

Figure 19: Street Life Plan



## Chapter IV **RELATION TO EXISTING POLICIES**

### **Land Use And Transportation Element (LUTE)**

This document is directly related to a number of existing City policies contained in the Land Use and Transportation Element of the General Plan. These policies pertain directly to land use development and transportation and are listed below.

- Policy LT-1.3: Promote integrated coordinated local land use and transportation planning
- Policy LT-1.9: Support flexible and appropriate alternative transportation modes and transportation system management measures that reduce reliance on the automobile and serve changing regional and City-wide land use and transportation needs.
- Policy LT-1.10: Support land use planning that complements the regional transportation system.
- Policy LT-2.1: Recognize that the City is composed of residential, industrial and commercial neighborhoods, each with its own individual character; and allow change consistent with reinforcing positive neighborhood values.
- Policy LT-4.1: Protect the integrity of the City's neighborhoods; whether residential, industrial or commercial.
- Policy LT-4.2: Require new development to be compatible with the neighborhood, adjacent land uses, and the transportation system.
- Policy LT-4.4: Preserve and enhance the high quality character of residential neighborhoods.

- Policy LT-4.5: Support a roadway system that protects internal residential areas from City-wide and regional traffic.
- Policy LT-5.2: Integrate the use of land and the transportation system.
- Policy LT-5.5: Support a variety of transportation modes.
- Policy LT-5.7: Pursue local, state and federal transportation funding sources to finance City transportation capital improvement projects consistent with City priorities.
- Policy LT-5.8: Provide a safe and comfortable system of pedestrian and bicycle pathways.
- Policy LT-5.9: Appropriate accommodations for motor vehicles, bicycles, and pedestrians shall be determined for City streets to increase the use of bicycles for transportation and to enhance the safety and efficiency of the overall street network for bicyclists, pedestrians, and motor vehicles.
- Policy LT-5.10: All modes of transportation shall have safe access to City streets.
- Policy LT-5.12: City streets are public space dedicated to the movement of vehicles, bicycles and pedestrians. Providing safe accommodation for all transportation modes takes priority over non-transport uses. Facilities that meet minimum appropriate safety standards for transport uses shall be considered before non-transport uses are considered.
- Policy LT-5.21: Safety considerations of all modes shall take priority over capacity considerations of any one mode.

### **Valley Transportation Authority**

On September 30, 2003 the Sunnyvale City Council officially endorsed the Santa Clara Valley Transportation Authority (VTA) Community Design and Transportation (CDT) Program.

This is the VTA's primary program for integrating transportation and land use. The program is intended to build a stronger and more dynamic working relationship between VTA and its Member Agencies. The program provides a framework to pursue mutually beneficial projects, to enhance transportation and land use integration efforts already underway, and to create new opportunities for cities to plan and fund capital projects that enhance community livability, vitality and sustain-ability. The East Sunnyvale Area Pedestrian and Bicycle Circulation Plan is consistent with the intent of the City's endorsement and directly implements a number of facets of the VTA CDT Program.

The endorsement conveys the City's concurrence with the following CDT principals:

- Principal 1: Target growth to cores, corridors and station areas.
- Principal 3: Provide a diverse mix of uses.
- Principal 4: Design for pedestrians — comfortable, easy access to buildings, transit, wide sidewalks and pedestrian amenities.
- Principal 5: Design in context — create unique place identities via materials, design details, architectural styles, walks, streets and spaces.
- Principal 6: Focus on existing areas — infill versus outlying development, maintenance of existing communities.
- Principal 7: Create a multi-modal transportation system — balance walking, biking, and transit with vehicle movement.
- Principal 8: Establish streets as places — de-emphasize arterial network, provide wide sidewalks and landscaping.
- Principle 9: Integrate transit — locate transit stations within community cores, integrate transit stops and features into site designs.

- Principle 10: Manage parking — do not let parking dominate mode choice decisions, provide Transportation Demand Management (TDM) programs to heighten attractiveness of other modes.

The City of Sunnyvale was firmly invested in these principles well before the program's inception. The CDT principles are integrated into the full spectrum of the City's land use and transportation activities, and in this regard, the two are mutually supportive.

### **City-wide Design Guidelines**

The City-Wide Design Guidelines were adopted by the City Council in June 1992 in order to implement the Community Design Sub-Element goals and policies and provide detailed direction on site and building design issues. They mainly address development projects on private properties and are intended to: enhance the overall image of the City, protect and preserve the existing character of the community, communicate the image the community desires, and achieve a higher design quality.

All site layout and building design guidelines provided in this Plan are consistent with existing City-Wide Design Guidelines.

### **High Density Residential Design Guidelines**

Adoption of the High Density Residential Design Guidelines by the City Council in December 2014 will provide the City with an additional means to evaluate the appropriate size, bulk and scale of new multi-family residential projects. Currently, the City determines density based on units per acre. The guidelines will allow the size, bulk, and scale of projects to be considered, in addition to its density. These guidelines shall apply to the eastern R-4 edge of the AMD site.

