SAN DIEGO

EL CAJON BOULEVARD

COMPLETE BOULEVARD PLANNING STUDY

WORKING PAPER #1: EXISTING CONDITIONS

JUNE 2016

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

EL CAJON BOULEVARD

1 | Introduction

The City of San Diego, California, and the communities within and adjacent to the Little Saigon Cultural and Commercial District are undertaking this study to evaluate the existing conditions along El Cajon Boulevard corridor and provide a framework to guide future mobility and urban design investments within this area. Previous studies were researched to provide a better understanding of the resources available and help ensure recognition of recommendations that have been made for the corridor in the past.

1.1 | PURPOSE OF STUDY

This study examines the existing conditions of El Cajon Boulevard from Highland Avenue to 50th Street (Figure 1-1), in order to identify potential complete street and urban design enhancements. A complete street is a street designed for safe access to all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.This study also examines the corridor, it's relation to the surrounding community features, traffic counts, pedestrian and automobile movements at each intersection, parking, accessibility, and many other factors that contribute to the function of the area.

Photo 1-1 | Little Saigon Branding Elements

Figure 1-1 | El Cajon Boulevard Study Corridor

1.2 | STUDY CORRIDOR DESCRIPTION

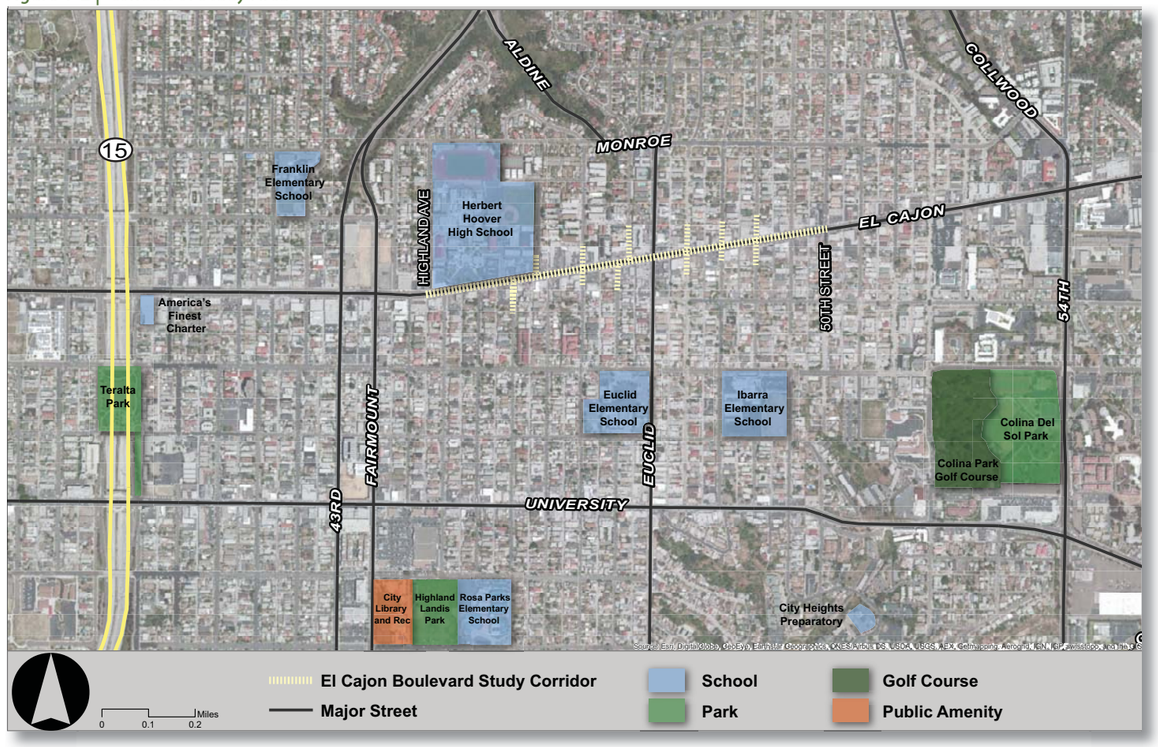
Currently, El Cajon Boulevard serves as a major east/west arterial connecting many prominent communities. The Boulevard extends between the intersection of Park Boulevard and Washington Street, and Interstate 8 in La Mesa.

Figure 1-1 shows the study corridor and how this segment of El Cajon Boulevard encompasses the Little Saigon Cultural District, which spans between the cross-streets of Highland Avenue to Euclid Avenue. The Little Saigon district is a six-block commercial area, which served as the initial community center for Vietnamese refugees that migrated to the San Diego region when Saigon fell in 1975. Other Vietnamese communities have emerged over the years along Mira Mesa Boulevard and Convoy Street/Linda Vista Road.

Today the original immigrant community is present and provides a strong influence on the surrounding community. As shown in Photo 1-1, various urban design elements scatter the corridor providing an aesthetically pleasing brand to the Little Saigon District as well as the Boulevard itself.

As displayed in Figure 1-2, a number of parks, a golf course, library, and city pool are within approximately a half-mile distance from the study corridor. In addition, numerous restaurants, shops, and businesses populate the Boulevard. The study corridor is also adjacent to residential areas to the north and south.

Figure 1-2 | Context of Study Area



1.3 | REPORT ORGANIZATION

This Existing Conditions report is organized in the following manner:

Chapter 1: INTRODUCTION

Chapter 2: PREVIOUS STUDY REVIEW

Chapter 3: AVAILABLE DATA

Chapter 4: MULTIMODAL LEVEL OF SERVICE ANALYSIS

Chapter 5: WALK AUDIT SUMMARY & PUBLIC INVOLVEMENT

Chapter 6: ASSETS/LIABILITIES/OPPORTUNITIES/CONSTRAINTS

EL CAJON BOULEVARD

Figure 1-3 | Existing Conditions Photo Map

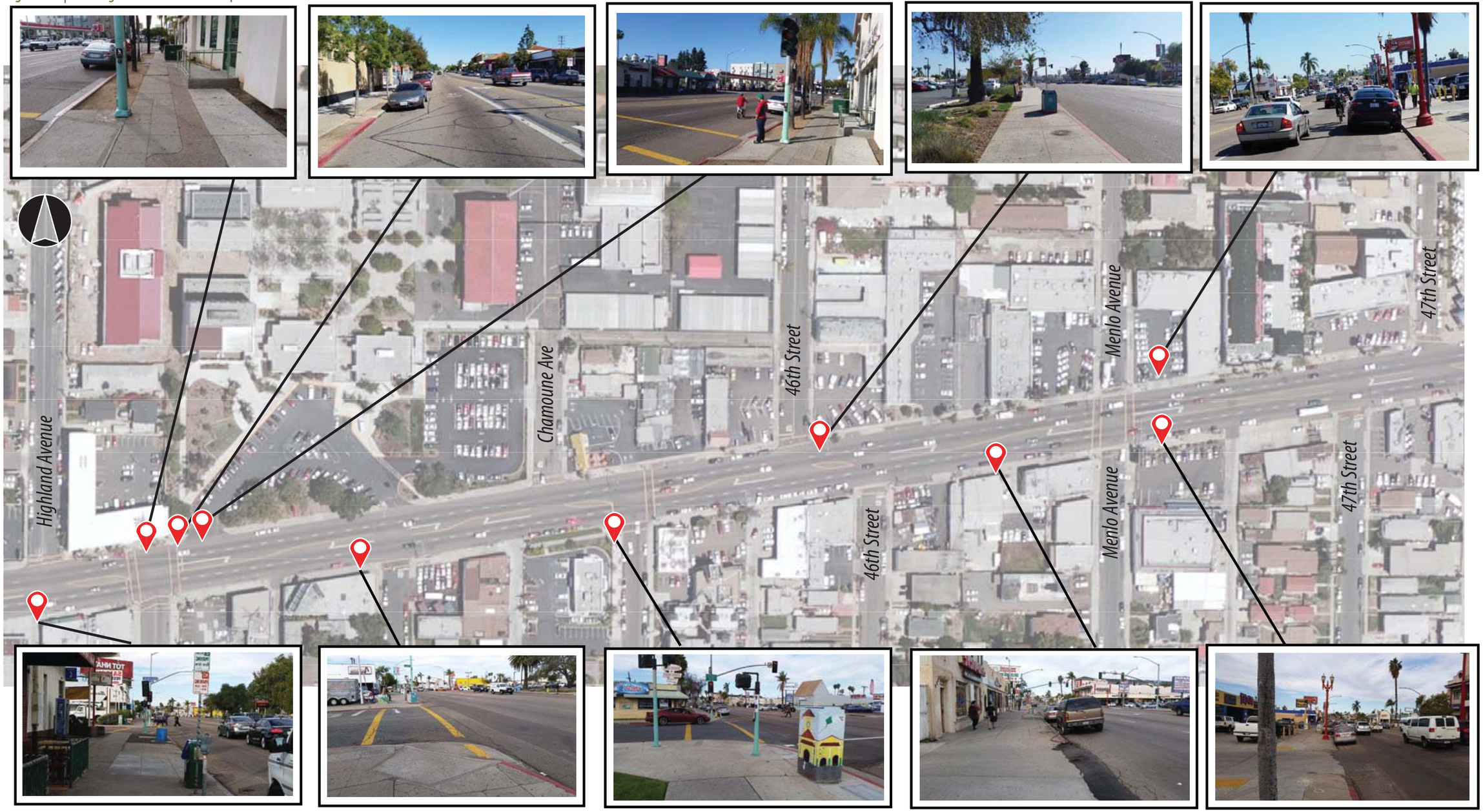
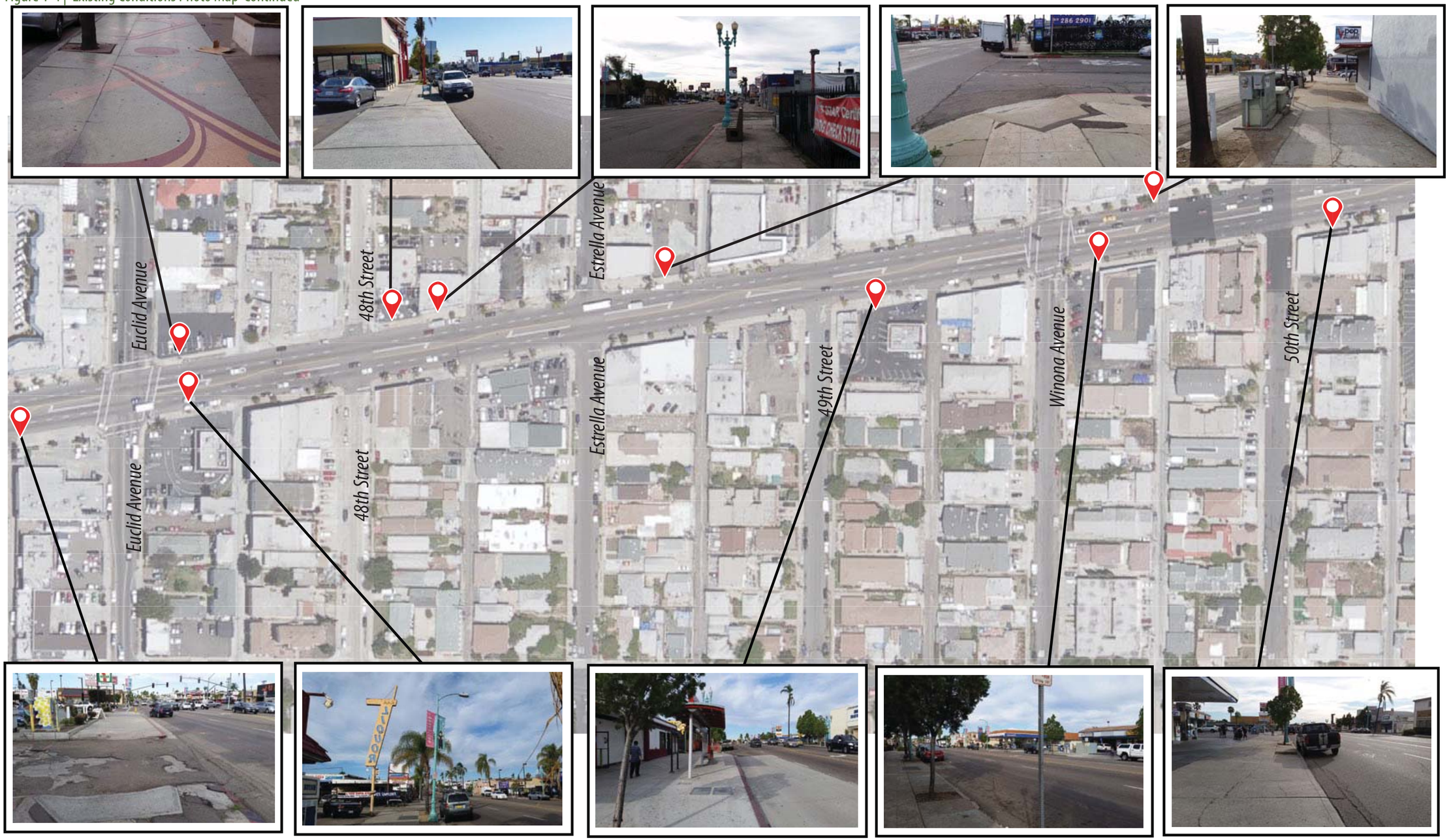


Figure 1-4 | Existing Conditions Photo Map-Continued



2 | Previous Study Review

Previous studies were reviewed to understand and incorporate what has been evaluated in and around the study area. These studies include long-range transportation plans, design guidance, completed projects, on-going projects, proposed projects, and traffic impact studies. The following section gives an overview of the studies and pertinent information.

COMPARISON OF STUDIES

Major recommendations were made for El Cajon Boulevard, included creating a bicycling facility, creating transit stations/stops along the route, creating pedestrian friendly crossings, installing adequate pedestrian level lighting, installing pedestrian benches, installing bicycle racks, ensuring 5 feet wide sidewalks, and providing trash and recycling receptacles.

The studies provided guidance on different areas—policy, prioritization, research, financing, program creation, and design guidance. Throughout each study, basic guidance remained the same: emphasize pedestrian, bicycle, and transportation modes for future expansion and improvements. Other similarities exist when looking at recommendations to evaluate the operations of the area. Street lighting was another area where the base concept was the same, to provide pedestrian scaled lighting. Some studies went beyond to specify it should be decorative and fit aesthetically within the area. Another similarity between studies was to use priority transit and queue jumper lanes for transit. This allows for fewer infrastructure changes but a greater emphasis providing reliable transit. Design guidelines for mobility infrastructure typically referenced back to the citywide City of San Diego plans—Pedestrian Master Plan, Regional Bike Plan, and Regional Transit Vision. These three studies provided the most detailed guidelines for how to improve the different modes of transportation. All these plans highlight the importance of multimodal connections.

Differences emerge when looking at each document specifically. For example recommendations on types of bicycle lanes—there were multiple studies recommending bicycle lanes versus bike "sharrows" on El Cajon Boulevard and vice versa. Recommended programs also differed from plan to plan, ranging from creating a bicycle law class to establishing built environment teams. Although the studies vary on areas of focus, they all hope to improve the diversity of modes of transportation along El Cajon Boulevard. Overall, the biggest contrast between studies was where to put future bike lanes. One study did not recommend putting a bike lane on El Cajon Boulevard; however, all other studies identified a bicycle lane or sharrow as a recommended improvement. All studies agreed that the most important aspect of the study was to improve the alternative modes of transportation to create a complete streets system.

Support of Regional Complete Streets was identified as important to follow and maintain as a focus. This policy was consistent throughout all of the studies as each of them touched on different aspects of pedestrian, bicycle, transit, and vehicular interaction with the environment. The plans acknowledge the need to incorporate all transportation modes within their study, a system of prioritization, and specific recommendations. Specific goals were mentioned within the studies as an important part of achieving a complete streets concept but there were very few studies that provided examples or actual performance measures that would be measured in response to the study.

One area that was not touched on as much was future research. The Pedestrian Master Plan did identify different areas to study further including the "relationship between urban form, street layout, land use mixture, and circulation hierarchy and the effect on walking rates."

Recommendations on financing the studies was one of the largest sections within each of the studies. Most identified a mixture of sources that would be necessary. If the study was city wide, it was noted that the local jurisdictions should contribute to the improvement of their corridor.

2.1 | CITY OF SAN DIEGO

CITY HEIGHTS URBAN GREENING PLAN

(Pg 78 of document)—City of San Diego Planning Department, Michael Singleton, KTU+A; Kenny Engineering, Circulate San Diego, Lopez Engineering, Cvaldo Corporation; August 14, 2014.

The City Heights Urban Greening Plan purpose is to establish a system of Green Streets and recommend how to implement and maintain the Green Streets. Identified within the study are commonly traveled commercial, transit, pedestrian, and bicycle routes, see Figures 2-1 and 2-2. Established within this study were projects to implement the Green Street Design as well as a Preferred Green Street Design. Key projects that include El Cajon Boulevard are 52nd Street and El Cajon Boulevard and El Cajon Boulevard between 45th Street and Chamoune Avenue. The projects addressed community Connectivity, Urban Forestry, Urban Runoff, Multi-Modal Connectivity, and Open Space Access.

Figure 2-1 | City Heights Urban Greening Plan, Commonly Traveled Routes

Pedestrian Routes

Bike Routes

Commercial Routes

Transit Routes

PEDESTRIAN MASTER PLAN

KTU+A, Stepner Design Group, WalkSanDiego, M.W. Steele Group, MIG, Katz Okitsu & Associates; December 2006

The Pedestrian Master Plan addresses pedestrian safety, accessibility, connectivity, and walkability, and provides guidance on implementing projects that enhance the pedestrian environment. The plan gives diagrams explaining the safety problems at intersections and along the streets. Along with information on safety, the plan identifies the basic requirements for walkability: shade trees, pedestrian level lighting, plazas, protection from elements, visual access into adjacent land uses (i.e. see into/out of shop windows), public art, water fountains, and trash receptacles. Study of walking trends was an important portion of this plan. From their observations walking is on the decline but they found that within older neighborhoods people tended to walk more, own fewer cars, and use transit more often. The plan also gives different treatment guidance for different route types. The plan divides up sidewalk types into six main types: District Sidewalks, Corridor Sidewalks, Connector Sidewalks, Connector Sidewalks, Neighborhood Sidewalks, Ancillary Pedestrian Facilities, Paths, and Trails.

For prioritization, the plan used the Pedestrian Priority Model. This model looked at pedestrian attractors, generators, and detractors. Identified as attractors were schools, transit stations, parks and recreation facilities, neighborhood and community retail, and neighborhood and community serving destinations. Pedestrian generators took into account census data, population density, employment density, age density, income, number of children under 16, number of people with disabilities, mixed land use adjacencies, and proposed mixed use.

Guidance on pedestrian walkway treatment types and levels are given within the plan. See Figures 2-3 through 2-6.

Figure 2-2 | City Heights Urban Greening Plan, Green Street Design

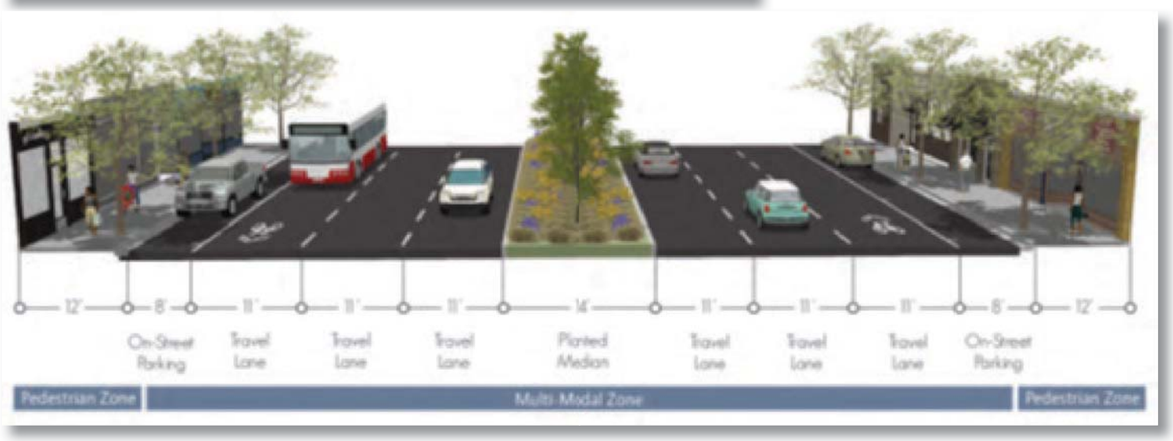


Figure 2-3 | Pedestrian Master Plan, Walkability Issues

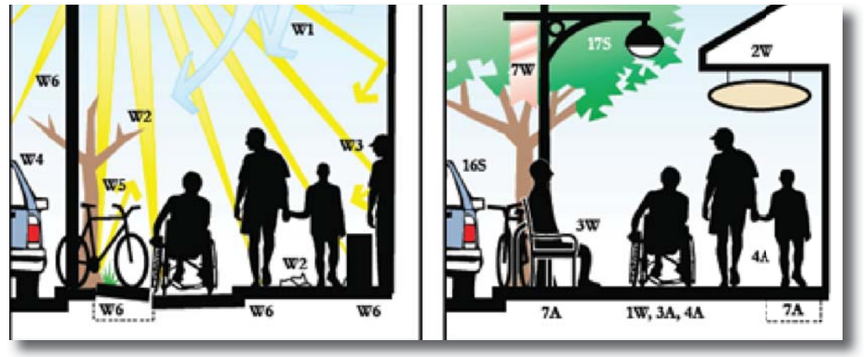


Figure 2-4 | Pedestrian Master Plan, Walkability Issues

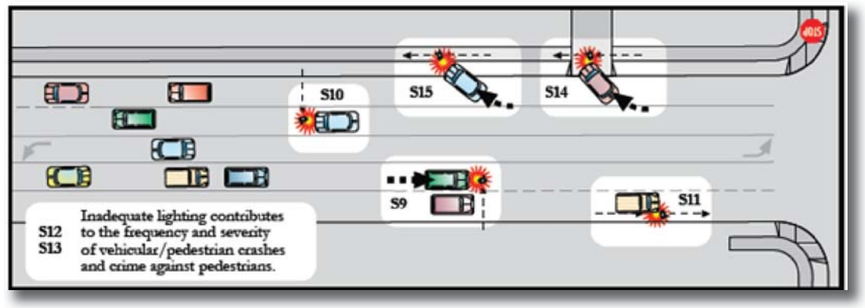
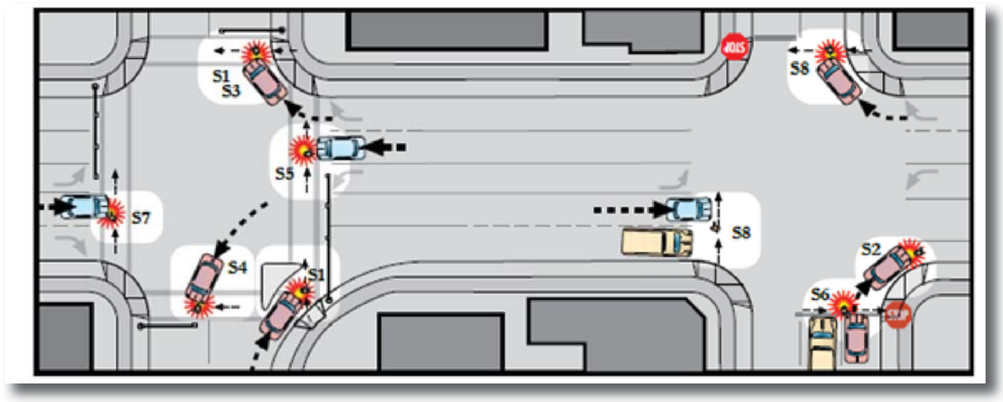


