height: 70 feet<br>Spread: 40 feet<br>Moderate growth | Deciduous<br>Large scale.<br>Street/Shade tree<br>Not under powerlines.<br>In median. Some maintenance to prune when young. |
| Acer truncatum<br>Shantung Maple |  | Height: 30 feet<br>Spread: 30 feet<br>Moderate growth | Deciduous<br>Medium scale<br>Stree/shade/accent tree (fall color)<br>Under taller powerlines<br>In median. Some maintenance to prune |

| Table 3 Recommended Sreet Trees | | | |
|---|---|---|---|
| LATIN NAME or COMMON NAME | IMAGE | TREE CHARACTERISTICS (MATURE HEIGHT, SPREAD, GROWTH RATE) | RECOMMENDED APPLICATION / NOTES |
| Pistacia chinensis<br>Chinese Pistache |  | Height: 30 feet<br>Spread: 30 feet<br>Moderate growth | Deciduous<br>Medium Scale<br>Street/Shade/Fall color accent<br>Under taller powerlines<br>In median/ frontages<br>Minimal maintenance, small berries drop once per year, but not messy |
| Arbutus "Marina"<br>Marina Strawberry Tree |  | Height: 40 feet<br>Spread: 35 feet<br>Moderate growth | Evergreen<br>Medium Scale<br>Shade and accent tree<br>Under taller powerlines<br>In median/ frontages |
| Pyrus calleryana "Chanticleer"<br>Chanticleer Pear |  | Height: 40 feet<br>Spread: 15 feet<br>Moderate growth | Deciduous<br>Medium Scale<br>Narrow shape<br>Not under powerlines<br>Shade/Accent (Fall leaf/winter flower color) accent tree<br>In median/ frontages |
| Desert Willow<br>Chilopsis Linearis 'Burgundy' |  | Height: 20 feet<br>Spread: 20 feet<br>Fast growth | Evergreen<br>Small Scale<br>Shade and accent tree<br>Under powerlines<br>In median/ frontages<br>Minimal maintenance |

| Table 3 Recommended Sreet Trees | | | |
|---|---|---|---|
| LATIN NAME or COMMON NAME | IMAGE | TREE CHARACTERISTICS (MATURE HEIGHT, SPREAD, GROWTH RATE) | RECOMMENDED APPLICATION / NOTES |
| Orange Tree<br>Citrus 'Washington' (Naval) |  | Height: 20-25 feet<br>Spread: 20-25 feet<br>Moderate growth rate | Evergreen<br>Small scale<br>Shade and accent tree (historical to Orangevale)<br>Under powerlines<br>In frontage landscapes<br>Requires some maintenance to prune/ harvest fruit |
| Lagerstroemia hybrid<br>Crepe Myrtle |  | Height: 20 feet<br>Spread: 15 feet<br>Moderate growth | Deciduous<br>Small Scale<br>Shade/Accent (summer flower color) accent tree<br>Under powerlines<br>In median/ frontages |
| Cercis canadensi<br>Easter Redbud |  | Height: 20 feet<br>Spread: 15 feet<br>Moderate growth | Deciduous<br>Small Scale<br>Shade/Accent (spring flower color) accent tree<br>Under powerlines<br>In median/ frontages<br>Attracts pollinators |
| Laurus nobilis<br>Sweet Bay Laurel |  | Height: 20 feet<br>Spread: 15 feet<br>Moderate growth | Evergreen<br>Small Scale<br>Shade and accent tree (fragrant flowers)<br>Under powerlines<br>In median/ frontages |

| Table 3 Recommended Sreet Trees | | | |
|---|---|---|---|
| LATIN NAME or COMMON NAME | IMAGE | TREE CHARACTERISTICS (MATURE HEIGHT, SPREAD, GROWTH RATE) | RECOMMENDED APPLICATION / NOTES |
| Heteromeles arbutifolia<br>Toyon, Christmas Berry |  | Height: 10 feet<br>Spread: 10 feet<br>Moderate growth | Evergreen<br>Small Scale<br>Shade and accent tree (winter berries flowers)<br>Under powerlines<br>In median/ frontages |

Shrubs provide form, texture, color, scent and buffering next to roads and buildings, serving to create spaces by dividing the hardscape into outdoor rooms and bordering travel paths.