The site layout and building design guidelines provided in this Plan are consistent with the newly adopted guidelines.

# GRANT FUNDING / INCENTIVE OPPORTUNITIES

Small-scale transportation investments can make a big difference in a community's vitality and identity. Streetscape improvements, transit-, pedestrian- and bicycle-oriented developments, and related strategies can bring a new vibrancy to downtown areas, commercial cores and neighborhoods, enhancing their amenities and ambience and making them places where people want to live and visit.

The following section describes a number of funding opportunities that currently exist in the Bay Area that support the goals and improvements proposed in this Plan. Program criteria and funding levels are subject to change and are usually revised with each funding cycle. The descriptions below attempt to describe general goals and criteria of a number of possible sources of funding.

## **Metropolitan Transportation Commission**

The Metropolitan Transportation Commission (MTC) has been in the process of carrying out changes to the grants funding programs. MTC's framework for programming 2013-2016 Surface Transportation Program (STP), Congestion Mitigation and Air Quality (CMAQ) and Transportation Alternatives (TA) program funds has been amalgamated into one funding program, called the One Bay Area Grant Program (OBAG).

Due to the complexity of the program, VTA staff is developing the local OBAG programming framework with the advice of its regional Technical Advisory Committee and Capital Improvements Program Sub-committee. Funding of the OBAG program is expected to be in the form of guaranteed funds to all cities within Santa Clara county, as well as competitive funds. The equation and criteria for allocating the different funding categories will be considered by the VTA Board of Supervisors.

As presently recommended for VTA's Board consideration, the guaranteed funds will constitute 30% of the total grant funds that will be utilized in Non-Priority Development Areas (non-PDAs). These guaranteed funds are recommended to be utilized for road rehabilitation projects and complete streets projects such as bicycle and pedestrian facilities, safe routes to school projects, and traffic signal systems. City of Sunnyvale guaranteed funds are expected to be over one million dollars for complete streets projects in Non-PDA areas and road rehabilitation projects, and more specifically, for the Duane Avenue roadway rehabilitation project.

The competitive (not guaranteed) OBAG program are expected to fund CMA planning projects, San Tomas Expressway improvements, and competitive complete streets projects located in PDAs. The competitive process will be based on scoring of projects based on their merits and scoring criteria. Santa Clara County and the different cities within the county will have the right to compete for the non-guaranteed complete streets funds.

The study area is part of the East Sunnyvale Priority Development Areas (PDA) and is currently listed as a potential urban neighborhood. It is therefore eligible to receive both PDA and guaranteed complete streets funds.

Other than the aforementioned OBAG grant funds program, other funds that will remain are the Transportation Development Act (TDA) and the Transportation Funds for Clean Air (TFCA) funds.

### **Transportation Development Act**

In November 2000, the voters in Santa Clara County approved Measure A, a 30-year half cent sales tax devoted to specified public transit capital improvement projects and operations. These funds are dedicated to planning/studies, construction and programs. As a part of the VTA biennial budget process, the VTA Board approves a two-year capital program for the Measure A program including development and implementation activities in the two-year budget cycle and its related estimates of expenses.

It should be noted that the TDA funds are intended for larger scale projects and transit hubs.

Thus it would not be applicable for the bus stop improvements identified in this report, and these summary TDA notes are just provided for information and disclosure purposes.

### **Bay Area Air Quality Management District**

#### ***Transportation Fund for Clean Air***

The Transportation Fund for Clean Air (TFCA) is a grant program funded by a \$4 surcharge on motor vehicles registered in the Bay Area. This generates approximately \$22 million per year in revenue. TFCA's goal is to implement the most cost-effective projects in the Bay Area that will decrease motor vehicle emissions, and therefore improve air quality. Projects must be consistent with the 1988 California Clean Air Act and the Bay Area Clean Air Plan.

The fund covers a wide range of project types, including purchase or lease of clean fuel buses; purchase of clean air vehicles; shuttle and feeder bus service to train stations; ridesharing programs to encourage carpool and transit use; bicycle facility improvements such as bike lanes, bicycle racks, and lockers; arterial management improvements to speed traffic flow on major arterials; smart growth; and transit information projects to enhance the availability of transit information.

The bicycle facilities and smart growth/traffic calming project types are most relevant to the possible projects included in this Plan which are expected to result in the achievement of motor vehicle emission reductions. TFCA funds are subject to the following conditions: a) the development project and the physical improvements must be identified in an approved area-specific plan, redevelopment plan, general plan, bicycle plan, pedestrian plan, traffic-calming plan, or other similar plan; and b) the project must implement one or more transportation control measures (TCMs) in the applicable Bay Area Clean Air Plan or Bay Area 2001 Ozone Attainment Plan. Projects that implement TCM 19 (pedestrian improvements) or TCM 20 (traffic calming) are encouraged. Projects that would implement other TCMs will also be considered for funding.