Figure 2-5 | Pedestrian Master Plan, Safety Issues at Intersections



EL CAJON BOULEVARD

Figure 2-6 | Pedestrian Master Plan, Route Types and Treatment

SAN DIEGO PEDESTRIAN MASTER PLAN REPORT — 4.0 ROUTE TYPES & TREATMENTS

Table 27: Treatment Levels and Potential Improvements

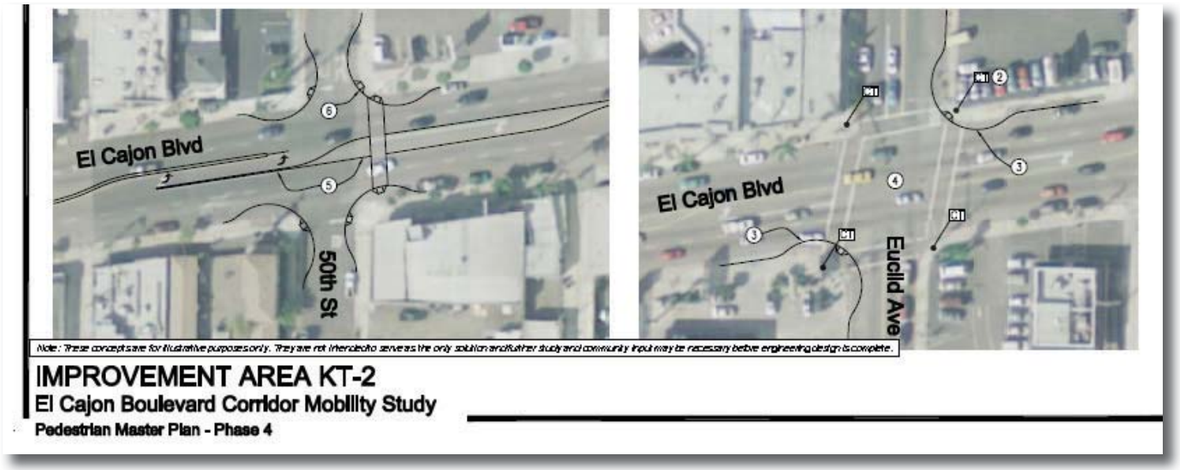
TREATMENT LEVEL:	Treatment Level 1 "Premium" Walkway Improvements	Treatment Level 2 "Enhanced" Walkway Improvements	Treatment Level 3 "Basic" Walkway Improvements	Treatment Level 4 "Special Use" Walkway Improvements
Route Types Receiving These Treatment Levels (Unless Special Circumstances Exist*)	District Route Type / Special Pedestrian Zone	Corridor Route Type	Connector and Neighborhood Route Type	Path & Ancillary Route Types
*Special Circumstances that Warrant a Higher Treatment Level than Normal. Requirements in Each Column would Increase to the Column on its Left	Already Uses Highest Treatment Level	If within 1/4 mile of Transit/ School/ Ped. High Use/ Major Arterial	If within 1/4 mile of Transit/ School/ Maj. Commercial Facilities/ Maj. Arterials	Case-by-Case Basis
Provide Accessible Facilities Such As:				
1A) Curb ramps	!	!	!	?
2A) Audible/visual crosswalk signals	!	!	?	?
3A) Walkways & ramps free of damage or trip hazards	!	!	!	✔
4A) Pedestrian paths free of obstructions and barriers	!	!	!	✔
5A) Sidewalks with limited driveways and minimal cross-slope	!	✔	✔	✔
6A) Re-grade slope of walkway to meet ADA / Title 24 standards	?	?	?	?
7A) Repair, slice or patch lifts on walk surfaces or reset utility boxes to be flush	?	?	?	?
Provide Safety Features Such As:				
1S) Median refuges (a safe place to stand in the street)	!	✔	-	-
2S) Pedestrian popouts (curb / sidewalk extensions into street)	✔	✔	-	-
3S) High visibility crosswalk striping	!	✔	-	?
4S) Raised crosswalks or special paving materials to denote crosswalks	✔	✔	-	?
5S) Advance stop bars >10 feet from crosswalk	✔	✔	!	?
6S) Radar Speed Monitor & Display	?	?	?	?
7S) Reduced curb radii	✔	✔	✔	-
8S) Early pedestrian start at crossing signal (Lead Pedestrian Interval)	✔	?	-	?
9S) No Turn on Red at Intersection	?	?	?	?
10S) Mid-block crosswalks with ped. flashers but no traffic control	-	-	✔	-
11S) Automatic pedestrian detection & signal control	✔	-	-	?
12S) Mid-block crossing with signs, median or curb ext. & flashing lights in road	?	?	-	?
13S) Mid-block crosswalks with ped. actuated traffic control device	✔	?	-	-
14S) 1-Lane Mid-block with high contrast crossings, signs & center lane marker	?	?	✔	?
15S) Parkway planting for buffer between sidewalk and cars	!	!	!	?
16S) On-street parking for buffer between sidewalk and cars	!	✔	✔	-
17S) Adequate levels of pedestrian lighting	!	!	✔	✔
18S) Various traffic calming measures	✔	✔	✔	-
19S) Enforcement, education or encouragement solutions	?	?	?	?
20S) Missing sidewalks added or provide adeq. walk width clear of obstructions	?	?	?	?
Improve Walkability by Providing:				
1W) Above minimum walkway widths (> 5')	!	✔	?	?
2W) Trees that provide shade on walkways	!	!	✔	✔
3W) Street furnishings for comfort and enjoyment	!	✔	?	✔
4W) Countdown display crosswalk signals	✔	?	?	-
5W) Traffic control for crossings such as traffic signals or "All way stops"	!	✔	✔	✔
6W) Pedestrian scrambles (cross all directions of street)	?	-	-	?
Ensure Connectivity by Adding:				
1C) Missing sidewalk segments in areas where sidewalks mostly exist	!	!	✔	✔
2c) Missing sidewalks in areas where no sidewalks exist at all	!	✔	?	✔
3C) Connection pathways between streets	!	✔	✔	✔
4C) Narrow street widths or adding features to narrow for pedestrians	!	✔	✔	✔
5C) Destinations within walking distance of origins	!	✔	✔	✔
6C) Pedestrian bridges that avoid excessive ramp lengths	?	-	-	?
7C) Pedestrian crossing opportunities for all sides (legs) of an intersection	!	✔	✔	-
8C) Verify that pedestrian distances between land uses are reasonable & direct	?	?	?	?

LEGEND ("!"= required, "✔" = suggested, "?"= suggested if conditions or standards met & "-" = not applicable)

PEDESTRIAN MASTER PLAN PHASE 4

The Kensington-Talmadge Community conducted a Mobility Study generating a Pedestrian Plan. Aimed at improving access, connectivity, safety, and walkability, the Plan focused on six imporvement areas (KT-1 - KT-6). Imrovement Area KT -2 includes recommendations at the intersections of Euclid Avenue and 50th St. Figure 2-7 details the recommended changes. Proposed changes included replacing existing pedestrian heads with countdown timers at the intersection of El Cajon Boulevard and Euclid Avenue. This would discourage pedestrians trying to cross the Boulevard last minute. This Plan also called for curb extensions at this intersection. At the intersection of 50th St and El Cajon Boulevard, KT -2 improvements consisted of adding a west bound left turn only lane with a raised median. This would accommodate a pedestrian refuge and an enhanced marked crosswalk across El Cajon Boulevard. In addition, all four corners of this intersection would have curb extensions.

Figure 2-7 | Pedestrian Master Plan Phase 4 Improvement Area



CITY OF SAN DIEGO BICYCLE MASTER PLAN

Prepared by Alta Planning and Design for The City of San Diego December 2013.

The City of San Diego Bicycle Master Plan updates the city's 2002 plan to improve biking over the next 20 years. This plan was aimed at aligning with the 2008 San Diego General Plan through mobility, sustainability, health, economic, and social goals. San Diego encompasses 337 square miles and 56 planning areas. The goals, as stated by the plan are, "To create a city where bicycling is a viable travel choice especially for trips less than 5 miles", "To create a safe and comprehensive local and regional bikeway network", and "To increase environmental quality, public health, recreation and mobility benefits." These goals are to be supported by policies, of which 12 were identified within the report.

Existing bike infrastructure includes 72 miles of off-street paved bike paths, 309 miles of bike lanes, 113 miles of bike routes, and 16 miles of freeway shoulder. Conducting a bicycling needs analysis allowed for the city to assess the current biking demand and predict future demand. For the analysis, they looked at intra-community and inter-community trips, commute patterns, and crash information. Looking at inter and intra-commuting trips allowed for understanding on the types of trips and distances traveled on bike. Commute patterns show that approximately 0.9% of San Diego residents use biking primarily to commute. Also studied was the proportion of fatal bicycle collisions (4.8%) compared to the statewide (2.7%) and national averages (1.7%). From this analysis recommendations were made for bikeway facilities, intersections, and support facilities (i.e. bike parking, signal detection, maintenance, signage). Expansion of the bikeway system included 878 miles of proposed bike lanes/bike routes, 40 miles of bike boulevards, and 7 miles of cycle tracks. Prioritization of the projects was performed and the highest priority considered for implementation in phase 1. There were also bike program recommendations that included education, enforcement, encouragement, monitoring and evaluation efforts.

To implement this plan, planning level cost estimates were performed along with detailed cost estimates for higher priority projects. Along with cost estimates potential funding sources were outlined within the plan.

Figure 2-8 and 2-9 show examples of the various types of proposed bikeways.

Figure 2-8 | City of San Diego, Non-Classified Proposed Bikeways

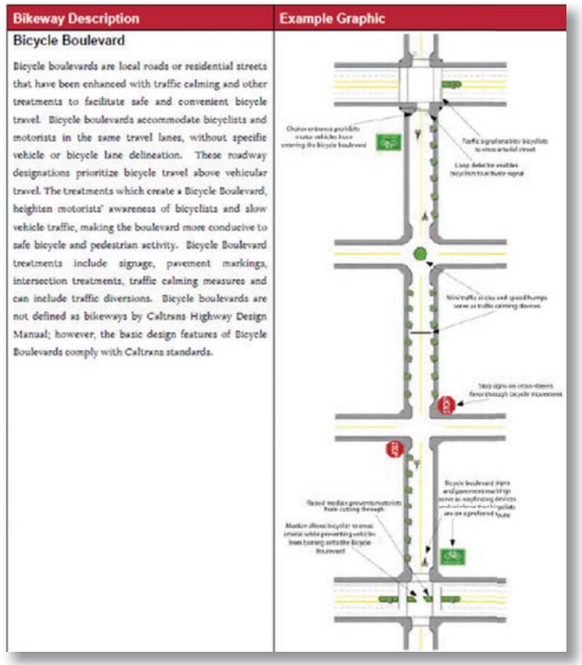
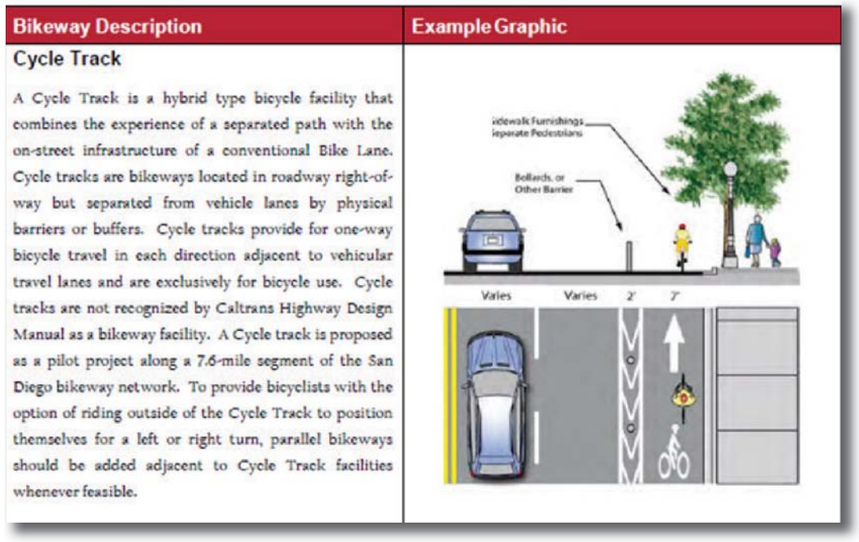


Figure 2-9 | City of San Diego, Cycle Track



2.2 | SANDAG

2050 REGIONAL TRANSPORTATION PLAN

October 2011, SANDAG

The 2050 Regional Transportation Plan (RTP) addresses the mobility and sustainability challenges that the region will face in the coming years. The plan encompasses multiple modes of transportation to address the needs of the region including but not limited to bicycling, pedestrian, and transit. To ensure that the plan is implemented and to see how the region is doing, the plan incorporates performance measures. Another portion of RTP is the financial strategies section. This section outlines what funding is projected to be available and what types of projects that funding source permits. It also gives a table that breaks down the estimated revenues and another for estimated expenditures for ten year time spans starting in 2010 and going until 2050.

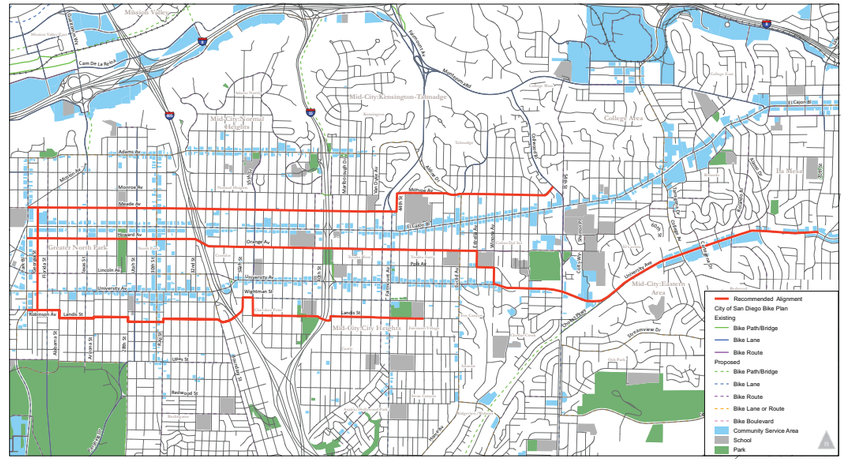
2050 REGIONAL BIKE PLAN

SANDAG, April 2010

The 2050 Regional Bike Plan is a long range plan for improving and developing the bicycle system in San Diego through year 2050. This plan addresses interconnected bike corridors, support facilities, and programs to make biking more desirable to the public. The plan identifies a regional bicycle network, shown in Figure 2-10, to serve demand. Along with defining a network, the plan includes process information on network selection and classification. Figure 2-11 illustrates the recommended bicycle allignment surrounding the current study area. The plan identifies some funding sources but also identifies that if the plan is to be completed in approximately 40 years, additional funding would be needed.

Figure 2-10 | 2050 Regional Bike Plan, Bicycle Network

Figure 2-11 | Mid-City Regional Bike Corridor Project



REGIONAL TRANSIT VISION
SANDAG, November 2001

The Regional Transit Vision is the vision SANDAG has for expanding San Diego's Transit network. The vision includes integrating transit into communities/neighborhoods, allowing transit to bypass traffic choked freeways and signal priority, and create a system that is reliable, safe, fast, and interconnected. The vision includes expansion, upgrade, and increased frequency of transit. This vision incorporates the goal to have 37% of the population within 0.5 mile of the RTV system compared to the current 7%. To accomplish this, the RTV will add lines, and require coordination between SANDAG, MTDB, NCTD, and local jurisdictions.

2.3 | METRO TRANSIT SYSTEM

15 MID-CITY CENTERLINE TRANSIT STATIONS FACT SHEET
Transnet, SANDAG, MTS, USDOT, Caltrans, MOVE OVER; February 2015

The Mid-City Centerline Transit Stations Fact Sheet explains the plan for new transit services from I-805 to I-8 set to begin in spring of 2015. Ultimately the goal of this project is to improve the transit service along the Mid-City portion of State Route 15 by allowing transit services to run in northbound and southbound transit only lanes within the median of State Route 15. With the creation of the new transit only lanes, new station platforms at University Avenue and El Cajon Boulevard will be created connecting them to the new freeway level platforms and the I-15 Rapid Transit services which will run on the dedicated lanes. These improvements and additions to the transit network will allow for improved transfers between Rapid and local transit services. (See Figure 2-12)

MID-CITY RAPID BUS PROJECT
October 2008, SANDAG, EDAW, AECOM

The Mid-City Rapid Bus Project brings transit between downtown and SDSU using Broadway, Park Boulevard, El Cajon Boulevard, and College Avenue. This project requires the installation of transit signal priority equipment and queue jumper lanes with the objective to reduce transit travel time and improve ridership numbers. To accomplish these tasks, the following were identified as aspects that needed to be improved:

Figure 2-12 | Mid-City Centerline Transit Stations Fact Sheet

- Improvements to rider experience;
- Improvements to the pedestrian experience;
- Optimizing traffic operations;
- Improve operational and maintenance efficiencies.

Key figures show proposed designs of the new bus stations and bus stops, Figure 2-13 is an example of the plan for 54th and El Cajon Boulevard.

Figure 2-13 | Mid-City Rapid Bus Project

2.4 | OTHER RELEVANT STUDIES

HOOVER HIGH SCHOOL MOBILITY ASSESSMENT
Performed by Linscott Law & Greenspan Engineers

The Mobility Assessment for Hoover High School looked at the operations of pick-ups and drop-offs of students, pedestrian mobility and safety, roadway environment, and vehicular mobility in the vicinity of the school. The study found that pick-ups and drop-offs were occurring on El Cajon Boulevard near the front of the school, on El Cajon Boulevard from vehicles waiting in a queue on the travelway, and on a private driveway. For pedestrian mobility, the study found that there was a lack of connectivity between loading zones and the school, jaywalking on El Cajon Boulevard, and conflict between pedestrians and vehicles in the parking lot of the school and private property. Observations noted about the roadway environment include lack of driver awareness approaching the school zone, poor visibility of the school zone signs, and low visibility of the crosswalks. This study identified possible solutions to the congestion on El Cajon Boulevard near the school would be to add new pick-up and drop-off locations on Highland Avenue and to not allow pick-ups and drop-offs along El Cajon Boulevard. The assessment also proposed putting in a turnaround on Chamoune Avenue to reduce the vehicles using private property to turn around. On El Cajon Boulevard, they recommended putting in a raised median with fence to eliminate jaywalking.

LITTLE SAIGON DESIGN GUIDELINES
AECOM Jan 2012 for Little Saigon Foundation and El Cajon Business Improvement association

The Little Saigon study identifies design guidelines to enhance the district experience. Little Saigon is located along El Cajon between Highland Avenue and Euclid Avenue. The study consisted of outreach events within the community raising awareness and concerns about the area allowed community members to voice their concerns. Some of the findings were the need for:

- Bulb outs,
- Raised median,
- Hardscape/softscape recommendations,
- Street furniture,
- Street lighting,
- Signage/way finding.

One of the main objectives to establish design guidelines was to brand the area as Little Saigon with elements related to the cultures represented in the area.

NORTH PARK MID-CITY REGIONAL BIKE CORRIDORS PROJECT
The North Park Mid-City Regional Bike Corridors Project aims to improve the east-west travel from the neighborhood of North Park to the city of La Mesa by creating convenient and appealing bikeways. By connecting key community destinations, the Regional Bike Corridors Project targets:

- Providing safe, livable, complete streets that serve people of all ages and abilities;
- Provide direct access to schools, transit stops, community destinations, and commercial centers;
- Design innovative facilities with appropriate separation from vehicular traffic, traffic calming features, and end of trip facilities;
- Be consistent with and leverage community planning efforts; and
- Support place making, sustainability, equity, and economic development and redevelopment efforts.

Ultimately three different alignments were identified as recommendations for future bikeways: Meade Avenue, Howard Avenue/Orange Avenue, and Robinson Avenue/Landis Street.

MID-CITY COMMUNITIES PLAN
August 1998, City of San Diego Planning Department

The Mid-City Communities Plan is the second update to the original Mid-City Development Plan. It encompasses four communities: Normal Heights, Kensigton-Talmadge, City Heights, and Eastern. Within these four communities 27 neighborhoods were identified. The plan addresses neighborhoods, natural and cultural resources, urban design, land use, economic development, public facilities, and transportation. For the plan, corridors and intersections were analyzed for acceptable level of service (LOS). From there, intersections and corridors with a LOS either E or F were called out and identified as needing improvement. Throughout the plan, visions included safe parking, efficient transit system that features fixed rail, electric buses, and intercommunity shuttles, and an overall enhancement of pedestrian and bicycling. Along with setting goals, the plan identified what needed to happen for the plan to be implemented.

The transportation section of the plan outlines the importance of having a diverse transportation system for the community and identifying main concerns. These concerns include parking, transit, pedestrian facilities, and bicycle facilities. This section recommends a reevaluation of the types of transit considered feasible, LOS, and parking.

KENSINGTON/TALMADGE PEDESTRIAN PLAN

The Kensington-Talmadge Pedestrian Plan addresses pedestrian needs for the neighborhoods of Kensington and Talmadge. These are located north of El Cajon Boulevard. The main priority for the public was to connect the two neighborhoods enabling residents to walk from one to the other. In this study, data from the City of San Diego and SANDAG was used to determine locations of missing sidewalks and curb ramps. The Pedestrian Priority Model prioritized the routes that were under consideration. Falling near the top of the prioritized list, a recommendation to complete a comprehensive corridor mobility study for El Cajon Boulevard. Also on the list for improvements was the intersection of El Cajon Boulevard and Central Avenue. The pedestrian plan outlined the estimated costs of the projects.

WALKABLE NEIGHBORHOODS ECONOMIC STUDY

JB&F Consulting, Sponsors: Walk San Diego, The California Endowment 2010

The Walkable Neighborhoods Economic Study examines the economic impact, health benefits, and impact on property values of having a walkable community. It looked at the Mid-City area and divides it into 12 different zones. This area was chosen because "the environment within the study area offered a consistency of similar housing units and composition based on single-family residences and condominiums; the areas all consisted of low and moderate-income defined census tracts, which are a requirement of the investment strategy; and there was proximity between walkable and non-walkable for purposes of comparison." Findings from this study for walkable areas were: higher home values were retained and lower notice of defaults. The study also found that within the walkable communities there were more restaurant and retail establishments.

SENIORS, SIDEWALKS AND THE CENTENNIAL

January 2012, City of Chula Vista, Walk San Diego, Safe & Healthy Communities, SANDAG, Healthy Works, County of San Diego HHSA, Safe and Healthy Communities

The Seniors, Sidewalks, and the Centennial project identified walking and rolling need for senior citizens and disabled. The plan is intended to provide recommendations on policy and infrastructure improvements allowing for increased mobility of the target group. Funding through a Healthy Communities Planning Grant allows for this study to be conducted. The project is located in western Chula Vista which is an older portion of the city with pedestrian deficiencies, lower incomes, and a high density of senior residents. The plan outlines considerations for the disabled and elderly, which includes decreasing vision, physical impairments, and slower movement.

Some potential solutions presented were longer crossing times, wider sidewalks, and no right turn on red lights. There were also policy solutions presented that included implementing a senior zone policy which extends 0.5 miles around senior facilities. Within that senior zone, the following would be implemented:

- Advanced stop bars behind cross-walks;
- No bicycles, skateboards, or scooters allowed on the sidewalk;
- Longer signal timings at street crossings;
- Lower speed limits;
- Shelters at transit stops;
- Push buttons and pedestrian countdown timers at crosswalks.