**Table 4 Recommended Shrubs**

| LATIN NAME or COMMON NAME | IMAGE | TREE CHARACTERISTICS (MATURE HEIGHT, SPREAD, GROWTH RATE) | RECOMMENDED APPLICATION / NOTES |
|---|---|---|---|
| Shrubs and Groundcover | | | |
| Sageleaf Rockrose<br>Cistus Saviifulius |  | Height: 2 feet<br>Spread: 5 feet<br>Fast growth | Median<br>Minimal maintenance |
| Deer Grass<br>Muhlenbergia Rigens |  | Height: 4 feet<br>Spread: 4 feet<br>Moderate growth | Median<br>Minimal maintenance |
| Cherry Bomb Barberry<br>Berberis Thunbergii |  | Height: 4 feet<br>Spread: 3 feet<br>Fast growth | Median/ frontage<br>Minimal maintenance |
| Winfred Gilman Sage<br>Salvia Clevelandii |  | Height: 3 feet<br>Spread: 3 feet<br>Fast growth | Median<br>Minimal maintenance |
| Emerald Carpet Manzanita<br>Artostaphylos |  | Height: 8 feet<br>Spread: 4 feet | Median<br>Minimal maintenance |

As named, accent plantings accentuate and highlight themselves at focal points to break up the monotony and give character and identity to the streetscape.

**Table 5 Recommended Accent Plantings**

| LATIN NAME or COMMON NAME | IMAGE | TREE CHARACTERISTICS (MATURE HEIGHT, SPREAD, GROWTH RATE) | RECOMMENDED APPLICATION / NOTES |
|---|---|---|---|
| Shrubs and Groundcover | | | |
| Hidcote Blue Lavander<br>Lavandula Angustifulia |  | Height: 1.5 feet<br>Spread: 1.5 feet<br>Fast growth | Frontage<br>Minimal maintenance |
| Blue Oat Grass<br>Helictotrichon Sempervirens |  | Height: 2 feet<br>Spread: 2 feet<br>Fast growth | Frontage |
| California Fuschia 'Bowman'<br>Zauschneria Californica |  | Height: 2 feet<br>Spread: 2 feet<br>Moderate growth | Frontage<br>Minimal maintenance |
| Color Guard Yucca<br>Yucca Filamentosa |  | Height: 2 feet<br>Spread: 5 feet<br>Fast growth | Median |
| Lippia nodiflora "Kurapia" |  | Height: 4 inches<br>Spread: 12 inches<br>Fast growth | Groundcover in medians and frontages |

### 1.6.7 Driveway Consolidation

Driveway consolidation is the process of reducing the density of driveways along a major roadway by closing unnecessary or redundant driveways, creating alternative access ways, creating shared driveways, relocating entrances to side streets, or promoting cross access. Such projects are generally done to improve highway safety but can also improve traffic flow. Driveway consolidation can be applied as an individual access management strategy, but it is most often done in conjunction with the installation of medians, two-way-left-turn lanes, and/or frontage roads.

While driveways may provide some convenience for motorists to access their businesses they also produce negative impacts upon vehicle, pedestrian, and bicycle who wish to access businesses. Consolidating driveways will create more conflict-free sidewalk and bicycle space, more space for trees and landscaping (thereby more shade), and create more area for parking stalls.


**Figure 27 Redundant driveways in a short length of roadway**

***More driveways sometimes result in more crashes***

Studies have shown that as the number of driveways along a street increases, so does the number of crashes. Vehicles entering and exiting a driveway cause the rest of traffic—the through traffic—to slow down and sometimes stop. On a street with many driveways, traffic has to slow and stop often to accommodate vehicles pulling in and out of the driveways. This kind of traffic movement can result in more crashes. Reducing the number of driveways and/or creating shared driveways are ways to make traffic flow more smoothly and to reduce the number of crashes. The location of driveways is important too. In addition to the number of driveways, the placement of driveways is important. They should be located an appropriate distance from intersections and where drivers who are entering or exiting the driveway can see clearly for an adequate distance in both directions.