### **Valley Transportation Authority**

#### ***Community Design & Transportation Program***

In 2002, the Valley Transportation Authority (VTA) adopted the Community Design and Transportation (CDT) Program. This program is designed to provide information, tools, and planning, technical and design assistance to the cities, towns, and county of Santa Clara to proactively influence the planning and development process.

VTA offers two categories of financial assistance through the CDT Planning Grants Program. Policy Planning Projects revise existing or create new policies, codes, ordinances, or enforceable design standards to encourage changes in community form that result in multi-modal, pedestrian-friendly streets and transit-oriented, compact, mixed-use developments along major transportation corridors, core areas, or station areas. Capital Planning Projects incorporate pedestrian and multi-modal transportation design elements into a public street, corridor, commercial node or station area.

Eligible Policy Planning Projects include general plan and zoning code amendments and updates, strategic planning studies, targeted area plans, and pedestrian or streetscape master plans, among others. The project should have identifiable and likely synergistic effects, support other efforts by the agency to encourage transit use and walking, and demonstrate innovation in project purpose, approach, or community involvement techniques.

CDT Planning Grants also fund Capital Planning Projects in order to produce plans with sufficient feasibility analysis, scoping, and design guidance to allow the agency to program for the project. Capital Planning Projects include pedestrian improvements, streetscape/corridor enhancements, and pedestrian-oriented streets, plazas, and pocket parks related to transit facilities or multi-modal streets, among others. These projects should relate to a physical setting where deficiencies exist, involve a collaborative planning process with community stakeholders, and result in a discrete and clear product.

## Chapter VI **COST AND IMPLEMENTATION**

### **Implementation Process**

The goals in the East Sunnyvale Sense of Place Plan shall be implemented primarily through a combination of the private development approval and construction process and grant funded public improvement projects, separated into multiple construction projects.

Primarily, improvements will be funded and constructed by developers as part of the development process. When development applications are submitted for projects within the plan area, City staff will review the proposal and assure that it is consistent with the access improvements and design guidelines described in this document. City staff will then recommend that Conditions of Approval, consistent with the Plan, be applied to the approval of Planning Applications and Building Permits.

The City of Sunnyvale will also compete in the grant funding programs listed in the Grant Funding / Incentive Opportunities section of the Plan, and others as appropriate, in order to fund improvements in the public right of way. Grant application priority will be given to intersection and streetscape projects where no pedestrian access currently exists or where pedestrian safety issues are present. Priority should be given to those elements that enhance safety if it does not result in funding conflicts.

In addition, a Sense of Place fee will be applied to redevelopment projects on a per unit basis. These funds will be used for common improvements such as pedestrian crossings, wayfinding markers and other elements identified in the plan as well as matching funds for grants. Implementation of other plan elements such as the pedestrian signals may be funded by gas tax funds and other transportation mitigation funds.

Maintenance may be funded through a special maintenance district.

### Estimate of Costs

A summary of the estimated probable costs of construction and implementation for the Plan area is provided here. Details of the costs for each street segment are provided in the Appendix. The cost estimate reflects the proposed improvements as described in this Sense of Place Plan. Because the estimate has been developed without the benefit of detailed drawings, they are considered to be preliminary and subject to change.

### ***Estimating Assumptions***

- 1) The items, amounts, quantities, and related information are based on CA's judgement at this level of document preparation and is offered only as reference data. CA has no control over construction quantities, costs and related factors affecting costs, and advises the client that significant variation may occur between this estimate of probable construction costs and actual construction prices.
- 2) Sidewalk assumes 4" concrete over 4" AB.
- 3) Pedestrian lighting assumes 10' to 14' tall thematic pole with LED fixture, 40' o.c. spacing, and all associated pull boxes, conduit, trenching, etc.
- 4) Landscaping and irrigation for parkway strips assume a 4'-0" wide planted area with groundcover and spray irrigation system with water and electrical service. Street trees and irrigation assumes 24" box tree at 40' o.c. spacing and two tree bubblers per tree.
- 5) Bike lanes assume 6' minimum width. Bike path assumes a total 20' wide public access easement with 12' wide pavement and 10' wide landscaping. Item D excludes improvements within the AMD parcel.
- 6) The enhanced intersection costs for Stewart Drive address 'squaring' of the N.Wolfe Road and East Duane Avenue intersection and removal of pork chop islands.
- 7) Start-up costs includes 15% of construction costs for bonding, mobilization, SWPPP, grading, tree protection, traffic control, and construction staking.
- 8) Design assumes 20% of construction costs for professional services fees. Inspection assumes 10% of construction costs for City review and construction inspection. Contingencies include 20% of construction costs for estimating contingency and 10% for construction change order contingency. No inflation contingency is included.

### **Timing**

Improvements shall be implemented as funding becomes available and as development projects are approved. Construction of improvements at 915 De Guigne are anticipated to begin in 2016 and span multiple years.