From the workshops, the recommendations were to provide safe sidewalks on F Street and H Street, and increasing minimum sidewalk width to 8 feet.

SAFE FOR ALL 2011 STREET DESIGN BENCHMARK STUDY FOR THE SAN DIEGO REGION

Walk San Diego 2011

The Safe For All study looks at what the city is and is not doing to make the roads safer for all users. The study states annually, approximately 65 pedestrians and 9 bicyclists are killed in San Diego, an additional 1000 pedestrians, and 1000 bicyclists are injured yearly. This is one of the highest rates in the nation. Furthermore, 22% of the traffic deaths involve a pedestrian, approximately twice the national average. Within the study, they observe how other cities are implementing complete streets and came up with a list of best practices. After looking at what other cities are doing across the country, they looked at what San Diego is doing. Examples of current practices include designing for vehicle lack of service (LOS), prioritizing street use as a component of land use, and assessing corridors with travel speeds greater than 35 MPH for complete street improvements.

Recommendations were also formed in this plan for SANDAG. These include adopting a complete streets policy, combining regional bike and pedestrian guidelines into one comprehensive plan, and reward innovation in street design. Along with recommendations, the study outlined potential challenges and opportunities. Some of the challenges are limited funding and insufficient training regarding the proper multimodal facilities. An existing opportunity is using the updated HCM to incorporate different multimodal analysis.

3 | AVAILABLE DATA

3.1 | AS-BUILT CADD DATA

At the beginning of the project, an "at scale"" basemap was prepared that assembled available data to establish a common and correct understanding of available field conditions. Items inventoried included:

- Available right-of-way (ROW)
- Geometric conditions
- Lane widths
- Parking accommodation
- Street lights
- Americans with Disabilities Act (ADA) compliance
- Traffic control
- MTS bus stop locations

Figures 3-1 - 3-4 display this information.

3.2 | SANGIS

The following layers were used as part of the analysis:

- Bike Master Plan
- Bike Routes
- Business Enterprise Zones
- Business Improvement Districts
- Business Regional Enterprise Zones
- Freeways
- Planned Freeways
- Current Land Use
- Future Land Use
- Major Employers
- Major Roads
- Future Major Roads
- Parking Impact Overlay Zone
- Parks
- Railroad
- Redevelopment Infill
- Right-of-Way
- Street Light
- Transit Route
- Transit Stops
- Trees
- Zoning

Figure 3-1 | CADD Data Page 1

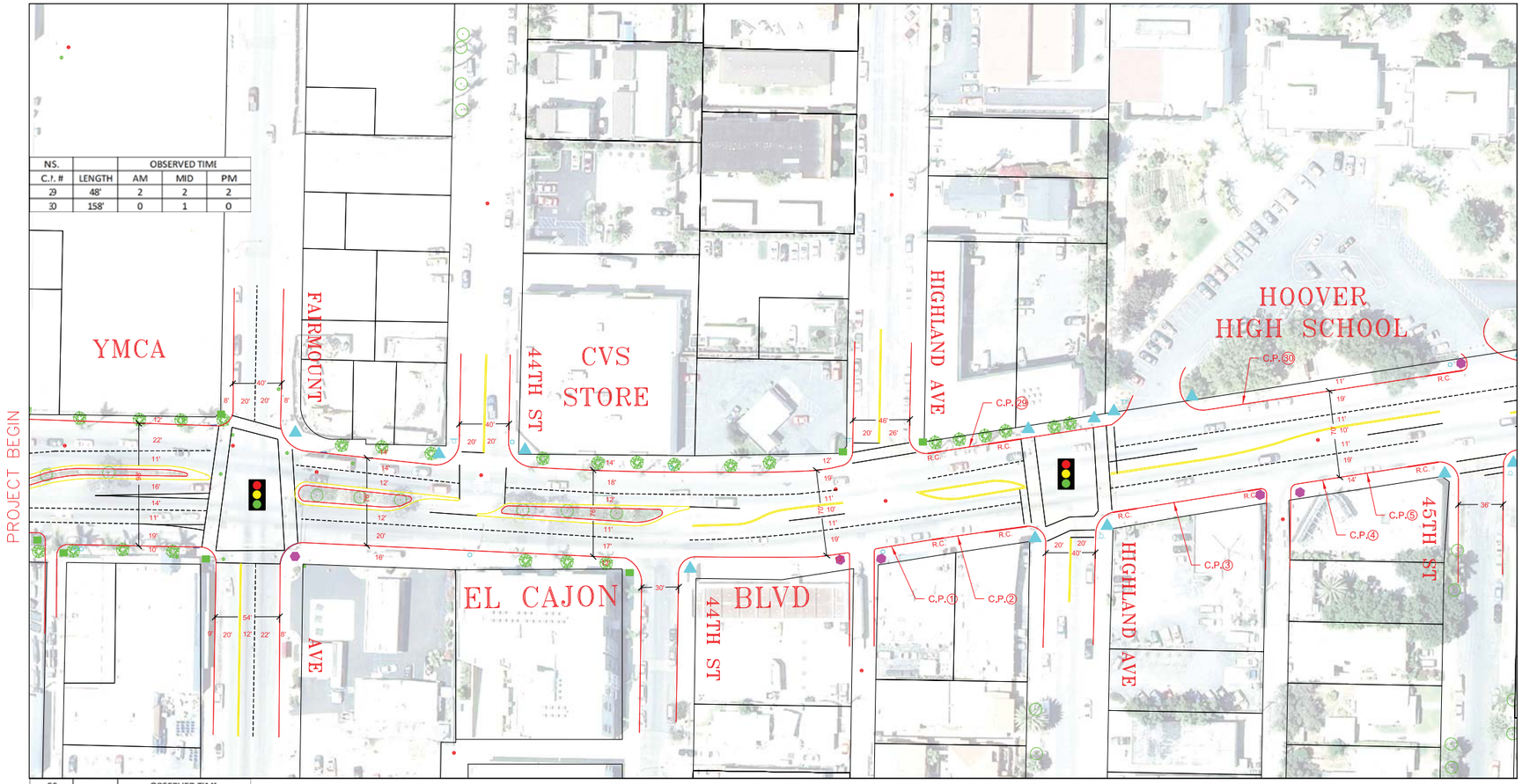
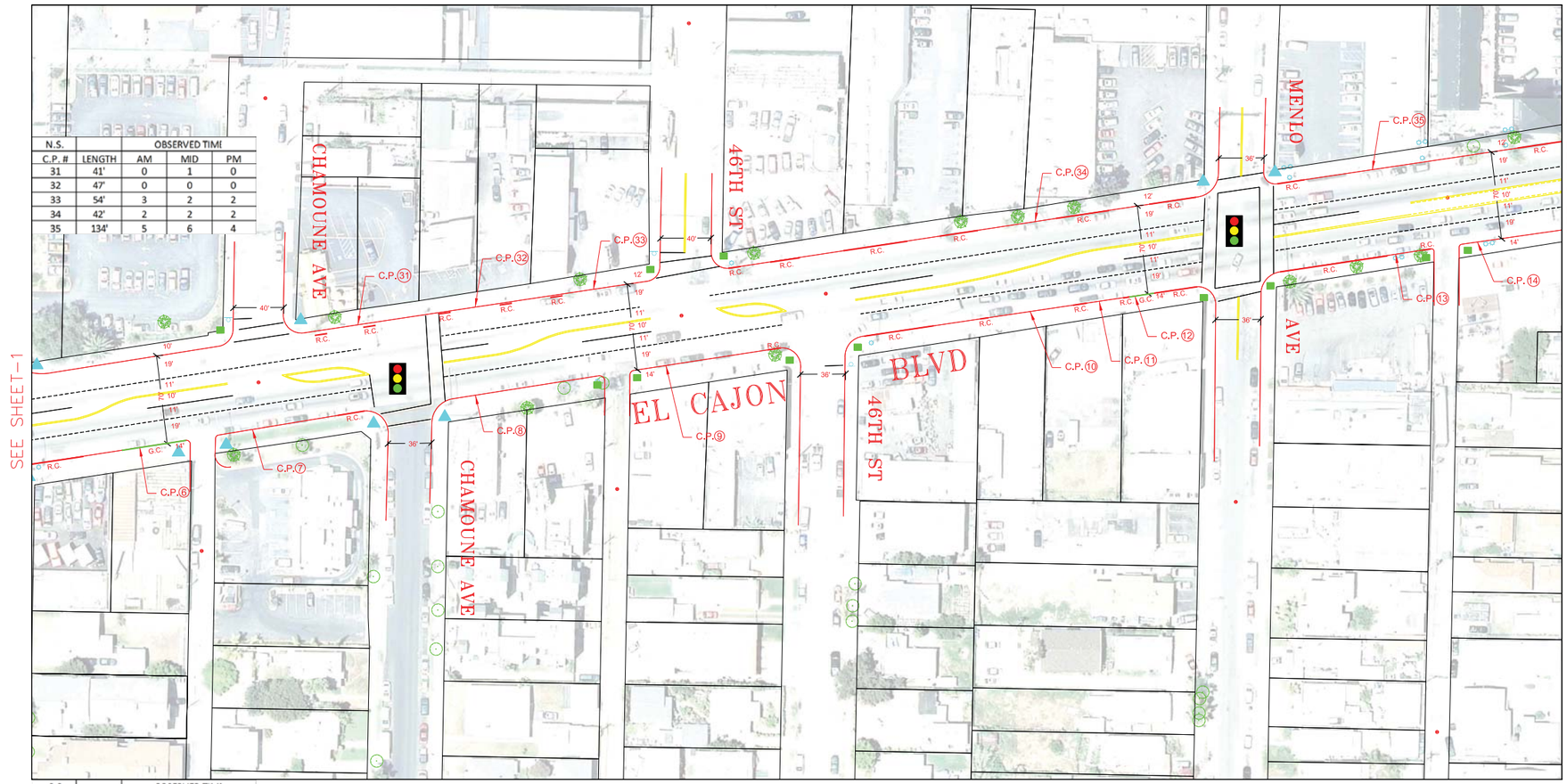


Figure 3-2 | CADD Data Page 2



N.S.		OBSERVED TIME		
C.P. #	LENGTH	AM	MID	PM
31	41'	0	1	0
32	47'	0	0	0
33	54'	3	2	2
34	42'	2	2	2
35	134'	5	6	4

S.S		OBSERVED TIME		
C.P. #	LENGTH	AM	MID	PM
6	52'	1	1	1
7	99'	3	4	3
8	119'	3	3	4
9	115'	4	3	3
10	50'	2	1	1
11	40'	1	2	2
12	20'	0	0	1
13	31'	1	1	1
14	46'	2	2	2

LEGENDS:

- = ADA COMPLIANT RAMP
- = NON–COMPLIANT RAMP
- = DAMAGED RAMP
- = CURB WITHOUT RAMP
- = TYPE 15 STREET LIGHT
- = DECORATIVE DOUBLE FIXTURE STREET LIGHT
- = FIRE HYDRANT
- = SHADE TREE
- = PALM TREE
- = PLANT
- = STORM WATER INLET
- = RAPID BUS TRANSIT STOP
- = LOCAL BUS STOP
- = SIGNALIZED INTERSECTION
- = TRAFFIC SIGN
- = RED CURB
- = GREEN CURB
- C.P. = CURB PARKING

N

1" = 40'

C – 2

EL CAJON BLVD CORRIDOR STUDY
FAIRMOUNT AVE. TO 50TH ST.

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET X OF XX SHEETS

W.B.S.
W.O.

APPROVED: FOR CITY ENGINEER ____ DATE ____

SUBMITTED BY: SECTION HEAD ____ PROJECT MANAGER ____ CCS27 COORDINATE ____ CCS83 COORDINATE ____

DESCRIPTION	BY	APPROVED	DATE	FILMED
AS–BUILTS				

CONTRACTOR ____ DATE STARTED ____
INSPECTOR ____ DATE COMPLETED ____

CONSTRUCTION CHANGE / ADDENDUM

CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

CONSULTANT
CJ ROBERTS INC ENGINEERING DIVISION
10515 Blue Granite Drive
San Diego CA 92127
858.228.3655
SCALE: HORIZONTAL 1" = 40' VERTICAL NO SCALE

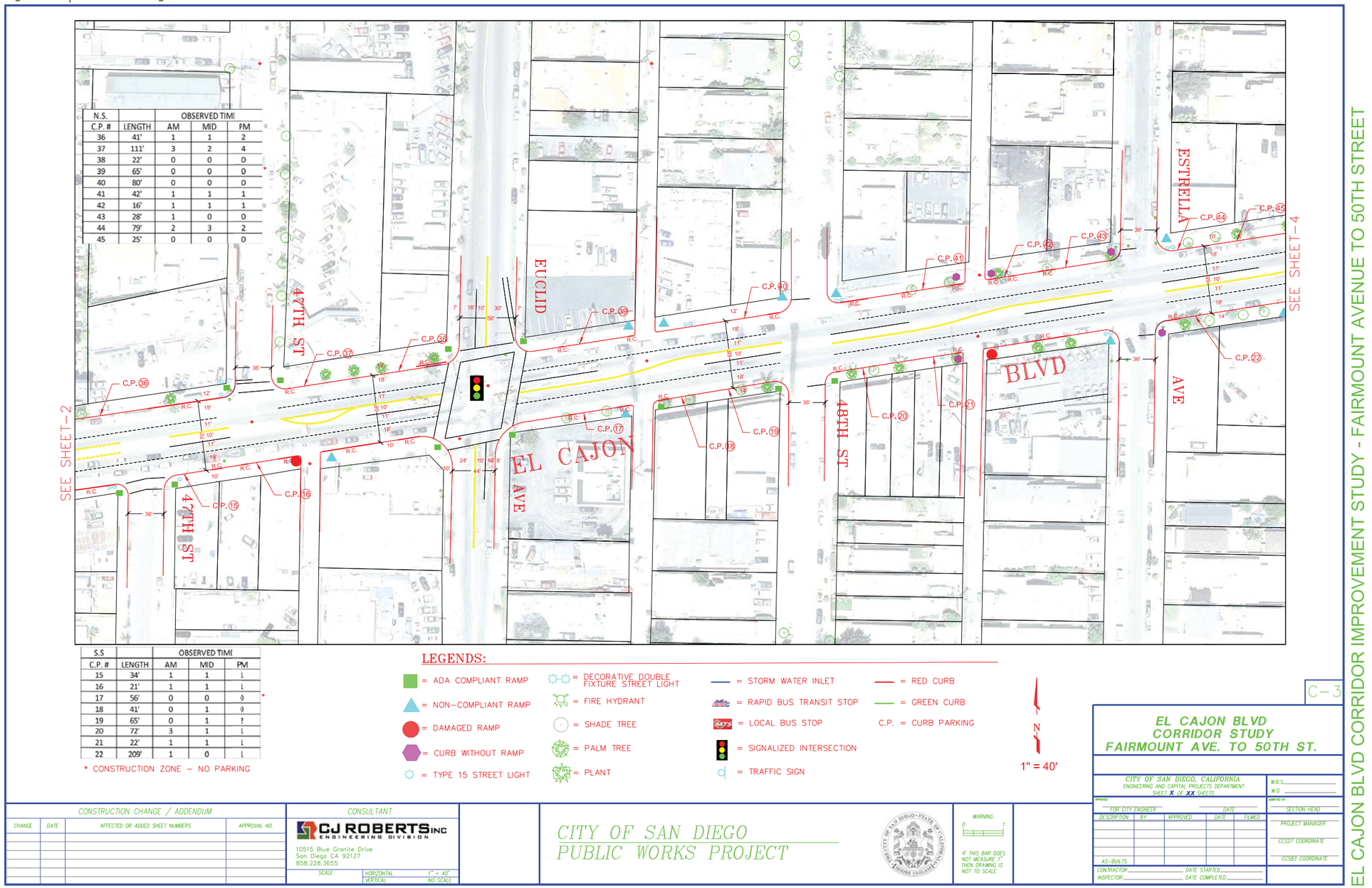
CITY OF SAN DIEGO
PUBLIC WORKS PROJECT

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

EL CAJON BLVD CORRIDOR IMPROVEMENT STUDY - FAIRMOUNT AVENUE TO 50TH STREET

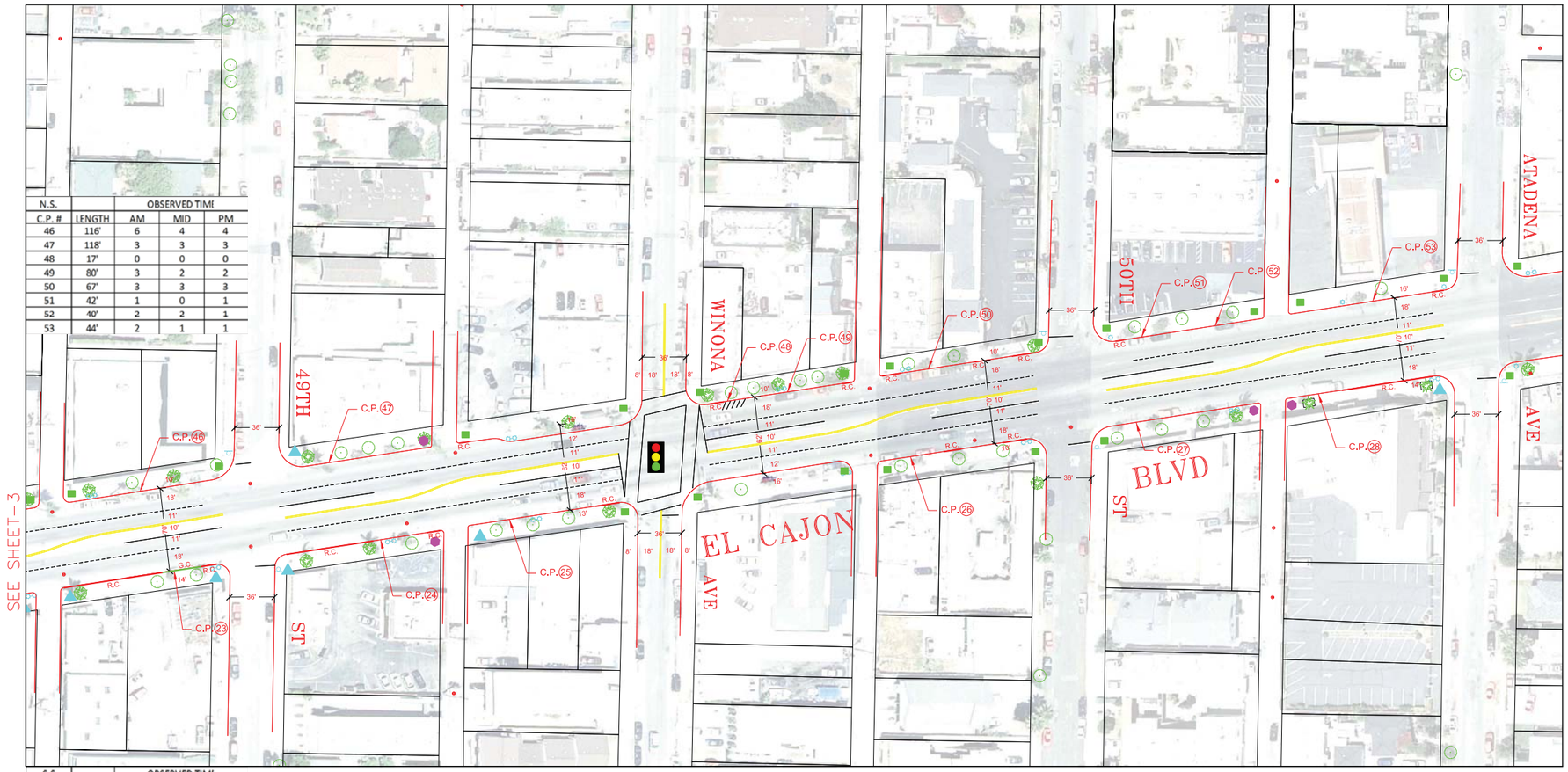
EL CAJON BOULEVARD

Figure 3-3 | CADD Data Page 3



EL CAJON BLVD CORRIDOR IMPROVEMENT STUDY - FAIRMOUNT AVENUE TO 50TH STREET

Figure 3-4 | CADD Data Page 4



N.S.		OBSERVED TIME		
C.P. #	LENGTH	AM	MID	PM
46	116'	6	4	4
47	118'	3	3	3
48	17'	0	0	0
49	80'	3	2	2
50	67'	3	3	3
51	42'	1	0	1
52	40'	2	2	1
53	44'	2	1	1

S.S		OBSERVED TIME		
C.P. #	LENGTH	AM	MID	PM
23	37'	0	0	0
24	49'	0	1	0
25	98'	1	1	1
26	55'	0	1	0
27	130'	4	4	1
28	50'	0	0	3

LEGENDS:

- = ADA COMPLIANT RAMP
- = NON-COMPLIANT RAMP
- = DAMAGED RAMP
- = CURB WITHOUT RAMP
- = TYPE 15 STREET LIGHT
- = DECORATIVE DOUBLE FIXTURE STREET LIGHT
- = FIRE HYDRANT
- = SHADE TREE
- = PALM TREE
- = PLANT
- = STORM WATER INLET
- = RAPID BUS TRANSIT STOP
- = LOCAL BUS STOP
- = SIGNALIZED INTERSECTION
- = TRAFFIC SIGN
- = RED CURB
- = GREEN CURB
- C.P. = CURB PARKING

N

1" = 40'

C-4

EL CAJON BLVD CORRIDOR IMPROVEMENT STUDY - FAIRMOUNT AVENUE TO 50TH STREET

EL CAJON BLVD
CORRIDOR STUDY
FAIRMOUNT AVE. TO 50TH ST.

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET X OF XX SHEETS

W.B.S.
W.O.

APPROVED
FOR CITY ENGINEER ____ DATE ____

DESCRIPTION	BY	APPROVED	DATE	FILMED
AS-BUILTS				

CONTRACTOR ____ DATE STARTED ____
INSPECTOR ____ DATE COMPLETED ____

SUBMITTED BY:
SECTION HEAD
PROJECT MANAGER
CCS27 COORDINATE
CCS83 COORDINATE

CONSTRUCTION CHANGE / ADDENDUM

CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

CONSULTANT

CJ ROBERTS INC
ENGINEERING DIVISION
10515 Blue Granite Drive
San Diego CA 92127
858.228.3655

SCALE HORIZONTAL 1" = 40'
VERTICAL NO SCALE

CITY OF SAN DIEGO
PUBLIC WORKS PROJECT

WARNING
0 1"
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

EL CAJON BOULEVARD

3.3 | INTERSECTION TRAFFIC CONTROL

Figure 3-5 and Photos 3-1 - 3-3 illustrate the corridor traffic control. The study area contains five intersections with traffic signals: at Highland Avenue, Chamoune Avenue, Menlo Avenue, Euclid Avenue, and Winona Avenue. Not every intersection provides for pedestrian crossings in all directions, Chamoune Avenue in particular. Many of the cross-streets of El Cajon Boulevard, especially as one moves eastward, do not have marked pedestrian crosswalks. This can be very dangerous and discourage walking throughout the Boulevard. Another aspect of El Cajon Boulevard is the presence of many alleys. They intersect along El Cajon Boulevard at various locations and must be taken into consideration as many vehicles utilize these alleys as side streets and disrupt busy sidewalks in order to access the Boulevard.

