Euclid + Market
LAND USE AND MOBILITY PLAN

EUCLID + MARKET
LAND USE & MOBILITY PLAN

EXISTING CONDITIONS ANALYSIS ASSESSMENTS

SUBMITTED TO:
CITY OF SAN DIEGO
CITY PLANNING DIVISION,
DEVELOPMENT SERVICES DEPARTMENT

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1. INTRODUCTION

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INTRODUCTION

Project Initiation

The Euclid & Market Land Use and Mobility Plan has been initiated through the *TransNet* Smart Growth Incentive Program (SGIP) which is administered through SANDAG (San Diego Association of Governments), the regional planning agency that encompasses the City of San Diego. The agency allocates funds received from *TransNet* transportation tax revenues for transportation-related infrastructure improvements and planning efforts that support smart growth development. The Euclid & Market Village Master Plan was awarded to the City of San Diego through the 2009-2010 fiscal year funding cycle with the intention that the development surrounding the Euclid Avenue Trolley stop would serve as a model for integrating land use and transportation and smart growth development.

SANDAG previously identified the Euclid & Market area as a potential "Community Center" in the regional Smart Growth Concept Map, updated in 2008. This place type is described as an area that contains housing within walking/ biking distance of transit station, low to mid-rise residential, office, and commercial buildings that draw from nearby communities and neighborhoods, and is served by high frequency transit. Market Street and Imperial Avenue were identified as potential "Mixed-Use Transit Corridors," which include areas of concentrated residential and mixed-use development along a linear transit corridor, with a variety of low-, mid-, and high-rise buildings and employment, commercial and retail uses. The guidelines associated with these place types in the SANDAG Smart Growth Guidelines thus apply to this area.

The Euclid & Market area is also home to the Euclid and Market Pilot Village, which has evolved to become the Village at Market Creek. The program, initiated in 2002, applied the City of Villages strategy of the San Diego General Plan to specific sites throughout the City, bringing together housing, retail, jobs, schools, and civic uses. The Village Center at Euclid and Market plan, begun in 2003, was envisioned as a "hilltop" village, taking advantage of the natural topography of the Encanto neighborhoods, and the accessibility of the trolley. Phase I of the Pilot Village, the Market Creek Retail Center, has been completed, as well as the Jacobs Center for Neighborhood Innovation (JCNI), and improvements to Chollas Creek immediately surrounding the area. Additionally, this area has benefited from additional planning, public outreach, capital improvement and private investment efforts in conjunction with various neighborhood groups and public and private partners.

The project will prepare a mobility and land use master plan for Market Street, Euclid Avenue, Imperial Avenue and Chollas Creek corridors to enhance connectivity to the Euclid and Market Pilot Village project area. The present Plan will focus specifically on the linkages between mobility and land uses, specifically on key corridors including Market Street, Euclid and Imperial Avenues, and Chollas Creek. Ultimately the recommendations of the Plan will result in improved access to transit, and contribute to regional mobility and climate change goals.

Project Objectives

The present plan will integrate and connect the Euclid and Market Pilot Village area to the surrounding community by creating mixed-use, multi-modal connections along Market Street, Euclid Avenue and Imperial Avenue, and enhancing the pedestrian and bicycle access along Chollas Creek. The planning process will engage the community, building upon past planning efforts, to produce a usable, implementable guide to improved circulation facilities and an expansion of the geographic area that has undergone investment through past planning efforts.

A summary of objectives are to:

- Improve bicycle and pedestrian access to the 47th Street Trolley Station, and the Euclid Avenue Trolley Station and bus transit center.
- Create conceptual plans for a pedestrian path along Chollas Creek linking the 47th Street and Euclid Avenue Trolley Stations to improve trolley access and foster environmental stewardship.
- Establish a multi-modal mobility network to transform the auto-oriented character of the area.
- Support the community's land use vision, as summarized in the Pilot Village program, and to make the Village at Market Creek more accessible to the surrounding community.
- Recommend appropriate land uses, densities and design within the planning area to better support transit, enhance the community, and meet regional smart growth objectives for the Community Center and Transit Corridor Place Types.

Finally, the present plan will directly inform the forthcoming Community Plan update for the Encanto Neighborhoods.

Plan Area Overview

The Euclid & Market Land Use and Mobility Plan Area (the "Plan Area") is located in the City of San Diego, in San Diego County, in the State of California, approximately 5 miles east of Downtown San Diego. (See Figure 1-1: Regional Location).The area is situated south of State Route 94, east of I-805, and north of National City, centered around the intersection of Euclid Avenue and Market Street in San Diego's Encanto neighborhoods. The approximately 230 acre Plan Area (227 acres) includes areas alongside Market Street from the I-805 northbound on-ramp (adjacent to 45th Street) to the intersection of Imperial Avenue and Merlin Drive; areas along Euclid Avenue from approximately Guymon Street to Imperial Avenue; and Chollas Creek from the 47th Street Trolley Station to the Euclid Trolley Station.

The Plan Area is located within the Chollas View, Lincoln Park, Emerald Hills, and Valencia Park neighborhoods, which are part of the Encanto Neighborhoods Community Planning Area. The majority of surrounding land is within the City of San Diego, except for a 125-acre portion of unincorporated San Diego County located across I-805 to the West. This is the location of Greenwood Memorial Park and Mortuary. (See Figure 1-2: Community Plan Area).

From a regulatory standpoint, the Plan Area is under the guidance of the City of San Diego General Plan (2008), the Encanto Community Plan, and the Southeastern San Diego Planned District (Article 19 of the San Diego Municipal Code). It is also partially within the adopted Central Imperial Redevelopment Area. (Figure 2-7: Redevelopment Area)

The Euclid and Market area has been the focus of substantial community investments over the past decades, the majority of which are concentrated at the intersection of Market Street and Euclid Avenues. These include the Malcolm X Library, the Tubman-Chavez Multi-Cultural Center, the Elementary Institute of Science, and the Euclid Trolley Station and bus Transit Center, The Village Center at Market Creek is among these investments. These have been enhanced by the access to the high-frequency trolley service with Orange line stations at 47th Street and at Euclid Avenue and Market Street.

A significant amount of open space surrounds the Plan Area, including City-owned conservation areas included in the City's Multiple Species Conservation Program (MSCP) and Multi-Habitat Planning Area (MHPA). The Plan Area is also located adjacent to Chollas Creek—an important open space and ecological resource in the region. These lands currently offer several existing trails, passive recreation, bird watching and scientific research assets and the potential for more enhancements of this type. Additional open space is located in adjacent school locations in the form Joint-Use Sites. These features are illustrated in Figure 1-3: Natural Environment and Open Space.

Demographically, the Plan Area is home to an ethnically diverse community. Nine identified ethnic communities are known to reside within the surrounding neighborhoods, over half of which are of Hispanic origin. The communities are also younger in age, have larger households, and have a lower median income than the City and County of San Diego. The highest employment sector for individuals in the Plan Area is the retail trade industry. Chapter 5: Market Analysis contains a full analysis of the demographic features of the Plan Area, which are also summarized in Table 1-1.

Table 1-1: Summary of Key Demographic Factors, 2011

Demographic Summary	Plan Area (1-Mile)	City
Households:		
Number of Households	7,822	487,221
Average Household Size	3.69	2.62
Income:		
Median Household Income	$35,078	$58,173
Families Below Poverty	24.9%	9.8%
Families Below Poverty with Children	23.2%	7.7%

Population of Hispanic Ethnicity	57.4%	29.5%
Language Spoken at Home:		
English Only Spoken at Home	42.3%	60.6%
Other Spoken at Home	57.7%	39.4%
Educational Attainment:		
Less Than High School Graduate	38.0%	14.6%
High School Graduate (or GED)	25.6%	16.9%
Some College – No Degree	21.5%	20.9%
Completed Degree	14.9%	47.6%

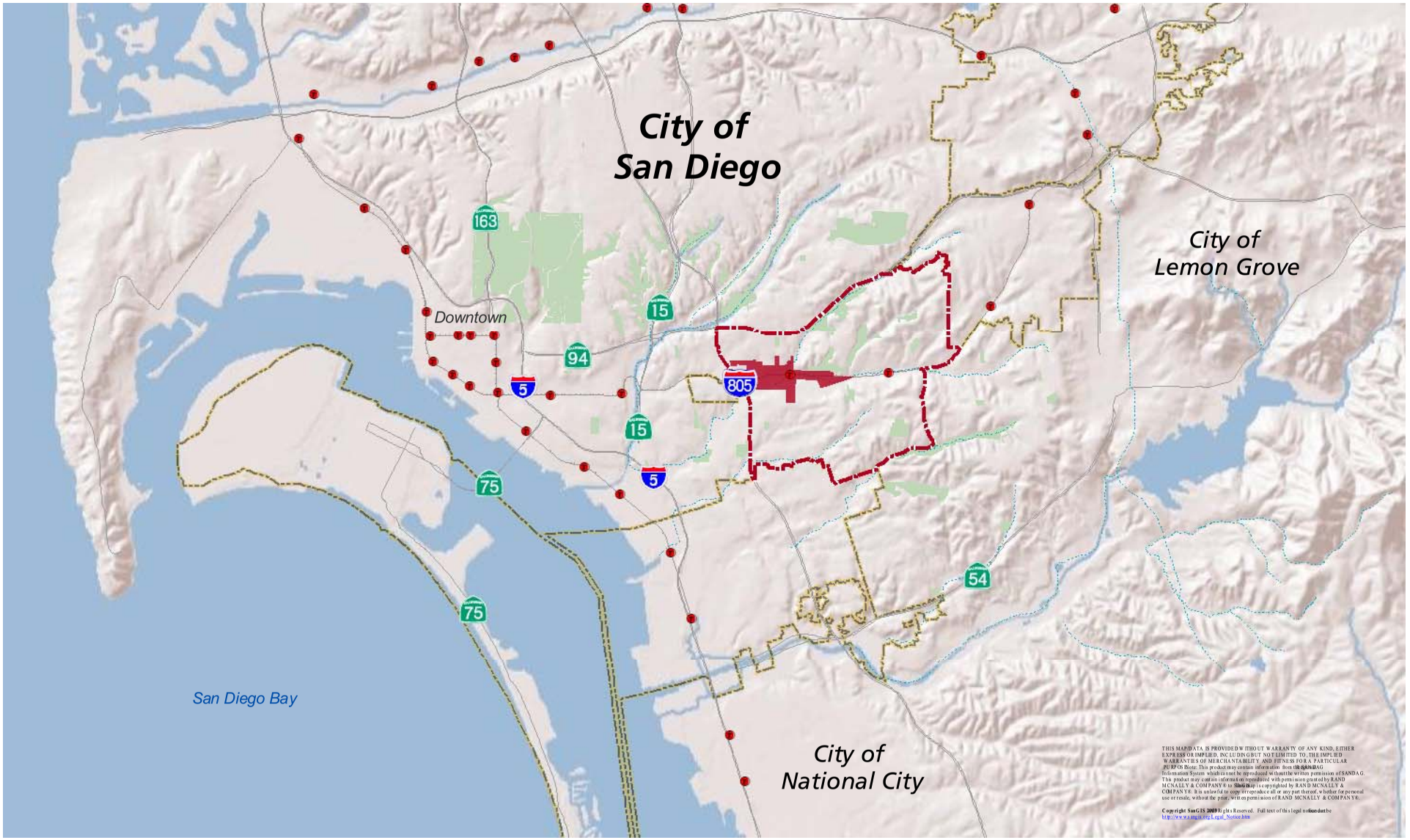
Source: Claritas, Inc., KMA.

Organization

This report documents the project team's initial observations and analysis of existing conditions for the Euclid & Market Land Use and Mobility Plan Project Area. Observations and analysis pertaining to environmental conditions, land use policy, urban form, mobility, and market conditions are included as individual report chapters. This report establishes a common understanding of the various conditions affecting the Plan Area and vicinity for use during subsequent stages of the Master Plan Process and the visioning of future development in the planning area.

This report is organized into the following Chapters:

1. Introduction
2. Land Use Policy Assessment
3. Urban Form Assessment
4. Mobility Assessment
5. Market Analysis
6. Environmental Analysis Assessment



LEGEND

- Euclid & Market Village Master Plan Project Area Boundary
- Community Plan Boundary
- City of San Diego Boundary
- River/Stream
- Light Rail
- Freeways
- Parks and Open Spaces

FIGURE 1-1: REGIONAL LOCATION

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0 0.5 1 2 Miles

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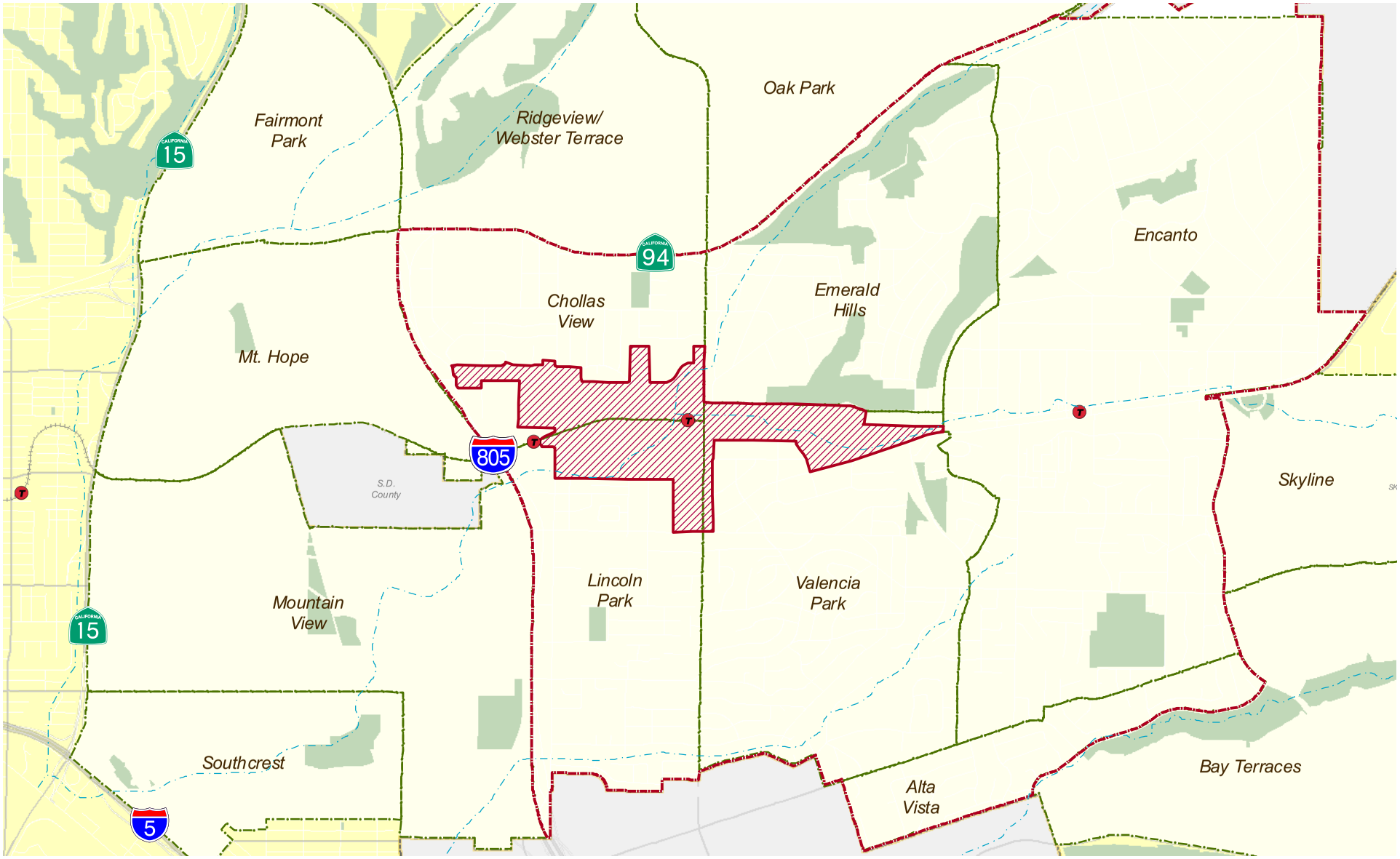

LEGEND

- Euclid & Market Village Master Plan Project Area Boundary
- Community Plan Boundary
- Areas Outside City of San Diego
- Encanto Neighborhoods
- Trolley Stop
- Chollas Creek
- Light Rail
- Parks and Open Spaces

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FIGURE 1-2: COMMUNITY PLAN AREA

Euclid + Market
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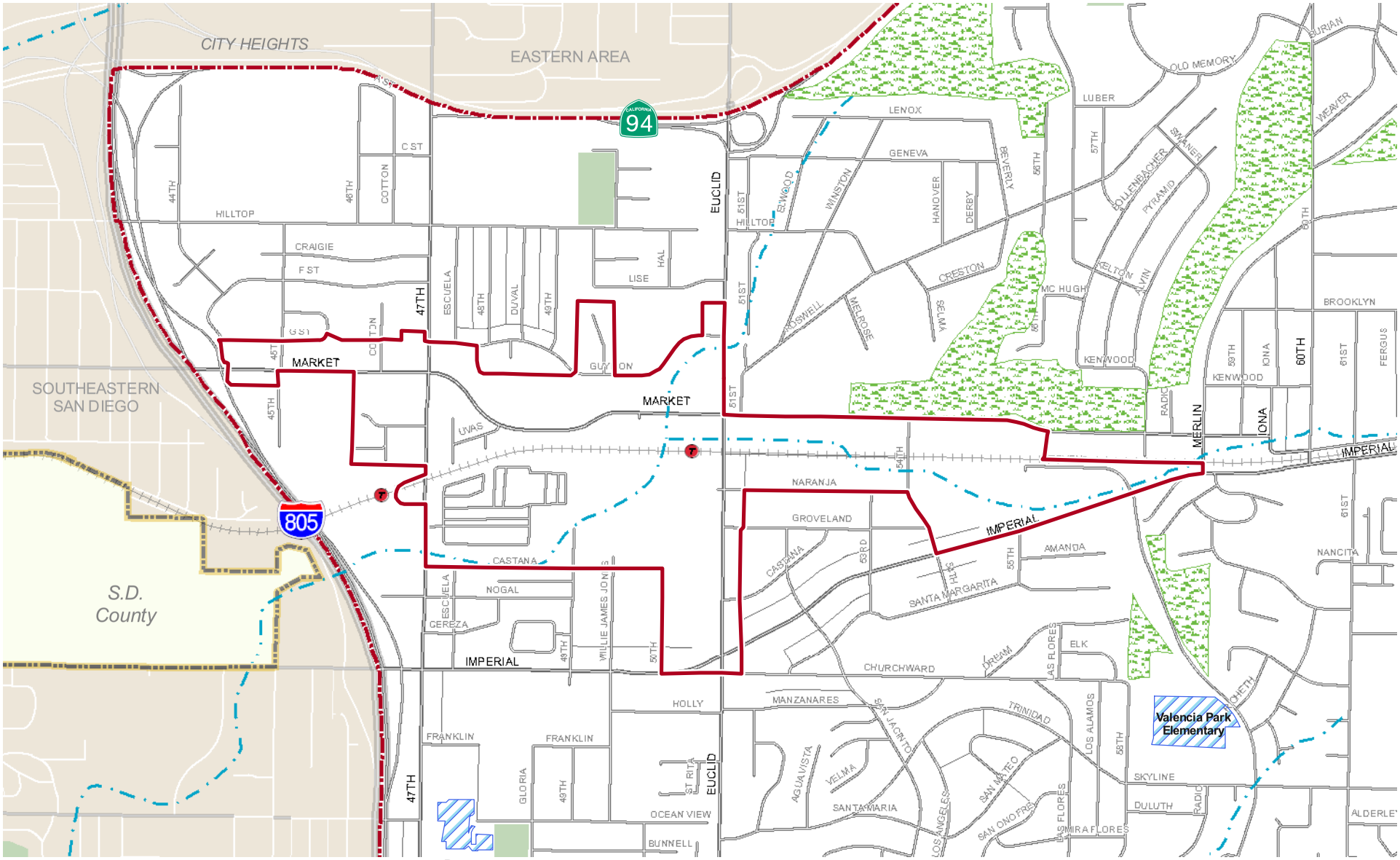

LEGEND

- Euclid & Market Village Master Plan Project Area Boundary
- Community Plan Boundary
- City of San Diego Boundary
- Trolley Stop
- Joint Use Parks
- San Diego MHPA
- Parks and Open Spaces
- Chollas Creek
- Light Rail

FIGURE 1-3: NATURAL ENVIRONMENT & OPEN SPACE

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2. LAND USE POLICY ASSESSMENT

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LAND USE POLICY ASSESSMENT

Land Use

Existing Land Use

The built landscape in the Plan Area is characterized by a mixture of lower density multifamily and single-family residences, retail, industrial uses, and vacant or underutilized land. Residential land uses comprise approximately 30% of the Plan Area. Commercial uses, which include industrial uses, make up 22% of the Plan Area. This includes areas that are under construction, and low-rise offices associated with industrial land uses. Public and institutional land uses make up the next greatest portion of land. This also includes the nearly 14 acres of public open space.