**Figure 28 Watt Avenue – An example of consolidated access**

*This is an example of how there are three major driveways along a busy thoroughfare between two major streets that serve the entire Country Club Plaza. There is a larger opportunity for frontage improvements on a recently improved corridor such as this. (Watt Avenue between El Camino Avenue and Butano Dr)*

### *Limiting driveways doesn't equal bad business*

In recent case studies, businesses along streets with a limited number of well-designed driveways had similar or better retail sales than businesses on streets with more driveways. Motorists generally try to avoid streets where they have to regularly slow down or stop for vehicles that are pulling in and out of driveways.

### *Taking a Look at Driveways*

There are many driveways on Greenback Lane, some are redundant.

The process by which engineers examine driveway consolidation and corridor circulation take into account:

- The type of business, is it a destination business or an impulse business?
- A destination business could be defined as one that a customer is looking for this specific type business and will expend some additional effort to get there.
- An impulse business could be defined as one that a potential customer will be driving by and will impulsively stop, or will not stop once the business has been passed by because there are more accessible options.
- Cross—street attractors, whether the business across the street would attract pedestrians/customers
- Whether the adjacent businesses could support a cross-access movement from one property to the next
- Redundant driveways

During the design process, every effort will be made to consolidate driveways in conjunction with the median placement. Cross access agreements will be negotiated with the frontage improvements proposed with streetscape design.

### 1.6.8 Utility Undergrounding

There is a definite desire by the community to underground the utilities. While many grants will not allow utility undergrounding to be a part of the grant application, effort will be made to fund the undergrounding process. As described below, the utility undergrounding process can be lengthy.

***Utilities Undergrounding Process***

The Underground Process consists of five stages:

1. Public Hearing Process
2. Design Process
3. Notification Process
4. Construction of Undergrounding Process
5. Construction of Public Improvements

## 1.7 Phasing of Improvements and Preliminary Cost Estimate

The implementation of the Streetscape Master Plan will likely happen in three main phases:

1) On Greenback Lane, Main Avenue intersection to the Folsom City/Sacramento County border.
   Includes signal modification at the intersection of Greenback Laneand Main Avenue
2) On Greenback Lane, Walnut Avenue to Main Avenue
   Includes signal modification at the intersection of Greenback Laneand Walnut Avenue
3) On Greenback Lane, Chestnut Avenue to Walnut Avenue
   Includes a new pedestrian signal east of Chestnut Avenue