Photo 3-1 | Euclid Intersection Traffic Control

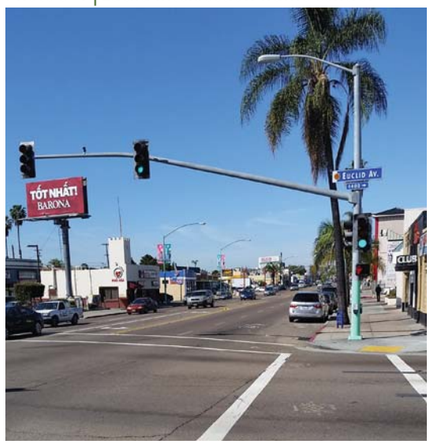


Photo 3-2 | Menlo Intersection Traffic Control

Photo 3-3 | 47th St Intersection Traffic Control

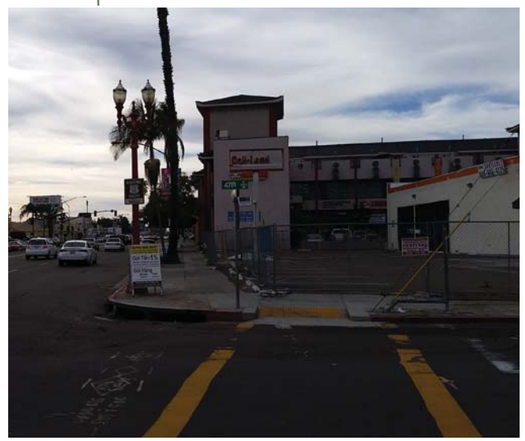
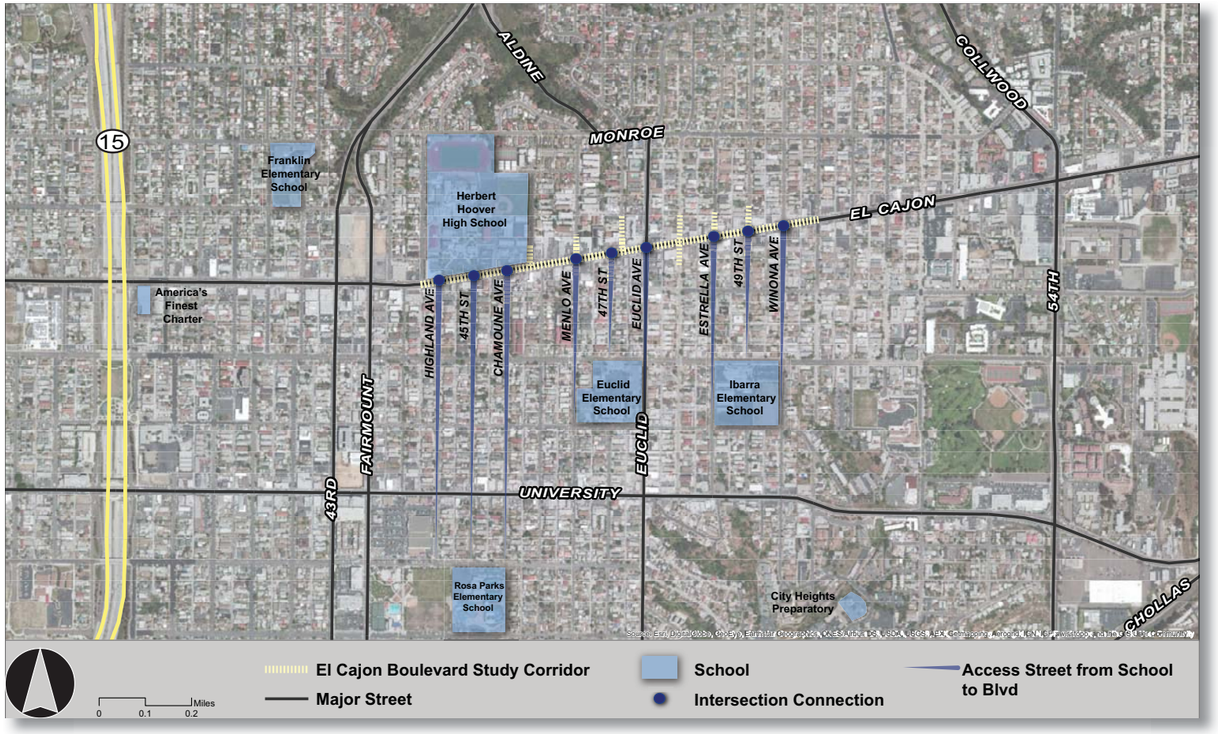


Figure 3-5 | Intersection Traffic Control

3.4 | AREA CONNECTIONS

The study area is surrounded by multiple schools in every direction serving the youth, those in highschool, and those in between. Figure 3-6 portrays the connecting routes between the schools and how they intersect and interact with El Cajon Boulevard. The nine points at which these roads intersect the Boulevard provide areas of opportunity. Improvements at these intersections will potentially encourage safer pedestrian crossings as well as improve the functionality of the intersection on all levels. These intersections have been grouped into three areas of opportunity' and analyzed in further detail looking at traffic movement counts, pedestrian counts, and bicycle counts throughout each of these areas. Refer to Opportunities in Chapter 6.

Figure 3-6 | School Connections and their Interaction with El Cajon Boulevard



3.5 | PARKING AND TRUCK LOADING/UNLOADING

Parking along El Cajon Boulevard includes metered and non-metered parallel parking spaces. The total capacity along El Cajon Boulevard is approximately 155 spaces as well as four motorcycle spaces. Of those spaces, 22% are designated metered parking. The corridor was observed tracking the on-street parking usage in the A.M., mid-day, and P.M. During that day, only 46% of the on-street parking spaces were being used.

Figures 3-7 and 3-8 to the right detail the total parking capacity and how many spaces are metered vs. non metered along the study corridor. During the observation period, less than half of the on street parking spaces were being utilized. Figure 3-9 on the following page depicts the on-street parking inventory for El Cajon Boulevard and also shows the observed parking usage. Usage was very consistent throughout the day with the morning at 45% full, mid-day reaching the peak at 47%, and afternoon/ evening decreasing down to 43% spaces occupied. This consistency shows a steady flow of parking along the corridor throughout the entire day with not one particular time period being drastically different than another. In addition, Figure 3-9 illustrates which pockets of the corridor are reaching their full capacity and which areas are under utilized. These under utilized pockets span between Highland Avenue and 45th St, Euclid Avenue and 48th Street, and the south side of the Corridor between Estrella Avenue and 50th Street. These areas could have some of the highest parking capacities; however, less than a third of the spaces were being used throughout the entire day.

One section in particular between Estrella Avenue and 46th Street is metered and has a parking capacity of approximately 11 vehicles, yet only two cars were seen parking there over the course of the day. On the other hand, the areas reaching or almost reaching full capacity were primarily on the north side of El Cajon Boulevard and are all non-metered spaces. Many people voiced in the El Cajon Boulevard Walking Audit that there was a "general lack of parking" or "not enough parking" was available. Of the many issues facing El Cajon Boulevard, based on the observations taken, approximately half of the available on street parking is used.

Figure 3-7 | Total Parking Capacity

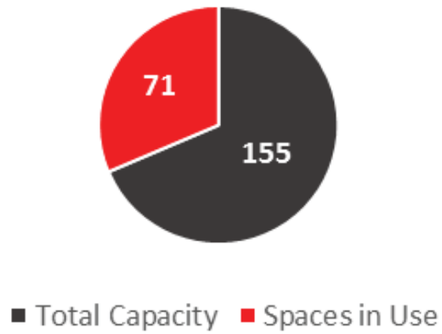
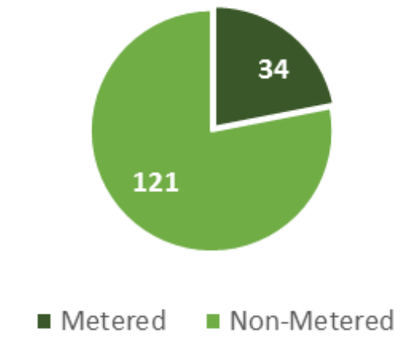
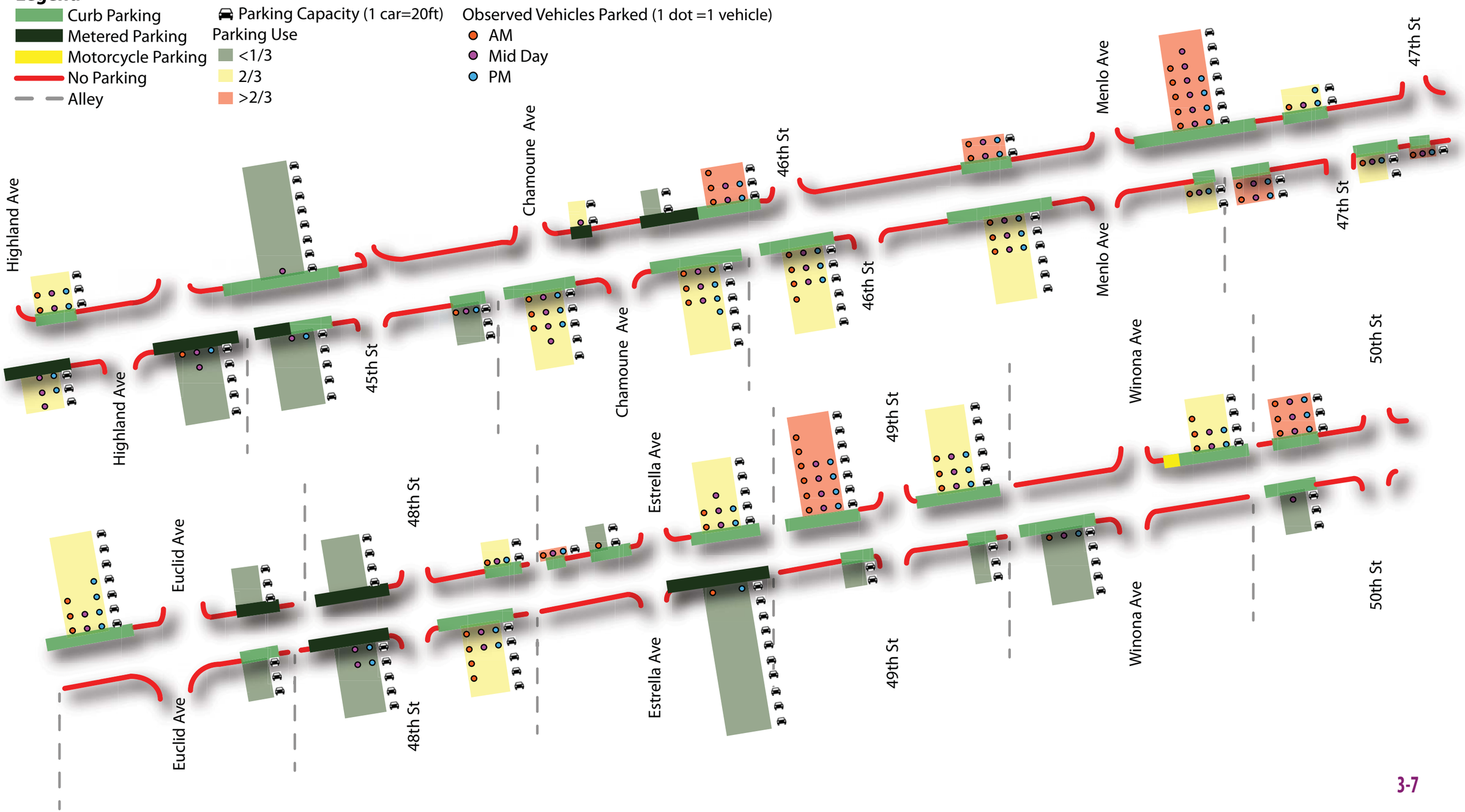


Figure 3-8 | Metered vs Non-Metered Spaces



EL CAJON BOULEVARD

Figure 3-9 | Observed On Street Parking



3.6 | SAFETY

Crash records have been provided by the City of San Diego for years 2009 through October 2013 for the study corridor on El Cajon Boulevard between 43rd Street and 51st Street. Crashes on cross streets have been included in the analysis when located within 100 feet of El Cajon Boulevard.

In 2013 there was a total of 36 crashes on this section. In the five years from 2009 through 2013 there were two traffic related fatalities, 118 injuries, and a total of 188 crashes. Figure 3-10 below shows the annual trend in crash counts over these five years and the distribution of crash severity.

The study corridor has a high density of intersections and, as such, nearly two thirds (64%) of crashes were intersection related. Figure 3-11 shows locations of individual crash points and Table 3-1 details the ranked list of intersections with the highest frequency of crashes. The intersection of El Cajon Boulevard with Fairmount Avenue, located just west of the study area, overwhelmingly has the highest number crashes and injuries, and it's the location of one of the two fatalities. Winona Avenue and Estrella Avenue are the next two intersections with high crash frequencies within the study area. Winona Avenue is regulated by a traffic signal; however, Estrella Avenue is not.

The distribution of the collision type is shown on the following page in Figure 3-12. Right angle crashes were by far the most prevalent crash type throughout the study area.

Figure 3-11 | Crash Location Map (Years 2009-Oct.2013)

Figure 3-10 | Annual Crash Counts and Severity Distribution

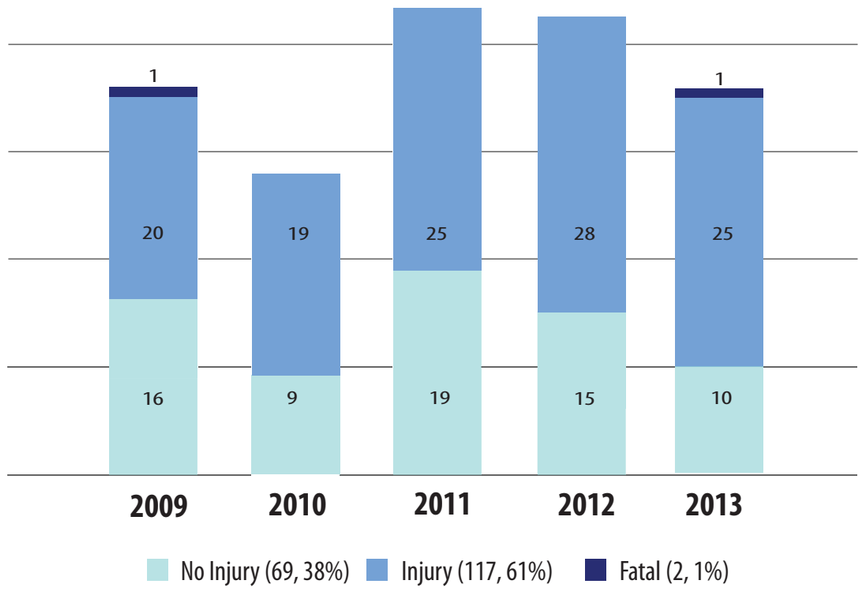


Table 3-1 | Rank List of Intersection Related Crash Locations

Rank	Cross-street with Cajun Blvd.	Fatal	Injury	No Injury	Total
1	Fairmount Avenue	1	15	8	24
2	Winona Avenue		7	3	10
3	Estrella Avenue		5	3	8
4	43rd Avenue		3	7	10
5	50th Street		3	2	5
6	Menlo Avenue		3	1	4
7	46th Street South		3	1	4
8	51st Street		3		3
9	46th Street North		3		3
10	Chamoune Avenue South		3		3
11	Highland Avenue		3		3
12	Altadena Avenue		2	2	4
13	Euclid Avenue		2	1	3
14	47th Street North		2	1	3
15	44th Street South		2	1	3
16	47th Street South		2		2
17	Highland Avenue North		2		2
18	48th Street		1	2	3
19	45th Street		1	1	2
20	49th Street		1		1
21	Chamoune Avenue North		1		1
22	44th Street North		1		1
Total Intersection Related		1	68	33	102

EL CAJON BOULEVARD

Identified in Figure 3-12 are the 25 collisions that involved a pedestrian; however, bicycle involved crashes are not identified with collision type. In total, 35 pedestrian or bicycle related crashes have occurred over the five-year period. Figures 3-14 through 3-16 illustrates the portion of total crashes that involved a bike or pedestrian.

Figure 3-12 | Collision Type Distributions (Years 2009-Oct. 2013)

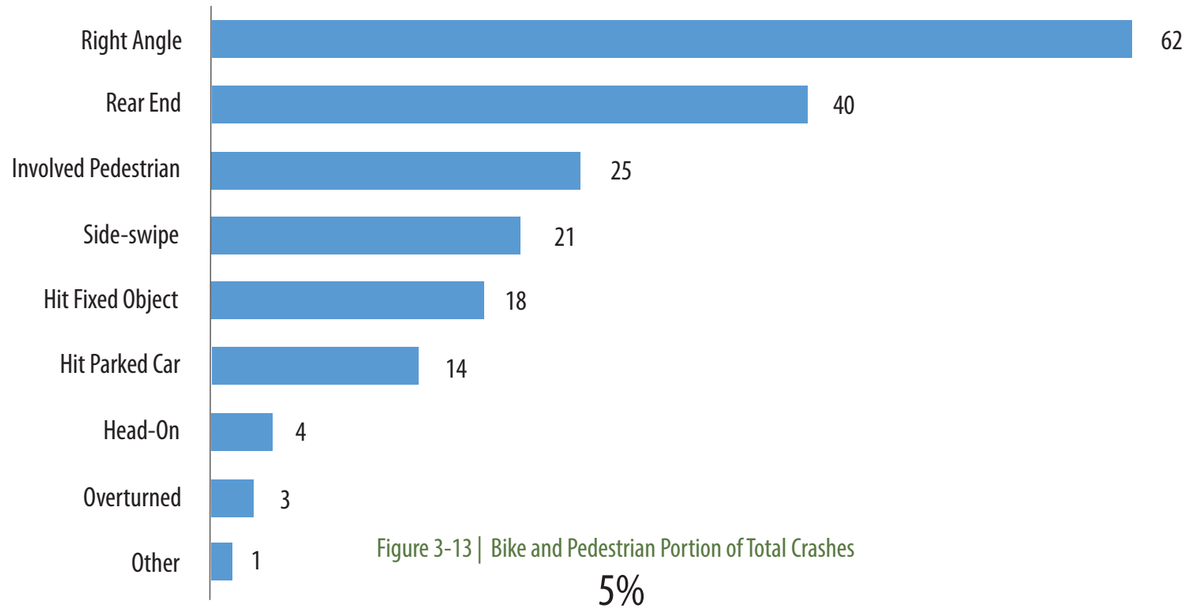


Figure 3-13 | Bike and Pedestrian Portion of Total Crashes

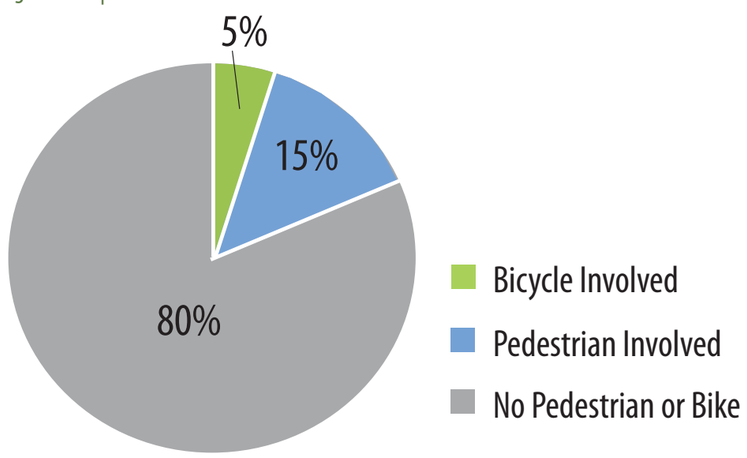


Figure 3-14 | Crash Locations Involving Bicycle and Pedestrian (Years 2009-Oct. 2013)

Above, Figure 3-14 shows the locations of bicycle and pedestrian related crashes. Figure 3-15 below shows an expanded view of pedestrian and bike related crashes surrounding the study corridor. Several injury crashes have taken place on parallel corridors on Orange Avenue and University Avenue.

Figure 3-15 | Surrounding Area Bicycle and Pedestrian Involved Crash Locations

4 | MULTIMODAL LEVEL OF SERVICE ANALYSIS

4.1 | LEVEL OF SERVICE ANALYSIS

This chapter provides a summary analysis of the existing mobility conditions along the El Cajon Boulevard Complete Boulevard project area, encompassing El Cajon Boulevard from 44th Street to 50th Street. The existing conditions analysis was multi-modal in breadth, assessing conditions related to vehicular, transit, bicycle and pedestrian transportation modes. The existing counts were conducted in support of this project, while forecast volumes were derived from SANDAG's Series 12 regional transportation model for the year 2035. The forecast volumes are intended to reflect anticipated population and employment growth, land use changes and the improvements identified in the 2050 Regional Transportation Plan Revenue Constrained Transit Network.

4.2 | VEHICULAR

The vehicular analysis examines existing and forecasted average daily traffic (ADT) volumes and AM/PM peak period counts. Table 4-1 and F igure 4-1 depict both the existing and forecasted traffic volumes for the project study area. As shown, existing ADTs along the study corridor range from a low of 24,067 between Euclid Avenue and 48th Street, to a high of 27,760 between Fairmount Avenue and Highland Avenue. The 2035 forecast volumes mirror the existing ADT volumes, with the lowest projected volume of 28,400 found between Euclid Avenue and 48th Street, as well as between Menlo Avenue and Euclid Avenue, and the highest projected volume of 37,500 between Fairmount Avenue and Highland Avenue. Both the existing and forecasted volumes generally increase further west along the corridor. The greatest overall percent increase from existing to forecasted volumes is anticipated to be a 35% increase between Fairmount Avenue and Highland Avenue.