Commercial uses are located primarily along Market Street, Euclid Avenue, and Imperial Avenue. The majority of industrial uses are located south of Market Street and east of 49th Street on the north and south sides of the trolley right-of-way. Amid these uses is also a significant portion of the vacant and underutilized land within the Plan Area.

A significant amount of land within the Plan Area and in Southeastern San Diego in general is vacant or underutilized. In the Southeast San Diego Community Plan, completed in 1987, 11% of land is identified as vacant. Of the acreage within the Plan Area, approximately 14% is vacant and undeveloped. There are also several large surface parking lots that provide opportunity areas for new development. This includes underutilized parcels, such as the Church's Chicken site on the northwest corner of Euclid & Market. Large vacant parcels are located north of Market Street west of 49th Street, south of Market adjacent to the trolley tracks, north of the trolley tracks immediately east of Euclid, and between Stevens and Imperial Avenue. The location of vacant parcels and parking lots are illustrated on Figure 2-2: Vacant Parcels and Parking Lots.

Table 2-1: Existing Land and Figure 2-1: Existing Land Use demonstrate the location and proportion of land use within the Plan Area.

Table 2-1: Existing Land use in the Plan Area

	Acres	Percentage of overall project area land
Residential		
Single-Family	17.32	7.6%
Multi-Family	25.65	11.3%
Mobile Home Park	28.28	12.4%
Sub-Total	71.26	31.3%
Commercial		
Arterial Commercial	5.54	2.4%
Commercial	3.32	1.5%
Community Commercial	8.37	3.7%
Office Low Rise	2.47	1.1%
Industrial	2.54	1.1%
Light Industry	18.85	8.3%
Industrial under Construction	8.22	3.6%
Other Retail Trade Strip Commercial	0.81	0.4%
Warehousing	0.01	0.0%
Sub-Total	50.14	22.0%
Public & Institutional		
Elementary School	19.56	8.6%
Government Office/ Civic Center	1.42	0.6%
Open Space or Preserve	13.77	6.0%
Other Health Care	3.44	1.5%
Other Public Services	3.44	1.5%
Religious Facility	0.45	0.2%
Institutional	2.88	1.3%
Library	0.26	0.1%
Sub-Total	45.23	19.9%
Infrastructure & Utilities		
Communications & Utilities	3.86	1.7%
Rail Terminal	7.00	3.1%
Other Transportation	2.09	0.9%
Sub-Total	12.95	5.7%
Vacant and Undeveloped Land	30.97	13.6%
Right-of-Way		
Right-of-Way (Railroad)	9.91	4.4%
Right-of-Way (Streets)	7.25	3.2%
Total Acreage	**227.7**	**100%**

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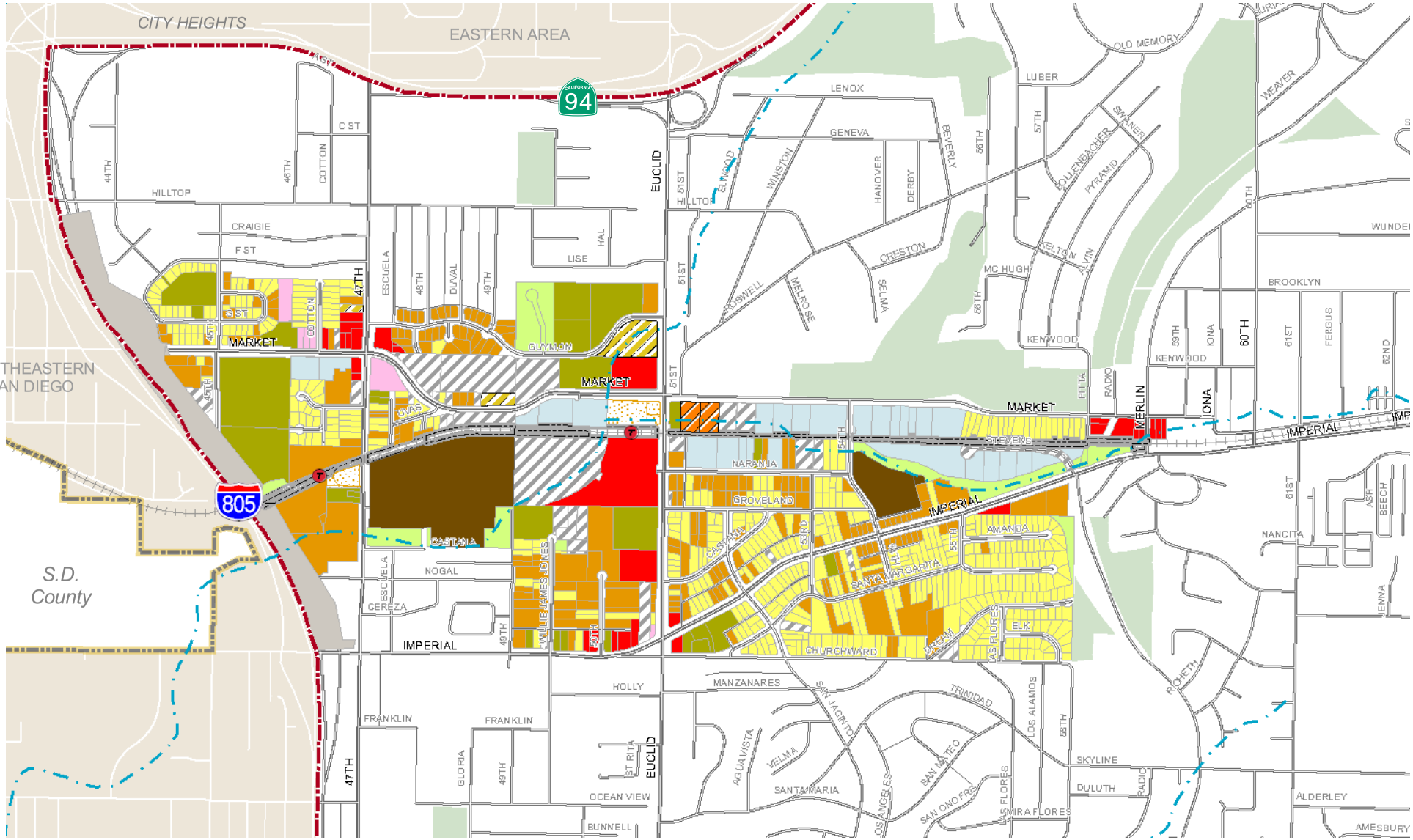

LEGEND

- Community Plan Boundary
- City of San Diego Boundary
- Trolley Stop

Existing Land Use

- Institutional
- Commercial
- Office
- Light Industry
- Single-Family
- Multi-Family
- Mobile Home Park
- Open Space
- Utilities
- Other Transportation
- Rail Road
- Rail Terminal
- Warehousing
- Parking/ Vacant Lot
- Chollas Creek

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FIGURE 2-1: EXISTING LAND USE

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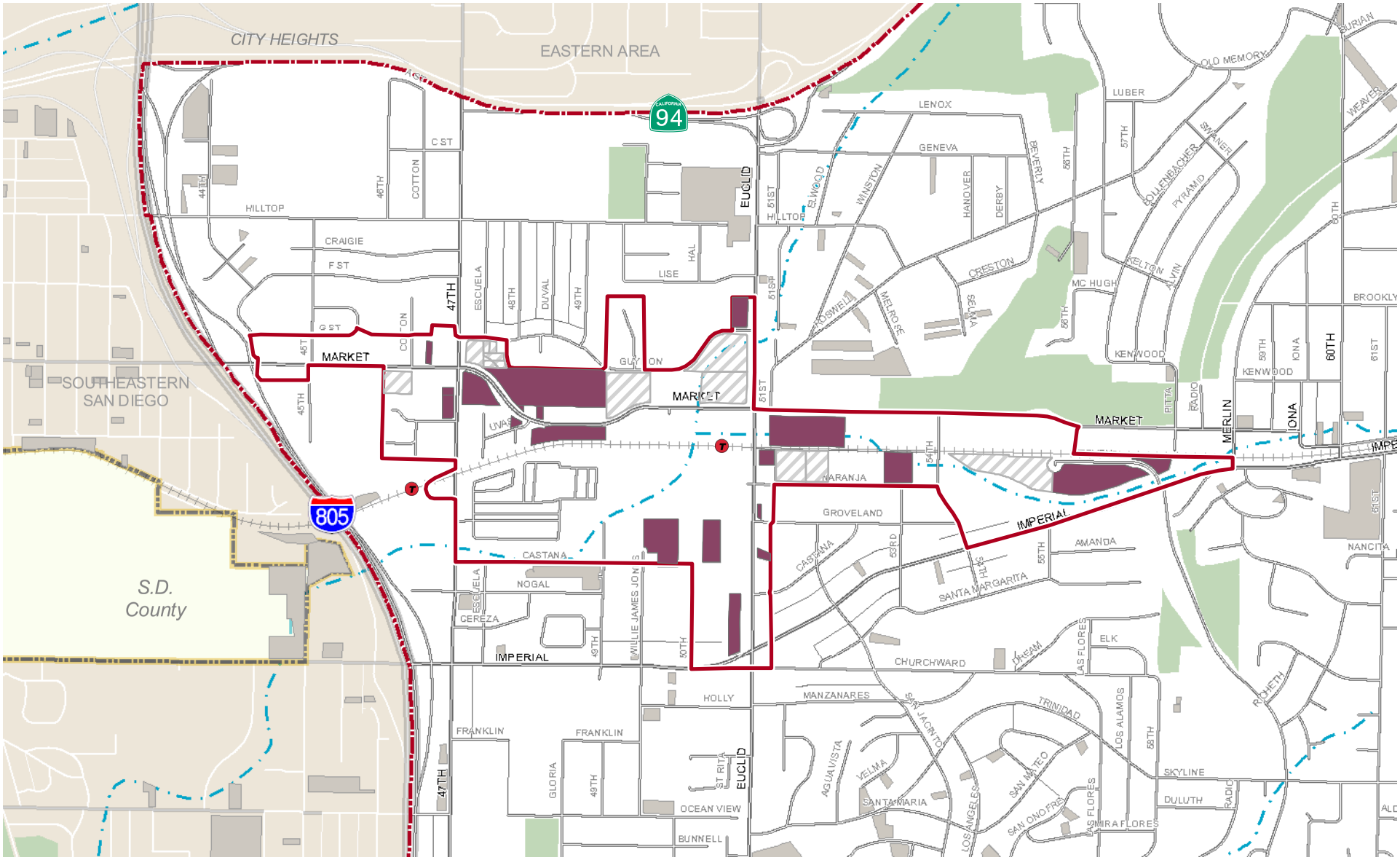
LAND USE AND MOBILITY PLAN



LEGEND

- Euclid & Market Village Master Plan Project Area Boundary
- Community Plan Boundary
- City of San Diego Boundary
- Trolley Stop
- Existing Land Use - Parking Lot/ Vacant
- Vacant Plan in Plan Area
- Vacant Land outside Plan Area
- Chollas Creek
- Light Rail
- Parks and Open Spaces

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FIGURE 2-2: VACANT PARCELS & PARKING LOTS

Planned Land Use

Adopted Community Plan Land Use

The Adopted Land Use recommendations for the Plan Area were established with the most recent update of the Southeastern San Diego Community Plan, which was completed in 1987. The definitions of these land uses are described in the Land Use Element of the Community Plan (the "Adopted Community Plan") which categorizes land uses generally according to Residential, Commercial, Village/ Mixed Use, Industrial, and Open Space and Recreational uses with goals and recommended land uses for each. The Land Use Element defines land uses that are in keeping with the General Plan definitions for the City with refinements appropriate to the Community Plan Area's neighborhoods. Areas that warrant more stringent design guidelines are addressed through the mechanism of a Community Plan Implementation Overlay Zone (CPIOZ), which contains a greater level of design and development guidelines. The CPIOZ is described in greater detail below. Planned land uses in the Plan Area and vicinity are illustrated in Table 2-2: Adopted Community Plan Land Use, and in Figure 2-3: Adopted Community Land Use.

Generally these adopted land uses correspond to the existing land uses, in the concentration of industrial and commercial uses located along Market Street, Euclid Avenue and Imperial Avenue. Single-family residential areas are located on the western portions of the Plan Area except for a thin strip on the eastern edge of Euclid Avenue. The single-family mobile home park designation is located south of the trolley tracks to the southern boundary of the Plan Area. The multi-family designations are located south of the Village Center at Euclid & Market and south of the industrial uses in the eastern portion of the Plan Area north of Imperial Avenue. Residential uses apply to 38% of the Plan Area.

Commercial uses are concentrated along Market Street and at the intersection of Euclid and Market, the intersection of Market and 47th Streets, and the Euclid and Imperial. The Neighborhood Village use applies to the planned *Village at Market Creek*, which occupies 11.1% of the Plan Area. Industrial uses are located along Market Street both east and west of Euclid Avenue and amount to 21% of the Plan Area.

Institutional uses are located on the site of the Euclid & Market Transit Stop and the 47th Street Trolley Stop.

The following Adopted Land Uses are contained within the Plan Area.

- Single-Family Residential (5-10 du/acre)

  This land use includes low density development that maintains the scale and spacing of development found within the community. It allows both single-family and multifamily

housing within a low to medium density range. These are "Protected Single-Family Neighborhoods" according to the Community Plan.

- Single-Family Residential (10-15 du/acre)

  This land use includes low density development that coincides with the R-3000 zoning with a 30-foot height limit. This use maintains the scale and spacing of development found within the community and provides for both single-family and multifamily housing within a low to medium density range.

- Multi-family Residential (15-30 du/acre)

  This land use provides for both single- and multi-family and multifamily housing within a medium density range. Areas with this land use allow for increased densities along major corridors that reflect existing development and take advantage of proximity to the trolley corridor.

- Single-Family Residential Mobile Home (10-15 du/acre)

  A portion of The Plan Area contains a part of the Mobile Home Overlay Zone, which applies to the El Rey Trailer Park at 47th Street and Castana. The Overlay requires specific discontinuance procedures prior to the sites being used for another purpose. As adopted, it allows for single-family residential uses of 10-15 du/acre in the form of mobile homes.

- General Commercial

  General Commercial is used to describe existing shopping centers or miscellaneous commercial uses within the Plan Area. Areas defined as such in the Adopted Community Land Use Plan include Market Creek Plaza shopping center, commercial development on the west side of Euclid north of Imperial, St. Stephen's Retirement Center and Community Bookstore, and the Green Cat Liquors building at the corner of Euclid & Imperial. These uses are meant to fulfill the commercial needs of the community. Allowable uses within these identified areas shall conform to the regulations held in the underlying zoning.

- Neighborhood Commercial

  Neighborhood Commercial, outside of the CPIOZ, provides for local convenience shopping, civic uses, and services serving an approximate three mile radius, without

housing allowed (note housing allowed with Neighborhood Commercial only within CPIOZ). Areas identified as Neighborhood Commercial in the Adopted Community Plan Land Use include the four corners of Market & 47th Streets, and auto-body repair shops on the south side of Market Street west of Merlin. Allowable uses within these identified areas shall conform to the regulations held in the underlying zoning.

- Neighborhood Village

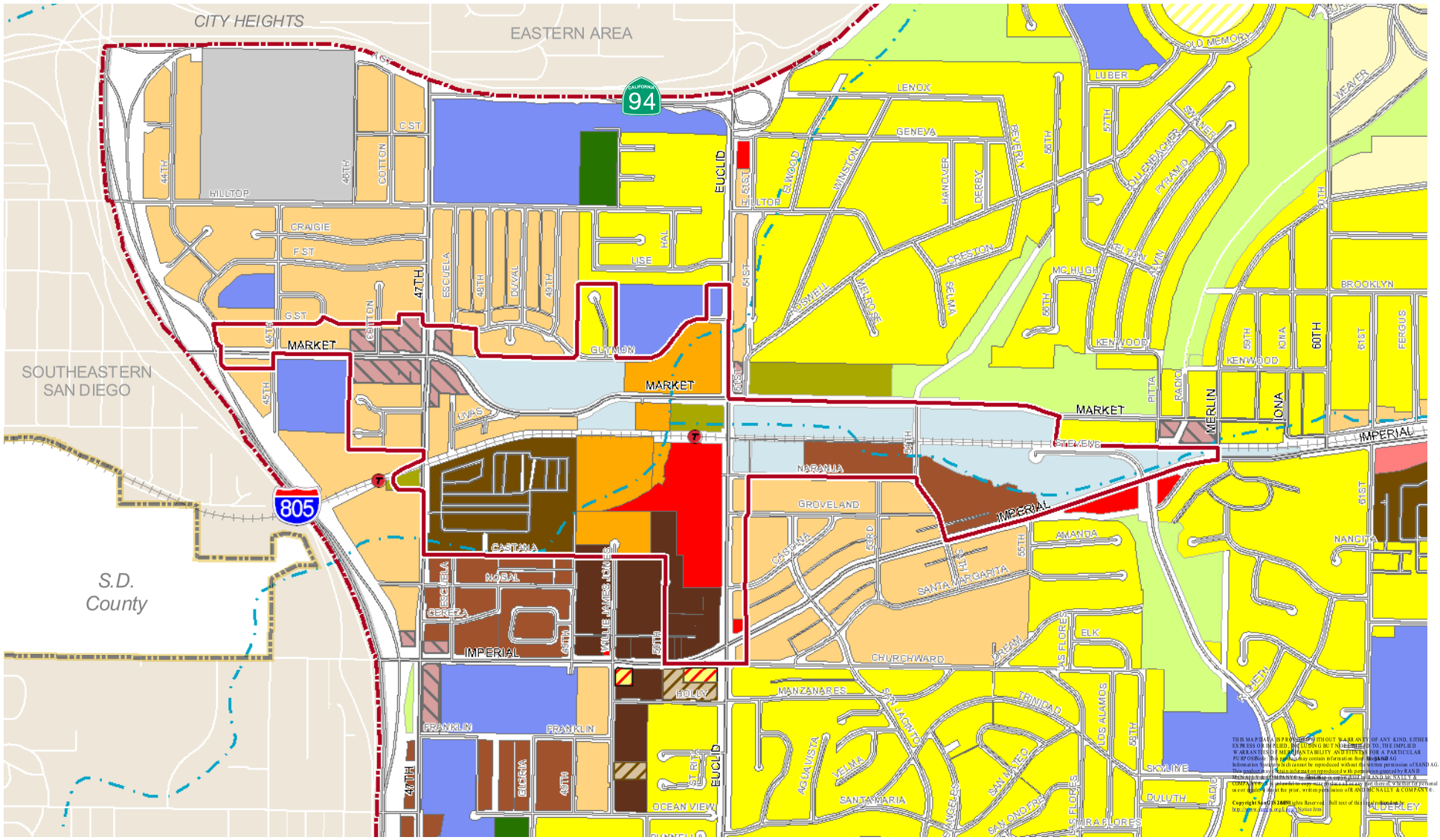
  The Neighborhood Village land use areas corresponds to the *Village at Market Creek* Pilot Village area (as yet undeveloped) and has specified densities and land uses and planned square footage for each area. These are described as a Village/ Mixed Use Land Use. The General Plan also defines Neighborhood Village, as shown in Table 2.2.
  - Southwest Village: 216 Multifamily Dwelling Units
  - Market Creek Plaza: 220 Multifamily Dwelling Units, 20,000 sf Commercial/ Retail.
  - Trolley Center: 52 Multifamily Dwelling Units
  - Northwest Commercial: 44 Multifamily Dwelling Units, 65,400 sf retail.
  - City of Villages: 165 Multifamily Dwelling Units, 5,000 sf Office, 21,500 sf Retail, 9,650 sf of Eating and Drinking Establishments

- Industrial

  The light industrial land use shown within the Plan Area permits and are reserved for industrial and office park uses, which is implemented by underlying zoning. Industrial land use prohibits auto dismantling, junk yards, outdoor open storage, and recycling industries within the Southeastern San Diego community. Compliance is regulated through applicable zoning regulations.