Temporary sidewalk gap closures may be installed and required for safety reasons where no redevelopment occurs (remaining industrial sites).

Temporary sidewalk gap closures may utilize asphalt paving material.



# APPENDIX

**Public Workshop Meeting Summary**

**Cost Estimate Opinion**

**Traffic Memorandum**

## Public Workshop Meeting Summary



## Via E-Mail Only

November 25, 2014

## Meeting Summary

## Sense of Place Plan

RE: Community Workshop

Date of Meeting: Wednesday, November 19, 2014, 6:30 pm – 8:00 pm

4 pages

## Attendees:

*The Public:*Jay Herbert, [tigerjay1@hotmail.com](mailto:tigerjay1@hotmail.com)Joseph Coezmo, [H.TekLoLife@yahoo.com](mailto:H.TekLoLife@yahoo.com)

Diana Ammon

Justin Burdidv, [kineticsab@yahoo.com](mailto:kineticsab@yahoo.com)Marisa Juárez, [isacelia@stanfordalumni.org](mailto:isacelia@stanfordalumni.org)*City of Sunnyvale:*Trudi Ryan (TR), Planning Officer, [tryan@sunnyvale.ca.gov](mailto:tryan@sunnyvale.ca.gov)Carol Shariat (CS), Principal Engineer, [cshariat@sunnyvale.ca.gov](mailto:cshariat@sunnyvale.ca.gov)Ryan Kuchenig (RK), Associate Planner, [rkuchenig@sunnyvale.ca.gov](mailto:rkuchenig@sunnyvale.ca.gov)*Watt Investments:*Jeff Warmoth (JW), Project Manager, [jeffwarmoth@gmail.com](mailto:jeffwarmoth@gmail.com)Pat Castillo (PF), Consultant, [PECCBC@aol.com](mailto:PECCBC@aol.com)*Consultants:*Brian Fletcher (CA), Callander Associates, [bletcher@callanderassociates.com](mailto:bletcher@callanderassociates.com)Marie Mai (CA), Callander Associates, [mmai@callanderassociates.com](mailto:mmai@callanderassociates.com)

Brian opened the meeting with a welcome and short overview of the project background, goals, and process. The group then broke out and viewed the four different stations. The following input was provided during the meeting and via written questionnaires. Numbers following each response indicate the amount of “votes” or people responding affirmatively to that choice. **Bold** text indicates response(s) receiving the highest number of “votes”.

## Meeting Summary

## Sense of Place Plan

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*Item***Station One: What is a Sense of Place Plan**

1. Directional signage not needed due to smartphones
2. Walkable grocery
3. Mixed use developments
4. Multiple restaurant choices in one location
5. Parks
6. Bike lanes
7. Pedestrian
8. Would like to call it something different: San Miguel?

**Station Two: Vote for Which Improvements You'd like to see in the Neighborhood**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. <i>What's Your Style? What's Your Theme?</i> <ul style="list-style-type: none"> <li>-Mid-Century Modern/Eichler, 1</li> <li>-Ranch, 1</li> <li>-<b>Historic, 2</b></li> <li>-Spanish Heritage, 1</li> </ul> </li> <li>2. <i>Pedestrian Enhancements:</i> <ul style="list-style-type: none"> <li>-<b>Countdown Signals, 2</b></li> <li>-Accent Paving at Crosswalk, 1</li> <li>-Landscaped Parkway Strip, 1</li> </ul> </li> </ol> | <ol style="list-style-type: none"> <li>3. <i>Community Enhancements:</i> <ul style="list-style-type: none"> <li>-<b>Thematic Lighting, 3</b></li> <li>-Community Character, 1</li> <li>-Parks, 1</li> </ul> </li> <li>4. <i>Bicycle Enhancements:</i> <ul style="list-style-type: none"> <li>-Buffered Bicycle Lanes, 2</li> <li>-Bicycle Lanes, 1</li> <li>-Bike Box, 1</li> <li>-<b>Colored Bike Lanes, 3</b></li> </ul> </li> </ol> |
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**Station Three: Getting Around**

1. Relocate parking from North to South side of Duane.
2. Concerned with making a left turn on/at streets North of DeGuigne Drive onto Duane.
3. N. Fair Oaks Drive is a busy street with narrow sidewalks.
4. Remove street parking at N. Fair Oaks Ave. and East Duane. When full, drivers turning right block drivers turning left.
5. Drivers run red lights turning left at Fair Oaks and Duane.
6. Remove Parking on Duane between Johanna Ave. and Bernal.
7. Section on Duane from N. Fair Oaks Ave. to North Britton makes biking scary due to driveways and parked cars.
8. When dropping off and picking up children, cars back up onto East Duane, between Johanna Ave. and San Juan Dr.
9. Turning right or left is dangerous at San Juan Dr. due to limited visibility.
10. Signal planned at Britton Ave. and East Duane.
11. New trees removed and new ones planted between San Luisito Way and San Juan Dr. on Duane
12. Flip parking on East Duane to south side. No driveways would improve visibility coming out of side streets.
13. Install turning signal on San Simeon St., onto Duane.