Figure 4-1 | Existing (2015) and Forecast (2035) Average Daily Traffic Volumes

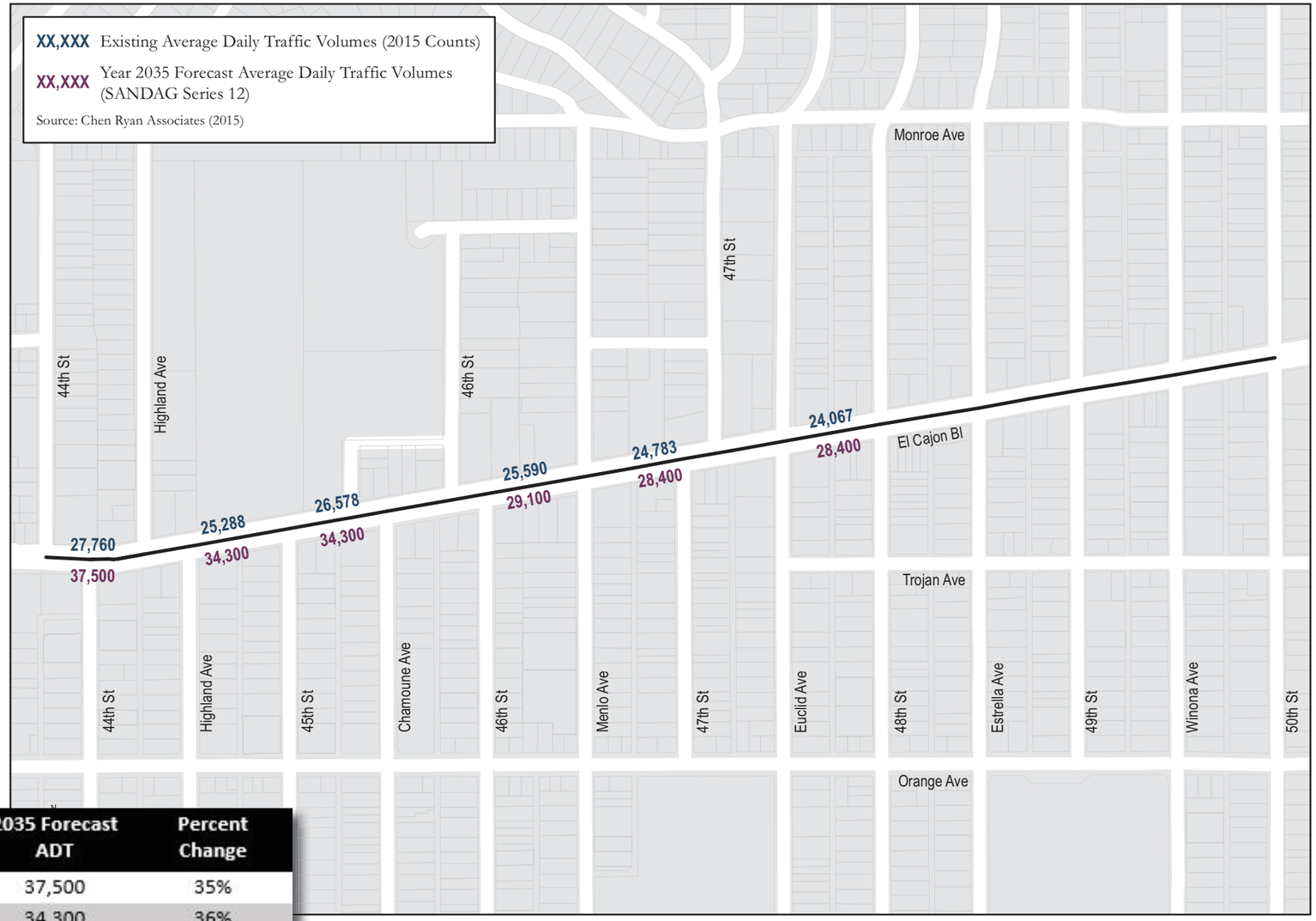


Table 4-1 | Existing (2015) and Forecast (2035) Average Daily Traffic Volumes

El Cajon Boulevard Segment		2015 Existing ADT	2035 Forecast ADT	Percent Change
From	To			
Fairmount Avenue	Highland Avenue	27,760	37,500	35%
Highland Avenue	45th Street	25,288	34,300	36%
45th Street	Chamoune Avenue	26,578	34,300	29%
Chamoune Avenue	Menlo Avenue	25,590	29,100	14%
Menlo Avenue	Euclid Avenue	24,783	28,400	15%
Euclid Avenue	48th Street	24,067	28,400	18%

Source: SANDAG Series 12 (2015); Chen Ryan Associates (2015)

EL CAJON BOULEVARD

Figure 4-2 | El Cajon Boulevard Existing Peak Hour Traffic Counts

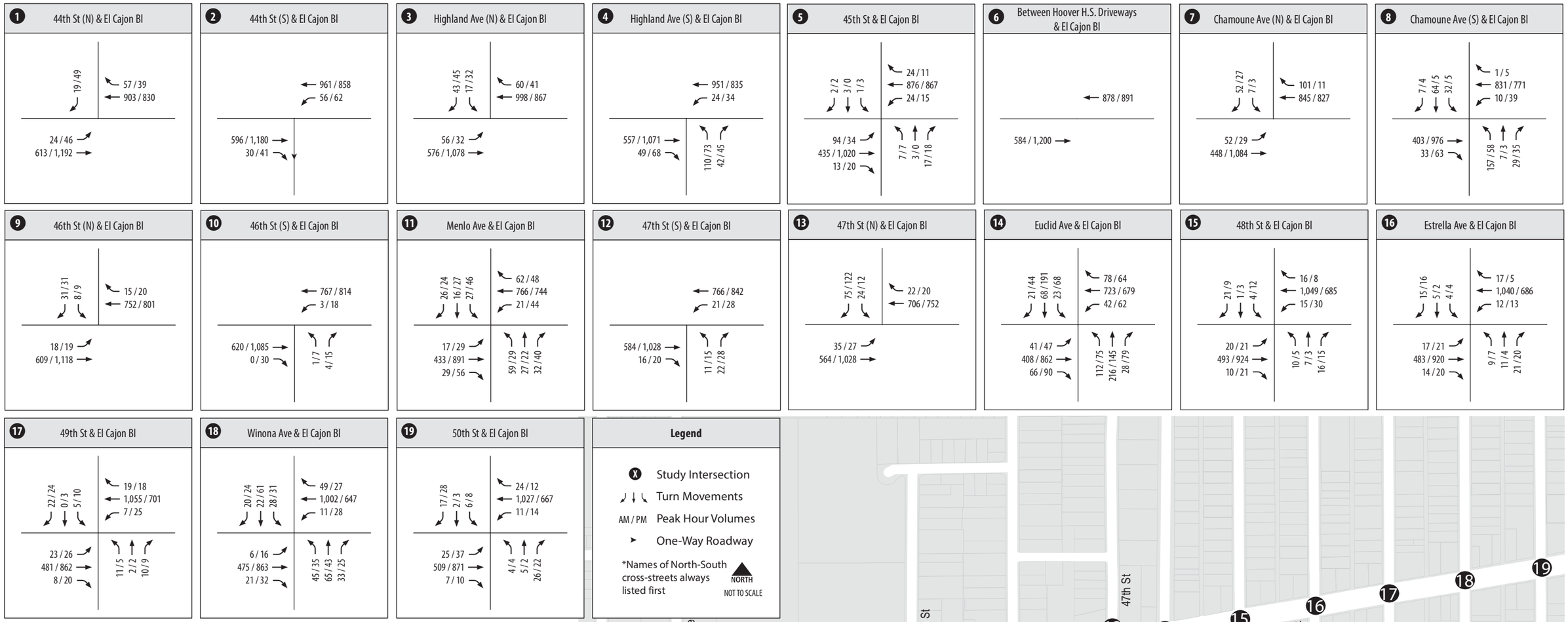


Figure 4-2 displays AM and PM peak hour turning movement counts at 18 intersections and one segment along El Cajon Boulevard. Reference Appendix A.

4.3 | TRANSIT

Transit service along El Cajon Boulevard is provided by the Metropolitan Transit Service (MTS), consisting of Rapid Bus Route 215 and Local Bus Route 1. A description of each route is provided below. Figure 4-3 displays the existing transit routes and stops within the project area. As shown, there are currently two Rapid Bus stops within the project area, located at the intersection of Winona Avenue and El Cajon Boulevard in both the eastbound and westbound directions. Nine bus stops serve Local Bus Route 1 within the project area, generally spaced three to four blocks apart.

Rapid Bus Route 215

Rapid Bus Route 215 connects the San Diego State University (SDSU) Transit Center to the Santa Fe Depot in Downtown San Diego. The route generally runs along College Avenue, El Cajon Boulevard, Park Boulevard, and Broadway. Service is provided seven days a week. Monday through Friday service runs from 4:30 AM to 1:39 AM, with 10-minute headways generally from 6:00 AM to 9:00 AM, and from 2:00 PM to 6:30 PM, and approximately 15-minute headways at all other times. Saturday and Sunday service runs from 4:50 AM to 1:39 AM, with approximately 15-minute headway from 6:00 AM to 8:44 PM, and 30-minute headways at all other times.

Local Bus Route 1

Local Bus Route 1 runs from 5th Avenue and University Avenue in Hillcrest to the Grossmont Transit Center in La Mesa. The route generally runs along University Avenue, Park Boulevard, El Cajon Boulevard, La Mesa Boulevard, and Grossmont Center Drive. Service is provided seven days a week. Monday through Friday service runs from 4:49 AM to 12:28 AM, with 15-minute headways from 6:22 AM to 6:24 PM and 20- to 30-minute headways at all other times. Saturday service runs from 5:24 AM to 11:58 PM with 30-minute headways. Sunday service runs from 5:37 AM to 9:20 PM, with 30-minute headway from 8:15 AM to 6:43 PM, and headways up to an hour at other times.

Figure 4-3 | El Cajon Boulevard Transit Routes and Stops

EL CAJON BOULEVARD

Figure 4-4 | FY 2014 Transit Boardings and Alightings

Figure 4-4 on the left and Table 4-2 on the following page, display the average boardings and alightings by stop for Fiscal Year 2014. Rapid Bus Route 215 began service following FY 2014, therefore ridership data for this route was not available at the time of reported, Local Bus Route 15 ridership data is reported. As shown, the stop just east of the Fairmount Avenue and El Cajon Boulevard intersection experienced the greatest total average daily boardings and alightings with 741, followed by 650 at the Winona Avenue and El Cajon Boulevard stop.

Table 4-2 | FY 2014 Transit Boardings and Alightings

Stop ID	Location	Routes[1]	Average Daily Boardings	Average Daily Alightings	Total
10612	Fairmount Avenue & El Cajon Boulevard	1; 15	351	390	741
11364	Highland Avenue & El Cajon Boulevard	1; 15	71	108	178
10620	45th Street & El Cajon Boulevard	1; 15	47	44	91
11369	Chamoune Avenue & El Cajon Boulevard	1; 15	36	34	70
10995	46th Street & El Cajon Boulevard[2]	1; 15	18	27	45
10623	Menlo Avenue & El Cajon Boulevard	1; 15	60	78	138
11372	47th Street & El Cajon Boulevard	1; 15	84	45	129
11004	48th Street & El Cajon Boulevard	1; 15	25	37	62
10243	Estrella Avenue & El Cajon Boulevard	1; 15	64	55	120
11377	Winona Avenue & El Cajon Boulevard[3]	1; 15	418	231	650
10247	50th Street & El Cajon Boulevard	1; 15	208	372	580

Source: MTS (2015)

Table 4-3 below presents the existing transit stop amenities, identifying which stops have a bench, shelter, or trash can. The data presented is reflective of current stop and route alignments and was collected via field review performed in July 2015. As shown, eight of the eleven stops have a bench, five stops have a shelter, and eight stops have a trash can. The westbound and eastbound Rapid Bus Route 215 stops located at Winona Avenue and El Cajon Boulevard are the only stops offering all three amenities. The Highland Avenue and El Cajon Boulevard stop was the only bus stop without any amenities.

Notes:
1. Local Bus Route 15 was replaced with Rapid Bus Route 215
2. Stop removed as of 2015
3. Local Bus stop replaced with Rapid Bus stop as of 2015

Table 4-3 | Existing Transit Stop Amenities

Stop ID	Location	Route	Amenities		
			Bench	Shelter	Trashcan
10612	Fairmount Avenue & El Cajon Boulevard	1	✓	✓	✓
11364	Highland Avenue & El Cajon Boulevard	1			
10620	45th Street & El Cajon Boulevard	1	✓		✓
11369	Chamoune Avenue & El Cajon Boulevard	1	✓		✓
10995	46th Street & El Cajon Boulevard	1	✓		
10623	Menlo Avenue & El Cajon Boulevard	1	✓	✓	✓
11372	47th Street & El Cajon Boulevard	1	✓		
11004	48th Street & El Cajon Boulevard	1		✓	✓
10243	Estrella Avenue & El Cajon Boulevard	215	✓	✓	✓
11377	Winona Avenue & El Cajon Boulevard	215	✓	✓	✓
10247	50th Street & El Cajon Boulevard	1			✓

Source: MTS (2015)

4.4 | PEDESTRIAN

Peak period pedestrian counts were performed to better understand existing demand. Figure 5 displays AM and PM peak hour pedestrian counts at 18 intersections and one segment along El Cajon Boulevard. The two intersections with the greatest total observed (AM and PM combined for all legs) pedestrian volumes were Highland Avenue (south) and El Cajon Boulevard, and Chamoune Avenue (south) and El Cajon Boulevard, with volumes of 1,038 and 388, respectively. Each intersection is signalized with a marked crosswalk providing access to Hoover High School. The high school serves as a pedestrian attractor, likely drawing high volumes of students during the AM peak period, evidenced by the disproportionate AM volumes at these two count sites.

Pedestrian conditions were evaluated using the Pedestrian Environmental Quality Index (PEQI), which generates a score for each roadway segment and intersection by assigning weighted values to each of the analysis inputs, related to design, adjacent land use, and perceived safety and walkability. The resulting intersection or segment score falls into one of five pedestrian environments, ranging from "ideal pedestrian conditions" to "environment not suitable for pedestrians". Table 4-4 below displays the attributes influencing PEQI roadway segment and intersection scores.

Each of the 18 intersections within the project area were evaluated, as well as each street segment between intersections. Segments on the north and south side of El Cajon Boulevard were assigned unique scores, resulting in 23 scored segments. Figure 4-5 on the adjacent page displays the PEQI results for intersections and roadway segments. Furthermore, Table 4-5 and 4-6 elaborate on the PEQI segment and intersection results.

Table 4-4 | PEQI Analysis Inputs

PEQI Roadway Segment Analysis Inputs

- Number of Lanes
- Posted Speed Limit
- Street Traffic Calming Features
- Sidewalk Width
- Sidewalk Surface Condition
- Sidewalk Obstructions
- Presence of Curbs
- Driveway Cuts
- Trees & Landscaping
- Public Seating
- Presence of Buffers
- Storefront/Retail Use
- Public Art/Historical Sites
- Presence of Illegal Graffiti and Litter
- Pedestrian-Scale Lighting
- Construction Sites
- Abandoned Buildings
- Vacant Lots
- Bike Racks
- Street Noise
- Odors
- Safety Perception
- Perception of Segment Attractiveness

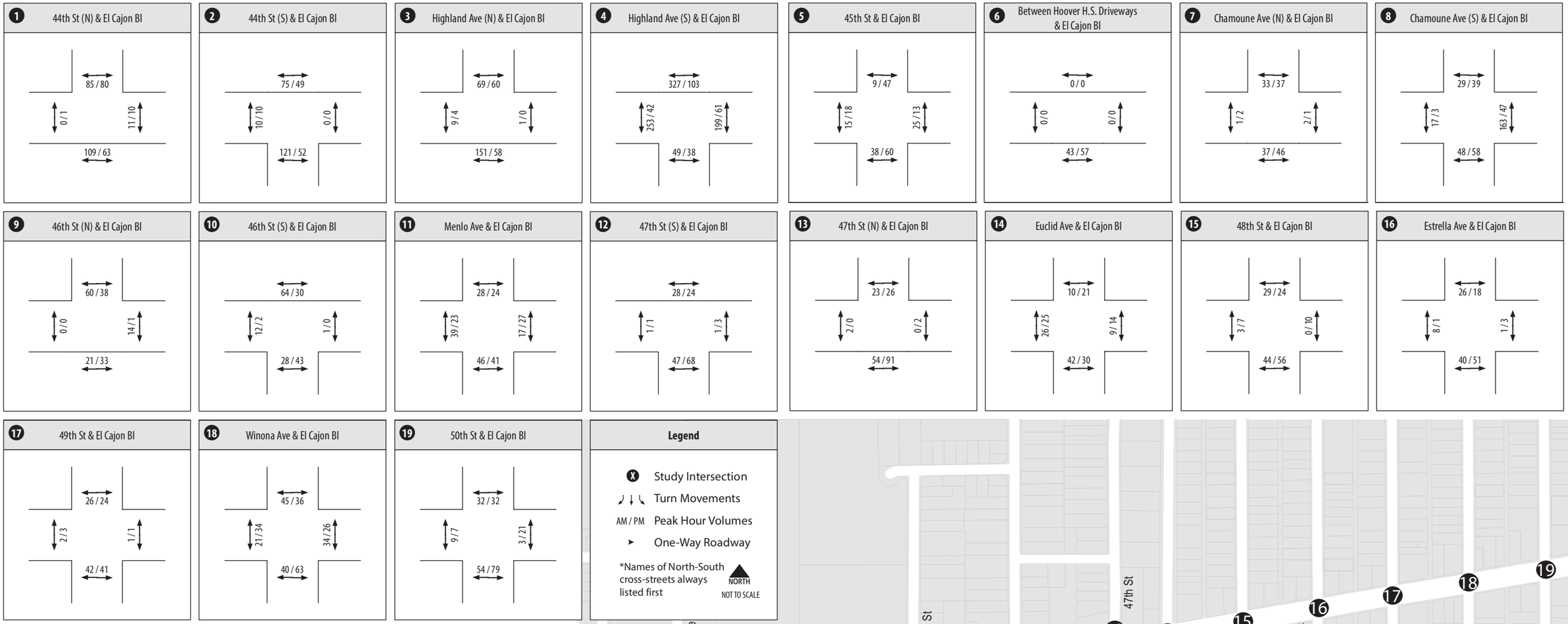
PEQI Intersection Analysis Inputs

- Crosswalk Presence and Type
- Pedestrian Signals and Signs
- Signals and Stop Signs
- "No Turn On Red: Signs/Signals
- Crossing Time and Distance
- Intersection Traffic Calming Features

Source: UCLA School of Center for Occupational and Environmental Health (2013)

EL CAJON BOULEVARD

Figure 4-5 | Existing Peak Hour Pedestrian Counts



Reference Appendix B.

Figure 4-6 | Pedestrian Environmental Quality Index Results

Table 4-6 presents the PEQI analysis results for intersections. As shown, 10 of the 18 intersections were characterized as "not suitable for pedestrians". The lowest PEQI intersection score was 16, out of a possible 100, and was awarded to seven of the ten "not suitable for pedestrians" intersections. A lack of marked crosswalks on some or all legs of intersections, permitted right turn on red signals, and a lack of traffic calming features contribute to the low score at many intersections. Five intersections were characterized as having "poor pedestrian conditions", and the remaining three intersections identified as having "basic pedestrian conditions".

Sidewalks throughout the corridor are less than substantial and in many places the intersection ramps do not comply with the American Disabilities Act (ADA) standards. In total, 30 ramps of the 85 curbs within the study area are non-compliant while 2 are damaged. In addition, 12 of the 85 are curbs without a ramp. Therefore, just over 50% of the curbs/intersection ramps within the study area need to be improved (refer to Figures 3-1 - 3-4 in Section 3).

Table 4-5 | Pedestrian Environmental Quality Index (PEQI) Intersection Results

Intersection	PEQI Score	Environment Quality
44th Street (north) & El Cajon Boulevard	17	Not Suitable for Pedestrians
44th Street (south) & El Cajon Boulevard	17	Not Suitable for Pedestrians
Highland Avenue (north) & El Cajon Boulevard	16	Not Suitable for Pedestrians
Highland Avenue (south) & El Cajon Boulevard	38	Poor Pedestrian Conditions
45th Street & El Cajon Boulevard	16	Not Suitable for Pedestrians
Alley/Chamoune Avenue (north) & El Cajon Boulevard	16	Not Suitable for Pedestrians
Chamoune Avenue (south) & El Cajon Boulevard	29	Poor Pedestrian Conditions
46th Street (north) & El Cajon Boulevard	16	Not Suitable for Pedestrians
46th Street (south) & El Cajon Boulevard	16	Not Suitable for Pedestrians
Menlo Avenue & El Cajon Boulevard	44	Basic Pedestrian Conditions
47th Street (north) & El Cajon Boulevard	16	Not Suitable for Pedestrians
47th Street (south) & El Cajon Boulevard	16	Not Suitable for Pedestrians
Euclid Avenue & El Cajon Boulevard	44	Basic Pedestrian Conditions
48th Street & El Cajon Boulevard	27	Poor Pedestrian Conditions
Estrella Avenue & El Cajon Boulevard	20	Not Suitable for Pedestrians
49th Street & El Cajon Boulevard	31	Poor Pedestrian Conditions
Winona Avenue & El Cajon Boulevard	49	Basic Pedestrian Conditions
50th Street & El Cajon Boulevard	31	Poor Pedestrian Conditions

Source: Chen Ryan Associates (2015)

EL CAJON BOULEVARD

As shown in Table 4-6, Chamoune Avenue to 46th Street was the only segment characterized by having poor pedestrian conditions. Factors contributing to the relatively low score include, but are not limited to, the presence of multiple driveway cuts, poor sidewalk condition, and a lack of landscaping and buffers. Many of these characteristics also existing along the other study area segments, which were all identified as having basic pedestrian conditions. Additionally, this segment is adjacent to the intersection identified as having the second most total observed (AM and PM combined for all legs) pedestrian volumes, Chamoune Avenue and El Cajon Boulevard, providing pedestrian access to Hoover High School.

Table 4-6 | Pedestrian Environmental Quality Index (PEQI) Segment Results

El Cajon Boulevard Segment		Street Side	PEQI Score	Environment Quality
From	To			
44th Street	Highland Avenue	North	51	Basic
Highland Avenue	Chamoune Avenue	North	44	Basic
Chamoune Avenue	46th Street	North	40	Poor
46th Street	Menlo Avenue	North	43	Basic
Menlo Avenue	47th Street	North	50	Basic
47th Street	Euclid Avenue	North	48	Basic
Euclid Avenue	48th Street	North	48	Basic
48th Street	Estrella Avenue	North	51	Basic
Estrella Avenue	49th Street	North	49	Basic
49th Street	Winona Avenue	North	51	Basic
Winona Avenue	50th Street	North	52	Basic
44th Street	Highland Avenue	South	43	Basic
Highland Avenue	45th Street	South	49	Basic
45th Street	Chamoune Avenue	South	49	Basic
Chamoune Avenue	46th Street	South	47	Basic
46th Street	Menlo Avenue	South	49	Basic
Menlo Avenue	47th Street	South	50	Basic
47th Street	Euclid Avenue	South	48	Basic
Euclid Avenue	48th Street	South	50	Basic
48th Street	Estrella Avenue	South	52	Basic
Estrella Avenue	49th Street	South	52	Basic
49th Street	Winona Avenue	South	52	Basic
Winona Avenue	50th Street	South	52	Basic

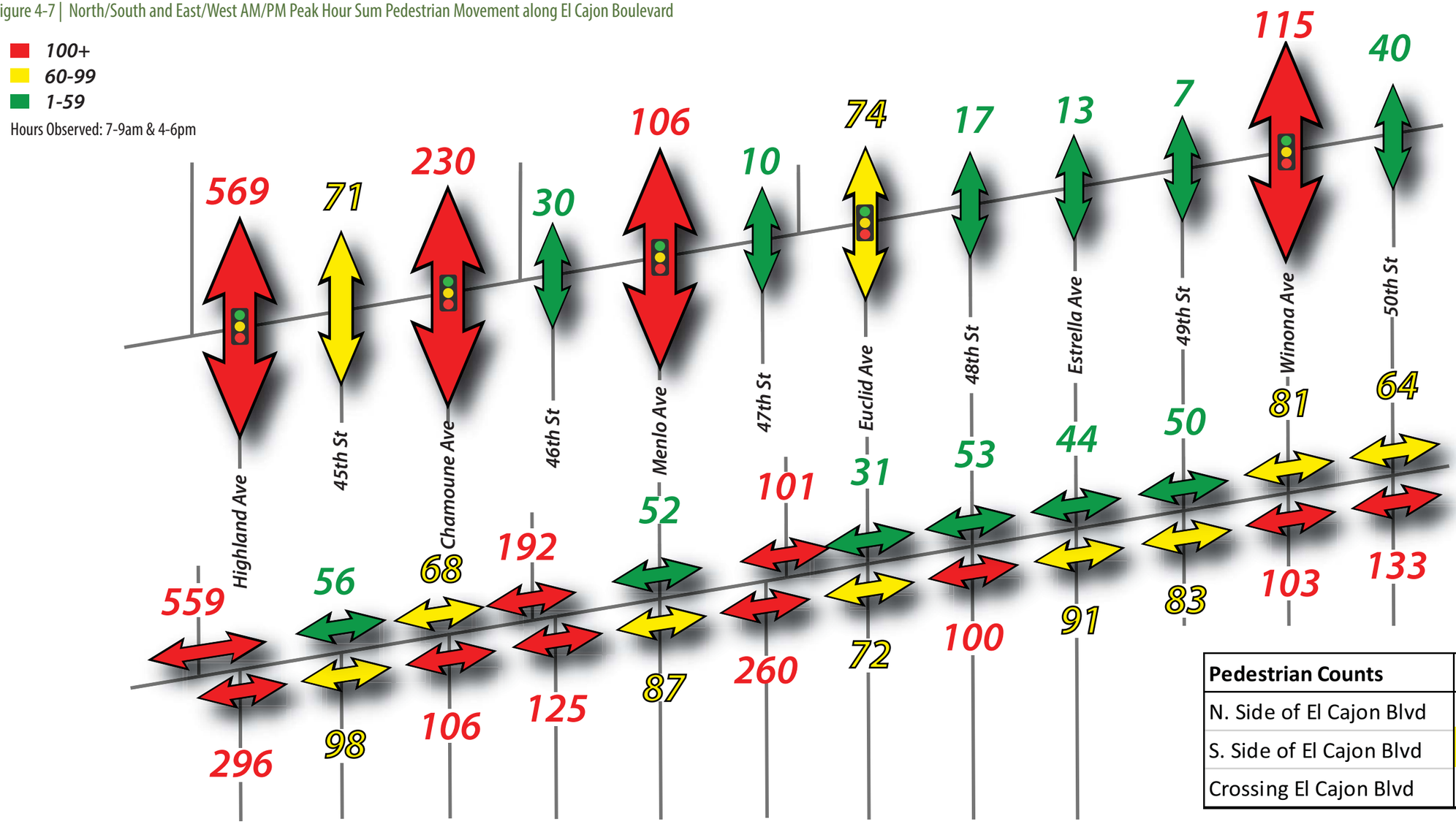
Source: Chen Ryan Associates (2015)

PEQI Intersection and Street Scores

- 81 - 100 (Ideal pedestrian conditions exist)
- 61 - 80 (Reasonable pedestrian conditions exist)
- 41 - 60 (Basic pedestrian conditions exist)
- 21 - 40 (Poor pedestrian conditions exist)
- 0 - 20 (Environment not suitable for pedestrians)

Source: Chen Ryan Associates (2015)

Figure 4-7 | North/South and East/West AM/PM Peak Hour Sum Pedestrian Movement along El Cajon Boulevard



Pedestrian Counts	During Peak Hours
N. Side of El Cajon Blvd	1,351
S. Side of El Cajon Blvd	1,554
Crossing El Cajon Blvd	1,282

Pedestrian movement is substantially greater on the south side of El Cajon Boulevard during peak hours. 1,554 people were tabulated moving eastward and westward on the south side of the Boulevard while only 1,351 people were accounted for on the north side. Similarly, pedestrians predominately cross El Cajon Boulevard during peak hours with the majority of crossings occurring between Highland Avenue and Chamoune Avenue (68% during peak hours). As shown in Figure 4-7, each of the intersections regulated by a traffic signal, Highland Avenue, Chamoune Avenue, Menlo Avenue, Euclid Avenue, and Winona Avenue, have the highest amount of foot traffic crossing El Cajon Boulevard. In addition to those intersections, 45th Street has a high amount of pedestrians crossing the Boulevard. High foot traffic at 45th Street could be attributed to the bus stop on the south side of the Boulevard and Herbert Hoover High School to the north.