- Institutional

  Institutional land uses applies to all public facilities, including: schools, libraries, police/ fire, postal service, drainage and flood control, water and sewer facilities, solid waste, and gas/ electric. Within the Plan Area, institutional land uses include the transportation facilities at 47th & Euclid and Euclid & Market Streets. Outside of the Plan Area, the land use applies to the Malcolm X Library. Schools and education al facilities are identified as a distinct land use within the Institutional land use category, which are encouraged to match the density and form of the surrounding community. Transportation facilities do not include use and/or design recommendations.



LEGEND

- Euclid & Market Village Master Plan Project Area Boundary
- Community Plan Boundary
- City of San DiegoBoundary
- Trolley Stop
- Light Rail
- Chollas Creek
- Single Family Res. (0-2 du/ac)
- Single Family Res. (0-5 du/ac)
- Single Family Res. (5-10 du/ac)
- Single Family Res. (10-15 du/ac)
- Single Family Res. (10-15 du/ac); Mob. Home
- Multi-Family Res. (15-17 du/ac)
- Multi-Family Res. (15-30 du/ac)
- Multi-Family Res. (30-44 du/ac)
- Neighborhood Village
- Neighborhood Commercial-
- Multiple Use
- General Commercial
- Community Commercial
- Neighborhood Commercial
- Specialized Commercial
- Business Park / Office Commercial
- Industrial
- Park
- Open Space
- Cemetery
- Institutional
- Schools/Public Facilities

FIGURE 2-3: ADOPTED COMMUNITY PLAN LAND USE

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Table 2-2: Adopted Community Plan Land Use

	Acres	Percentage of overall project area land
Residential		
Single Family Residential (5-10 du/ac)	4.23	1.9%
Single Family Residential (10-15 du/ac)	31.01	13.6%
Single Family Residential (10-15 du/ac) Mobile Home	26.68	11.7%
Multi-Family Residential (15-17 du/ac)	14.30	6.3%
Multi-Family Residential (15-30 du/ac)	10.52	4.6%
Sub-Total	86.73	38.1%
Commercial		
General Commercial	14.26	6.3%
Neighborhood Village	25.30	11.1%
Neighborhood Commercial	7.97	3.5%
Sub-Total	47.53	20.8%
Industrial		
Industrial	48.89	21.5%
Sub-Total	48. 9	21.5%
Institutional		
Institutional	7.00	3.1%
Schools/Public Facilities	20.38	8.9%
Sub-Total	27.38	12.0%
Right-of-Way		
Right-of-Way (Railroad)	9.91	4.4%
Right-of-Way (Streets)	7.25	3.2%
Total Acreage	**227.7**	**100%**

Other land uses in Figure 2-3: Adopted Community Plan Land Use that are in the surrounding area but not contained in the Plan Area include:

- Single-Family Residential (0-2 du/acre)
- Single-Family Residential (0-5 du/acre)
- Multi-Family Residential (15-17 du/acre)
- Multi-Family Residential (30-44 du/acre)
- Neighborhood Commercial-Residential Permitted (0-44 du/acre) (within CPIOZ)
- Community Commercial
- Specialized Commercial
- Business Park/ Office Commercial
- Park

- Open Space
- Cemetery

These are generally described in the Community Plan, but are not explicitly defined. Additional information may be found by referencing the Southeastern San Diego Community Plan.

Community Planning Implementation Overlay Zone (CPIOZ)

In the 1987 Southeastern San Diego Community Plan, two areas within the Plan Area were identified as a Community Planning Implementation Overlay Zone (CPIOZ). These designations effectively implement the Village/Mixed-Use Designations. The Village/ Mixed-Use Designations are applied to two areas in the Plan Area: Village Center at Euclid & Market and Imperial Crest. The Village at Euclid and Market is expected to provide a combination of commercial and community facilities along with multi-family housing, while Imperial Crest will have a more residential focus with limited commercial development. In the Adopted Community Plan Land Use, the Neighborhood Village designation is associated with the established Village Center at Euclid & Market. The Imperial Crest area is designated as Multi-Family Residential (15-30 du/acre).

The objectives of the Village/ Mixed-Use designations include the promotion of mixed-use and high-quality residential developments that support transit use, reduce automobile dependence, establish a pedestrian-friendly orientation, and offer flexibility for redevelopment opportunities while maintaining community character.

Both of the designated areas located within the CPIOZ district are Type A, which means that they are subject to ministerial review. If developments are consistent with the community plan base zone regulations, supplemental regulations will be processed without added permits or discretionary review.

In 2009, the Fifth Amendment to the Central Imperial Redevelopment Area was passed, allowing for the village type policies of the City of San Diego General Plan Update to be added to be applied to the Southeastern Community Plan. These two land uses—Neighborhood Village and Neighborhood Commercial (Residential Permitted)—would allow for village-type development and higher density residential use (up to 60 du/ acre). These would be allowed only in the designated CPIOZ areas.

General Plan Land Uses

The San Diego General Plan, updated in 2008, included land uses that could be applied to Community Plan. The intention of the General Plan Land Uses are to set forth a common nomenclature for use throughout the City, with Community Plans for each area providing refinements and modifications that directly address those communities needs and market. The table below contains the General Plan Land Uses that are applicable to the Southeastern San Diego/ Encanto Neighborhoods and are presented in the same format as in Table LU-4: General Plan and Community Plan Land Use Categories. These will be modified in the forthcoming Community Plan Update for Southeastern San Diego.

Table 2-3: Optional General Plan Land Uses

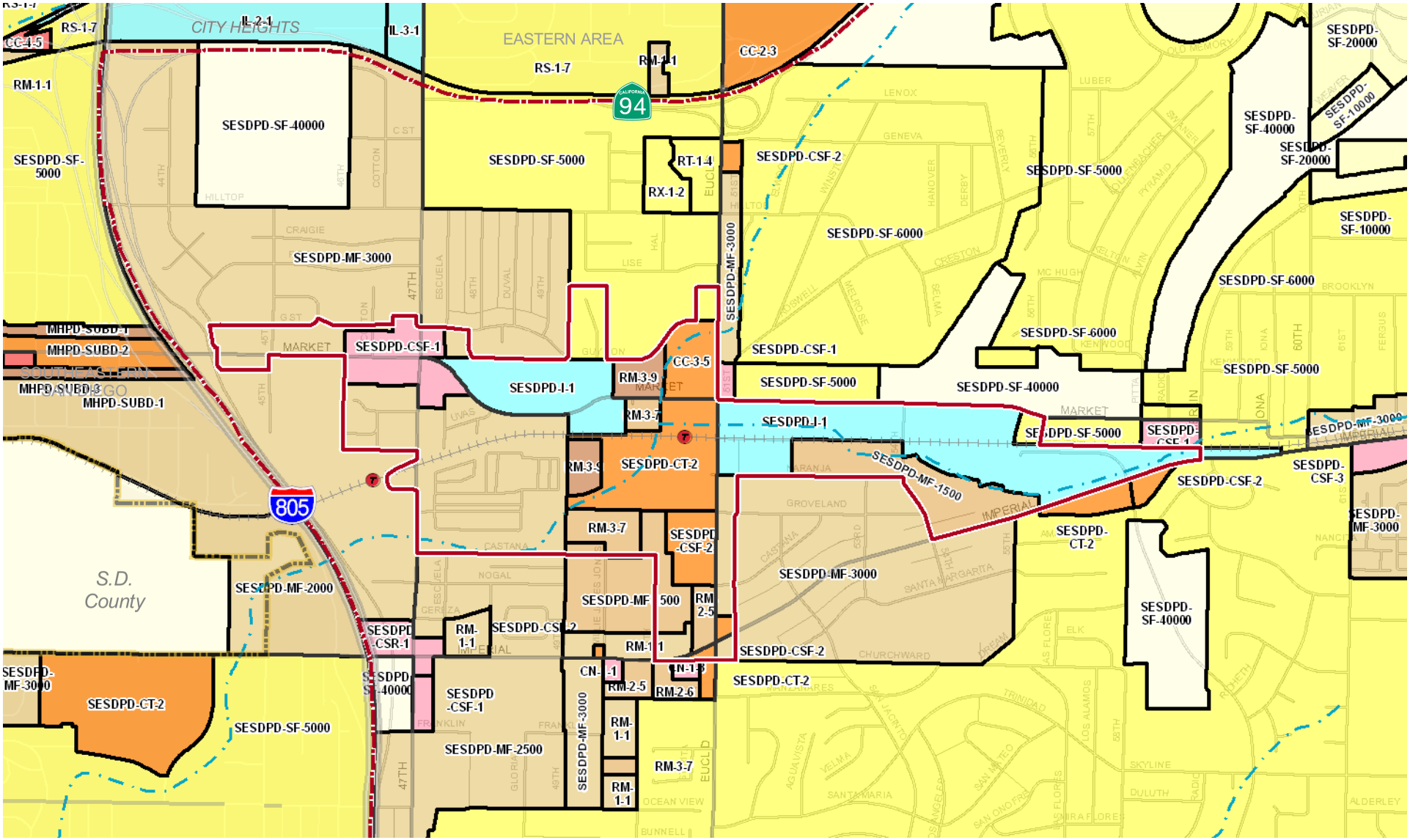
General Plan Land Use	Recommended Community Plan Designation	Use Considerations	Description	General Plan Intensity/ Density Building Intensity Range
Residential	Residential – Medium		Provides for both single and multifamily housing within a medium-density range.	15-29 du/ac
	Residential – Medium High		Provides for both single and multifamily housing within a medium-high-density range.	30-44 du/ac
	Residential –High		Provides for both single and multifamily housing within a high-density range.	35-44 du/ac
Commercial	Neighborhood Commercial	Residential Permitted	Provides local convenience shopping, civic uses, and services serving an approximate 3 mile radius. Housing may be allowed only within a mixed-use setting.	.25 to 4.0 FAR 15 to 44 du/ac
		Residential Prohibited	Provides local convenience shopping, civic uses, and services serving an approximate 3 mile radius.	.25 to 2.0 FAR
	Community Commercial	Residential Permitted	Provides for shopping areas with retail, service, civic, and office uses for the community at large within 3 to 6 miles. It can also be applied to Transit Corridors where multi-family residential uses could be added to enhance the viability of existing commercial uses.	.25 to 4.0 FAR 30 to 74 du/ac
		Residential Prohibited	Provides for shopping areas with retail, service, civic, and office uses for the community at large within three to six miles.	.25 to 2.0 FAR
Multiple Use	Neighborhood Village	Residential Required	Provides housing in a mixed-use setting and convenience	.25+ FAR (the upper limit is to be determined by

			shopping, civic uses as an important component, and services serving an approximate 3 mile radius.	the adopted land use plan and/or associated implementing ordinances) 15 to 44 du/ac
	Community Village	Residential Required	Provides housing in a mixed-use setting and serves the commercial needs of the community at large, including the industrial and business areas. Integration of commercial and residential use is emphasized; civic uses are an important component. Retail, professional/ administrative offices, commercial recreation facilities, service businesses, and similar types of uses are allowed.	.25+ FAR (the upper limit is to be determined by the adopted land use plan and/or associated implementing ordinances) 15 to 44 du/ac
	Urban Village	Residential Required	Serves the region with many types of uses, including housing, in a high-intensity mixed-use setting. Integration of commercial and residential use is emphasized; large, civic uses and facilities are a significant component. Uses include housing, business/ professional office, commercial service, and retail.	.25+ FAR (the upper limit is to be determined by the adopted land use plan and/or associated implementing ordinances) 30+ du/acre (upper limit is to be determined by the adopted land use plan and associated implementing ordinances)

Zoning

Zoning in the Plan Area is a combination of the standard zoning of the San Diego Municipal Code and the Southeastern San Diego Planned Development Ordinance (PDO) Overlay District. The PDO was established to create zoning regulations pursuant to the recommendations and area-specific needs of the Community Plan.

The predominant regulatory zones within the Plan Area are the Commercial, Industrial, and Multiple-Family Zones of the SESDPDO. These regulatory categories are described below. Additional regulatory zones found within the Plan Area are Residential-Multiple Unit Zones RM-1-1, RM-2-5, RM-3-7, RM-3-9, and Community Commercial Zones CC-3-5. These may be



LEGEND

- Euclid & Market Village Master Plan Project Area Boundary
- Community Plan Boundary
- City of San Diego Boundary
- Trolley Stop
- Chollas Creek
- Light Rail

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SanGIS

FIGURE 2-4: ZONING

found in Chapter 13 of the San Diego Municipal Code. Commercial Zone CC-3-5 is intended to be developed with a high-intensity, pedestrian orientation. (Figure 2-4: Zoning)

Southeastern San Diego Planned Development Ordinance Zones:

- Single-Family Zones: Single-family zones are designed to provide for areas of one-family residential development at varying densities. These include: SF-40,000, SF-20,000, SF-15,000, SF-10,000, SF-8,000, SF-6,000, SF-5,000.

  Included in the Plan Area: SF-5,000.

- Multiple-Family Residential Zone Regulations: Multiple-family zones are primarily intended to provide for multiple-family residential development at varying densities, up to 45 du/acre. These include: MF-3000, MF-2500, MF-2000, MF-1750, MF-1500.

  Included in the Plan Area: MF-3,000, MF-1500.

- Commercial Zone Regulations: Commercial elements in the Southeastern San Diego Planned District are contained in three distinct zones which further the intentions of the Community Plan. These include: CSF, CSR, and CT. Applied to each of these zones is a 1, 2, or 3 suffix corresponding to a "Use Category" to determine which activities are appropriate for each design zone.
  - CSF Zones (1,2,3): Commercial strip development with parking in the front or side of the building with an orientation towards automobile use. (0. 05 FAR)
  - CSR Zone (1,2,3): Commercial strip development with parking in the rear or side of building, where pedestrian-orientation is the design intention. (0.75 FAR)
  - CT Zone (1,2,3): Commercial center that generally contains its own internal circulation and parking system and functions as independent entity. (1.0 FAR)
  - Neighborhood-Commercial Category-1: Oriented to a local-serving population. Lots are a minimum of 5,000 sf.
  - Community-Commercial Category-2: May accommodate a wide variety of community shopping and business needs and services which are both retail and wholesale in nature. Lots are a minimum of 10,000 sf.
  - Recreational-Commercial Category-3: Intended to provide for establishments catering to the lodging, dining, and general entertainment uses of the community and for visitors to the community.

  Included in the Plan Area: CSF-1, CSF-2, CT-2.

- Industrial Zone Regulations: Industrial Zone Regulations are intended to provide for a wide range of quality manufacturing, light industrial uses and certain "heavy" commercial uses. Standards and regulations are designed to permit development and uses of property in a manner that is consistent with efficient industrial operation.

    - Light Industrial Zone I-1: Light industrial uses such as "heavy" commercial uses (i.e. lumber yards). (10,000 minimum lot area; 1.5 FAR)
    - Light Industrial Zone I-2: Light industrial uses such as "heavy" commercial uses (i.e. lumber yards). (40,000 minimum lot area; 2.0 FAR)

  Included in the Plan Area: I-1

Parcel Configuration

Parcels within the Plan Area are generally much larger than those in the surrounding area. For example, the residential areas in the periphery are characterized by smaller lots for single-family homes (less than one acre). Within the Plan Area, parcels are larger as a result of industrial land uses associated with the rail right-of-way. The largest parcels are between 4 acres and up to 23.3 acres. (174,240 to 1,014,948 square feet), which is illustrated in Figure 2-5: Parcel Size. The size and configuration of parcels has an impact on the redevelopment potential of the area and the outcome of future development. This is discussed further in Chapter 3: Urban Form.

Community Facilities

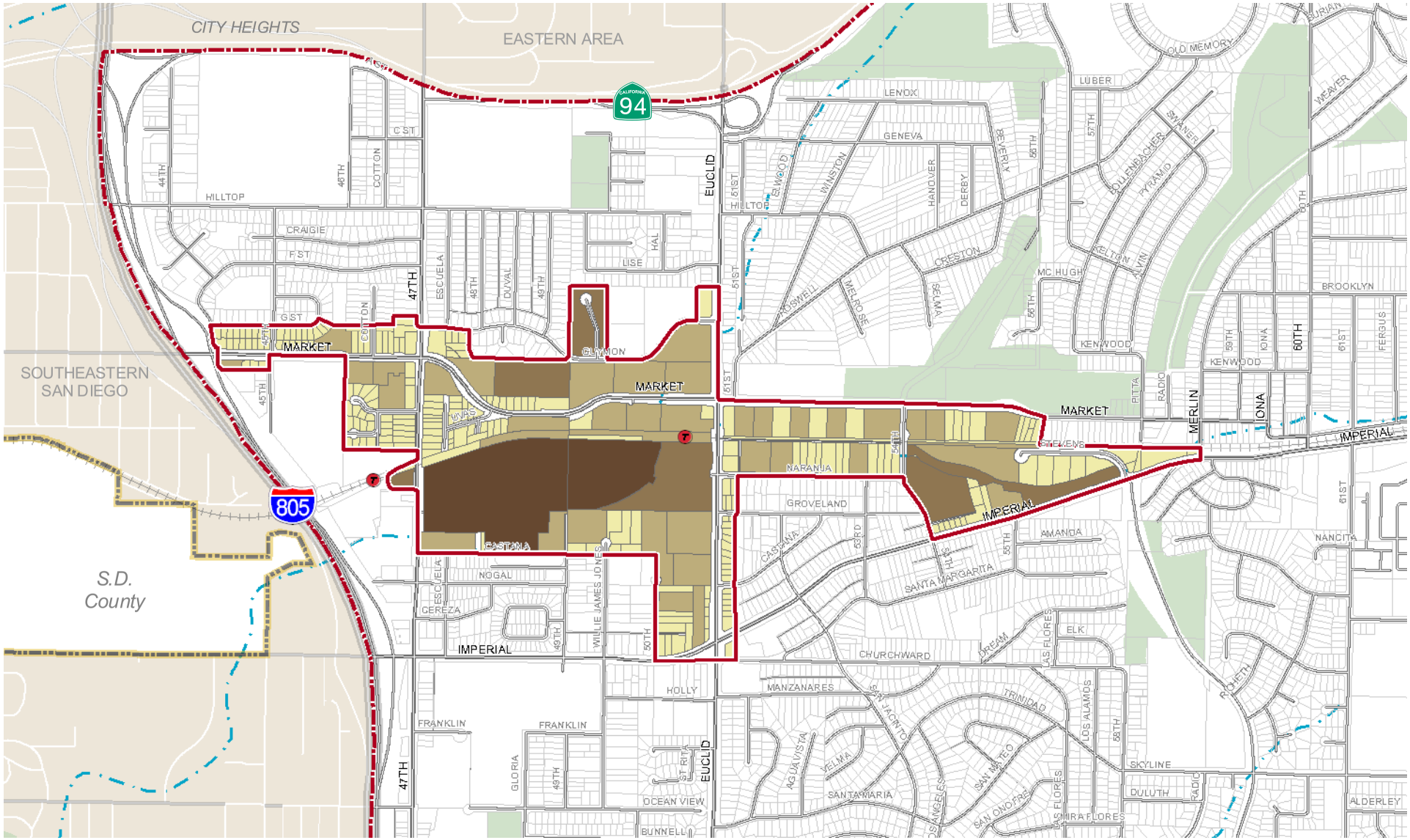
The Plan Area is served by community facilities located within and surrounding its boundaries. Of the services that serve the Plan Area, only one—the Tubman Chavez Multi-cultural Youth and Family Center—is located within the planning area at the southeast corner of Euclid Avenue and Market Street.