**Phase 1 - Greenback Lane, Main Avenue intersection to the Folsom City/Sacramento County border**

| ITEM NO. | ITEM DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 1 | Clearing and Grubbing | 1 | LS | $15,000.00 | $ 15,000.00 |
| 2 | SWPPP | 1 | ALL | $10,000.00 | $ 10,000.00 |
| 3 | Water Pollution Control | 1 | ALL | $20,000.00 | $ 20,000.00 |
| 4 | Roadway Excavation | 1,863 | CY | $23.00 | $ 42,849.00 |
| 5 | Chain Link Fence Relocate | 75 | LF | $35.00 | $ 2,625.00 |
| 6 | Chain Link Fence Gate | 1 | EA | $1,000.00 | $ 1,000.00 |
| 7 | Relocate Electrical Cabinet | 1 | EA | $1,000.00 | $ 1,000.00 |
| 8 | Aggregate Base, Class 2 | 942 | TN | $35.00 | $ 32,970.00 |
| 9 | Asphalt Concrete, Type A | 618 | TN | $95.00 | $ 58,710.00 |
| 10 | P.C.C. Curb & Gutter Type 2 | 1,507 | LF | $25.00 | $ 37,675.00 |
| 11 | P.C.C. Curb & Gutter Type 2 Reinforced | 160 | LF | $47.00 | $ 7,520.00 |
| 12 | P.C.C. Curb Type 3 | 3,064 | LF | $17.00 | $ 52,088.00 |
| 13 | P.C.C. Curb Type 4/4A | 360 | LF | $13.00 | $ 4,680.00 |
| 14 | P.C.C. Curb Type 6 | 1,174 | LF | $13.00 | $ 15,262.00 |
| 15 | P.C.C. Sidewalk & Ramps | 12,252 | SF | $12.00 | $ 147,024.00 |
| 16 | Detectable Warning Surface | 4 | EA | $525.00 | $ 2,100.00 |
| 17 | Type B Drainage Inlets | 2 | EA | $4,000.00 | $ 8,000.00 |
| 18 | Type F Drainage Inlet | 1 | EA | $5,000.00 | $ 5,000.00 |
| 19 | 12" RCP Pipe | 15 | LF | $200.00 | $ 3,000.00 |
| 20 | Connect to Existing DI | 2 | EA | $2,500.00 | $ 5,000.00 |
| 21 | Detail 9 - Thermoplastic Striping | 1,721 | LF | $0.75 | $ 1,290.75 |
| 22 | Detail 22 - Thermoplastic Striping | 535 | LF | $1.44 | $ 769.06 |
| 23 | Detail 27B - Thermoplastic Striping | 535 | LF | $2.00 | $ 1,070.00 |
| 24 | Detail 32 - Thermoplastic Striping | 50 | LF | $2.00 | $ 100.00 |
| 25 | Detail 38 - Thermoplastic Striping | 1,085 | LF | $1.06 | $ 1,152.81 |
| 26 | Detail 39 - Thermoplastic Striping | 2,561 | LF | $1.06 | $ 2,714.66 |
| 27 | Detail 39A - Thermoplastic Striping | 240 | SF | $2.00 | $ 480.00 |
| 28 | Detail A (12" Solid White) Thermoplastic Striping | 594 | EA | $2.50 | $ 1,485.00 |
| 29 | Street lights | 4 | EA | $5,000.00 | $ 20,000.00 |
| 30 | Relocate Existing Street Lights | 2 | EA | $2,000.00 | $ 4,000.00 |
| 31 | Signal Improvements - Greenback & Main | 1 | LS | $300,000.00 | $ 300,000.00 |
| 32 | Median Landscaping | 3,198 | SF | $20.00 | $ 63,960.00 |
| 33 | Landscape Strip | 9,347 | SF | $15.00 | $ 140,205.00 |
| 34 | Downtown Monument | 1 | LS | $150,000.00 | $ 150,000.00 |
| 35 | Monument walls at corners | 4 | EA | $5,000.00 | $ 20,000.00 |
| | | | | | |
| **PROJECT PREIMARY CONSTRUCTION TOTAL** | | | | | *$ 1,178,730.29* |
| | | | | | |
| **SAY (PROJECT CONSTRUCTION COST TOTAL)** | | | | | **$ 1,179,000** |

## PRELIMINARY SUMMARY OF PROJECT COSTS

**Phase 1 - Main Ave to Folsom City Limit**

**Estimated Construction Cost** **$1,179,000.00**

| COST NO. | COST DESCRIPTION | COST as % of CONSTRUCTION COST | AMOUNT |
|---|---|---|---|
| 1 | CONSTRUCTION COST | 100 | $1,179,000.00 |
| 2 | DESIGN SERVICES (12-15%) | 15 | $176,850.00 |
| 3 | ENVIRONMENTAL (Permitting, CEQA & NEPA) | 1.5 | $17,685.00 |
| 4 | CONSTRUCTION ENGINEERING | 1.5 | $17,685.00 |
| 5 | CONSTRUCTION INSPECTION | 10 | $117,900.00 |
| 6 | CONSTRUCTION SURVEY | 3 | $35,370.00 |
| 7 | CONSTRUCTION MATERIAL TESTING | 1 | $11,790.00 |
| 8 | PUBLIC MEETINGS (10 Meetings @ $1,000/meeting) | 10 Meetings | $10,000.00 |
| 9 | REAL ESTATE LABOR & APPRIASAL (14 Parcels @ $12,500/parcel) | 14 Parcels | $175,000.00 |
| 10 | REAL ESTATE ACQUISITION (Assumed $7.00/SF) | 38,165 SF | $267,155.00 |
| 11 | REAL ESTATE ADDITIONAL COSTS - IDENTIFIED (See ROW tab) | LS | $28,500.00 |
| | | | |
| | **PROJECT SUB-TOTAL COST** | | **$2,036,935.00** |
| | | | |
| | **PROJECT CONTINGENCY COST (20% of Project SUB-TOTAL COST)** | | **$407,387.00** |
| | | | |
| | **PROJECT TOTAL COST** | | **$2,444,322.00** |
| | | | |
| | **SAY PROJECT TOTAL COST** | | **$2,450,000** |