EL CAJON BOULEVARD

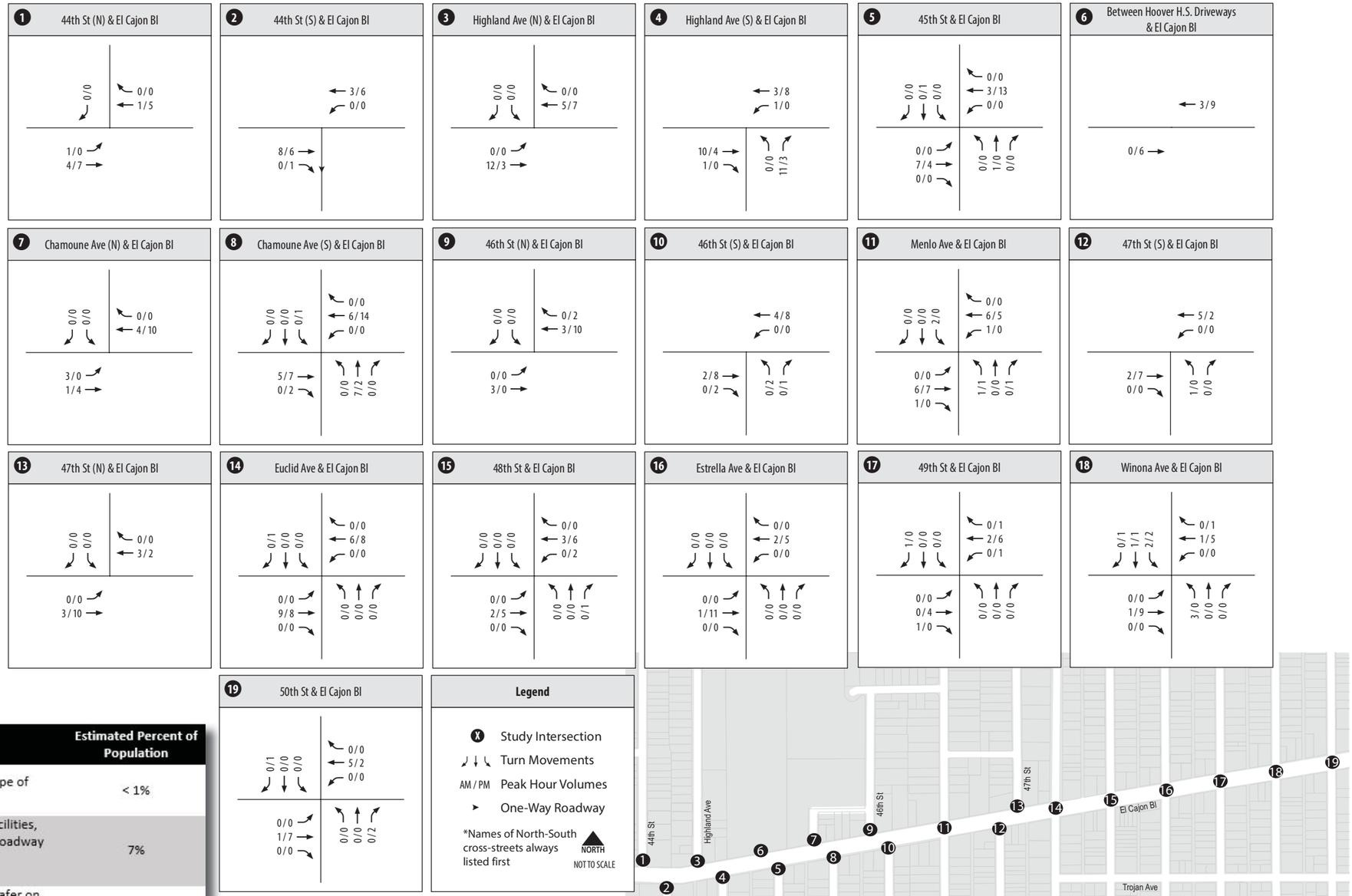
4.5 | BICYCLE

Within the project area, El Cajon Boulevard is characterized as a Class III bicycle route, identifiable by painted, on-street "sharrows" and vertical signage. Figure 4-8 displays AM and PM peak hour bicycle counts at 18 intersections and one segment along El Cajon Boulevard. Consistent with the pedestrian counts, the intersections with the greatest total observed (AM and PM combined for all legs) bicycle volumes were at Highland Avenue (south) and El Cajon Boulevard, and Chamoune Avenue (south) and El Cajon Boulevard, with volumes of 41 and 37, respectively. As previously stated, these intersections are signalized and provide access to Hoover High School. The high school serves as a bicycle attractor, likely drawing high volumes of students during the AM peak period.

Bicycle conditions along El Cajon Boulevard were evaluated using the Bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute and reported in Low-Stress Bicycle and Network Connectivity. LTS classifies the street network into categories according to the level of stress it causes cyclists, taking into consideration a cyclist's physical separation from vehicular traffic, vehicular traffic speeds along the roadway segment, number of travel lanes, and factors related to intersection approaches with right-turn only lanes and unsignalized crossings.

The LTS analysis classifies the street network to reflect the "traffic tolerance demographic," consistent with the categories developed by Portland Bicycle Coordinator Roger Gellar and displayed in Table 4-7 below. LTS scores range from 1 (lowest stress) to 4 (highest stress), and correspond to roadways that different bicycling populations find suitable for riding on, considering their stress tolerance.

Figure 4-8 | Existing Peak Hour Bicycle Counts



Reference Appendix C for bicycle counts.

Table 4-7 | Bicyclist Traffic Tolerance Categories

Bicyclist Category (Traffic Tolerance Demographic)	Description	Estimated Percent of Population
Strong & Fearless	This population is undeterred by any type of roadway condition	< 1%
Enthused & Confident	This population may prefer separate facilities, but are generally comfortable sharing roadway with traffic in all but the most stressful conditions	7%
Interested but Concerned	This population would ride if they felt safer on the roadways – generally will only ride on separated facilities or very low stress roadway conditions	60%
No Way, No How	This population is not at all interested in bicycling	33%

Source: Gellar, et al. (2006)

Table 4-8 | Level of Traffic Stress Classifications and Descriptions

Level of Stress Category	Level of Stress Description	Bicycling Conditions Fitting LTS Category	Baseline Acceptability to Populations
LTS 1	Presenting little traffic stress and demanding little attention from cyclists; Suitable for almost all cyclists, including children trained to safely cross intersections	• Facility that is physically separated from traffic or an exclusive cycling zone next to a slow traffic stream with no more than one lane per direction • A shared roadway where cyclists only interact with the occasional motor vehicle with a low speed differential • Ample space for cyclist when alongside a parking lane • Intersections are easy to approach and cross	Interested but Concerned – Vulnerable Populations
LTS 2	Presenting little traffic stress but demanding more attention than might be expected from children	• Facility that is physically separated from traffic or an exclusive cycling zone next to a well-confined traffic stream with adequate clearance from parking lanes • A shared roadway where cyclists only interact with the occasional motor vehicle (as opposed to a stream of traffic) with a low speed differential • Unambiguous priority to the cyclist where cars must cross bike lanes (e.g. at dedicated right-turn lanes); design speed for right-turn lanes comparable to bicycling speeds • Crossings not difficult for most adults	Interested but Concerned – Mainstream Adult Populations
LTS 3	Presenting enough traffic stress to deter the Interested but Concerned demographic	• An exclusive cycling zone (lane) next to moderate-speed vehicular traffic • A shared roadway that is not multilane and has moderately low automobile travel speeds • Crossings may be longer or across higher-speed roadways than allowed by LTS 2, but are still considered acceptably safe to most adult pedestrians	Enthused & Confident
LTS 4	Presenting enough traffic stress to deter all but the Strong & Fearless demographic	• An exclusive cycling zone (lane) next to high-speed and multi-lane vehicular traffic • A shared roadway with multiple lanes per direction with high traffic speeds • Cyclist must maneuver through dedicated right-turn lanes containing no dedicated bicycling space and designed for turning speeds faster than bicycling speeds	Strong & Fearless

Source: Mekuria, et al. (2012)

Table 4-8 shows the LTS categories with descriptions of traffic stress experienced and the conditions associated with each category. As shown, each LTS classification is associated with Gellar's traffic tolerance categories, with the exception of the "No Way, No How" demographic from Table 4-7. This population was assumed to represent virtually no opportunity for engaging in cycling, and therefore was left out of the LTS classifications. The "Interested but Concerned" demographic is split across two categories, differentiating the levels of traffic stress affecting average, mainstream adult populations (LTS 2) from levels of traffic stress affecting youth and other vulnerable populations (LTS 1).

LTS scoring is based on seven possible criteria or "look up" tables, developed to consider the wide variety of traffic conditions experienced by bicyclists. The criteria tables and resulting scores distinguish between the location of the bicyclist – either riding along the roadway segment, or approaching an intersection.

Table 4-9 lists the seven LTS scoring criteria tables that were developed for bicyclists riding along a roadway segment or approaching an intersection. A criteria table is selected based upon the bicyclist location and the roadway segment conditions. LTS only generates a score for the roadway segment, which takes the intersection approach into consideration. The score is governed by the "weakest link" principle, which means the criteria factor with the lowest score along the segment becomes the overall score of the segment. This implies that a cyclist's overall stress along a route is derived from the worst aspect of that route, rather than an averaging of all route characteristics. For example, a roadway segment with primarily low stress conditions can have its overall LTS score degraded if it also has high-stress intersection approaches with right-turn only lanes.

Table 4-9 | Overview of LTS Criteria Tables

Bicyclist Location	Roadway Segment Conditions	Criteria Factors
Roadway Segment	No bicycle facility	• Number of travel lanes • Posted speed limit
	Bike lane next to on-street parking	• Number of travel lanes • Posted Speed Limit • Combined width of bike and parking lane • Presence of frequent obstructions in bike lane
	Roadway segment with bike lane and no on-street parking	• Number of travel lanes • Posted speed limit • Combined width of bike and parking lane • Presence of frequent obstructions in bike lane
Intersection Approach	No bicycle facility and presence of right-turn lane	• Length of right-turn lane • Intersection angle as it influences vehicular turning speed
	Pocket bike lane and presence of right-turn lane	• Length of right-turn lane • Intersection angle as it influences vehicular turning speed • Right-turn lane causes bicyclist to make leftward maneuver
	Unsignalized crossing without median refuge	• Number of travel lanes of street being crossed • Posted speed limit of street being crossed
	Unsignalized crossing with median refuge	• Number of travel lanes of street being crossed • Posted speed limit of street being crossed

Source: Chen Ryan Associates (2015)

Figure 4-9 on the following page and Table 4-10 display the LTS scoring results. The entire corridor is classified as LTS 4, tolerable by only the "strong and fearless" demographic, estimated to represent less than 1% of the population. The high-stress categorization is due to the shared roadway bicycle facility combined with high posted speed limit (35 mph) and four travel lanes. Potential changes that may improve LTS scores and the overall bicycling environment along the corridor include lowering traffic speeds, and/or implementing a dedicated bicycle facility, such as a bike lane, or a separated bicycle facility, such as a cycle track.

EL CAJON BOULEVARD

Figure 4-9 | Bicycle Level of Traffic Stress Results

Table 4-10 | Bicycle Level of Traffic Stress (LTS) Results

From	To	LTS Score	Tolerance Demographic
44th Street	Highland Avenue	4	Strong and Fearless
Highland Avenue	Chamoune Avenue	4	Strong and Fearless
Chamoune Avenue	46th Street	4	Strong and Fearless
46th Street	Menlo Avenue	4	Strong and Fearless
Menlo Avenue	47th Street	4	Strong and Fearless
47th Street	Euclid Avenue	4	Strong and Fearless
Euclid Avenue	48th Street	4	Strong and Fearless
48th Street	Estrella Avenue	4	Strong and Fearless
Estrella Avenue	49th Street	4	Strong and Fearless
49th Street	Winona Avenue	4	Strong and Fearless
Winona Avenue	50th Street	4	Strong and Fearless

Source: Chen Ryan Associates (2015)

5 | WALK AUDIT SUMMARY & PUBLIC INVOLVEMENT

5.1 | WALK AUDIT

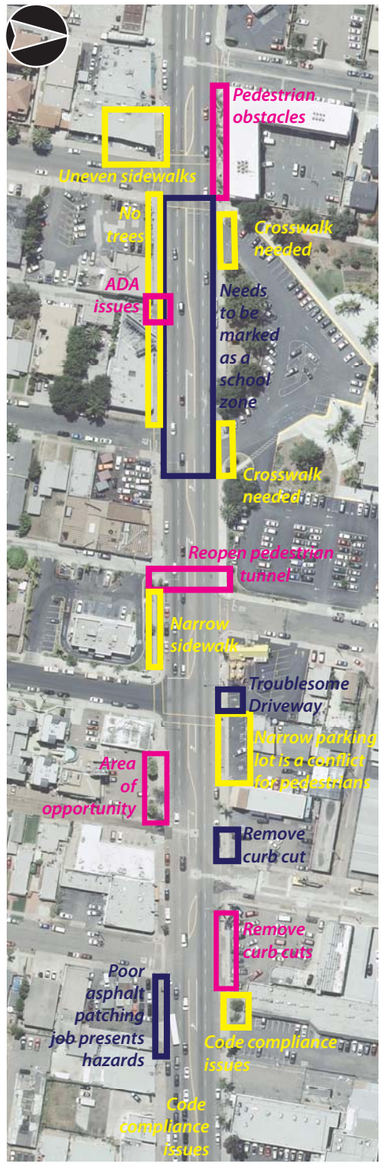
A walking audit of El Cajon Boulevard from Highland Avenue to 50th Street took place on May 2, 2015. The audit included individuals from the community as well as professionals knowledgeable in the complete streets program. Participants were asked to identify driveway conflicts, pedestrian and/or bicycle issues, and roadway/sidewalk needs and traffic safety as they walked the corridor. Many of the comments from participants were similar some common themes were:

- Reduce or minimize speed;
- Implement traffic calming features;
- Add more trees, shade, and need maintenance of existing trees;
- No cross street access, disconnected north and south portions of the Boulevard;
- Alleyways present a blind spot to traffic and cause it to be a conflict point for pedestrians;
- Enhance the safety of the environment for pedestrians.

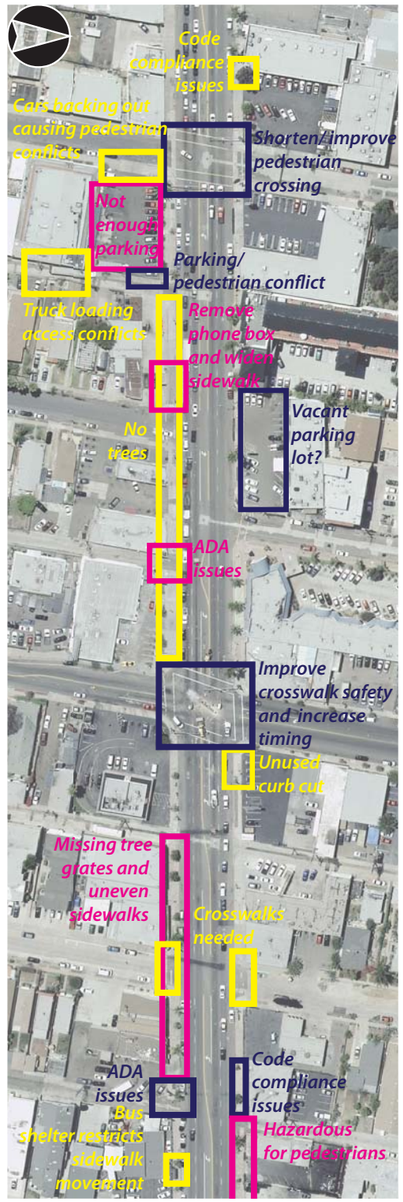
Figures 5-1 and 5-2 on the following pages visually show the the comments corresponding to the problematic locations.

EL CAJON BOULEVARD

Figure 5-1 | Walk Audit Comments Highland Avenue to 48th St.



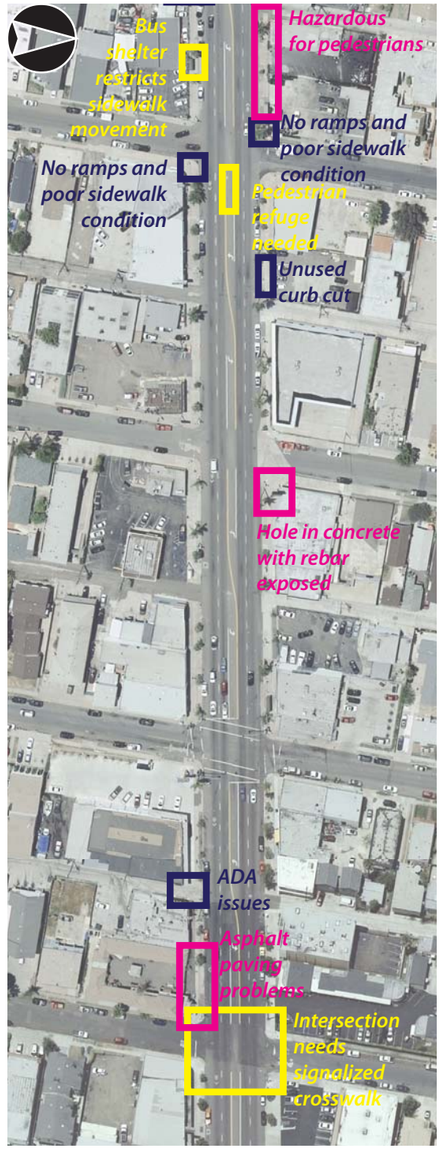
Driveway Conflicts	Pedestrian and or Bicycle Issues	Roadway/Sidewalk Needs and Traffic Safety
Highland Ave -Entry gate needed to help people know they are coming to Little Saigon. -Dry cleaner exit pops out into crosswalk. -People turning into Hoover Highschool causes traffic to back up significantly.	-The area needs more street trees. -Need natural shade. -Bike lanes should fill open space in roadway. -Need nice sidewalks, landscaping, benches and statues that have cultural representation. -Lack of trash bins -Improve student safety while crossing El Cajon Blvd. -Lighting along the north side is very poor during the evening hours.	-Sidewalks and pavement need repairs for safety. -Cracks in sidewalk. -Left turns to businesses are dangerous. -Implement traffic calming features. -Utility box is in conflict with sidewalk accesibility.
45th St -Get rid of grass. -General lack of parking.	-The area needs more street trees. - Dangerous to turn left from the school on to El Cajon from the northside of Chamoune Ave. -There needs to be a safer crossing in front of the school at 45th Street across El Cajon Blvd. -Not enough shade, more grass and more green. -Crosswalk needed for school entrances.	-Not safe for kids to cross, pedestrian refuge is needed. - Uneven sidewalks are a potential tripping hazard. -Curbs and sidewalks are in need of replacement. -Reopen pedestrian tunnel under El Cajon for Hoover School students.
Chamoune Ave -No cross street access. -Narrow parking lots on the north side are a conflict with safe pedestrian movement.	-Need space/ sitting space for pedestrians just standing or hanging out. -Increased maintenance of trees needed. -This section in particular is not walking friendly.	-No bike lane, cyclists ride on the sidewalk.
46th St -No cross street access. -Participant in walking audit almost hit by car backing out of alleyway. -Remove under-utilized curb cuts.	-Cross streets are unsafe. -Trash cans need to be serviced more frequently. -Remove dying palm trees. -Enforce code compliance violations along northern section of the block.	-Sidewalk is run down and sidewalks are uneven. -Great pedestrian safety issues at 46th Ave.



Driveway Conflicts	Pedestrian and or Bicycle Issues	Roadway/Sidewalk Needs and Traffic Safety
Menlo Ave -No cross street access. -Businesses generate a lot of traffic on both sides of the street. -Pavement needs to be resurfaced, very dangerous in the evening.	-Traffic does not yeild to pedestrians. -Reduce vehicular speed. -More sitting options are desirable. -Need more landscaping and shade trees.	-Not enough parking available. -Major traffic conflict due to red curb proximity to driveways.
47th St -Residents complain about amount of near-miss accidents caused by vehicles trying to access businesses. -Not enough parking. -Unsafe alleyway access from El Cajon Blvd.	-More sitting options are desirable. -Need more landscaping and shade trees. -Maintain/ restore Terrazzo. -Leaking water meter at hydrant.	-Need to minimize speed and create safer environment for the pedestrian. -There is damaged sidewalk in this section that needs to be replaced. -Allow vehicular right turn on red, where appropriate.
Euclid Ave -Remove under-utilized curb cuts.	-Busy pedestrian cross street. -Crosswalk timing needs to be improved to allow for comfortable crossing times. -Remove phone box. -Trash is a huge issue south on Euclid and 48th Street.	-Un-unifrom landscaping. -Trash bins need to be serviced more frequently. -Trash can is not at the corner. -Traffic speed is too great for pedestrians to cross safely.
48th St -Alleyways present a blindspot to traffic and pedestrians. -Driveway does not align with gate and is in disrepair.	-Need more bus stops. -Parking should be restricted in this section. -Palm tree seeds on the sidewalk present a potential tripping hazard. -Crosswalk is unsafe due to damaged and uneven pavement.	-Need to minimize speed and create safer environment for the pedestrian. -There is damaged sidewalk in this section that needs to be replaced.