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14. Want more parks, bike paths, and bike lanes.
15. Poor views for motorists on Duane at San Pedro and Duane.
16. Install 4 way light on Duane.
17. There are no sidewalks on DeGuigne Drive.
18. No amenities at Santa Real Ave.
19. Santa Real Ave., and DeGuigne Drive needs a three way stop.
20. Need walking path between Stewart and Duane.
21. Swegels Park parking is now used for residents.
22. No sidewalks near Agape Grill.
23. High traffic at East Channel Creek despite no crosswalk.

Station Four: Questionnaires

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|--|--|
| <ol style="list-style-type: none"> <li>1. <i>Where do you live/work?</i><br/>-Within the Neighborhood, 2<br/>-Within 3 Blocks, 2</li> <li>2. <i>How do you currently travel within the neighborhood?</i><br/>-Walk to Work, 1<br/><b>-Bike, 3</b><br/>-Drive to Work, 2<br/>-Take the Bus, 1<br/>-Take the Train, 2<br/><b>-Shop/Eat, 3</b><br/>-Park Car, 1<br/>-Recreational Walking, 2</li> <li>3. <i>How Would You Like to Travel?</i><br/>-Walk More, 3<br/><b>-Bike More, 4</b><br/>-Bus More, 1<br/>-Take Transit More, 2</li> <li>4. <i>What Do You Do Most Frequently in the Neighborhood?</i><br/><b>-Home, 4</b><br/>-School, 1<br/>-Work, 1<br/>-Shop/Eat, 2<br/>-Park, 1</li> </ol> | <ol style="list-style-type: none"> <li>5. <i>Biggest Concern in the Neighborhood?</i><br/><b>-Pedestrian Safety, 3</b><br/>-Traffic Speed, 1<br/><b>-Parking, 3</b><br/>-Safety, 1<br/>-Lighting, 1<br/>-Things to Do, 1</li> <li>6. <i>What Amenities Would You Like to See More of?</i><br/>-Bike Racks, 1<br/><b>-Pedestrian Lighting, 4</b><br/>-Parking, 1<br/>-Wider Sidewalks, 1</li> <li>7. <i>What do you think is the most important thing that will improve the neighborhood?</i><br/>-No parking on corners, no parking on residential side of Duane. Safe exists for pre-school and elementary school.<br/>-Streets and sidewalk improvements, traffic lane reduction, street parking removal<br/>-Ice Cream Store<br/>-Safe crosswalks with signals</li> <li>8. <i>Can you describe the identity of the neighborhood?</i><br/><b>-Different from rest of Sunnyvale, 3</b><br/>-Same as rest of Sunnyvale, 1</li> </ol> |
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| <ol style="list-style-type: none"> <li>9. <i>If different, please describe what makes it unique?</i><br/>-Mix of commercial, townhomes, schools.<br/>-Very diverse in income, age, new and old housing, commercial/industry<br/>-So many townhomes, no amenities within walking distance</li> <li>10. <i>Rate in Level of Importance, from 1-5, with 5 high importance (average is shown):</i><br/>-Complete Sidewalks, 4<br/>-Widen Sidewalks, 3<br/><b>-Pedestrian Safety, 4.5</b><br/>-Improve Bicycle Safety, 3<br/>-Improve Overall Appearance, 3<br/>-Wayfinding/Identity, 2<br/>-Social Spaces/Meeting Neighbors, 3.5</li> </ol> | <ol style="list-style-type: none"> <li>12. <i>How can the intersection at DeGuigne Drive and Santa Real Avenue be improved?</i><br/>-3-way stop<br/>-The park/green space is too plain.<br/>-Needs trees for shade, or something visually welcoming</li> <li>13. <i>How can crossing at East Duane Avenue and San Miguel Avenue be improved?</i><br/>-Very visible crosswalks<br/>-Bike friendly ways to lessen traffic, especially for the schools<br/>-Road Diet<br/>-Eliminate parking on residential side of Duane</li> <li>14. <i>Additional comments:</i><br/>-Please re-open the road diet plan for Duane and remove street parking</li> </ol> |
|---|---|