Other community facilities are located outside of the boundaries of the Plan Area but serve the communities represented in the Master Plan. These include the following facilities:

Schools:

- Walter J. Porter Elementary School: located on T Street near 47th Street
- Horton Elementary School: located on Guymon Street west of Euclid Avenue.
- Chollas/ Mead Elementary School: located south of Market Street at 45th Street.
- Promise Charter School: located on 45th Street at Boylston Street (between F and G Streets)

Euclid + Market
LAND USE AND MOBILITY PLAN



LEGEND

- Euclid & Market Village Master Plan Project Area Boundary
- Community Plan Boundary
- City of San Diego Boundary
- Parcels
- Parcels - 0.0 - 1.0 Acres
- Parcels - 1.0 - 4.0 Acres
- Parcels - 4.0 - 9.0 Acres
- Parcels - 9.0 - 23.3 Acres
- Trolley Stop
- Chollas Creek
- Light Rail
- Parks and Open Spaces

N

0 750 1,500 Feet

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FIGURE 2-5: PARCEL SIZE

- Lincoln High School: located south of Imperial Avenue between 47th Street and Willie James Jones Ave.
- Johnson Elementary: located on Kelton Road north of Roswell Street.
- Valencia Park Elementary School: located on Skyline Drive between 58th Street and Valencia Parkway.
- Millennial Tech Middle School: located on Carolina Lane between Hilltop Drive and SR-94.
- Gompers Preparatory Academy (Charter Middle School/ Juinor High): located on 47th Street between Hilltop Drive and SR-94.
- Holly Drive Leadership Academy: located on Holly Drive between S Willie James Jones Avenue and Euclid Avenue.
- O'Farrell Community Center for Advanced Academy: located on Skyline Drive at 61st Street.
- Nubia Leadership Academy: located on Benson Avenue at 61st Street.
- St. Rita's School: located on Imperial Avenue between Euclid Avenue and San Jacinto Drive.

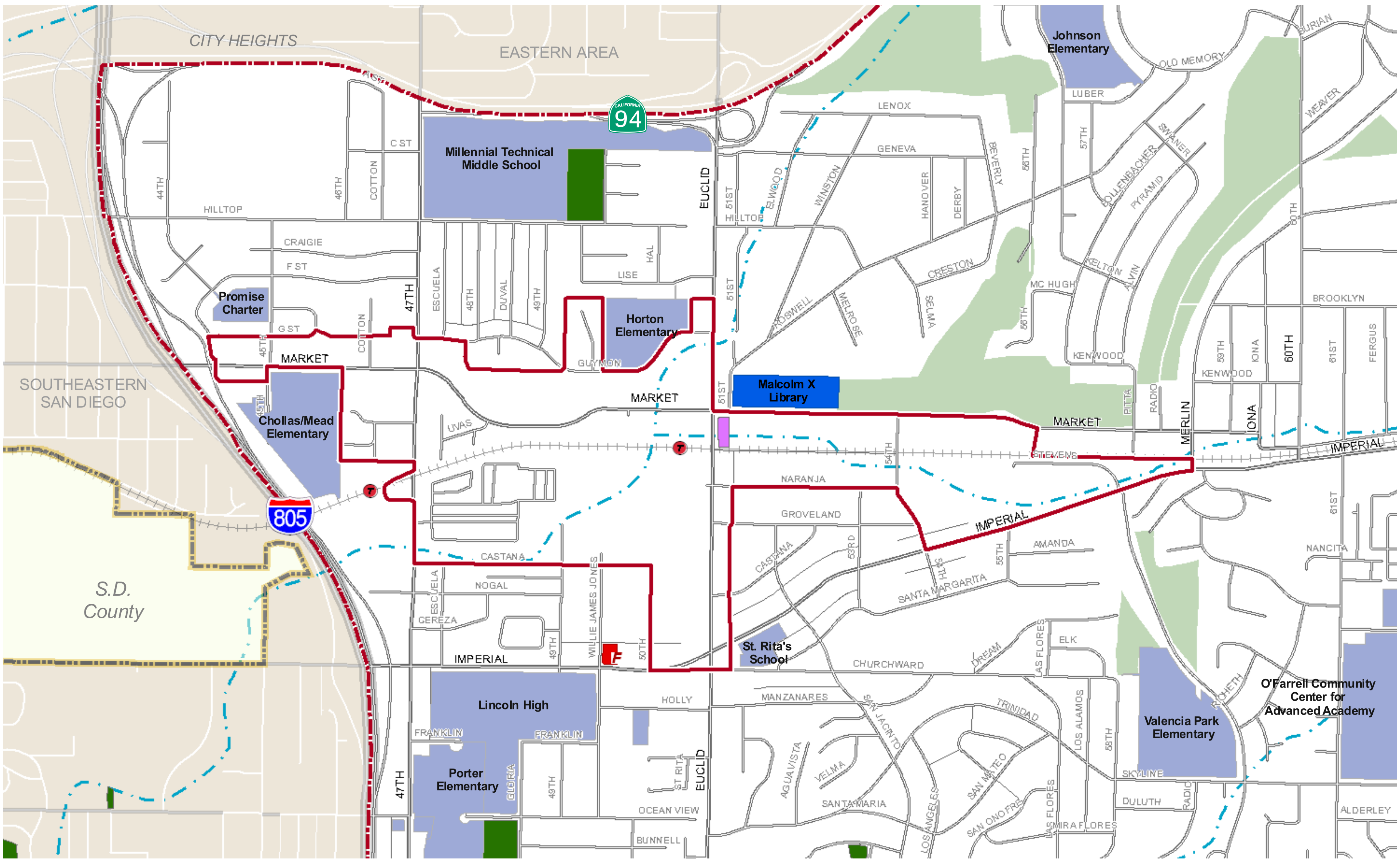
Fire:

- Fire Station #12: 4964 Imperial Avenue. Serving Lincoln Park/Valencia Park and surrounding areas This station has been at this location since 1948, although the current 11,333 square foot, two-story building was opened in 2005.

Library:

- Malcolm X Library and Performing Arts Center: 5148 Market Street at Euclid Avenue. The 26.042 square foot facility was built in 1996.

The plan area includes two key community-oriented facilities that are not in public ownership but play important community roles. These include the Elementary Institute of Science, at the northeast corner of Euclid Avenue and Market Street, and the Jacobs Center, located within the Village at Market Creek, south of the Euclid Trolley Station. The Jacobs Center is a 75,000 square foot multi-purpose and community centered building. The Village at Market Creek includes the Jacobs Center, a 500-seat amphitheatre, and a series of well-designed outdoor spaces.



LEGEND

- Euclid & Market Village Master Plan Project Area Boundary
- Community Plan Boundary
- City of San Diego Boundary
- Trolley Stop
- Fire Station
- Library
- Community Center
- Neighborhood Park
- Regional Park
- Fire Station
- Chollas Creek
- Light Rail

FIGURE 2-6: EXISTING FACILITIES & AMENITIES

The Village at Market Creek has most of the components of a Community Center as described by the Regional Comprehensive Plan. The missing components--moderate density residential development and an improved multi-modal mobility network--are the focus of the current Master Plan process and the forthcoming Community Plan Update.

The above locations are illustrated on Figure 2-6: Existing Facilities & Amenities.

PLANNING BACKGROUND

General Plan

The City of San Diego General Plan, updated in 2008, contains the principles that guide all development within the neighborhoods of San Diego. The plan outlines a "City of Villages" strategy for the visioning of San Diego's diverse and unique neighborhoods.

The following General Plan goals and principles are informing the Master Plan process:

- An open space network formed by parks, canyons, river valleys, habitats, beaches, and oceans.
- Diverse residential communities formed by the open space network.
- Compact and walkable mixed-use villages.
- Employment centers for a strong economy.
- High-quality, affordable, and well-maintained public facilities.
- Historic districts and sites that respect our heritage.
- Balanced communities that offer opportunities for all San Diegans and share citywide responsibilities.
- A clean and sustainable environment.
- A high aesthetic standard.
- An integrated regional transportation network of walkways, bikeways, transit, roadways, and freeways.

Southeastern San Diego Community Plan

The Southeast San Diego Community Plan, completed in 1987, contains the specified goals and policies tailored to the needs of the Southeastern San Diego neighborhoods. The plan describes the characteristics of the community. In 1987, this area was described as 7,200 acres in the central portion of the City of San Diego, located east of Interstate 5, south of SR-94, situated between Centre City, Lemon Grove, National City, and the community of Skyline-Paradise Hills. Interstates I-805 and SR-15 also provide direct access into the communities. Southeastern San Diego contains 14 neighborhoods, each with their unique Neighborhood Element. This includes Lincoln Park, Chollas View, Emerald Hills, and Valencia Park, which are also known as several of the "Diamond Neighborhoods" of San Diego. The Plan Area is described as the "older," more

established portion of the Southeastern communities, with a higher degree of mixed land use than the areas east of SR-15. In general land use is described as haphazard and separated by barriers.

Goals of the Southeastern San Diego Community Plan

Overarching issues and goals of redevelopment that were identified in the 1987 plan are focused on job creation and an improved quality of physical development and public services and facilities. Specifically, the development of more robust commercial shopping centers, increased density of development, the redevelopment of vacant lands, and increased access to services and freeways were also included as goals. The concern of community design includes an improved appearance of development – both future and existing—and an overabundance of assisted housing projects, which were viewed as disproportionate to the rest of the City. An improvement and increase of the recreational and educational facilities were also identified. These goals reappear as aspects of each of the elements that make up the Community Plan, which include: Social and Economic Element, Residential Element, Commercial Element, Village Element, Industrial Element, Open Space and Recreational Element, Transportation Element, Public Facilities Element, and Urban Design Element.

Neighborhood Elements

In addition to the overarching goals of the community as a whole, individual goals per neighborhood were identified in the Community Plan. Generally the neighborhoods are described as follows, with their corresponding broad objectives followings.

- Chollas View:
    - Preserve the existing, well-maintained single-family development east of 49th Street.
    - Improve the landscaping along Euclid & Market
    - Achieve joint development with the MTDB and private businesses to develop the area adjoining the Euclid trolley station.
    - Increase the availability of commercial retail services which are sensitive to the needs of this community.

- Lincoln Park:
    - Retain the existing single-family development as islands of well-maintained housing, while encouraging redevelopment of dilapidated housing. Increase homeownership opportunities.

- Redevelop the vacant 157 Expressway land for residential use, while encouraging homeownership opportunities.
- Improve the appearance of major transportation corridors including the trolley through improved landscaping.
- Retain viable existing businesses along major streets including Imperial Avenue, Euclid Avenue, and Logan Avenue, encouraging rehabilitation.
- Expand community-serving commercial activities.
- Retain natural features (hills/canyons).
- Take measures to reduce crime rate.

- Valencia Park:
  - Preserve the existing, well-maintained single-family development.
  - Valencia Canyon is an attractive natural canyon and should be preserved for future generations.
  - Improve the appearance of Imperial Avenue and Euclid Avenue.
  - Take advantage of the strategic location of the vacant Potter Tract to provide needed goods and services or other community-serving uses such as an employment center.
  - Ensure that move-on houses are treated in an aesthetic manner or not permitted.
  - The vacant parcels south of Arroyo Avenue and west of 58th Street should be developed in such a way as to minimize disturbance of the land's natural topography and vegetation.

- Emerald Hills:
  - Improve the appearance of Euclid Avenue.
  - Develop the vacant parcel fronting on 60th Street in such a way that it will minimize disturbance of the land's natural topography and vegetation.
  - Develop the vacant parcel at Market Street and Euclid Avenue in a way that compliments the trolley station across the street and is compatible with adjacent residential uses.
  - Preserve the single-family areas.

The implementation measures recommended to carry out the goals of the Community Plan include public and private financing mechanisms, development regulations including tailored zoning and discretionary project review.

Central Imperial Redevelopment Plans

The Plan Area is located within the Central Imperial Redevelopment Project Area, which is included in the purview of the Southeastern San Diego Economic Development Corporation (SEDC). (See Figure 2-7: Redevelopment Project Area). Four redevelopment project areas are included in SEDC's sphere of influence: Central Imperial, Gateway Center West, Mount Hope and Southcrest, and the Dells Imperial Study Area. SEDC was established in 1981 and since that time has overseen multiple planning initiatives for the Plan Area, and continues to work towards goals of economic and physical redevelopment in partnership with the public and private entities.

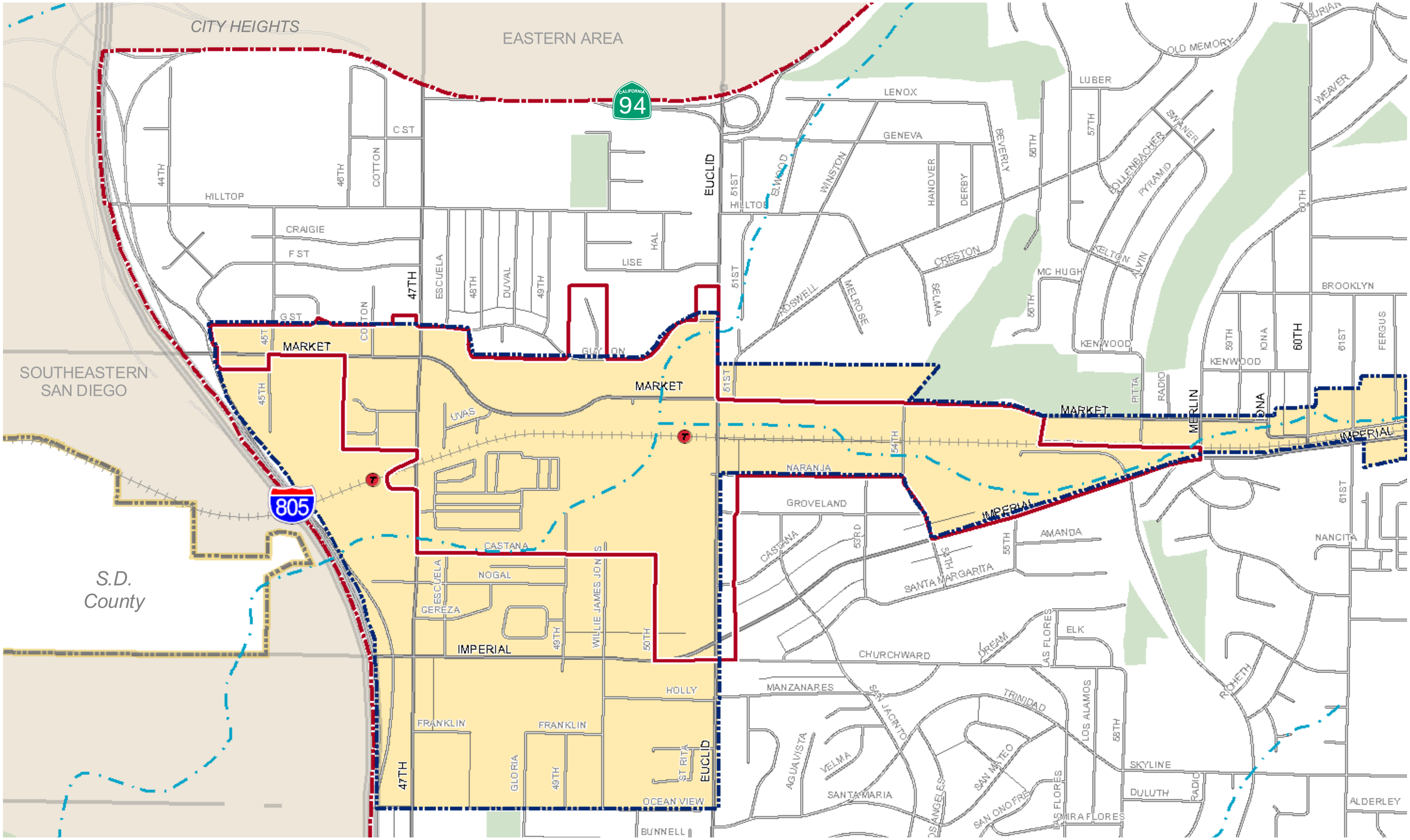
Central Imperial Redevelopment Implementation Plan (1992)

The Central Imperial Redevelopment Project Area, adopted in 1992, encompasses approximately 580 acres. It extends east of Messina Drive across I-805 to 69th Street and includes portions of Chollas View, Emerald Hills, Lincoln Park, Mountain View, Valencia Park, Encanto, and South Encanto. At the time of establishment, the land uses were composed of a variety of land uses, including 32% residential; 5% industrial uses; 6% commercial; 10% public/semipublic land; 15% vacant; 26% public right-of-way; 2% open space; and 4% abandoned underutilized land.

When established, the goals of the Central Imperial Redevelopment Area Plan were multi-faceted and continue to be relevant. They are similar to the goals of the Southeastern San Diego Community Plan, as follows:

- Promote revitalization of the Central Imperial Community.
- Provide incentives for the development of new commercial facilities to better serve the community and to upgrade the physical appearances of commercial areas on 47th Street and Market Street and Imperial Avenue.
- Provide incentives for the development of under-utilized parcels of land in the Project Area.
- Maintain the existing residential character along the East Trolley Corridor

The Redevelopment Plan provided the enabling power to the area included in the Project Area as established in California Redevelopment Law, such as to engage in land assemblage, provide incentives such as Tax Increment Financing, and to initiate property improvements such as



LEGEND

- Euclid & Market Village Master Plan Project Area Boundary
- Community Plan Boundary
- City of San Diego Boundary
- Trolley Stop
- Central Imperial Redevelopment Area
- Chollas Creek
- Light Rail
- Parks and Open Spaces

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FIGURE 2-7: REDEVELOPMENT PROJECT AREA

rehabilitation, demolition, and infrastructure improvements. The Plan also spurred subsequent plans and projects that were within the Project Boundaries, which are described below.

SEDC Commercial Corridor Urban Design Guide (ca. 1998)

This document is a guide for the development of all Commercial Corridors in Southeastern San Diego, specifically, the Town Center at Euclid & Market Street, Euclid Avenue Commercial Corridor, Euclid Avenue and Imperial Avenue Commercial Center, Market Street industrial Corridor, Encanto Village at Imperial Avenue, and Mount Hope Commercial Corridor. These areas were chosen as "seed" areas that would spur redevelopment.

These provided urban design guidance developed through a series of community workshops put on by SEDC and co-sponsored by local community and business groups.

Three main principles guide the formulation of the plan:

- Rural History: Enhance area elements that are reminiscent of the region's rural history, such as open natural land tracts, Chollas Creek, and the topography north of the project site.
- Chollas Creek: New development and redevelopment activities should participate in the restoration of the creek where possible and the natural element should be celebrated as a "community gateway."
- Plazas as Town Center Identity Element: The plaza concept should be incorporated into new site design to create public space that serves as a central link and sources of common cultural identity.

SEDC Imperial Avenue Corridor Master Plan (December 2005)

The SEDC Imperial Avenue Corridor Master Plan was conducted by SEDC in 2005 to analyze two redevelopment areas between 805 and Euclid and between 61st and 69th. The Master Plan area overlaps with the southern boundary and contains similar land uses to the Euclid & Market Village Master Plan Area. Additionally, it provides key recommendations that are similar to those goals envisioned by the preliminary goals of the current Plan Area.

These include:

- Pedestrian access;
- Transit-orientation;
- Vibrant neighborhoods;
- Unique site features;
- Visual gateways;

- Job /housing balance;
- New development should be mixed-use;
- Family –orientation;
- Creation of activity areas through cultural and civic anchors.

It is hoped that the recommendations that are made through the Euclid & Market Village Master Plan process will be shared between the two Plan Areas and link them as contiguous communities.