WALK AUDIT SUMMARY & PUBLIC INVOLVEMENT

Figure 5-2 | Walk Audit Comments Highland Avenue to 48th St.



Driveway Conflicts	Pedestrian and or Bicycle Issues	Roadway/Sidewalk Needs and Traffic Safety
Estrella Ave -Close redundant and underutilized driveways. -Remove under-utilized curb cuts.	-Wheelchair accessibility is an issue in this section. -Palm trees are too low and can potentially hit pedestrians. -No ADA ramps on the south-east and northwest corners of Estrella and El Cajon. -Build pedestrian refuge for crossing El Cajon at Estrella.	-Trash runs into the sewer drains. -Signal and pedestrian refuge needed for crossing El Cajon at Estrella. -Add crosswalk for Estrella crossing El Cajon Blvd. -Traffic calming devices like bulb outs and pedestrian refuges need to be constructed.
49th St -Alleyway access is a conflict point for pedestrians.	-Not enough public art. -Bad landscaping. -Existing trees do not offer much shade. -Need bike lanes, cyclists ride on the sidewalk which is not safe for pedestrians. -Need bus stops with shade and safer seating areas. -There are wheelchair accessiblity issues in this section.	-Pedestrian was involved in acrash where he was left at the Carls Jr. -Tree grates are missing leaving open sidewalk which are hazards for pedestrians.
Winona Ave -Alleyways present a blindspot to traffic and pedestrians. *50th St*	-Trash can located directly in the middle of the sidewalk. -People sit on utility boxes, there is a need for more adequate seating. -People do not use the trashcans. -Need shade that blocks sun between buildings and streetside.	-Street width is too wide for safe pedestrian crossing. -Sidewalk maintenance issues. -Roads need resurfacing. -50th Street needs a crosswalk.

5.2 | FOCUS GROUP MEETING

On May 14, 2015 a focus group meeting was held with the Little Saigon Foundation members.

During this meeting, six locations within the Little Saigon District were identified as potential places for cultural monuments to further develop the rich history of the area and are displayed in Figure 5-3 below. Location #1, #2, and #6 would be strategically placed at the entrances of Little Saigon at Highland Avenue and Euclid Avenue to welcome those entering the district. A Vietnam War memorial would be placed at location #3. A statue of King LeLas and Heros Tran Hung Dao positioned at location #4 and #5.

Figure 5-3 | Desired Locations of Monuments Identified

5.3 | LITTLE SAIGON DISTRICT SURVEY

A survey was given to business owners, in order to gauge the responses of community members in relation to improvements along the corridor and specifically within the Little Saigon District. As displayed in Figures 5-4 - 5-7, of the 101 responses to the five questions within the survey, the majority conveyed that improvements within the Little Saigon district would improve business, tourism, and ultimately attract more people to not only the district but to other businesses along the corridor as well. Survey respondents believed that Little Saigon district improvements would benefit non-Vietnamese businesses as well. Overall, an overwhelmingly strong support was given towards recognizing Little Saigon as a district with distinguishable elements and cohesive design.

According to business owners, parking and signage were the most identified elements needing improvements (see Figure 5-8). Business owners would like to see more available parking spaces and aslo believe that improved gateway/signage would brand their district encouraging more business and activity. Access and attraction to this area is necessary for growth of business.

Figure 5-8 | Highest Priority Responses

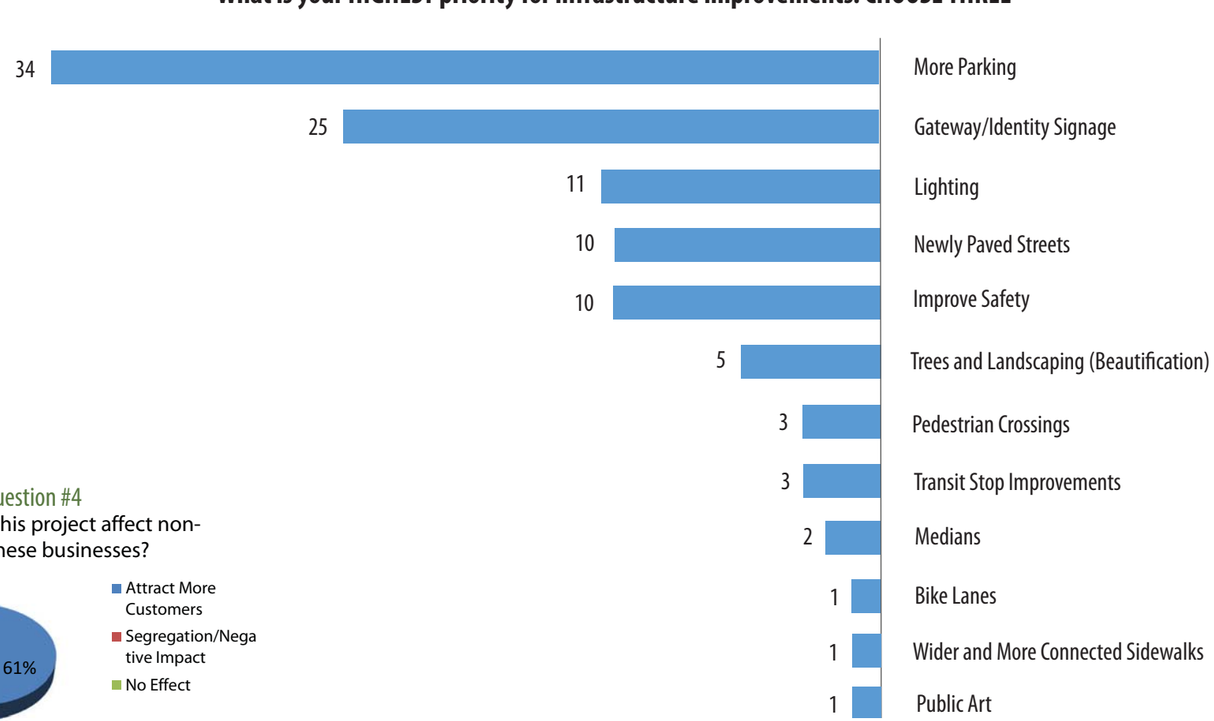


Figure 5-4 | Survey Question #1

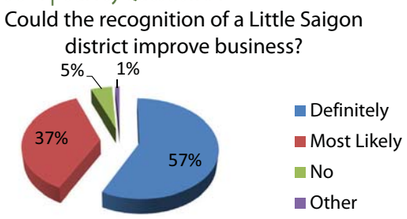


Figure 5-5 | Survey Question #2

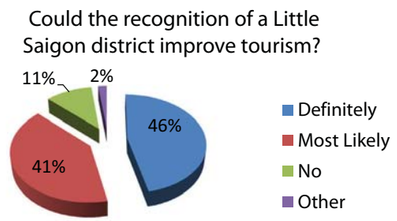
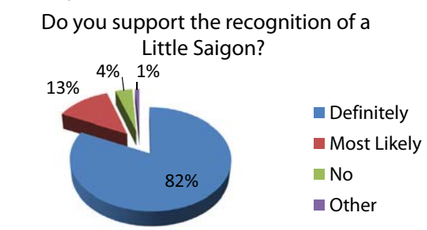


Figure 5-6 | Survey Question #4

Figure 5-7 | Survey Question #5



6 | ASSETS/LIABILITIES/OPPORTUNITIES/CONSTRAINTS

6.1 | OPPORTUNITIES AND CONSTRAINTS

This section summarizes the gathered information from the previous sections into an overall summary of the constraints and opportunities along the study corridor.

El Cajon Boulevard is a frequently used route for transportation; however, many limitations exist when traveling by car, bike, or foot throughout the Study Corridor. Various sidewalks do not comply with the American Disabilities Act, as the intersections do not have ramps for wheelchair accessibility or truncated domes. Not only are the sidewalks hazardous for pedestrians, the Boulevard does not have an adequate amount of trees to provide shade, diminishing both the pedestrian and automobile experience. When observing the corridor, countless bicyclists chose to use the sidewalk over the street even when shared bike/auto lanes are available. In addition, inactive alleyways exist throughout the Boulevard likely contributing to unwanted vandalism and perceived danger. The common theme throughout the Study Corridor of El Cajon Boulevard is a lack of comfort. As numerous cracks, uneven edges, patches, and different types of street lights scatter the corridor, El Cajon Boulevard fails to invite someone to stay and capitalize on its rich history.

Despite El Cajon Boulevard's constraints, hidden gems of opportunity sit just beneath the surface. Many Latino and Asian restaurants provide a multi-cultural experience within the area. Using strategic design, El Cajon Boulevard can celebrate the diversity one finds while traveling throughout the corridor. Historic markers and colorful streetlamps dot the Boulevard adding creative flavor and a sense of place. El Cajon Boulevard has the potential to become a place

Figure 6-1 | Constraints and Opportunities

EL CAJON BOULEVARD

of connection through cohesive design. Utilizing and improving elements throughout the corridor will encourage people to enjoy the community and travel freely throughout. By enhancing the corridor with artistic expressions in streetlamps, sidewalk art, and unique signage, El Cajon Boulevard can take advantage of its history and set the pace for the future of the environment. The historic role of El Cajon Boulevard as part of Highway 80, which connected the communities of San Diego before the construction of Interstate 8, could be told through public art and wayfinding signs. This art and signage could be designed and implemented by local artists. Furthermore, improving the bicycle and pedestrian environment will accommodate and encourage active modes of transportation through the corridor. This could be achieved through maintenance of dilapidated sidewalks and the implementation of additional bicycle infrastructure.

6.2 | AREAS OF MOBILITY OPPORTUNITY

Figure 6-3 | Pedestrian Crossing Counts

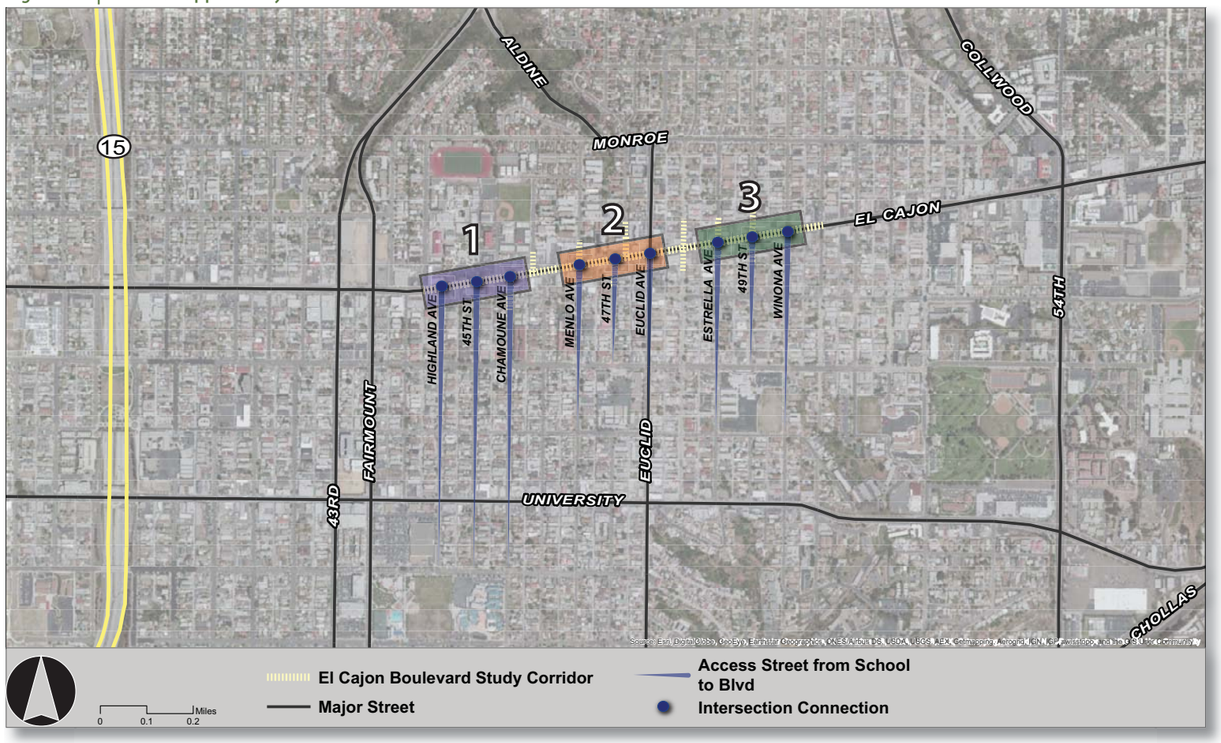
Crossing El Cajon Blvd	During Peak Hours
Area 1	68%
Area 2	15%
Area 3	11%
46th, 48th, & 50th	6%

Area 1:

The connecting roads between Rosa Parks Elementary and Hoover High School are important as they provide a direct route between the two schools across El Cajon Boulevard. Highland Avenue, 45th Street, and Chamoune Avenue are three roads that provide this direct connection and provide an area of opportunity. At Highland Avenue's intersection with El Cajon Boulevard, 569 pedestrians were observed crossing El Cajon Boulevard. The intersection is approximately 70 feet wide on El Cajon Boulevard and approximately 40 feet to cross on Highland Avenue. According to the turning movement counts, 58 cars took a left turn from El Cajon Boulevard onto Highland Avenue during peak hours. In addition, Highland Avenue to the south of El Cajon Boulevard tracked an average of 1,386 north bound vehicles over a period of two days and 1,019 south bound vehicles. 45th Street's intersection currently has one crosswalk on the south side and has the highest amount of pedestrian crossings of the intersections along the study corridor without a traffic signal.

1,282 pedestrians were observed crossing El Cajon Boulevard during peak hours and of the total, 68% crossed El Cajon Boulevard in Area 1. 45th St is approximately 36 feet in width and very few cars were observed entering Hoover High School from 45th St.

Figure 6-2 | Areas of Opportunity



Furthermore, 45th Street tracked an average of 291 northbound cars and 535 southbound cars. Chamoune Avenue's intersection had the highest amount of northbound and southbound traffic in Area 1 and also contained the most through traffic crossing El Cajon Boulevard with 11 vehicles traveling northward and 78 traveling southward. The intersection crossing distance is approximately 70 feet on El Cajon Boulevard and approximately 36 feet on Chamoune Avenue. During peak hours, 230 pedestrians were observed crossing El Cajon Boulevard at the Chamoune Avenue intersection.

Area 2:

The intersections of Menlo, 47th, and Euclid connect El Cajon Boulevard to Euclid Elementary school. Behind Area 1, this section of the Boulevard has the next highest amount of pedestrian crossings (15% during peak hours and 19% throughout the entire day). Area 2 also experiences a large amount of traffic passing through El Cajon Boulevard at Menlo Ave and Euclid Avenue. In addition, this section had the highest amount of left turns from El Cajon Boulevard onto the cross streets furthering the amount of activity on this section of the corridor. Menlo Avenue is regulated by a traffic signal and experiences a large flow of pedestrian movement north-south throughout the entire day.

Euclid Avenue is the busiest of all the intersections throughout the entire study area with an average of 5,100 northbound vehicles and 4,374 southbound vehicles over a two day period. Although it has the most vehicles traveling north and south and is regulated by a traffic signal, this intersection did not have the highest amount of foot traffic. Only 74 pedestrians were observed crossing El Cajon Boulevard during peak hours. 47th St does not have many pedestrians crossing El Cajon Boulevard; however, this intersection does have a lot of crossings on the north and south side of the Boulevard at designated crosswalks.

Area 3:

The intersections of Estrella Avenue, 49th Street, and Winona Avenue serve as the connection points between El Cajon Boulevard and Ibarra Elementary School. Of the three 'areas', Area 3 had the least amount of pedestrian activity with only 11% crossing in this section of the Boulevard during peak hours. The intersection at Winona Avenue, in contrast, experiences a large volume of pedestrians crossing. This likely is due to this intersection being regulated by a traffic signal, which provides evidence that pedestrians choose to cross here rather than 49th Street or Estrella Avenue. Area 3 had the least amount of left turns from El Cajon Boulevard onto the cross streets. This area may be underutilized because there are no designated crosswalks at Estrella Avenue or 49th Street. Even without designated crosswalks, 140 people were observed crossing the intersection of 49th Street and El Cajon Boulevard during peak hours, and 148 people were observed crossing the intersection of Estrella Avenue and El Cajon Boulevard during peak hours. In order to both encourage and protect pedestrian activity, this area could be improved upon.

6.3 | LANDSCAPING

This segment of El Cajon Boulevard does not have any planted medians. Median landscaping has been implemented along other portions of El Cajon Boulevard (mostly to the west), contributing to enhanced aesthetics and a more established 'sense of place' wherever they occur. These medians vary in size and shape but carry a consistent theme of blue-flowering Jacaranda Trees. These medians are maintained by the El Cajon Boulevard Business Improvement Association, and could be a green amenity if continued through the study corridor.

Street tree planting has occurred randomly along the project corridor, in planters and in small sidewalk cut-outs. Tree types include mainly of Queen Palms, a few King Palms, and several Fern Pines (east of Euclid Avenue). The Queen Palms are fairly mature, and occur in random locations with no identifiable spacing pattern. Despite the lack of maintenance or care, these Queen Palms are surviving. King Palms have been planted in a few locations, but are in very poor condition (dead or dying). A few Jacarandas have been planted between Menlo and 47th Street, and seem to be relatively healthy.
Many blocks have no street trees.

6.4 | AREAS OF ENCROACHMENT

There are a few conditions along the corridor where the property owner may have exceeded their property line and encroached upon the Right-of-Way line. They are displayed in Figure 6-4 by the black dashed lines. They exist along the northeast corner of Euclid Avenue, the northeast corner of 48th St, and on the northwest corner of Estrella Avenue.

As illustrated in Figure 6-4, three parking lot locations extended into the illustrated right-of-way area and thus reduced the amount of space available for pedestrians. At two of the locations, fences have been built up, further hindering the pedestrian walkability. The photos below show a street perspective of the three areas of encroachment.

Figure 6-4 | Areas of Encroachment

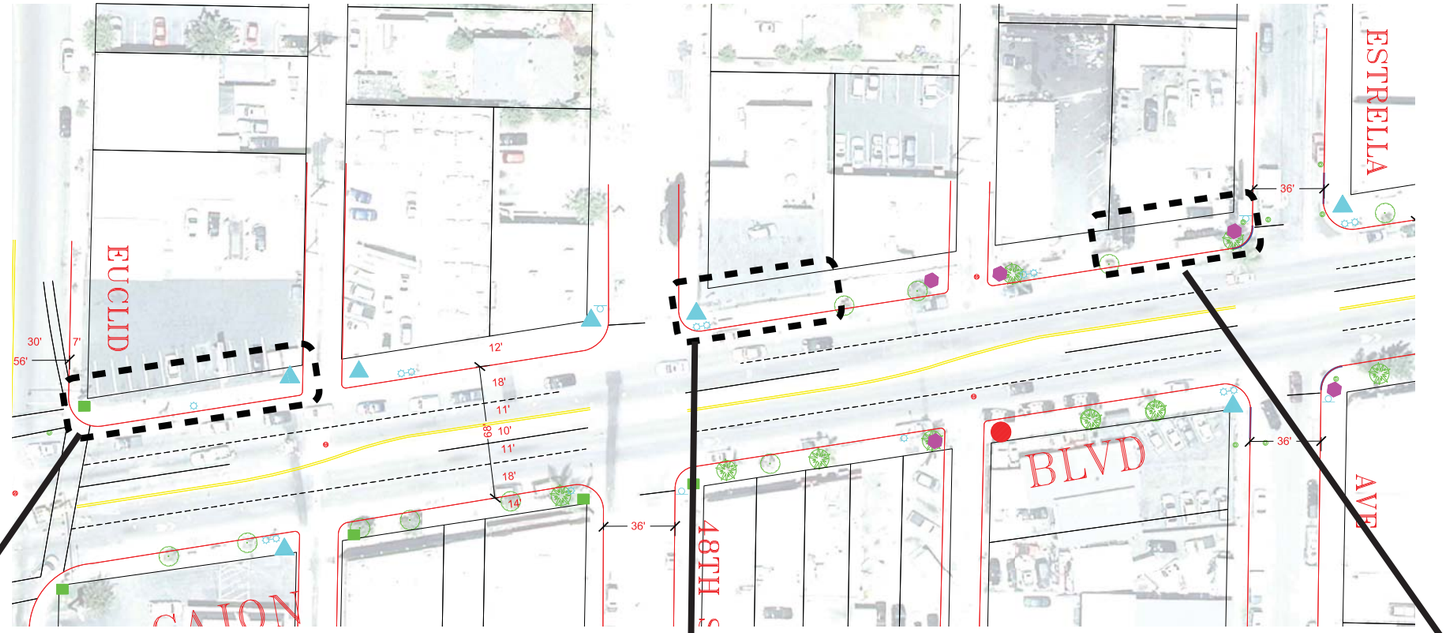


Photo 6-1 | Northeast corner of Euclid Avenue

Photo 6-2 | Northeast corner of 48th Street

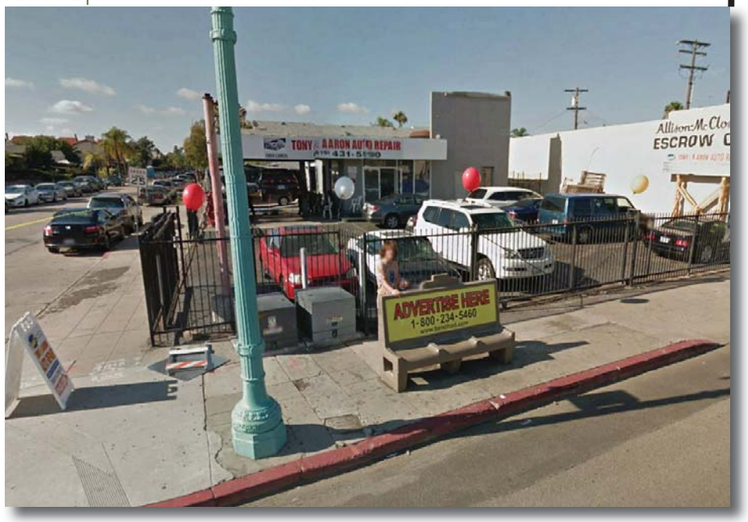
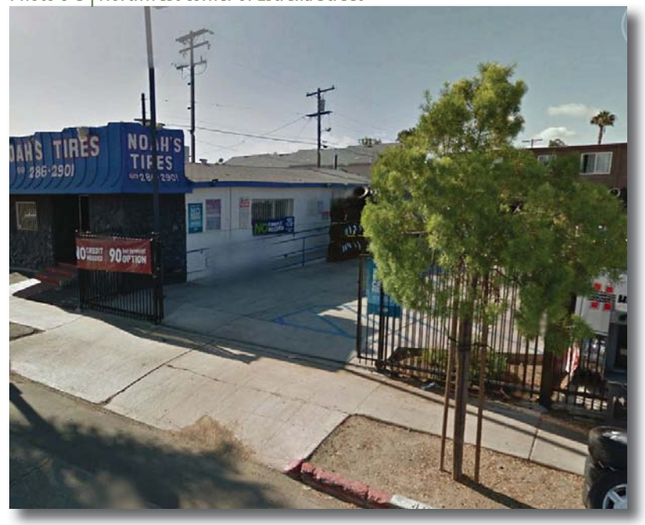