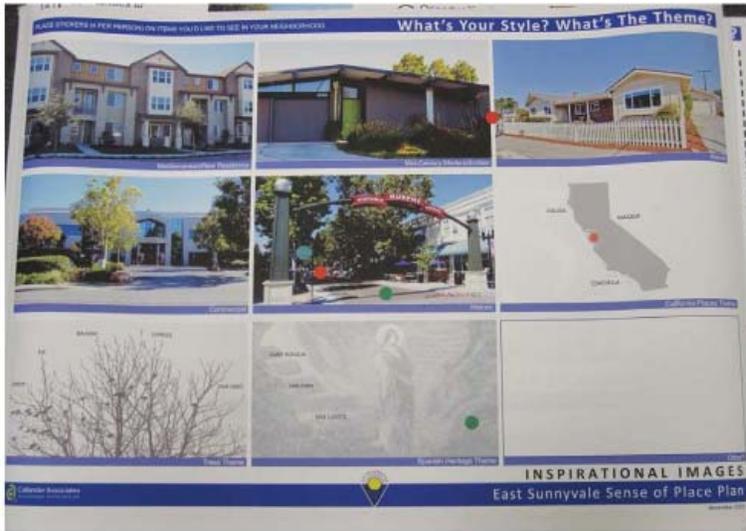
Station 1 Board



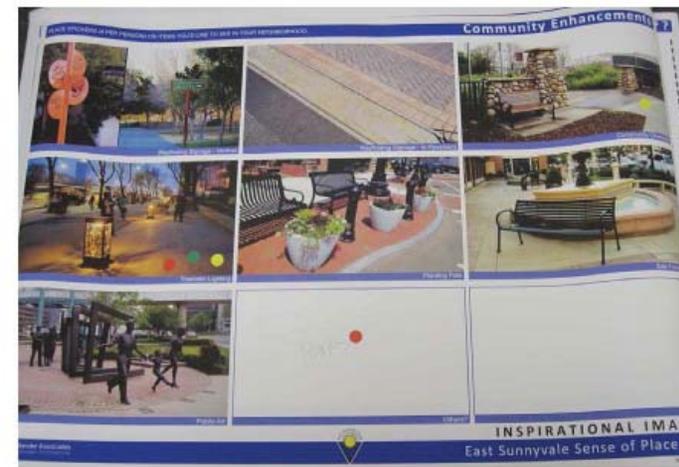
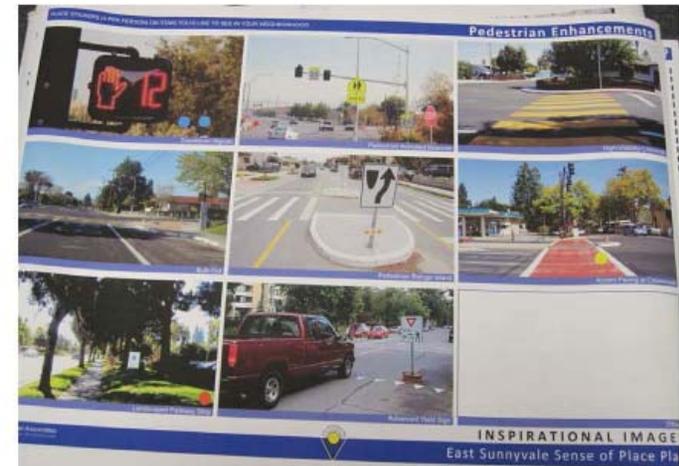
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*a world like the neighborhood called something different than 'E. Sunnyvale'  
 , How about San Miguel*

Station 2 Boards



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Station 3 Board



-END-

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The information above is Callander Associates' understanding of items discussed and decisions reached at the meeting. Callander Associates is proceeding with the project based on this understanding. If you have any questions, additions, or corrections to this memo, please contact this office in writing within three days.

Submitted by:

*Marie Mai*

Marie Mai, Callander Associates

Attachments: Sign-in Sheet

## Traffic Report



## MEMORANDUM

Date: December 23, 2014  
 To: Marie Mai, Callander Associates  
 From: Nate Conable and Sarah Peters  
 Subject: **East Sunnyside Sense of Place Plan**

*SI14-1535*

This memorandum summarizes existing issues and recommendations for the area covered in the East Sunnyside Sense of Place Plan ("Plan Area"). Our focus is creating Complete Streets within the Plan Area to improve pedestrian and bicycle access, safety and comfort.

## APPROACH

The East Sunnyside Sense of Place Plan is intended to guide future transportation improvements within a large industrial and residential area immediately west of Lawrence Expressway. We took a Complete Streets approach to the transportation system, identifying opportunities to improve pedestrian and bicycle connectivity within and around the Plan Area. By promoting walking and bicycling, this approach helps connect the public realms of the roadway and public space with adjacent private uses, and activate the streets with pedestrians and bicyclists.

These recommendations assume that future development within this area will be industrial, commercial and residential, and that the E. Duane Avenue bicycle lanes, recently approved by the Sunnyside City Council, will be implemented.

## MULTIMODAL IMPROVEMENTS

## Develop Multi-Use Pedestrian and Bicycle Path Network

**Issue:** Large block sizes throughout the Plan Area have resulted in few and widely-spaced pedestrian and bicycle connections. This reduces opportunities for recreation and makes walking and bicycling less convenient for day-to-day uses.

**Recommendation:** As parcels within the Plan Area redevelop, look for opportunities to locate multi-use pathways along parcel edges, providing connections to Duane Avenue, Deguigne Drive and Stewart Drive. These pathways should have a minimum paved width

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of 12' and be limited to pedestrian and bicycle traffic. The East Sunnyside Sense of Place Circulation Plan identifies several potential locations for multi-use paths.