## Phase 2 - Greenback Lane, Walnut Avenue to Main Avenue

| ITEM NO. | ITEM DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 1 | Clearing and Grubbing | 1 | LS | $30,000.00 | $30,000.00 |
| 2 | SWPPP | 1 | ALL | $5,000.00 | $5,000.00 |
| 3 | Water Pollution Control | 1 | ALL | $30,000.00 | $30,000.00 |
| 4 | Roadway Excavation | 1,502 | CY | $23.00 | $34,546.00 |
| 5 | Fence Relocate | 105 | LF | $35.00 | $3,675.00 |
| 6 | Aggregate Base, Class 2 | 921 | TN | $35.00 | $32,235.00 |
| 7 | Asphalt Concrete, Type A | 1,568 | TN | $95.00 | $148,960.00 |
| 8 | P.C.C. Curb & Gutter Type 2 | 1,605 | LF | $25.00 | $40,125.00 |
| 9 | P.C.C. Curb & Gutter Type 2 Reinforced | 225 | LF | $47.00 | $10,575.00 |
| 10 | P.C.C. Curb Type 3 | 2,465 | LF | $17.00 | $41,905.00 |
| 11 | P.C.C. Curb Type 4/4A | 2,505 | LF | $13.00 | $32,565.00 |
| 12 | P.C.C. Sidewalk & Ramps | 13,720 | SF | $12.00 | $164,640.00 |
| 13 | Detectable Warning Surface (6') | 4 | EA | $525.00 | $2,100.00 |
| 14 | Remove DI | 8 | EA | $2,500.00 | $20,000.00 |
| 15 | Drainage (DI every 300 ft) | 8 | EA | $4,000.00 | $32,000.00 |
| 16 | Drainage (DI ever 600 ft within PUPFE) | 4 | EA | $5,000.00 | $20,000.00 |
| 17 | 12" Culvert | 100 | LF | $180.00 | $18,000.00 |
| 18 | Detail 9 - Thermoplastic Striping | 2,460 | LF | $1.00 | $2,460.00 |
| 19 | Detail 38 - Thermoplastic Striping | 560 | LF | $1.00 | $560.00 |
| 20 | Detail 39 - Thermoplastic Striping | 2,200 | LF | $1.00 | $2,200.00 |
| 21 | Detail 39A - Thermoplastic Striping | 240 | SF | $1.00 | $240.00 |
| 22 | Detail A (12" Solid White) Thermoplastic Striping | 270 | EA | $2.50 | $675.00 |
| 23 | Slurry Seal | 97,415 | SF | $1.00 | $97,415.00 |
| 24 | Pavement Marker (Type G) | 74 | EA | $6.50 | $481.00 |
| 25 | Street lights | 9 | EA | $5,000.00 | $45,000.00 |
| 26 | Signal Improvements - Greenback & Walnut | 1 | LS | $300,000.00 | $300,000.00 |
| 27 | Median Landscaping | 5,400 | SF | $20.00 | $108,000.00 |
| 28 | Landscape Strip | 13,560 | SF | $15.00 | $203,400.00 |
| 29 | Monument walls at corners | 4 | EA | $5,000.00 | $20,000.00 |
| 30 | Driveways (35'Wx17'L) x 18 driveways @ $15/SF | 1 | LS | $160,650.00 | $160,650.00 |
| 31 | Underground Utilities (Trench, conduits, boxes, transformers) | 1,200 | LF | $200.00 | $240,000.00 |
| 32 | Date Palm Trees | 3 | EA | $15,000.00 | $45,000.00 |
| 33 | Entry Plaza (645 SF/$1; 2 palm trees; bollards; planting box) | 4 | EA | $40,000.00 | $160,000.00 |
| **PROJECT PREIMARY CONSTRUCTION TOTAL** | | | | | *$ 2,052,407.00* |
| | | | | | |
| **SAY (PROJECT CONSTRUCTION COST TOTAL)** | | | | | **$2,052,400.00** |