Photo 6-3 | Northwest corner of Estrella Street

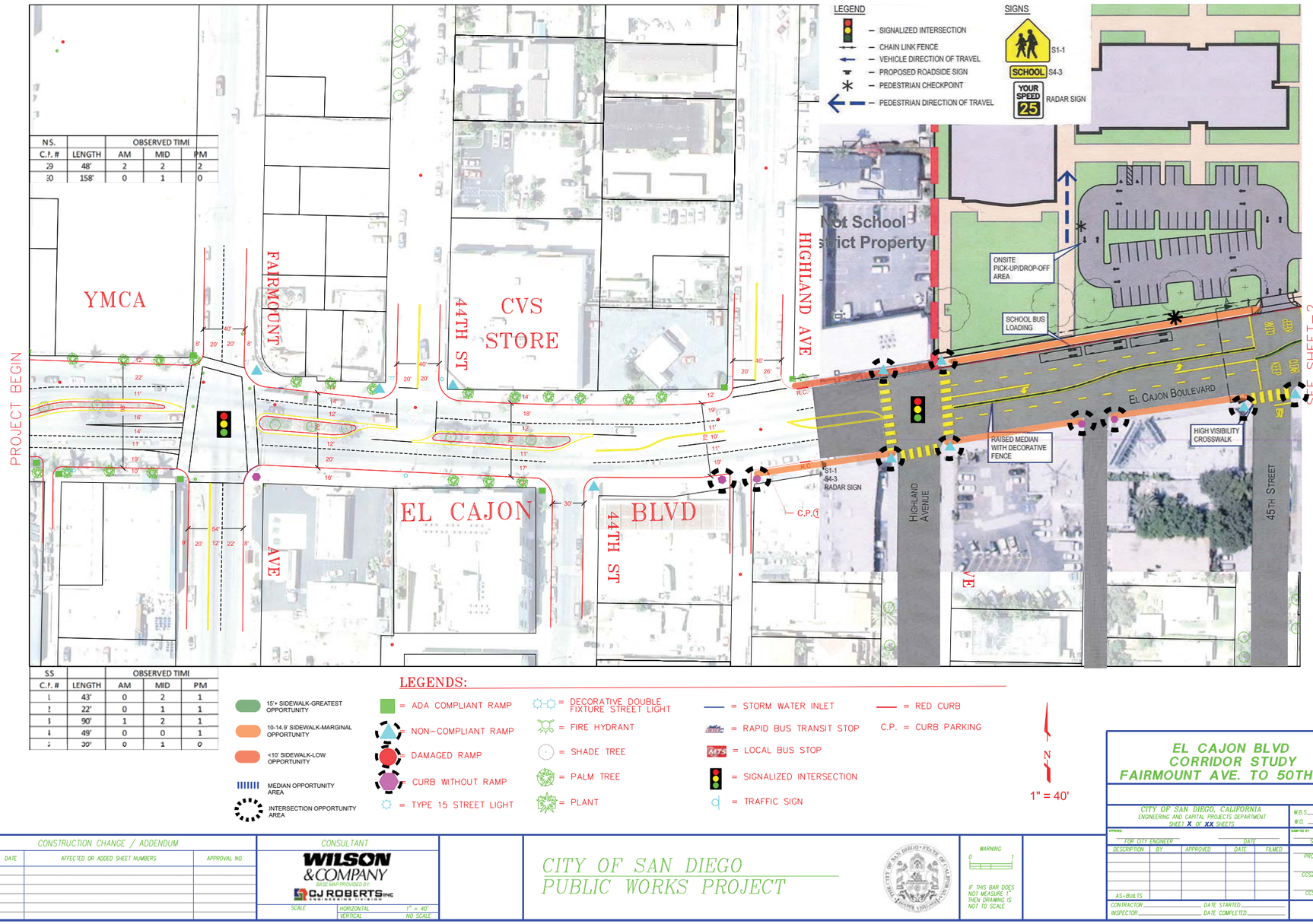


6.5 | STUDY CORRIDOR ENHANCEMENT OPPORTUNITIES

Figures 6-5 through 6-8 detail the specific opportunity areas for implementing medians and bulb out along the study corridor. The following recommendations take into consideration traffic volumes and turning counts, pedestrian counts, bus stop locations, and desirable connections.

These Figures also call out the amount of space between the edge of curb and ROW line with a red, orange, or green color. More space (15+ feet) provides an opportunity for more enhancements without acquisition of new ROW.

Figure 6-5 | Intersection and Median Opportunities Page 1



NS.		OBSERVED TIM		
C.P. #	LENGTH	AM	MID	PM
:9	48'	2	2	2
:0	158'	0	1	0

SS		OBSERVED TIM		
C.P. #	LENGTH	AM	MID	PM
1	43'	0	2	1
2	22'	0	1	1
3	90'	1	2	1
4	49'	0	0	1
5	39'	0	1	0

15'+ SIDEWALK-GREATEST OPPORTUNITY
10-14.9' SIDEWALK-MARGINAL OPPORTUNITY
<10' SIDEWALK-LOW OPPORTUNITY
MEDIAN OPPORTUNITY AREA
INTERSECTION OPPORTUNITY AREA

LEGENDS:

= ADA COMPLIANT RAMP
= NON-COMPLIANT RAMP
= DAMAGED RAMP
= CURB WITHOUT RAMP
= TYPE 15 STREET LIGHT
= DECORATIVE DOUBLE FIXTURE STREET LIGHT
= FIRE HYDRANT
= SHADE TREE
= PALM TREE
= PLANT
= STORM WATER INLET
= RAPID BUS TRANSIT STOP
= LOCAL BUS STOP
= SIGNALIZED INTERSECTION
= TRAFFIC SIGN
= RED CURB
C.P. = CURB PARKING

N
1" = 40'

C-1

EL CAJON BLVD
CORRIDOR STUDY
FAIRMOUNT AVE. TO 50TH ST.

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET X OF XX SHEETS

W.B.S.
W.O.

FOR CITY ENGINEER — DATE
SUBMITTED BY — SECTION HEAD

DESCRIPTION	BY	APPROVED	DATE	FILMED
AS-BUILTS				

CONTRACTOR — DATE STARTED
INSPECTOR — DATE COMPLETED

PROJECT MANAGER
CCS27 COORDINATE
CCS83 COORDINATE

CONSTRUCTION CHANGE / ADDENDUM

CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

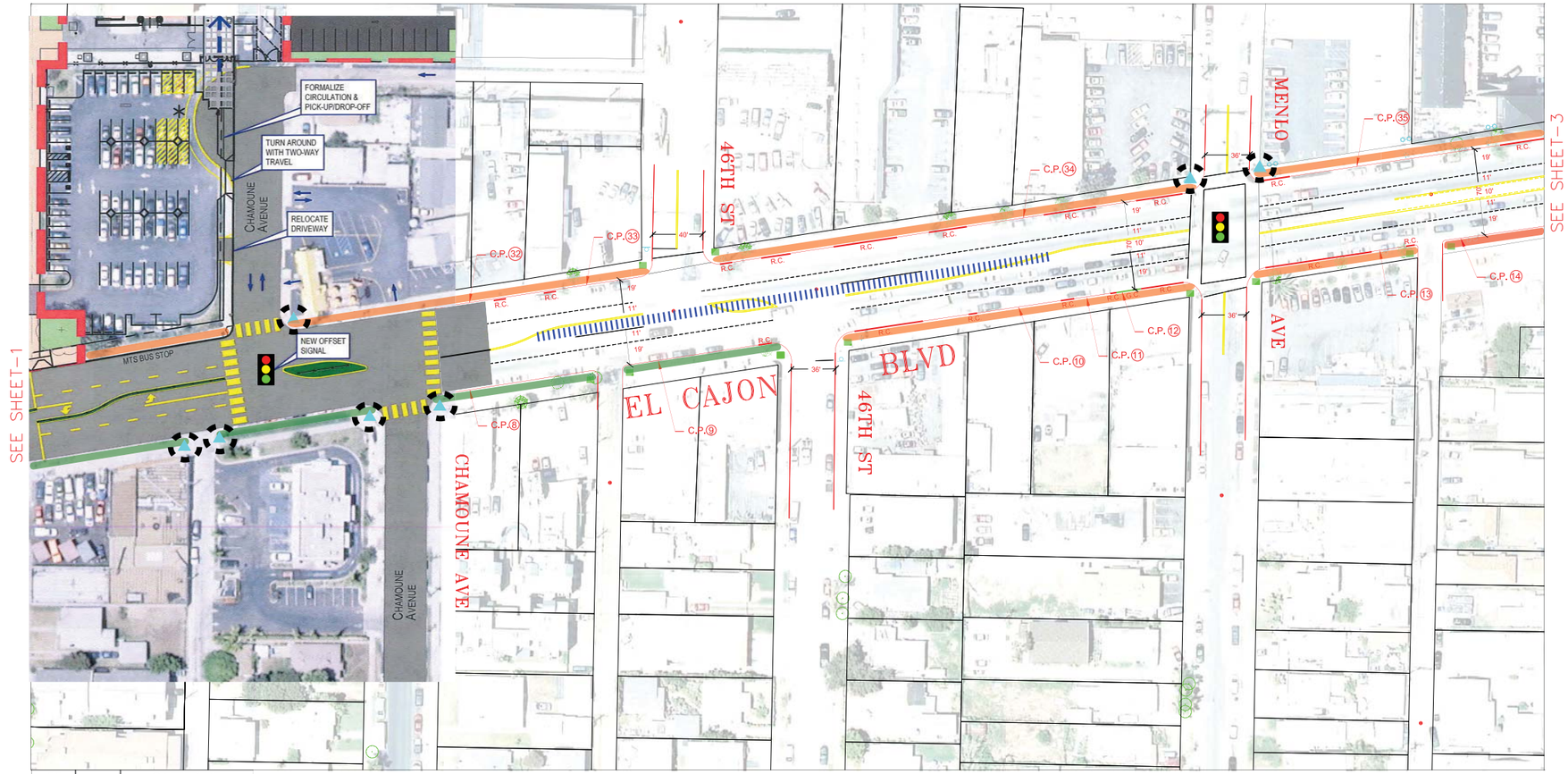
CONSULTANT
WILSON & COMPANY
BASE MAP PROVIDED BY:
CJ ROBERTS INC

SCALE — HORIZONTAL 1" = 40' — VERTICAL NO SCALE

CITY OF SAN DIEGO
PUBLIC WORKS PROJECT

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

Figure 6-6 | Intersection and Median Opportunities Page 2



S.S		OBSERVED TIME		
C.P. #	LENGTH	AM	MID	PM
6	52'	1	1	1
7	99'	3	4	3
8	119'	3	3	4
9	115'	4	3	3
10	50'	2	1	1
11	40'	1	2	2
12	20'	0	0	1
13	31'	1	1	1
14	46'	2	2	2

15'+ SIDEWALK-GREATEST OPPORTUNITY
10-14.9' SIDEWALK-MARGINAL OPPORTUNITY
<10' SIDEWALK-LOW OPPORTUNITY
MEDIAN OPPORTUNITY AREA
INTERSECTION OPPORTUNITY AREA

LEGENDS:

= ADA COMPLIANT RAMP
= NON-COMPLIANT RAMP
= DAMAGED RAMP
= CURB WITHOUT RAMP
= TYPE 15 STREET LIGHT
= DECORATIVE DOUBLE FIXTURE STREET LIGHT
= FIRE HYDRANT
= SHADE TREE
= PALM TREE
= PLANT
= STORM WATER INLET
= RAPID BUS TRANSIT STOP
= LOCAL BUS STOP
= SIGNALIZED INTERSECTION
= TRAFFIC SIGN
= RED CURB
= GREEN CURB
C.P. = CURB PARKING

N
1" = 40'

C-2

EL CAJON BLVD CORRIDOR STUDY
FAIRMOUNT AVE. TO 50TH ST.

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET X OF XX SHEETS

W.B.S.
W.O.

APPROVED FOR CITY ENGINEER ____ DATE ____

DESCRIPTION	BY	APPROVED	DATE	FILMED
AS-BUILTS				

CONTRACTOR ____ DATE STARTED ____
INSPECTOR ____ DATE COMPLETED ____

SUBMITTED BY
SECTION HEAD
PROJECT MANAGER
CCS27 COORDINATE
CCS83 COORDINATE

CONSTRUCTION CHANGE / ADDENDUM

CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

CONSULTANT
WILSON & COMPANY
BASE MAP PROVIDED BY
CJ ROBERTS INC ENGINEERING DIVISION

SCALE HORIZONTAL 1" = 40'
VERTICAL NO SCALE

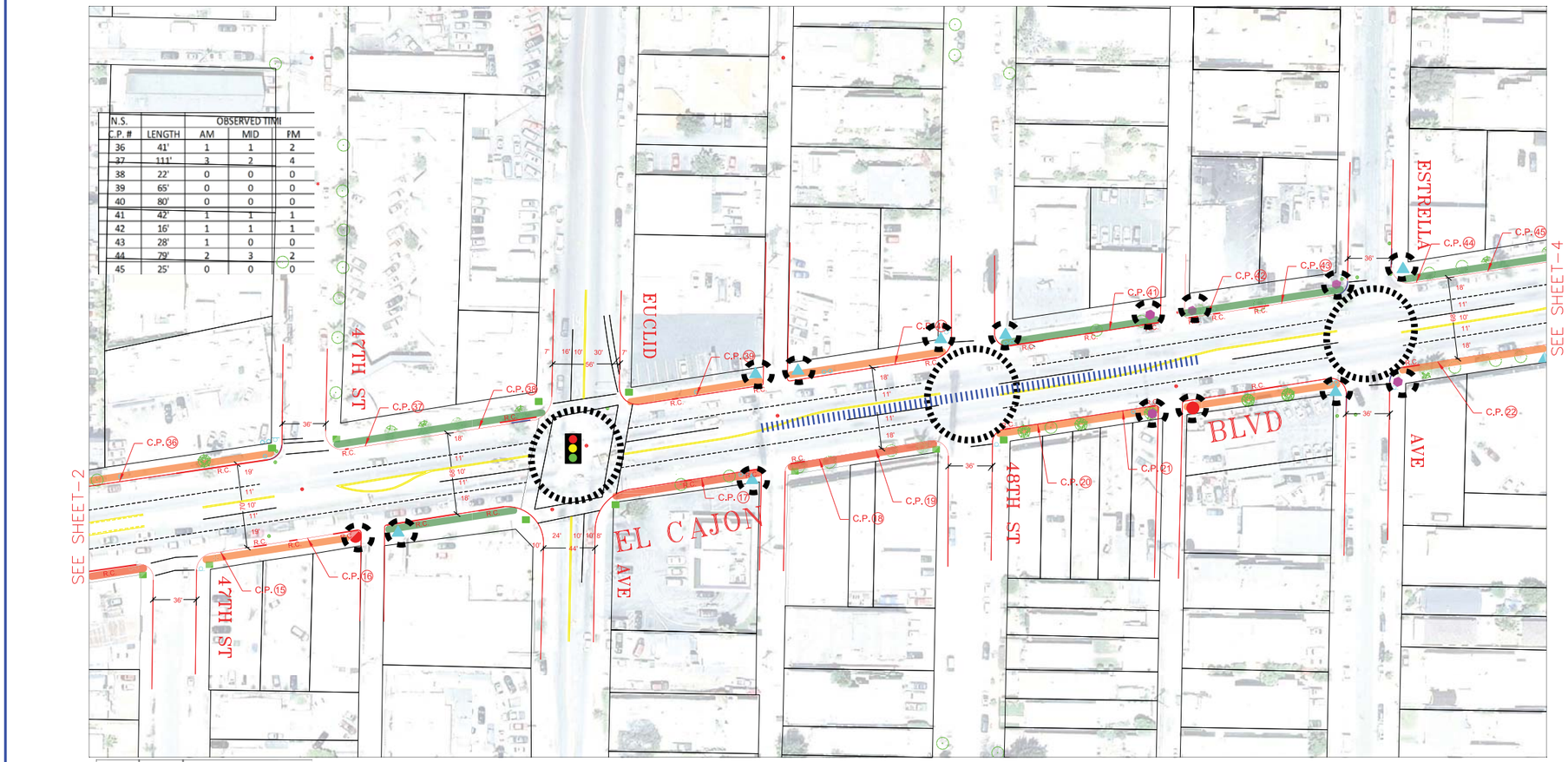
CITY OF SAN DIEGO
PUBLIC WORKS PROJECT

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

EL CAJON BLVD CORRIDOR IMPROVEMENT STUDY - FAIRMOUNT AVENUE TO 50TH STREET

EL CAJON BOULEVARD

Figure 6-7 | Intersection and Median Opportunities Page 3



N.S.		OBSERVED TIMI		
C.P. #	LENGTH	AM	MID	PM
36	41'	1	1	2
37	111'	3	2	4
38	22'	0	0	0
39	65'	0	0	0
40	80'	0	0	0
41	42'	1	1	1
42	16'	1	1	1
43	28'	1	0	0
44	79'	2	3	2
45	25'	0	0	0

S.S		OBSERVED TIM:		
C.P. #	LENGTH	AM	MID	PM
15	34'	1	1	1
16	21'	1	1	1
17	56'	0	0	0
18	41'	0	1	0
19	65'	0	1	1
20	72'	3	1	1
21	22'	1	1	1
22	209'	1	0	1

* CONSTRUCTION ZONE – NO PARKING

15'+ SIDEWALK-GREATEST OPPORTUNITY
10-14.9' SIDEWALK-MARGINAL OPPORTUNITY
<10' SIDEWALK-LOW OPPORTUNITY
MEDIAN OPPORTUNITY AREA
INTERSECTION OPPORTUNITY AREA

LEGENDS:

= ADA COMPLIANT RAMP
= NON-COMPLIANT RAMP
= DAMAGED RAMP
= CURB WITHOUT RAMP
= TYPE 15 STREET LIGHT
= DECORATIVE DOUBLE FIXTURE STREET LIGHT
= FIRE HYDRANT
= SHADE TREE
= PALM TREE
= PLANT
= STORM WATER INLET
= RAPID BUS TRANSIT STOP
= LOCAL BUS STOP
= SIGNALIZED INTERSECTION
= TRAFFIC SIGN
= RED CURB
= GREEN CURB
C.P. = CURB PARKING

N
1" = 40'

C-3

EL CAJON BLVD
CORRIDOR STUDY
FAIRMOUNT AVE. TO 50TH ST.

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET X OF XX SHEETS

W.B.S.
W.O.
APPROVED FOR CITY ENGINEER DATE
SUBMITTED BY SECTION HEAD

DESCRIPTION	BY	APPROVED	DATE	FILMED

AS-BUILTS
CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

PROJECT MANAGER
CCS27 COORDINATE
CCS83 COORDINATE

CONSTRUCTION CHANGE / ADDENDUM

CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

CONSULTANT
WILSON & COMPANY
BASE MAP PROVIDED BY:
DJ ROBERTS INC ENGINEERING DIVISION

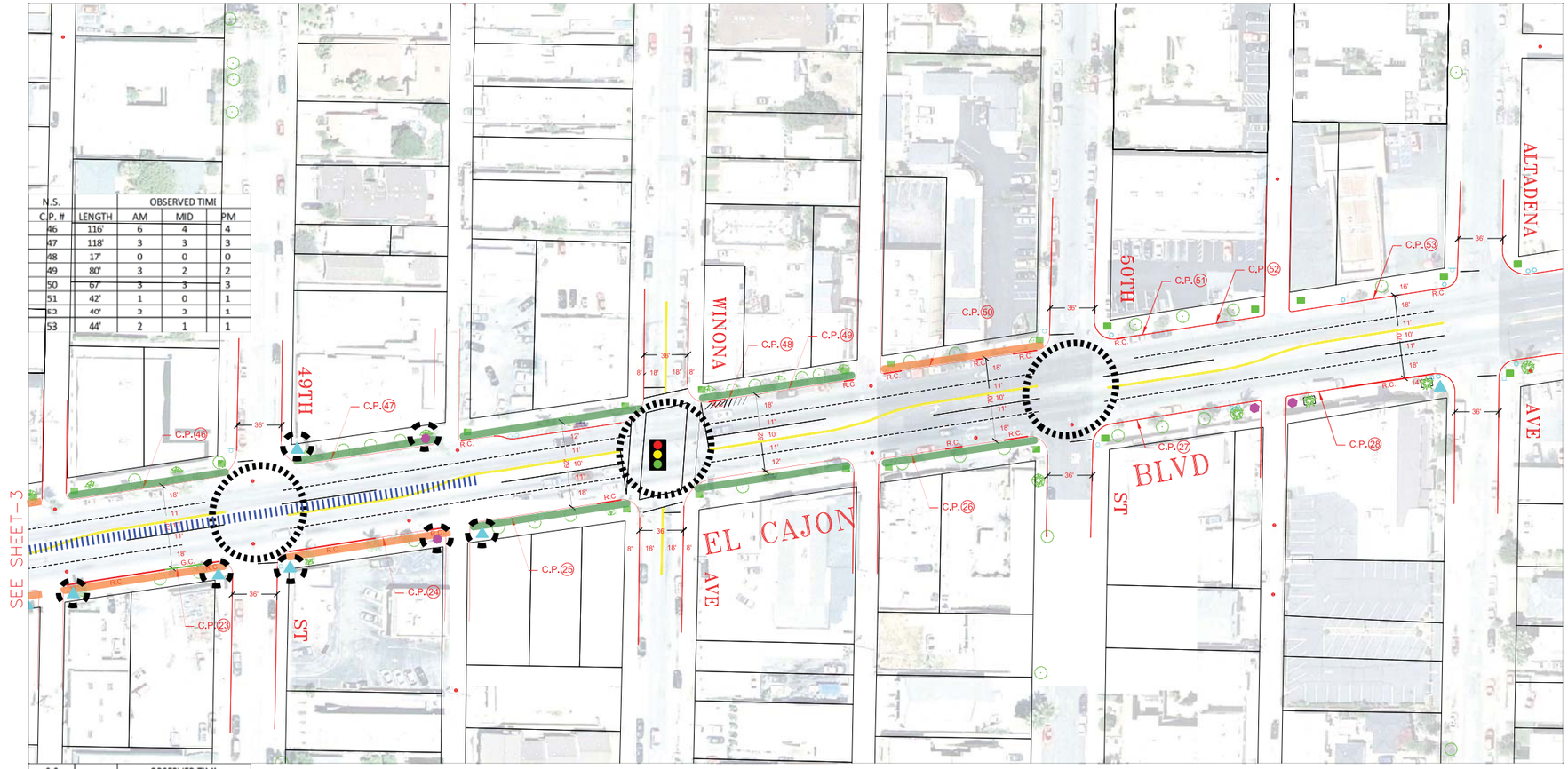
SCALE HORIZONTAL 1" = 40'
VERTICAL NO SCALE

CITY OF SAN DIEGO
PUBLIC WORKS PROJECT

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

EL CAJON BLVD CORRIDOR IMPROVEMENT STUDY - FAIRMOUNT AVENUE TO 50TH STREET

Figure 6-8 | Intersection and Median Opportunities Page 4



APPENDIX A

EL CAJON BOULEVARD

EL CAJON BOULEVARD

APPENDIX B

EL CAJON BOULEVARD

APPENDIX C