## Evaluate Stop Control at Deguigne Drive and Santa Real Avenue

**Issue:** This T-intersection adjacent to Swegles Park is stop-controlled on the southbound approach only. Vehicle traffic from the proposed residential development at 915 Deguigne Drive may worsen conflicts between eastbound left-turning vehicles and westbound right-turning vehicles, or increase delay for southbound left-turning vehicles. The lack of clear right-of-way for vehicles approaching this intersection may also create conflicts between vehicles and pedestrians.

**Recommendation:** We recommend conducting an all-way stop evaluation at this intersection to determine whether it meets the warrants or other operational/safety criteria outlined in the *California Manual on Uniform Traffic Control Devices* (2012, Section 2B.07). The evaluation should include a full day (12 hours minimum, 7 AM - 7 PM) of vehicle, pedestrian and bicycle counts, preferably collected via video. Alternatively, a traffic circle could be added to calm traffic and clarify right-of-way, with the added benefit of adding landscaping that helps to create a defined sense of place.

If the study determines that a stop is not warranted, other measures may be used to slow traffic and improve pedestrian safety at this intersection. These measures would be at the discretion of City of Sunnyside staff, but could include chicanes, advance yield lines and pedestrian crossing signs. The crosswalk treatment outlined under *Pedestrian Network Improvements*, below, should be implemented whether or not stop control or traffic calming treatments are added here.

## Add Curb Extensions and/or Reduce Turn Radii throughout Plan Area

**Issue:** Many intersections within the Plan Area have large curb radii, encouraging drivers to make right turns at high speeds and increasing crossing distances for pedestrians.

**Recommendation:** As parcels redevelop in the Plan Area, look for opportunities to add curb extensions and/or reduce turn radii at nearby intersections. Curb extensions offer the opportunity to add landscaping and other elements that enhance the Plan Area's visual identity.

## Add Bus Benches throughout Plan Area

**Issue:** Most bus stops within the Plan Area lack amenities, including benches, shelters and waste bins.

**Recommendation:** Add bus benches at stops throughout the Plan Area, and consider adding waste bins, depending on maintenance budget. Bus stops with the highest

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number of passengers boarding and alighting should receive these amenities before bus stops that are less well-used.

## BICYCLE NETWORK IMPROVEMENTS

### Add Bicycle Facility to Duane Avenue between Lawrence Expressway and Stewart Drive

**Issue:** The bicycle lanes planned for E. Duane Avenue do not connect to Lawrence Expressway. This leaves a substantial gap between bicycle lanes within the Plan Area and bicycle lanes on Oakmead Drive, just east of Lawrence Expressway.

**Recommendation:** Add bicycle lanes or, at a minimum, green-backed shared lane markings (sharrows) to Duane Avenue between Lawrence Expressway and the E. Duane Avenue/Stewart Drive intersection. Narrowing the existing 12' vehicle travel lanes to 10' would permit the addition of 6' bicycle lanes in each direction. However, 10' lane widths may be inadequate for trucks or transit vehicles traveling on this stretch of roadway. To permit a minimum 11' lane width, the City of Sunnyvale may also consider a combination approach with an eastbound bicycle lane and westbound green-backed sharrow treatment. Both bicycle lanes and sharrows should be located to minimize conflicts between bicycles traveling straight through the intersection and drivers turning right; bicycle lanes should be located to the left of dedicated right turn lanes, and sharrows should be located in the center of shared travel lanes. If sharrows are used in the westbound lanes, we further recommend adding signs to alert drivers turning right onto westbound Duane that bicycles may be present.

We recommend the use of green-backed sharrows because they enhance bicyclist visibility to motorists, which is critical on a shared roadway. Guidance for the design of green-back sharrows can be found in the NACTO *Urban Bikeway Design Guide*, which was endorsed by Caltrans in April 2014. Per the *California Manual on Uniform Traffic Control Devices* (2012), these treatments are still experimental. The City of Sunnyvale should determine whether to implement these treatments through the formal FHWA experimentation process or to implement them under its own discretion, as other local jurisdictions have done recently.

### Improved Bicycle Lanes on Deguigne Drive

**Issue:** The bicycle lanes on Deguigne Drive are of substandard width and partially located in the gutter, resulting in inadequate and unwelcoming conditions for bicyclists. Based on field observations, the existing center left turn lane appears to be underutilized; driveway consolidation with future development at 915 Deguigne Drive will further reduce the need for this turn lane.

**Recommendation:** Reallocate space from center turn lane to bicycle lanes and on-street parking. Widen existing bicycle lanes on Deguigne Drive to 7', measured from concrete

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gutter edge to outer stripe. Add on-street parking to west side of Deguigne Drive to serve residential developments.

### Dashed Bicycle Lanes and Two-Stage Left Turn Treatment at Major Intersections

**Issue:** Bicycle lanes are dropped at major intersections, reducing the visibility of bicycle riders to motorists and potentially leading to conflicts, particularly for bicyclists turning left.