## PRELIMINARY SUMMARY OF PROJECT COSTS

**Phase 2 - Walnut Ave to Main Avenue**

**Estimated Construction Cost** **$2,052,400.00**

| COST NO. | COST DESCRIPTION | COST as % of CONSTRUCTION COST | AMOUNT |
|---|---|---|---|
| 1 | CONSTRUCTION COST | 100 | $2,052,400.00 |
| 2 | DESIGN SERVICES (12-15%) | 15 | $307,860.00 |
| 3 | ENVIRONMENTAL (Permitting, CEQA & NEPA) | 1.5 | $30,786.00 |
| 4 | CONSTRUCTION ENGINEERING | 1.5 | $30,786.00 |
| 5 | CONSTRUCTION INSPECTION | 10 | $205,240.00 |
| 6 | CONSTRUCTION SURVEY | 3 | $61,572.00 |
| 7 | CONSTRUCTION MATERIAL TESTING | 1 | $20,524.00 |
| 8 | PUBLIC MEETINGS (10 Meetings @ $1,000/meeting) | 10 Meetings | $10,000.00 |
| 9 | REAL ESTATE LABOR & APPRIASAL (19 Parcels @ $12,500/parcel) | 19 Parcels | $237,500.00 |
| 10 | REAL ESTATE ACQUISITION (Assumed $7.00/SF: ROW=10,525 SF; PUPFE=22,275 SF, TCE=3,090 SF) | 35,890 SF | $251,230.00 |
| | | | |
| | **PROJECT SUB-TOTAL COST** | | **$3,207,898** |
| | | | |
| | **PROJECT CONTINGENCY COST (20% of Project SUB-TOTAL COST)** | | **$641,580** |
| | | | |
| | **PROJECT TOTAL COST** | | **$3,849,478** |
| | | | |
| | **SAY PROJECT TOTAL COST** | | **$3,850,000** |

## Phase 3 - Greenback Lane, Chestnut Avenue to Walnut Avenue

| ITEM NO. | ITEM DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 1 | Clearing and Grubbing | 1 | LS | $30,000.00 | $ 30,000.00 |
| 2 | SWPPP | 1 | ALL | $5,000.00 | $ 5,000.00 |
| 3 | Water Pollution Control | 1 | ALL | $30,000.00 | $ 30,000.00 |
| 4 | Roadway Excavation | 1,440 | CY | $23.00 | $ 33,120.00 |
| 5 | Fence Relocation | 580 | LF | $35.00 | $ 20,300.00 |
| 6 | Tubular Hand Rail | 50 | LF | $20.00 | $ 1,000.00 |
| 7 | Retaining Wall | 50 | LF | $55.00 | $ 2,750.00 |
| 8 | Aggregate Base, Class 2 | 899 | TN | $35.00 | $ 31,465.00 |
| 9 | Asphalt Concrete, Type A | 1,493 | TN | $95.00 | $ 141,835.00 |
| 10 | P.C.C. Curb & Gutter Type 2 | 1,550 | LF | $25.00 | $ 38,750.00 |
| 11 | P.C.C. Curb & Gutter Type 2 Reinforced | 215 | LF | $47.00 | $ 10,105.00 |
| 12 | P.C.C. Curb Type 3 | 1,990 | LF | $17.00 | $ 33,830.00 |
| 13 | P.C.C. Curb Type 4/4A | 2,540 | LF | $13.00 | $ 33,020.00 |
| 14 | P.C.C. Sidewalk & Ramps | 15,440 | SF | $12.00 | $ 185,280.00 |
| 15 | Detectable Warning Surface (4') | 6 | EA | $525.00 | $ 3,150.00 |
| 16 | Remove DI | 7 | EA | $2,500.00 | $ 17,500.00 |
| 17 | Drainage (DI every 300 ft) | 7 | EA | $5,000.00 | $ 35,000.00 |
| 18 | Drainage (DI every 600 ft within PUPFE) | 4 | EA | $3,000.00 | $ 12,000.00 |
| 19 | 12" Culvert | 100 | LF | $180.00 | $ 18,000.00 |
| 20 | Detail 9 - Thermoplastic Striping | 2,480 | LF | $1.00 | $ 2,480.00 |
| 21 | Detail 38 - Thermoplastic Striping | 720 | LF | $1.00 | $ 720.00 |
| 22 | Detail 39 - Thermoplastic Striping | 2,480 | LF | $1.00 | $ 2,480.00 |
| 23 | Detail 39A - Thermoplastic Striping | 240 | SF | $1.00 | $ 240.00 |
| 24 | Detail A (12" Solid White) Thermoplastic Striping | 710 | EA | $2.50 | $ 1,775.00 |
| 25 | Slurry Seal | 97,480 | SF | $1.00 | $ 97,480.00 |
| 26 | Pavement Marker (Type G) | 82 | EA | $6.25 | $ 512.50 |
| 27 | Street Lights | 7 | EA | $2,000.00 | $ 14,000.00 |
| 28 | Mid-Block Ped Signal | 1 | LS | $200,000.00 | $ 200,000.00 |
| 29 | Median Landscaping | 4,505 | SF | $20.00 | $ 90,100.00 |
| 30 | Landscape Strip | 12,900 | SF | $15.00 | $ 193,500.00 |
| 31 | Monument walls at corners | 2 | EA | $5,000.00 | $ 10,000.00 |
| 32 | Driveways(40'W x 17'L) x 11 driveways @ $15/SF | 1 | LS | $112,200.00 | $ 112,200.00 |
| 33 | Underground Utilities (Trench, conduits, boxes, transformers) | 1,130 | LF | $200.00 | $ 226,000.00 |
| 34 | Date Palm Trees | 3 | EA | $15,000.00 | $ 45,000.00 |
| 35 | Entry Plaza (645 SF/$1; 2 palm trees; bollards; planting box) | 4 | EA | $40,000.00 | $ 160,000.00 |
| **PROJECT PRELIMINARY CONSTRUCTION COST TOTAL** | | | | | *$ 1,838,592.50* |
| | | | | | |
| SAY **(PROJECT CONSTRUCTION COST TOTAL)** | | | | | **$1,839,000** |