Multi-family Development Guidelines (November 2009)

Guidelines for the development of Multi-family housing projects were created by the Southeastern Development Corporation to update the Multi-Family Development Guidelines according to Smart Growth principles, and the City of San Diego General Plan's "City of Villages" Vision. Additionally, the guidelines added four new categories that were updated to contemporary project needs. These included: Sustainability, Mixed-Use, Condominium Conversions, and Management and Maintenance of for-sale Developments.

In total, the Sections addressed in the Guidelines include:

1. Sustainability
2. Site Planning
3. Mixed-Use Design
4. Building Design
5. Landscape Design
6. Community Facilities & Amenities
7. Miscellaneous Site Elements
8. Condominium Conversions
9. Safety and Security
10. Management and Maintenance

The SEDC Multi-Family Development Guidelines are meant to function in concert with the City of San Diego General Plan, City of San Diego Land Development Code, the Southeastern San Diego PDO, and policies of the Southeastern San Diego Community Plan, as well as Redevelopment Plans in the Southeastern Community. They are intended to be used by the SEDC to evaluate projects that request financial or other assistance from the Agency. They may also be used to evaluate any mixed-use project proposed in SE San Diego, including private multi-family development.

The SEDC Multi-Family Development Guidelines were drafted by MW Steele Group, Architecture and Planning, who are part of the Euclid & Market Village Master Plan project team.

Chollas Creek Plans

Chollas Creek is a natural drainage system that passes through San Diego's Greater Mid-City, Encanto, Southeastern San Diego, and Barrio Logan communities. The creek is an important natural feature of these communities and in the historical development of the City. The creek and its surrounding areas had been heavily altered through development and its restoration has been and remains to be a core goal of the redevelopment of these areas and has initiated several planning efforts since the 1970s.

Chollas Creek Enhancement Community Workshop (1998)

The enhancement of Chollas Creek was initiated by community workshops held in 1998, which bridged from the outreach efforts of the Southeastern San Diego Community Planning Effort. These workshops captured the community issues that would inform the content of the eventual Enhancement Plan. These included:

- The need to connect Chollas Creek and its historic role in the development of San Diego with the people of San Diego.
- Integration of open space preservation and urban development.
- Realistic creek improvement funding and maintenance costs.
- Flood safety and protection, clean out debris, water quality, safe trails, native landscaping features, create positive setting for development.

The eventual common vision for Chollas Creek united the community aspirations of the various communities with the urban design recommendations of SEDC to arrive upon recommendations pertaining to:

- The formation of identity for each of the branches of Chollas Creek.
- The blending of the natural and built environments.
- The development of creekside trail systems that integrate the appreciation of the Creek with goals of community health and character.
- The creation of a safe environment and opportunities for future economic development.
- The contribution of private development and financing sources into creek improvement projects.

Chollas Creek Enhancement Program (2002)

This program was undertaken by the City of San Diego to provide guidelines for the enhancement of various aspects of Chollas Creek based. The portions of Chollas Creek that are identified as sections of the plan include:

- Wetlands and upland restoration
- Channel reconstruction
- Landscaping
- Trail System
- Public Art Opportunities
- Education and Interpretive Program

The program also includes specific recommendations for the individual branches, or phases, of Chollas Creek and the strategy for wetlands restoration. A timeframe of twenty years was identified for the completion of plan implementation, which includes phasing and funding as well as maintenance and oversight strategies. Public art and habitat restoration opportunities are included in each separate phase. The implementation plans that affect the plan area are located in the South Branch section.

Groundwork San Diego, a local non-profit, continues to work towards the improvement of Chollas Creek and the implementation of the plans that have been created for the resource.

Other Relevant Plans

Project First Class

Project First Class was initiated by the Fourth Council district and approved by City Council in 1984. The project was initiated to specifically assist the community with growth and revitalization, establish a code enforcement program, and facilitate other public and private improvements for Southeastern San Diego and nearby communities. The primary goal was to achieve high quality urban design of the new development that would result from the completion of the trolley to the eastern neighborhoods. The Southeastern San Diego Community Plan was seen as an extension of the goals of this plan. The issues identified in Project First Class directly inform the specific and general urban design recommendations of the Community Plan.

Euclid PLACE^{3}S Revitalization Program

The PLACE^{3}S Plan produced an energy-efficient vision for the development of the neighborhoods surrounding the Euclid & Market intersection. The Plan was created through a

joint program of the City of San Diego, the Fourth Council District, SANDAG, the California Energy Comiission, and several neighborhood councils, including the Lincoln Park, Chollas View, Emerald Hills, and Valencia Park Neighborhood Councils. Accomplished from 1997 to 1998, the Plan was developed through a 12-month process focused on energy-efficient development and community involvement. The "Community Preferred Plan" would require less energy per capita than the established regulating framework that currently applied to the area.

Euclid-Market Action Team

The Euclid-Market Action Team was established in 1999 with the intention of realizing a community-led vision for the intersection of Euclid & Market. From its establishment to the production of the EMAT Masterplan in 2002, the group engaged in community outreach programs to create a shared vision for the Euclid-Market Neighborhoods. A large community outreach program, entitled "*Planning our Future Together,"* held in 2001, brought together 200 community members, business owners, and others to identify trouble spots, landmarks, strengths, weaknesses, opportunities, and threats. These exercises were completed by breakout groups that met over multiple occasions, including a charrette, and concluded with the development of a planning framework and preliminary plan that would inform future work. In 2002, the masterplan was released, entitled: "*Shaping the Future of the Euclid-Market Neighborhoods: A Community-Based Plan for Equitable Development."*

The work of EMAT led to the Encanto/Diamond Neighborhood Conceptual Planning efforts, which was done in partnership with the City of San Diego and led to the production of the Encanto Neighborhoods Urban Design Guidelines (2003) and the Encanto Neighborhoods Pedestrian and Bicycle Network Plan (2003).

Community Street Tree Master Plan, Southeastern San Diego

The provision of street trees was a central tenet and recommendation of Project First Class, and in turn, the Community Street Tree Master Plan was an extension of this Plan. It is noted that the planting of street trees defines neighborhoods and reinforces character, demonstrates pride taken in residential areas, and promotes positive ecological function.

The a list of several types of street trees fitting general conditions of each neighborhood with general planting conditions for each neighborhood and how-to instructions on how to plant and care for trees.

Urban Ecosystem Analysis: San Diego, California

In 2003, American Forests, a national non-profit, conducted an analysis of the amount of vegetated landcover and tree canopy in the City of San Diego, otherwise known as the "green data layer." The study was meant to both inform policy makers of the value of the "urban forest" with regard to managing water and air quality and improving the overall quality of life in the City, and demonstrate the changes and negative impacts that have been created by urbanization and the loss of tree cover. According to the study, ample tree canopy is able to offset a portion of the negative environmental impacts created by urbanization and the combined effects of the loss of tree canopy and vegetation and the addition of impervious surface. San Diego was found to have lost significant tree cover between 1985 and 2002, while the urban areas increased by 41%.

The study identifies the Encanto neighborhoods as having 15% tree cover, 1% shrub, 51% impervious surface, and 30% grass. Though this is greater than the overall average of San Diego communities, it is well below the 25% target tree canopy that the study identifies. The City saw a 27% decrease in tree canopy between 1985 and 2002 as a result of urbanization.

The study recommends that for the future, the City should set tree canopy goals for each of its 52 Community Planning areas. Generally the study set forth the following recommendations for the City, with flexibility for adjustment for variations in community form and character: 25% overall tree canopy; 30% tree canopy in suburban residential; 20% tree canopy in urban residential; 10$ tree canopy in central business district. These recommendations are paired with guidance on choosing climate appropriate trees and designating land uses and planning designated areas for plantings. Together these interventions would result in the benefits to air, water, and quality of life associated with an increased tree cover.

Southeastern San Diego Public Facilities Financing Plan (FY 2003)

The Southeastern San Diego Public Facilities Financing Plan enumerated the financing strategies for facilities needed to upgrade in the next twenty years as estimated in 2003. The Financing Plan is related to the identified facilities of the Southeastern San Diego Community Plan, the comprehensive policy guide for the development of the community with attention to how facilities will be financed when future development occurs. In many cases, the Financing Plan identified most facilities as being inadequate for the levels of service identified per the population and needs of the Southeastern San Diego Community. Additionally, with increased population, new facilities would be necessary.

Those public facilities that are needed and warrant strategies include:

- Transportation infrastructure (including automobile, bicycle, public transportation, and pedestrian facilities)
- Parks and Recreation (including population-based Community and Neighborhood Parks)
- Libraries
- Fire/ Police

As an almost fully urbanized area, the funding sources used to finance new and improved facilities would be other than Development Impact Fees (DIF). These include many common public financing strategies, such as the issuance of bonds, and the establishment of special taxes and fee collection districts. Based on residential units, the following fee schedule was established for the development of public facilities.

As part of the Financing Plan, various community groups identified priority areas that needed additional attention with respect to public facilities. Those that are relevant to the current Plan Area are identified below.

Encanto Neighborhoods Community Planning Group:

- Improvements Around Horton & Gompers School
- Community Swimming Pool
- 47th Street-Market Street to Imperial Avenue
- Gompers Neighborhood Park Expansion
- ADA Requirements

Southeastern Economic Development Corporation:

- Market Street-Euclid Avenue to 32nd Street
- 47th Street-Market Street to Imperial Ave
- Chollas Creek South Branch Phase I Implementation

Southeastern San Diego Planning Committee:

- Architectural Barrier Removal
- Park Site Acquisition
- Mini-Park Design and Construction
- Swimming Pool Upgrades
- ADA Requirements

Encanto Neighborhoods Urban Design Guidelines (2003)

This plan, which was made in partnership with the City of San Diego, Estrada Land Planning, Inc., Nico Calativa, and the Jacobs Center, resulted in a guidebook for development in all Encanto neighborhoods. These included guidelines for mixed-use buildings, site planning and visual guidelines, grading and land form guidelines, architectural guidelines, landscape and streetscape guidelines, and lighting guidelines. The resulting design guidelines functioned as a tool to be used by the City for the purpose of reviewing development projects within the Encanto neighborhoods.

Encanto Neighborhoods Pedestrian and Bicycle Network Plan (2003)

This plan, which was made in partnership with the City of San Diego, Estrada Land Planning, Inc., Nico Calativa, and the Jacobs Center, resulted in a guidebook for development in all Encanto neighborhoods. These included locations for the proposed pedestrian/ bicycle network, a canyon trail system, intersection designs, and proposals for specific locations. The intersection of Euclid and Market was also identified as a problem area, and safety was identified as a hindrance to pedestrian and bicycle circulation.

Encanto Neighborhoods Bicycle and Pedestrian Network Plan (2010)

The Encanto neighborhoods were included as part of the overall City of San Diego Bicycle Master Plan (2010) which was completed in 2010. The Plan surveyed individuals in the City of San Diego about their bicycle and pedestrian needs. The Encanto Neighborhoods, in which the Plan Area is included, is located within Station 5 of the location-based planning framework. No responses from the Station 5 area were directly related to the Plan Area or roads/ intersections associated with the Plan Area. Less than 1% of respondents were from the Encanto neighborhoods.

There are bicycle facilities located in and around the Plan Area. Currently bike routes exist on Market, Imperial, Valencia, and Euclid. Portions of Imperial, Churchward, and Skyline Drive also feature bicycle facilities. The streets of Southeastern San Diego were noted as potential areas for future facilities as they provided excellent access to San Diego Bay, Balboa Park and Downtown for recreational and commuter bicyclists. These are proposed as future Class III facilities.

As elsewhere in the City, the Plan identifies multi-modal connections between bicycle, transit and pedestrian facilities as crucial to the implementation of the bicycle master plan. This includes the provision of adequate bicycle facilities near transit stops, especially the Trolley stop at Euclid & Market and 47th & Market.

The following are existing and proposed bicycle facilities in the Plan Area/ Station 5 area:

- Existing Class II Bike Lanes on Euclid between Market and Olivera (south of Plan Area)
- Existing Class III Bike Facilities on Market Street west of Euclid to 805
- Proposed Class I Bike Paths proposed along the Trolley ROW
- Proposed Class III Bike Facilities proposed on Roswell Street north of Market

Note: Generally bike facilities in this area connect to other facilities that connect to other portions of the city.

Historic Places Register (2010)

The only identified resource on the Historic Places Register that is located within the Plan Area is located on the southwest corner of the intersection of 47th and Market. This is the location of the Sundance Mini Market & Gas. (Note: Source needed.)

This site is not, however, identified in the Historical Landmarks Survey conducted by the San Diego Historical Resources Board, which was updated in 2010. This survey notes all those properties in San Diego which have been previously listed on the National Register of Historic Places (NR), are a National Historic Landmark (NHL), a California Historic Landmark (CHL) or have been identified or documented by the Historical American Building Survey (HABS).

Jacobs Center for Neighborhood Innovation Plans (JCNI)

The Jacobs Center for Neighborhood Innovation (JCNI) has been heavily involved in the Euclid and Market area since the late 1990s, helping to bring about the development of community assets such as the Village at Market Creek and the Jo and Vi Jacobs Center The JCNI works in partnership with the Jacobs Family Foundation the residents of the "Diamond Neighborhoods" to create partnerships and entrepreneurial potential. (The Diamond Neighborhoods refer to the neighborhoods associated with the area's business improvement district. They include: Chollas View, Emerald Hills, Lincoln Park, Mountain View, Mount Hope, North Encanto, Oak Park, South Encanto, Valencia Park, and Webster.) A key component of the work of the Jacobs Center is to represent the diverse ethnic communities represented in the surrounding communities. These include: African-American, Latino, Samoan, Somalian, Laotian, Sudanese, and Filipino.

Development and property management for the JCNI is overseen by Diamond Management, Inc. (DMI) in addition to development, DMI endeavors to build social and economic value in the Diamond Neighborhoods.

Market Creek Plaza

The Village at Market Creek was developed as a Smart Growth Pilot Village, centered around Market Creek Plaza, which initially broke ground in 1999. Market Creek Plaza is a mixed-use development consisting of retail, office, and community resources which will ultimately be complemented by 800 units of affordable residential development. The entirety of this project is known as the Village at Market Creek. In addition to the aforementioned land uses, the goal is to restore 3,000 linear feet of wetlands. Channeling contracts and employment opportunities to the community is a key component of the development of the Village.

Market Creek Plaza was developed with the assistance of a $15 million New Market Tax Credit loan from the U.S. Department of the Treasury. These loans are available for helping to attract private sector investment to help finance community development projects, encourage economic growth, and create jobs. A Community-Development Initial Public Offering (CD-IPO) successfully transferred ownership of 20% of the Market Creek Plaza to community investors, which was key in the mission of empowering the community.

Diamond Neighborhood Conceptual Planning

Jacobs worked in partnership with the City of San Diego, Estrada Land Planning, and Nico Calativa over a period of years (approximately 2001 to 2003) to develop urban design and circulation recommendations for the Encanto Neighborhoods. These included six workshops that presented best practices, community desires, and presented back findings to the community. This work sprung from the work of EMAT and resulted in the Encanto Neighborhoods Urban Design Guidelines (2003) and the Encanto Neighborhoods Pedestrian and Bicycle Network Plan (2003).

Cultural Village Planning

Jacobs has led an ongoing program of workshops and studies, beginning in 2010, focused on the physical development of the Village at Market Creek and general community empowerment around the Diamond Neighborhoods. Topics are broken into six-month phases which include presentations, creation of recommendations and review by the consortium of community groups: VOCAL (Voices of the Community at All Levels). VOCAL includes representatives from eighteen community groups, including the nine represented ethicizes and cultures, and other groups from the Diamond neighborhoods dedicated to youth, education, or other community concerns. Recommendations of VOCAL will ultimately inform the furtherance of the goals of the Village at Market Creek.

To date topics have covered: LEED®ND and Smart Growth, Connectivity and Mobility, Parks and Recreation, Land Use and Urban Design, and Brownfields. Various consultants have been

involved in the formation of these topical presentations, which have been coordinated and presented by JCNI staff.

Mobility Workshops were conducted in 2011. These resulted in recommended areas for walking trails and bicycle facilities. Locations for Class III bicycle routes were identified along Market Street and Class II bicycle routes were identified along Euclid Avenue. Desired locations for new walking trails and bridges were oriented around Chollas Creek and linking together existing and proposed locations for parks and open spaces.

Workshops focused on Land Use and Urban Design were conducted in 2011. Community members gathered to identify desired land uses for key sites surrounding the Plan Area. Suggested land uses or principles for many of these sites include:

- Senior housing
- Active youth open space
- Open space for festivals, community gardens, play, etc.
- Mix of housing
- Mixed-use commercial and residential developments
- Job creation

Overarching community-identified principles of urban design that apply to all development include:

- Eyes on the Street
- Pedestrian and bicycle connectivity
- Creating Recreational Opportunities
- Infusing Art and Culture Throughout
- Development Reflective of Community Culture and Heritage
- Intensity of development
- Architectural character reflecting ethnic backgrounds and eco-friendly design

Euclid + Market
LAND USE AND MOBILITY PLAN

3. URBAN FORM

MW STEELE

URBAN FORM

The plan area has many of the urban form characteristics and qualities that make for a successful urban village. While it remains an auto-dominated area, several opportunities exist to make the area a more pedestrian, bicycle and transit-friendly neighborhood. This chapter describes the existing urban form of the plan area as it relates to the growth of a transit and pedestrian-oriented village. It is organized around urban form patterns of mobility and linkages, blocks and lots, building heights and frontages and land form and natural features.

The following are eight key summary findings of the existing urban form conditions of the plan area:

- The creek and slopes are significant land forms and natural features that contribute to a sense of place and a definition of neighborhood centers and edges
- Despite good transit access, the plan area remains a predominantly auto-oriented area with significant barriers to pedestrian and bicycle movement
- Connectivity at the communitywide scale is good, with easy access to 5, 805, 15 and 94 freeways and major arterials, such as Market, Euclid, Imperial and 47th
- Barriers to access and connectivity exist at the smaller scale, especially between developments and across sloping sites and Chollas Creek
- The plan area is defined by several irregular and self-contained development sites that do not relate well to each other or their context and do not contribute to the public realm
- Inconsistent land uses, along with vacant and under-utilized lots, result in gaps in development that diminish a definition of the public realm
- While small single-family residential lots surround it, the plan area is made-up primarily of large-scale, consolidated land holdings with industrial warehouses, “big-box” commercial, multi-family and institutional uses taking much of the area
- Most buildings do not face directly to the street with positive street frontage and active facades

Streets & Tracks

Despite good transit access, the plan area remains a predominantly auto-oriented area with significant barriers to pedestrian and bike movement. Major streets divide the area into quadrants, each with distinct characteristic development patterns. Streets follow an orthogonal grid pattern, with some exceptions where there are major changes in topography or along Chollas Creek. Dead-ends and breaks in the street grid further restrict movement and access. Much progress has been made in and around the Market Creek Plaza and Jacobs Center, with pedestrian paths that connect across sites, to Market & Euclid and to the trolley station. The trolley corridor along the Market & Euclid Station is quickly becoming the “heart” of the community with much activity focused toward that area.

Quadrants

As with most communities in San Diego, the plan area is bisected by major street arterials that together form a street grid super-structure of roughly 1square mile (see figure 3-1). The major streets that define this "super-grid" are Market, Euclid, Imperial and 47th. Together, they divide the area into distinct sub-areas. This is significant because the patterns of development evident in each sub-area vary from one area to the next. This is manifested by differences in land use, the direction of blocks and lots, the topography and the scale of development.