**Recommendation:** Continue bicycle lanes through major intersections using dashed lane markings. Add two-stage turn queue boxes at major intersections to facilitate bicyclists making left turns. At a minimum, these treatments should be considered at:

- Stewart Drive/E. Duane Avenue
- N. Wolfe Road/Stewart Drive

Depending on cyclist volumes and whether conflicts are observed between motorists and bicyclists, additional treatments may be considered at:

- Deguigne Drive/Stewart Drive
- Deguigne Drive/E. Duane Avenue

We recommend that these treatments be implemented according to the NACTO *Urban Bikeway Design Guide*, endorsed by Caltrans in April 2014. Per the *California Manual on Uniform Traffic Control Devices* (2012), these treatments are still experimental. The City of Sunnyvale should determine whether to implement these treatments through the formal FHWA experimentation process or to implement them under its own discretion, as other local jurisdictions in Santa Clara County have done.

## PEDESTRIAN NETWORK IMPROVEMENTS

### Enhanced Intersection across Duane Avenue at San Miguel

**Issue:** No crosswalks are marked at the Duane Avenue/San Miguel Avenue intersection, presenting a barrier for students walking and bicycling to school at San Miguel Elementary and preventing access between the Plan Area and neighborhoods to the north. On Duane Avenue, plants in the sidewalk landscape strip and parked cars reduce visibility for drivers exiting San Miguel, leading them to pull into the unmarked crosswalk across San Miguel Avenue while they wait to run onto Duane Avenue.

**Recommendation:** Add enhanced intersection across Duane Avenue at San Miguel Avenue. The intersection should include:

- Curb extensions (bulb outs) on the northwest and northeast corners of the intersection

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- High-visibility crosswalk markings (continental style) on each side of San Miguel Avenue
- Advanced yield lines on eastbound approach (west side of intersection) where more than one lane of traffic is present
- In-roadway lights on the outside of the marked crossings

Based on a review of guidelines from the 2012 Highway Capacity Manual, in-roadway lights should result in drivers yielding to pedestrians. If they are not observed to yield, additional measures, such as overhead beacons (HAWK or RRFB) should be considered.

#### Enhanced Intersection across Duane Avenue east of Deguigne Drive

**Issue:** No crosswalks are marked on Duane Avenue east of Deguigne Drive, limiting pedestrian access between the Plan Area and neighborhoods to the north.

**Recommendation:** Add an enhanced intersection across Duane Avenue east of Deguigne Drive, similar to the intersection treatment proposed for San Miguel Avenue. The location of this treatment should be determined as parcels within the Plan Area redevelop and with input from community residents and City of Sunnyvale staff.

#### Add Marked Crosswalks at Deguigne Drive and Santa Real Avenue

**Issue:** Crosswalks are not marked on the east or west sides of the Deguigne Drive/Santa Real Avenue intersection, despite the presence of Swegles Park immediately south of the intersection. The addition of new residential development within the Plan Area will likely increase the number of people crossing at this location.

**Recommendation:** We recommend adding continental or ladder striped crosswalks on the east side of the Deguigne Drive/Santa Real Avenue intersection to improve access to Swegles Park. This recommendation should be implemented whether or not stop control or traffic calming treatments are added at this location.

#### Add Marked Crosswalks at Key Locations

**Issue:** Crosswalks are not marked along E. Duane Avenue, E. Duane Court, Stewart Drive and Deguigne Drive. This may lead to pedestrians crossing at unpredictable locations and is likely to discourage walking within the Plan Area. In some cases, curb cuts with truncated dome treatments are present without a marked crosswalk. This may be confusing to pedestrians, especially if they are visually impaired.

**Recommendation:** We recommend striping continental or ladder striped crosswalks at key locations along E. Duane Avenue, Stewart Drive and Deguigne Drive. The locations of these crosswalks should be determined with input from community members. Depending on vehicle volumes and speeds on these streets, additional measures, such as

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pedestrian crossing signs, in-roadway lighting, and advanced yield lines should be considered for these crosswalks.

#### ADDITIONAL CONSIDERATIONS

##### School Traffic on Duane Avenue

**Issue:** Traffic along Duane Avenue during the AM peak hour is substantially affected by school drop-off traffic for The King's Academy and Rainbow Montessori. During the school drop-off period, several drivers were observed making illegal left turns across the double yellow line on Duane Avenue. Although these schools are outside of the Plan Area, unpredictable and/or illegal maneuvers from drivers near the schools will affect auto and bicycle traffic along Duane Avenue, and may have effects on pedestrian comfort and safety.

**Recommendation:** We recommend that the City of Sunnyvale continue to work with schools located along Duane Avenue to educate drivers and manage school traffic. The City should also continue to implement safety and operational improvements outlined in the *City of Sunnyvale Comprehensive School Traffic Study (2012)*.