| PRELIMINARY SUMMARY OF PROJECT COSTS | | | |
|---|---|---|---|
| **Phase 3 - Chesnut Ave to Walnut Avenue** | | | |
| **Estimated Construction Cost** | | | **$1,839,000** |
| | | | |
| **COST NO.** | **COST DESCRIPTION** | **COST as % of CONSTRUCTION COST** | **AMOUNT** |
| 1 | CONSTRUCTION COST | 100 | $1,839,000.00 |
| 2 | DESIGN SERVICES (12-15%) | 15 | $275,850.00 |
| 3 | ENVIRONMENTAL (Permitting, CEQA & NEPA) | 1.5 | $27,585.00 |
| 4 | CONSTRUCTION ENGINEERING | 1.5 | $27,585.00 |
| 5 | CONSTRUCTION INSPECTION | 10 | $183,900.00 |
| 6 | CONSTRUCTION SURVEY | 3 | $55,170.00 |
| 7 | CONSTRUCTION MATERIAL TESTING | 1 | $18,390.00 |
| 8 | PUBLIC MEETINGS (10 Meetings @ $1,000/meeting) | 10 Meetings | $10,000.00 |
| 9 | REAL ESTATE LABOR & APPRIASAL (13 Parcels @ $12,500/parcel) | 13 Parcels | $162,500.00 |
| 10 | REAL ESTATE ACQUISITION (Assumed $7.00/SF: ROW=15,480 SF; PUPFE=30,960 SF, TCE=5,160 SF) | 51,600 SF | $361,200.00 |
| | | | |
| | **PROJECT SUB-TOTAL COST** | | **$2,961,180** |
| | | | |
| | **PROJECT CONTINGENCY COST (20% of Project SUB-TOTAL COST)** | | **$592,236** |
| | | | |
| | **PROJECT TOTAL COST** | | **$3,553,416** |
| | | | |
| | **SAY PROJECT TOTAL COST** | | **$3,560,000** |

The following assumptions were used in preparing the cost estimate:

- Existing paved areas will be overlayed with a federal project.
- Widening will be deep lift asphalt, arterial section according to standard
- Roadway excavation is 14” deep in new construction and 2’ deep in new medians
- Difficult excavation for median landscaping. Possible concrete underlayment roadway
- Date Palm trees in intersection plazas ($15 K each)
- Undergrounding of utilities – not represented in cost estimate
- Planting behind sidewalks will be at owner’s expense
- Recommended trees on private property are not included in the estimate, however the pedestrian entry plazas are a part of the estimate