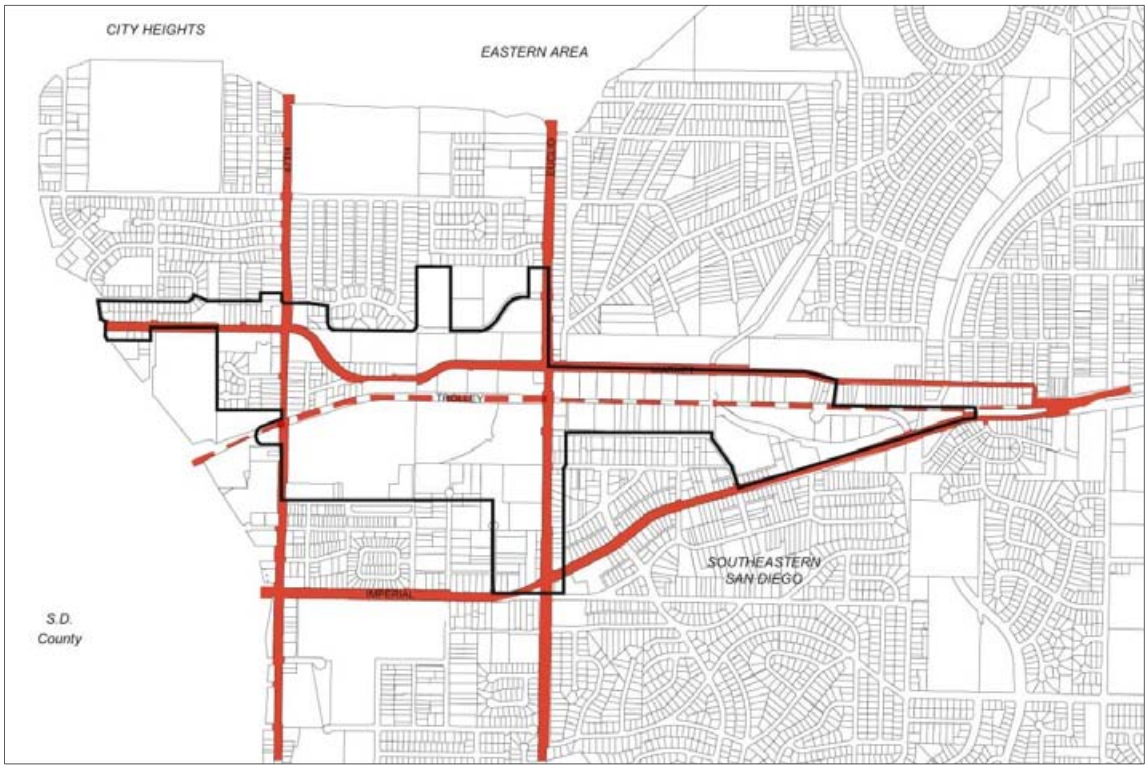


Figure 3-1- Quadrants

Street Patterns

The prevailing street pattern in the plan area is an orthogonal grid, although deviations from this occur where topography or natural barriers require bends and curves in the streets (see figure 3-2). Two notable examples are Market Street and Guymon Street, which curve around a large slope and along the Chollas Creek. This grid system typically provides greater connectivity, access and wayfinding than curvilinear or looping streets. However, the division of property in the plan area and subsequent patterns of development result in barriers to connectivity and access.

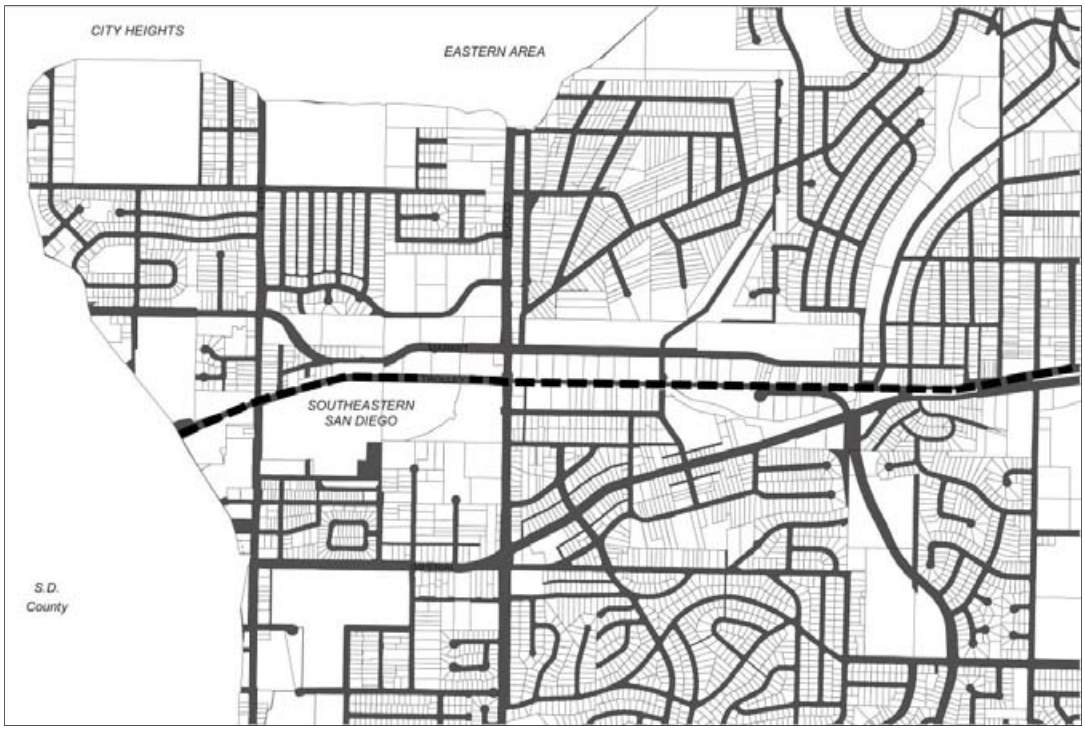


Figure 3-2 – Street Patterns

Figure 3-3 - Dead End Streets

Barriers to Access

Significant barriers restrict access from residential areas to employment and commercial establishments and from the eastern to the western side of the plan area. The width of major streets, such as Market, Euclid, Imperial and 47th make pedestrian crossing dangerous and unpleasant and transforms those streets into automobile expressways, which divide, rather than unify, the community. In most instances, sidewalks are not separated by a landscape strip or buffer, making the presence of the automobile all the more noticeable (see figure 3-4). Several dead-end streets exist in the plan area, primarily at the Chollas Creek, along school sites, the 805 freeway and major commercial sites (see figure 3-3). Walls and fences block opportunities to connect multi-family residential with commercial, such as Market Creek Plaza. Several schools surround the plan area, yet viable pedestrian and bicycle connections from the schools to transit are lacking. Access to and across the creek is also restricted.

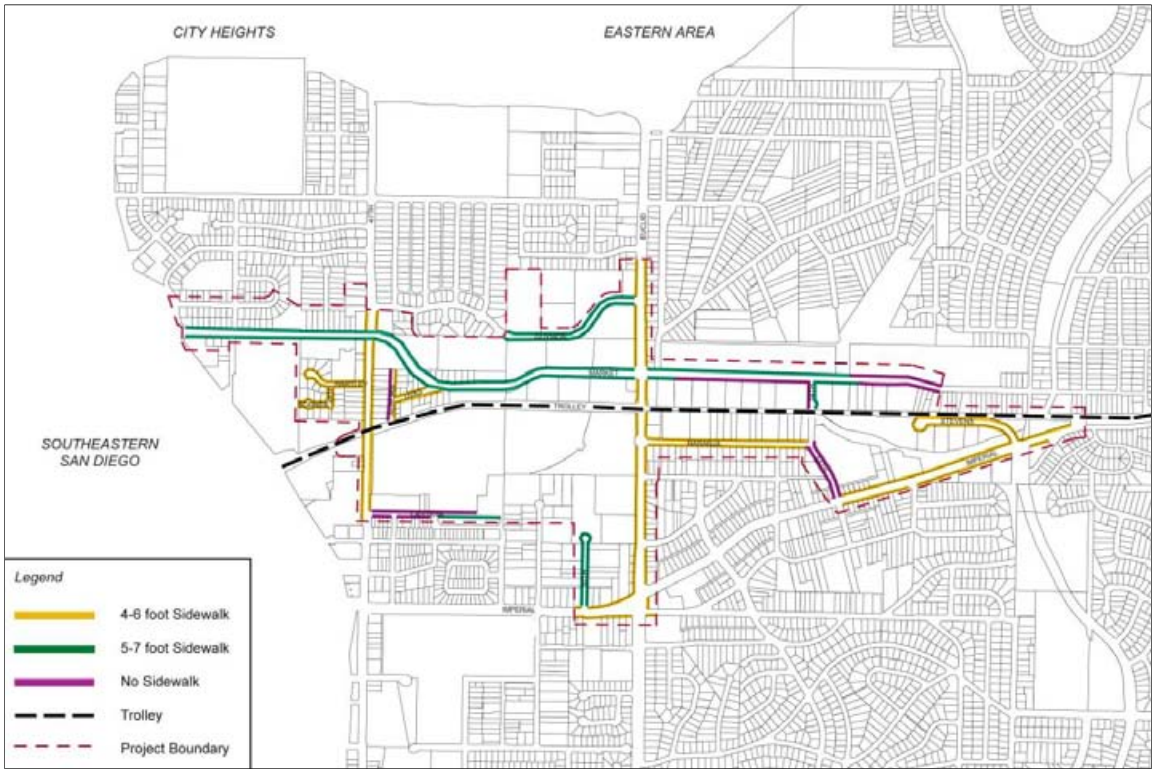


Figure 3-4 – Sidewalk Widths Map

Paths & Connections

While several barriers to access exist in the plan area, progress has been made toward providing more and better paths and connections within and around the Market Creek Plaza and Jacobs Center. A footbridge across the plaza to the Jacobs Center connects with designated pedestrian paths that take pedestrians across the parking lot and to Euclid Avenue. Another network of stairs and paths provide access from Market Creek Plaza to the Market & Euclid trolley station. A grade-separated underpass connects the Jacobs Center to Market Street under the trolley tracks. Major intersections have clearly marked and enhanced pedestrian crosswalks and curb ramps, such as Market & Euclid and Euclid and Naranja. Nevertheless, much work remains to be done, especially at the trolley crossing on Euclid or at Euclid and Imperial, which today are unsafe and unpleasant pedestrian environments.

Designated Foot Path across Market Creek Plaza Parking Lot

Pedestrian Bridge across Chollas Creek into the Trolley Station

Trolley Corridor

The trolley corridor bisects the plan area north and south, following a natural dip in the topography. It is most active as it crosses the Chollas Creek and stops at the Market & Euclid transit station. The synergy created with the transit station, Market Creek Plaza and the Jacobs Center makes this segment of the corridor a significant node in the community. While along most segments of the trolley corridor the tracks divide the community, in this location the trolley has the potential to act as a seam or central spine that unifies the community and brings the heart of activity around transit.

As a circulation corridor, it is redundant with Market Street and Imperial Avenue, which connect the Eastern and Western neighborhoods. They carry much of the automobile traffic in the community, while the trolley corridor is used exclusively for rail transport. Great potential exists to maximize use of the trolley corridor by including other transportation modes (such as bicycle or pedestrian movement) within the same right-of-way.

Trolley Corridor East of Euclid

Transit Station at 47th Street

Blocks and Lots

Large-Lot Development

While small single-family residential lots surround it, the plan area is made-up primarily of large-scale, consolidated land holdings with industrial warehouses, "big-box" commercial, multi-family and institutional uses taking much of the area (see figure 3-5). This has resulted in large development complexes with an internally focused design. Streets and paths within the developments may connect internally, but there is typically only a single point of connection to the larger street system outside of the development.

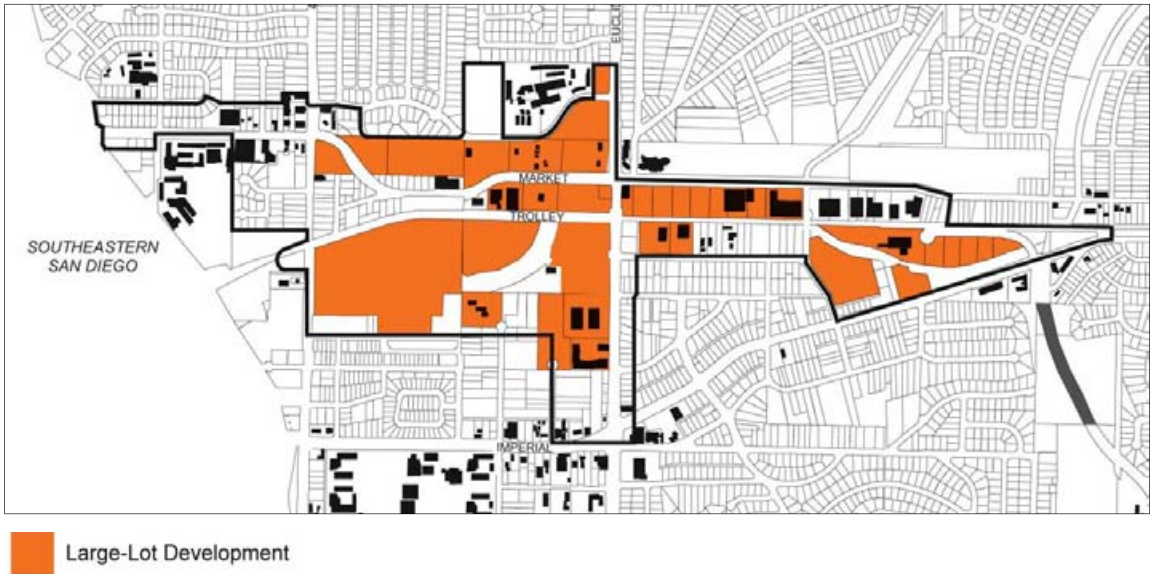


Figure 3-5 – Large-Lot Development

Development Islands

The larger scale of blocks and lots lends to irregular and haphazard development with self-contained buildings that do not relate to the street or to their context. While these developments provide several attractions in the community, from schools to community centers, libraries, churches, strip malls and commercial centers, the attracting land uses are disjointed and not well connected. This, in turn, contributes to an erosion of the public realm, as each development site is its own "island" with little or no integration with the larger community. In contrast, a finer-grained pattern of development prevails just outside the plan area, with mostly single-family homes on small lots.

Buildings

The way a building addresses the street has a significant impact on the street environment. A good majority of buildings in the plan area do not contribute positively to the street environment. Several gaps in development exist in this area, which diminish the amount of activity on the street and reduce visual interest. Other characteristic design decisions, such as building height, setbacks, location of parking and uses, and the design of the building façades contribute to a poor street environment.

Gaps in Development

The plan area contains several vacant and under-utilized land parcels (see figure 3-6). This creates highly perceivable gaps in development that contribute to an erosion of the public realm. These parcels also tend to be located around major intersections in the community, such as Euclid & Market, Euclid & Imperial and Market and 47th. Coupled with wide streets at these locations, the gaps in development accentuate a sense of expansive open space and a lack of definition, which diminishes a sense of enclosure, interest and place. These elements are important to the development of a successful pedestrian environment.

Vacant Lots at Market & 47th

Vacant Lots along Market

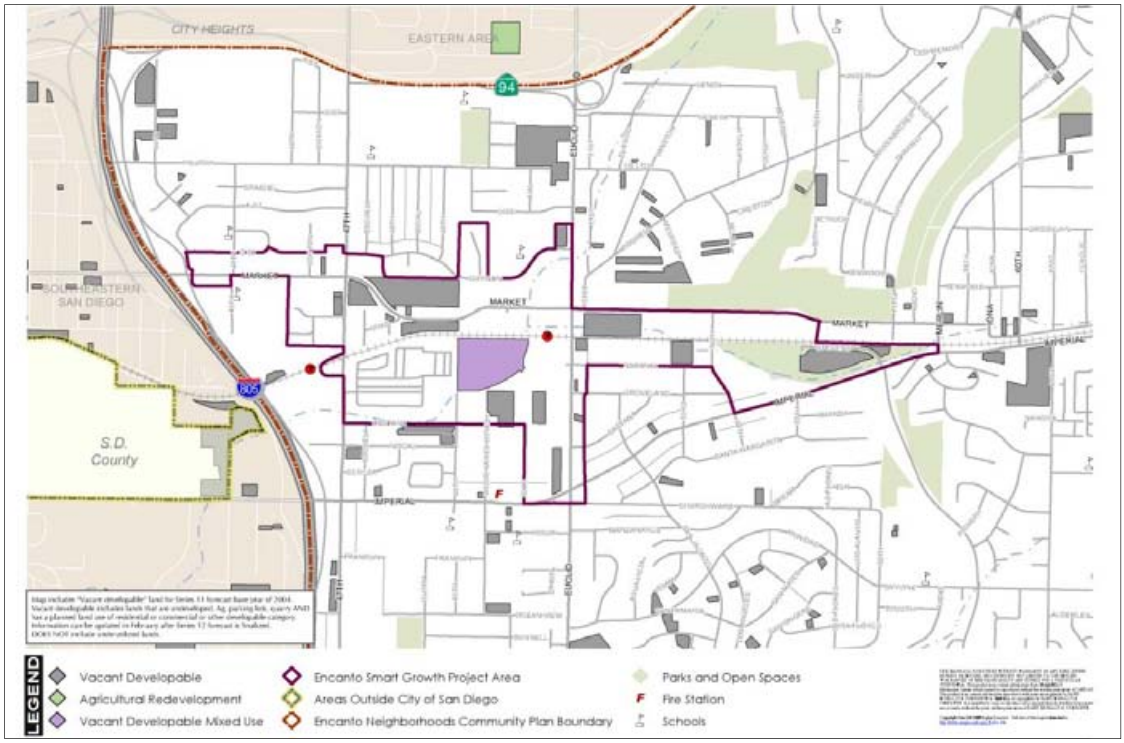


Figure 3-6 – Vacant or Underutilized Land

Building Heights

Building height also affects the character of streets and public spaces. Most buildings in the plan area are limited to one and two stories, with some exceptions for major institutional structures. This change in height enhances the importance of those uses and allows them to serve as landmarks in the community. Where building height is combined with proximity to a slope or the creek, such as in the Jacobs Center, St. Rita's or the Elementary Institute of Science, the effect is quite powerful. However, the predominantly low-rise character of the community coupled with wide streets contributes to the expansive and ill-defined nature of the area, as described above.

Parking Lots and Building Setbacks

Another contributing attribute of a successful street environment is the building's relationship to the street. Buildings in the plan area tend to be set back from the street with landscaped yards, retaining walls, and parking lots in the street front. While a landscaped yard is appropriate in a predominately residential area, commercial and mixed-use areas benefit from a more active street presence and a well-defined "street wall." A close interaction between the building and the street makes streets pleasant for walking and bicycling, since pedestrians and cyclists engage with their environment in a slower and more detailed way than motorists do.

While this building at Market Creek Plaza is close to the street, the entrances are located away from the street and a drive-thru blocks direct pedestrian access

These apartments face the street, but parking in the front yard degrades the walking environment

Gateway Buildings

The plan area contains several "gateway" buildings, although more could be provided at key intersections, such as Euclid & Market, Euclid & Imperial and Market and 47th. The Elementary Institute of Science and Malcolm X Library sit high above Euclid & Market and provide distinguished landmarks for the area. The Jacobs Center is also highly perceptible as one enters the area from the west. Opportunities exist for new development to occur at these key intersections, with buildings that mark the main corners and together establish a sense of entry and arrival to the plan area.

Elementary Institute of Science is perched above a major intersection

St. Rita's is a prominent landmark in the community at the major intersection of Euclid & Imperial

Land Form & Natural Features

The land form and natural features of the plan area contribute to many of the existing conditions already described. The plan area is defined by the hilly topography of Southeastern San Diego and the Chollas Creek (see figure 3-7). The creek weaves through the community, providing a natural link that has not been fully appreciated and used, but has tremendous potential as a habitat and recreational open space corridor. It can also serve as a major pedestrian and bicycle east-west connection. It is highly vegetated and well-integrated with Market Creek Plaza and Jacobs Center.

The topography of the plan area merges with the creek so that a gentle slope down into the center of the project area defines a sense of place and arrival to the "heart" of the community. The amphitheater adjacent to the Jacobs Center and Market Creek Plaza takes advantage of these natural features and is a central gathering space in the community. In this way, land form and natural features help define the center but also the edges of the plan area. Large and mature trees at Euclid and Naranja form the eastern edge of the plan area just when the street begins to slope up again, further accentuating the land form. Several hills in the project area provide spectacular vantage points from which one can appreciate the community holistically.

Mature trees establish physical edges that help define a sense of place

Chollas Creek and the hilly landscape contribute to a strong sense of place

In many instances, however, the sloping topography and the creek act as barriers to access and connectivity. Several developments and streets stop right before the creek, and deviations from the street grid occur around major slopes. This gives the area its character, but it also inhibits access. Moreover, the hilly topography often creates a condition where buildings are either perched high above or well below street level. This presents challenges to creating an active, pedestrian street environment because there is a perceived barrier between the building and the pedestrian at the street level.

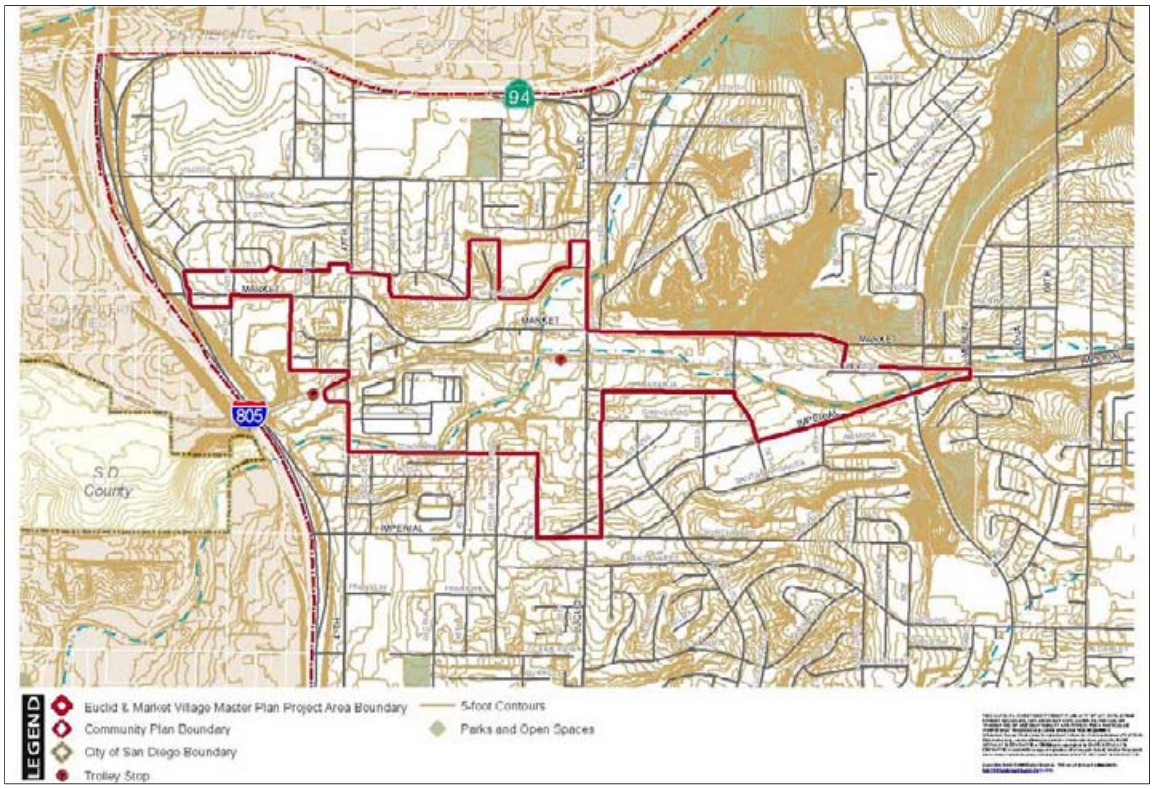


Figure 3-7 – Topography Map

Street Trees

The plan area lacks a great number of street trees, as shown in the Street Tree Map below (figure 3-8). Rough calculations show an existing coverage of approximately 365 to 400 street trees, or approximately 115,000 to 130,000 square feet of canopy area. An estimate of potential future capacity based on Land Development Code regulations and landscape standards demonstrates a total capacity of approximately 1100 to 1200 street trees or 535,000 to 590,000 square feet of canopy area. The difference between these two figures represents a deficit of street trees in the range of 700 to 835 additional trees or approximately 405,000 to 475,000 additional square feet of canopy area. These figures and the map demonstrate that there is a significant shortage of street trees in the area.

An Urban Ecosystem Analysis for the City of San Diego performed by American Forests reports a 9% tree canopy for the Southeastern Community (*Urban Ecosystem Analysis, San Diego, CA, 2003* http://ftp.americanforests.org/downloads/rea/AF_SanDiego.pdf). This falls within the lower range of tree coverage among 52 community areas in the city. It is important to note, however, that there are several areas with substantial tree canopy that are outside the street right-of-way (such as along Chollas Creek or within parking lots and private developments). These areas represent a significant opportunity to preserve and increase tree coverage.

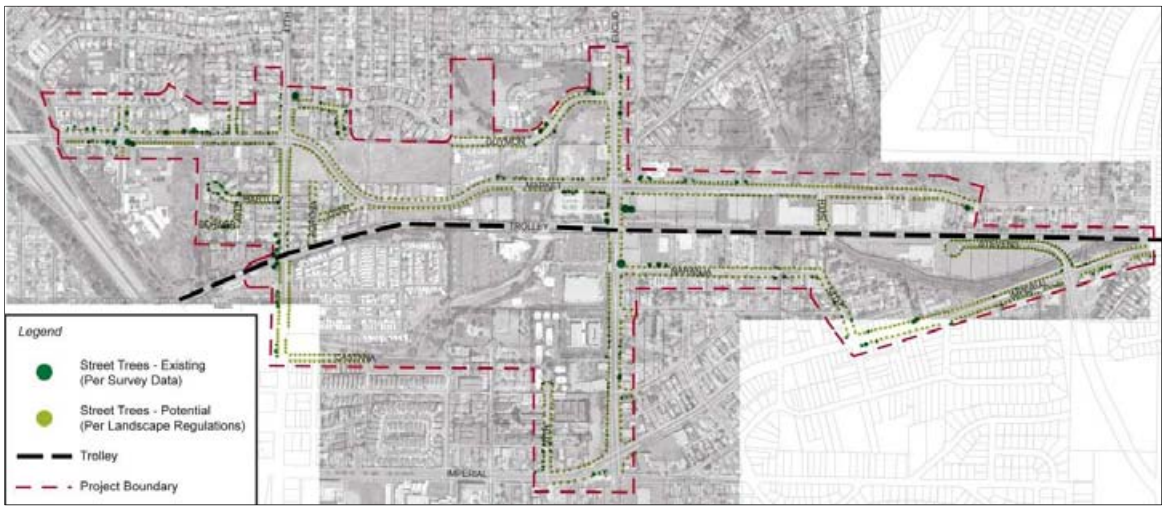


Figure 3-8 – Street Tree Map

Euclid + Market
LAND USE AND MOBILITY PLAN

4. MOBILITY ASSESSMENT

NELSON NYGAARD

INTRODUCTION TO MOBILITY ASSESSMENT

This chapter provides an assessment of accessibility and mobility within the Euclid & Market Village Master Plan Area, describes key opportunities and constraints, and provides initial recommendations for future transportation strategies to enhance access to, and mobility within, the Plan Area. The following sections describe travel conditions for the primary modes of transportation that provide access and circulation within the Plan Area:

- Existing Transportation Network
- Transit Service & Access
- Motor Vehicle Traffic & Parking
- Pedestrian Circulation & Access
- Bicycle Circulation & Access
- Summary of Opportunities & Constraints

Figure 4-1: Euclid Avenue looking north from Imperial Avenue.

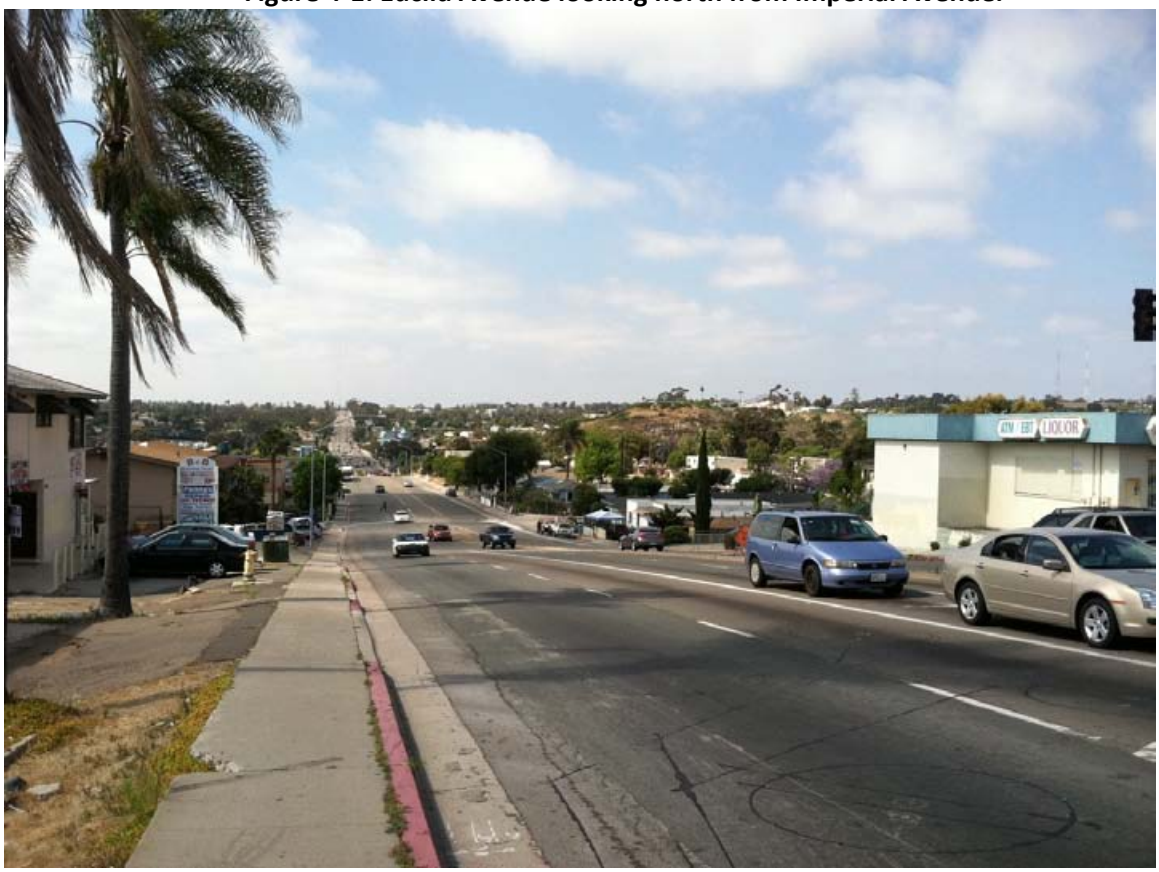


Photo Source: WRT 2011

Overview of Key Assets & Constraints

The Euclid & Market Village Master Plan Area is presently characterized by an imbalanced transportation system. Although regional transit and freeway access to the Plan Area is excellent, and the Plan Area is conveniently located (just four miles from downtown San Diego), there are significant barriers to local access and circulation within the Plan Area.

Local Access & Circulation

Trip generators and attractors within the Plan Area include homes, shops, public facilities, and places of work. There are several major public institutions within one half-mile of the Plan Area that serve as pedestrian, bicycle, and transit trip generators. These include several schools, community centers, and two transit stations.

The Plan Area is well-served by frequent transit service, including light-rail and no fewer than eight bus lines. However:

- Access to transit stations and bus stops within the Plan Area is hampered by the disconnected local street pattern, lack of collector streets, and narrow sidewalks on arterial streets. As a result, most properties within the Plan Area do not benefit from the proximity to the City's significant investment in transit infrastructure.
    - Upon arrival to the Plan Area, most transit riders currently transfer to another transit line, in part because travel by other means (such as on foot or via bicycle) would require a journey along wide arterial streets with limited pedestrian and bicycle infrastructure, presenting obstacles to access for transit riders, pedestrians and bicyclists.
    - As a result, the potential value of the trolley stations (in terms of potentially attracting jobs and investment to the Plan Area), has not yet been fully utilized.

The Plan Area benefits from proximity to several high-capacity freeways, potentially creating opportunities for attracting land uses that could provide jobs in industries that would benefit from freeway access. However:

- Motor vehicle traffic is primarily funneled on to just two Major Arterial streets, Euclid and Imperial Avenues, both of which carry over 25,000 daily vehicles.
    - Market and 47th Street carry much lower traffic volumes:
        - Through most of the Plan Area: just 11,000 daily vehicles travel on Market Street (east of 47th Street) and 10,000 daily vehicles travel on 47th Street (south of Market Street)
        - At the perimeter of the Plan Area: 14,000 daily vehicles travel on Market Street (west of 47th Street) and 12,000 daily vehicles travel on 47th Street (north of Market Street).

Further increasing the burden of those two major arterial streets is the discontinuous pattern of local streets within the Plan Area. It is not possible to travel directly between local streets bordering Euclid Avenue or 47th Street.

Development Patterns & Topography

Over the past half-century or more, topographical constraints, incremental land development and 20th Century street design and development standards have created a patchwork of streets and land uses within the Plan Area:

- Long blocks, wide arterial streets with narrow sidewalks, and natural hills and gullies contribute to an environment that is relatively inhospitable to bicyclists and pedestrians.
- The Orange Line (MTS Trolley route) right of way bisects the project area from west to east, and despite the availability of crossings at major streets, acts as a barrier to north-south connectivity within the neighborhood.
- Local topography (e.g., creeks, canyons, and mesas) further limits travel in the area. To the east, the Emerald Hills act as a significant physical barrier between that neighborhood and areas to the south and west. Likewise, the Emerald Hills, Encanto, and South Branches of Chollas Creek are real physical constraints that limit north-south and east-west access throughout the project area.

Transit-Adjacent vs Transit-Oriented Development

Despite the high level of frequent transit service provided to the Plan Area, the current development pattern is composed primarily of "transit-adjacent" (not "transit oriented") land use and urban design patterns. "Transit-adjacent" development is characterized by land use patterns within a half-mile radius (a ten-minute walk) of a transit station that do not use this proximity to transit to promote compact, focused development that fosters multimodal transportation. Table 4-1A adapts a chart composed by John L. Renne to differentiate between TADs and TODs, and Figure 4-1B illustrates an example of "transit-adjacent" (not "transit-oriented") development within the Plan Area.

Table 4-1A: TAD vs. TOD

Characteristics of Station Area Development Patterns	
TAD (Transit-Adjacent Development)	**TOD (Transit-Oriented Development)**
Suburban street pattern	Grid street pattern
Low densities	High densities
Dominance of surface parking	Mostly underground or structured parking
Limited or no pedestrian access	Pedestrian-focused design
Limited or no bicycle access/parking	Bicycle access/parking
Single-family homes	Multi-family homes
Industrial land uses	Office and retail land uses, especially along main streets
Segregated land uses	Vertically and horizontally mixed land uses
Gas stations, car dealerships, drive-thru stores and other auto-focused land uses	

Source: Adapted from Renne, 2009 (i)

Figure 4-1B: Transit-Adjacent Development at Euclid Avenue Station

New development around transit stations should create opportunities to improve adjacent street environments, particularly the pedestrian realm. However, as highlighted in Figure 6-1B at left, recent development projects adjacent to the Euclid Avenue Trolley station represent a missed opportunity to promote "transit-oriented" development. The photograph in Figure 4-1B was taken of a relatively recent development site, located just 200 feet from the Euclid Avenue trolley station platforms Drive-thru windows are characteristic of transit-adjacent development, as they cater to automobiles despite close proximity to transit. Many cities prohibit drive-thru windows in pedestrian districts.

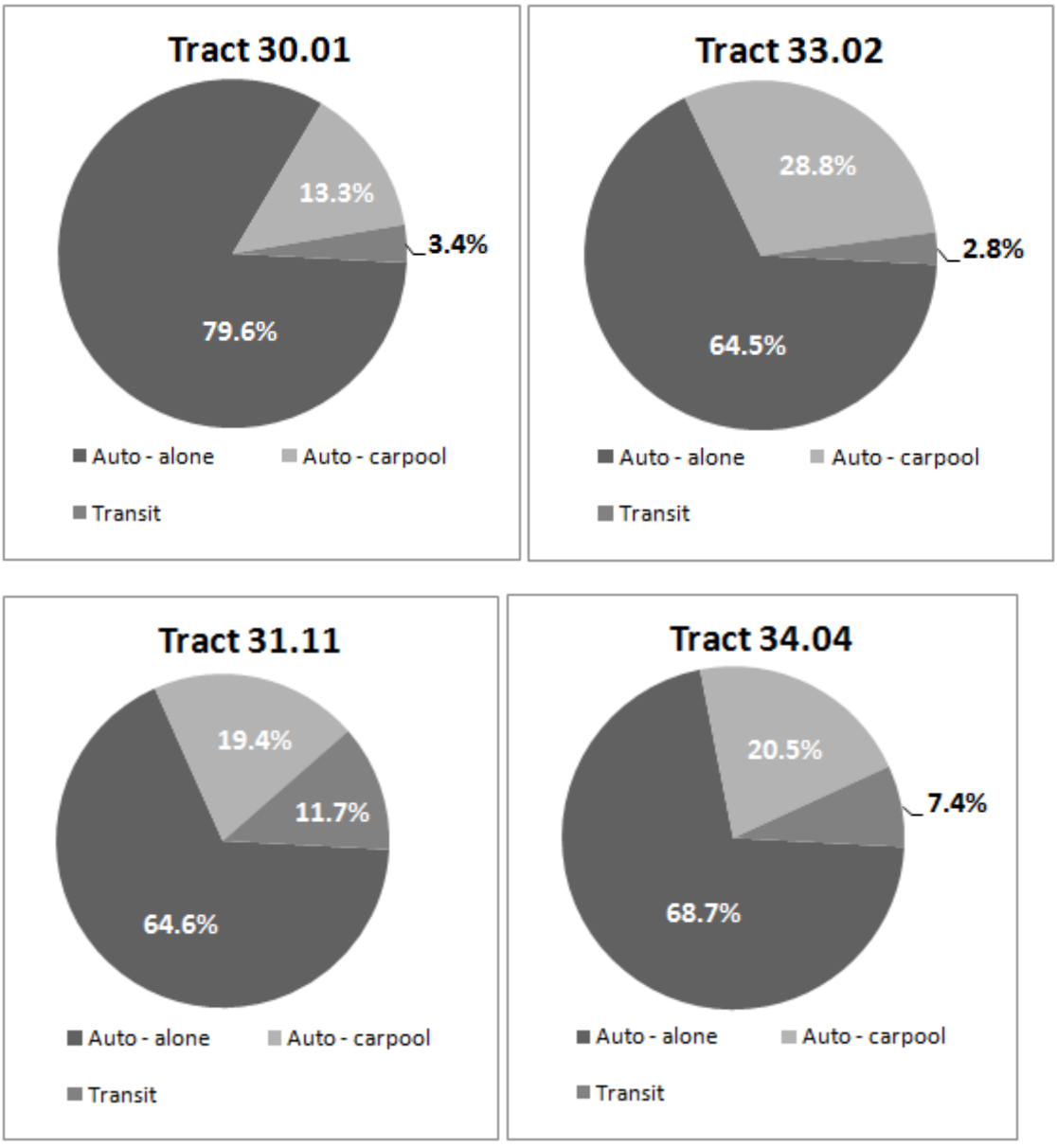
Photo Source: Nelson\Nygaard 2011

Travel Modes for Journey to Work (Plan Area Residents)

Figure 4-1C summarizes U.S. Census Bureau 2005-09 "journey to work" travel mode estimates for the four Census tracts that include the Plan Area.

- The vast majority of residents drive or carpool to work (over 90 percent combined for those two modes of travel).
- The overall rate of transit ridership varies from 2.8 to 11.7 percent (with an overall rate of 6 percent within these four Census tracts.

Figure 4-1C: Census Journey to Work Data by Census Tract



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EXISTING TRANSPORTATION NETWORK

This section describes the following physical components of the existing transportation network serving the Plan Area:

- Major Streets
- Collector Streets
- Local Streets
- Rail Lines
- Off-street Paths

Figure 4-2A provides a map showing the location of each facility within the Plan Area, as well as adjacent transportation infrastructure that borders the Plan Area.

Major Streets

The City of San Diego Street Design Manual includes the following definition of Major Streets (often referred to as "arterial" streets in other cities):

> **Major Street:** A Street that primarily provides a network connecting vehicles and transit to other major streets and primary arterials, and to the freeway system and secondarily providing access to abutting commercial and industrial property. It carries moderate-to-heavy vehicular movement, low-to-high pedestrian and bicycle movements, and moderate-to-high transit movements. It has a raised center median, street trees, traffic safety street lighting, and sidewalks, and may include landscaping, pedestrian-scale lighting, underground utilities, on-street parking, and/or bike lanes.

The City's Street Design Manual requires that Major Streets be designed to accommodate a minimum of four travel lanes and a raised median at full build-out.

The following four streets are designated as Major Streets by the Community Plan (although some segments do not yet conform to Major Street standards). These streets provide access to the Plan Area (including direct access to adjacent land uses and local streets) for automobile, bicycle, bus, and pedestrian travel:

- Euclid Avenue carries over 20,000 vehicles per day and features four travel lanes with a raised median/center turn-lane and wide curb lane (allowing on-street parking on some segments). Narrow sidewalks are provided, directly bordering the curb lane in most locations. Signal-controlled pedestrian crossings are provided approximately every 600 feet (between Guymon and Naranja Street), but no signal-controlled pedestrian crossings are provided between Naranja Street and Imperial Avenue (a distance of approximately 1,375 feet, or just over one-fourth of a mile). No bicycle lanes are provided.
- Imperial Avenue carries over 30,000 vehicles per day and features four to five travel lanes through most of the Plan Area with a raised median/center turn-lane. Sidewalks are provided that directly border the curb lane in most locations. No bicycle lanes are provided.

- Market Street carries over 10,000 vehicles per day and features four travel lanes (west of 51st Street) and two lanes (east of 51st Street). Center-turn lanes are provided at signalized intersections, and on-street parking is allowed on most segments (except at signalized intersections). Sidewalks are provided on segments west of 51st Street, directly bordering the curb lane. An unpaved pedestrian path currently accommodates pedestrian circulation east of 51st Street. Signal-controlled pedestrian crossings are provided at four intersections within the Plan Area, with an average distance of 1,300 feet (one-fourth of a mile) between signalized crossings. No bicycle lanes are provided.
- 47th Street carries over 10,000 vehicles per day and features four travel lanes (north of Market Street) and two travel lanes (south of Market Street), plus a center-turn lane. Sidewalks are provided, directly bordering the curb lane. On-street parking is provided on segments north of Market Street and south of Imperial Avenue. No bicycle lanes are provided.

More detailed descriptions of each of the four designated Major streets are provided on the following pages.

Collector Streets

Typical street classification systems include arterial (major), collector and local streets. The City of San Diego Street Design Manual includes standards for two-lane and four-lane Collector streets, and provides the following definition that describes the function of Collector streets:

> **Collector Street:** a street that primarily provides movement between local/collector streets of higher classification, and secondarily, provides access to abutting property. It carries low-to-moderate vehicular movement, low-to-heavy pedestrian movement, moderate-to-heavy bicycle movement, and low-to-moderate transit movement. It has on-street parking, street trees, traffic safety street lighting, and sidewalk. It may also include landscaping, pedestrian-scale lighting, and underground utilities.

There are no designated Collector Streets within the Plan Area. However, based on their current operation, Market Street (east of 47th Street) and 47th Street (south of Market Street) essentially function as "collectors" for Euclid and Imperial Avenues. Although both are designated as Major Streets by the Community Plan, just over 10,000 vehicles per day use these two segments (much less than the planned 4-lane arterial capacity that could accommodate 40,000 vehicles per day).

There are two Collector Streets (serving adjacent neighborhoods) that terminate at the border of the Plan Area:

- Roswell Avenue/51st Street serves adjacent neighborhoods to the north of the Plan Area (east of Euclid Avenue), terminating at Market Street.
- Valencia Parkway serves adjacent neighborhoods to the south of the Plan Area, terminating at Imperial Avenue.

Figure 4-2A: Local Transportation Network

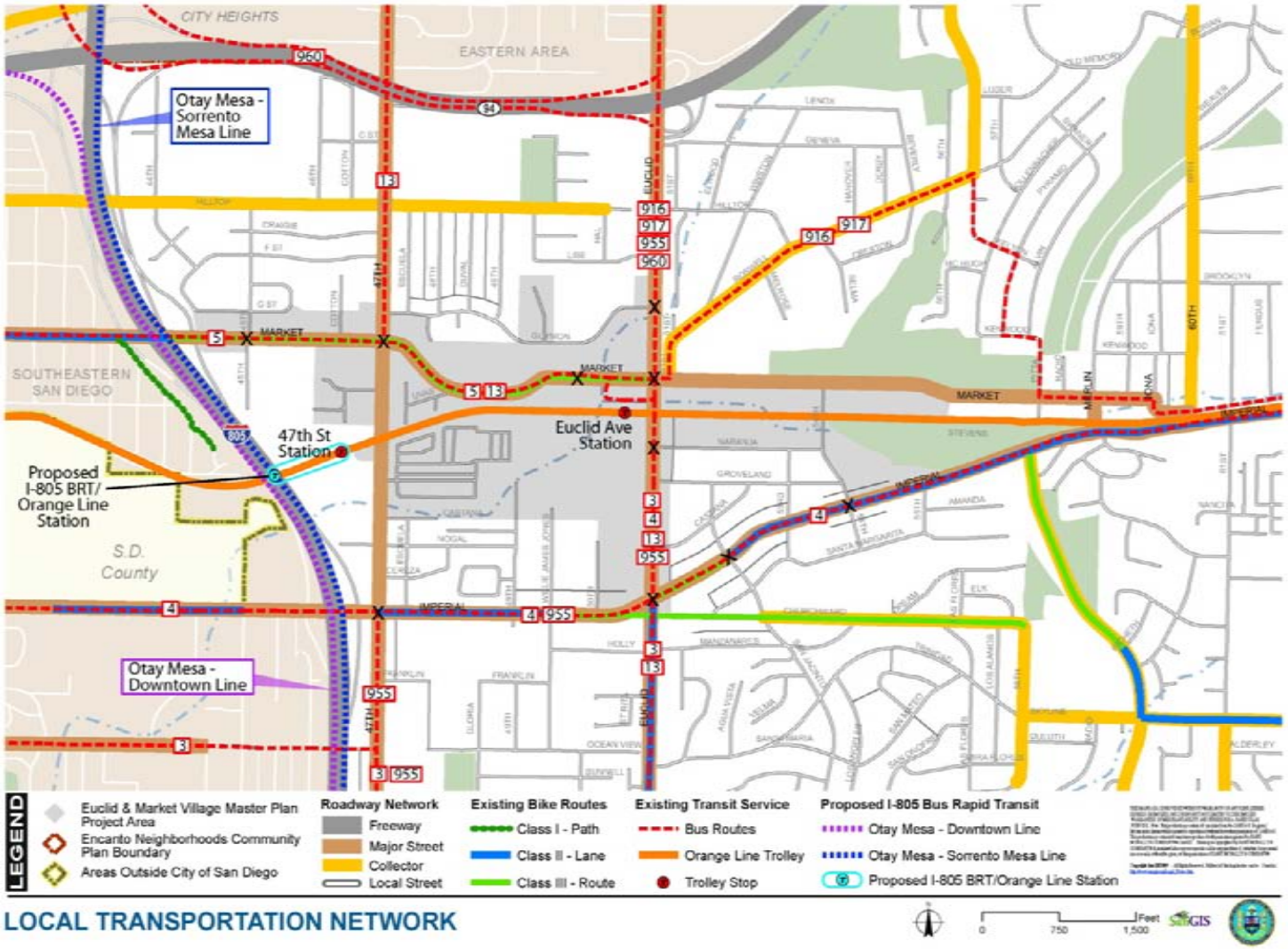
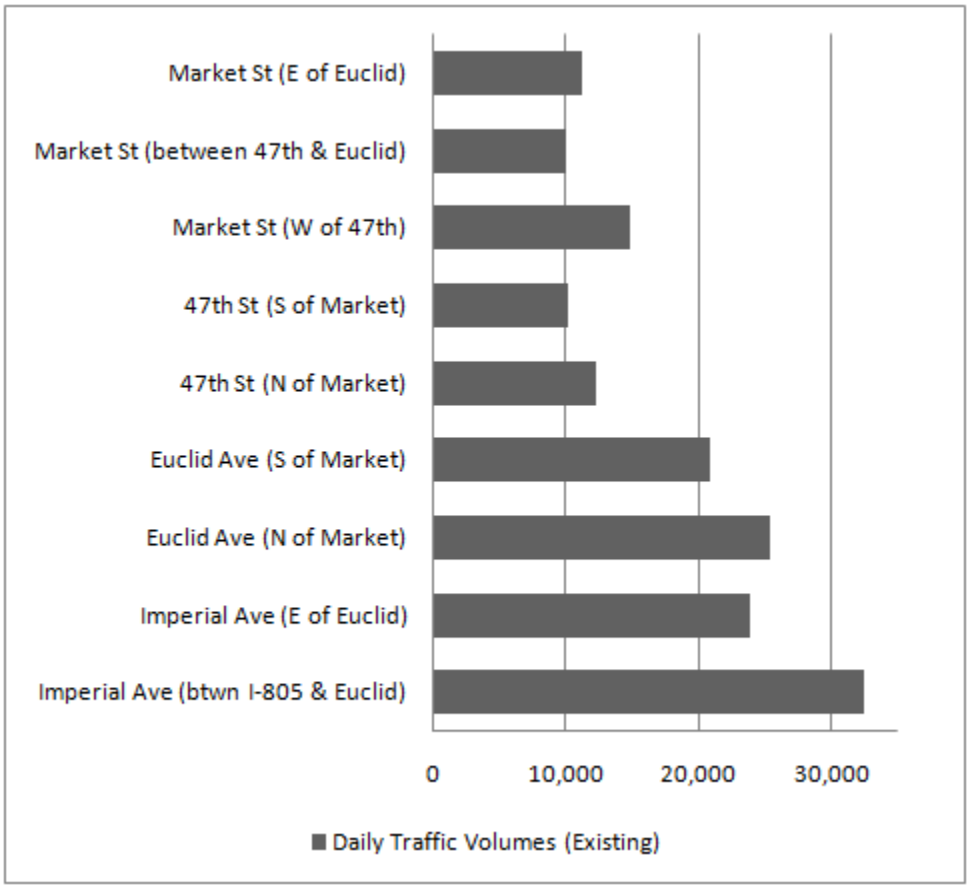


Figure 4-2B: Daily Traffic Volumes (Existing)



Euclid Avenue

Euclid Avenue is classified as a four-lane Major Street and features two travel lanes in each direction with some on-street parking, and a center raised median island adjacent to the Market Creek Plaza and a center turn lane between Groveland Drive and Imperial Avenue.

Figure 4-2C illustrates the typical right-of-way dimensions on Euclid Avenue within the Plan Area, and Table 4-2D highlights the general allocation of right-of-way space between the primary travel modes (motor vehicles, bicyclists, and pedestrians). As shown, nearly 90 percent of the right-of-way space is allocated to motor vehicle use.

Figure 4-2C: Existing Right-of-way Dimensions: Euclid Avenue

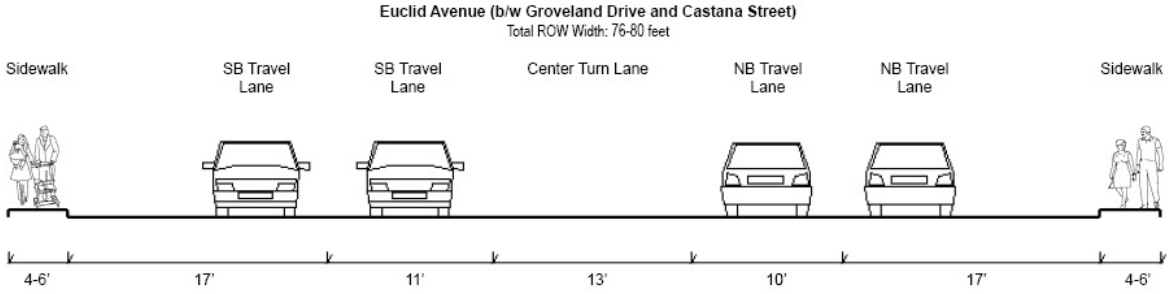


Figure 4-2D: Existing Right-of-way Allocation: Euclid Avenue

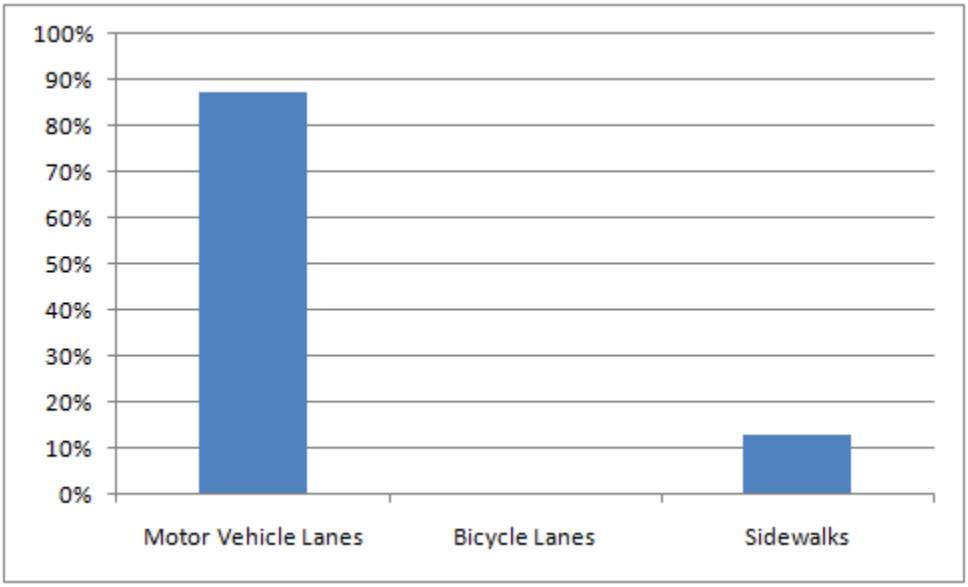


Figure 4-2E: Right-of-way Allocation on Euclid Avenue

Photo Source: WRT 2011

Nearly 90 percent of the public right-of-way space on the major streets serving the Plan Area is allocated to motor vehicle use, with minimal accommodations for pedestrian and bicycle circulation.

Imperial Avenue

Imperial Avenue is classified as a four-lane Major Street, and provides two vehicular travel lanes in each direction with a center raised median island between 47th and 49th Streets and near Valencia Parkway. Between 54th and 55th Streets within the Plan Area, Imperial Avenue features a center turn lane, dedicated bike lanes, and on-street parking.

Figure 4-2F: Existing Right-of-way Dimensions – Imperial Avenue at 54th Street

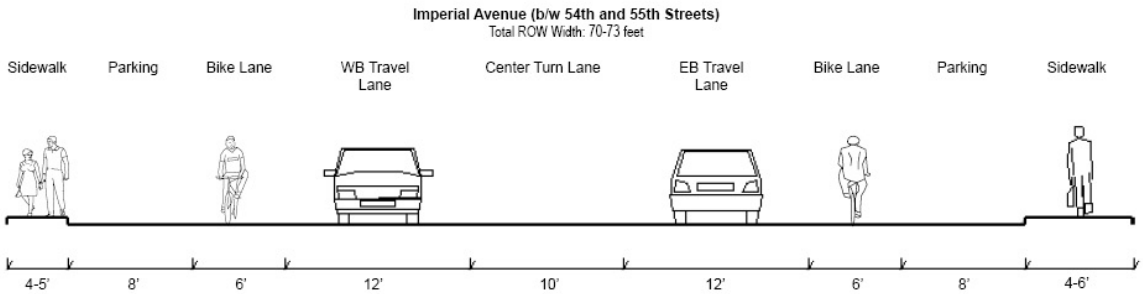


Figure 4-2G: Barriers to Mobility – Imperial Avenue

Photo Source: WRT 2011

Although the Plan Area is within one-quarter to one-half mile of two transit stations, actual walking distances are lengthened due to barriers to pedestrian mobility.

Market Street

Market Street is classified as a four-lane Major Street (but not yet fully developed to Major Street standards). On-street parking is allowed on most segments. East of Euclid Avenue, Market Street narrows to one lane in each direction with unimproved shoulders and no sidewalk. Along this stretch, pedestrians must either use an unpaved shoulder adjacent to the westbound lane or a relatively wide unpaved path adjacent to the eastbound lane (behind a sparsely planted buffer)

Based on its designation as a Major Street, future development of potential land use opportunity sites along Market Street will likely be required to include elements required for Major Streets, including two lanes in each direction on all segments (including the segment east of Euclid avenue) and provision of a raised median.

Figure 4-2H: Existing Right-of-way Dimensions: Market Street (west of Euclid)

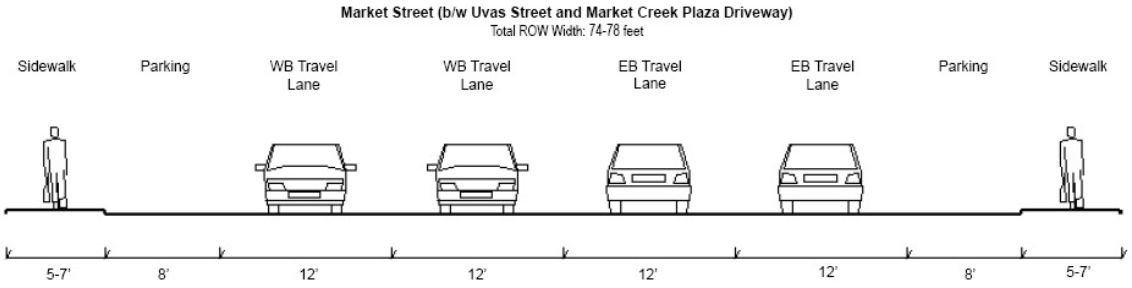


Figure 4-2I: Right-of-way Allocation: Market Street (west of Euclid)

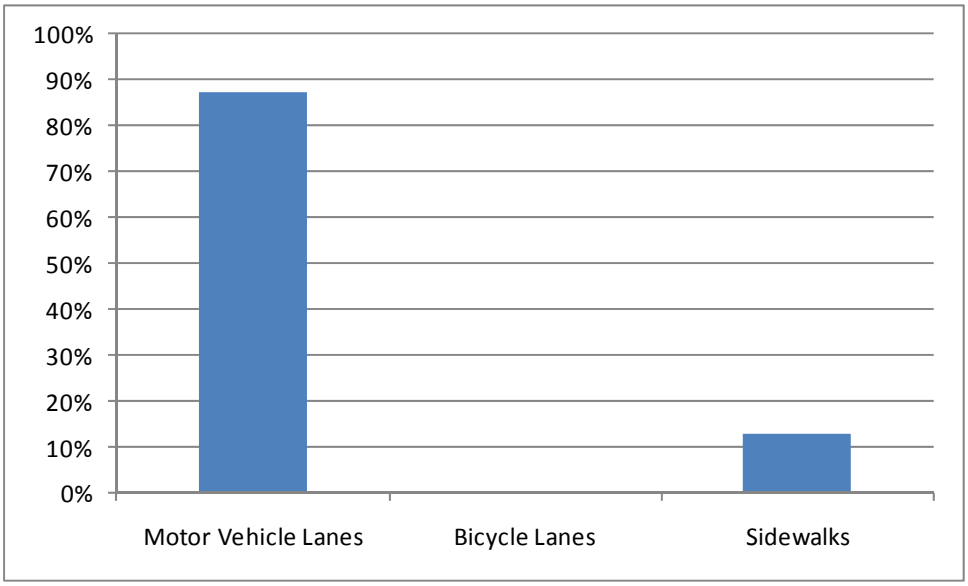


Figure 4-2J: Market Street (east of Euclid)

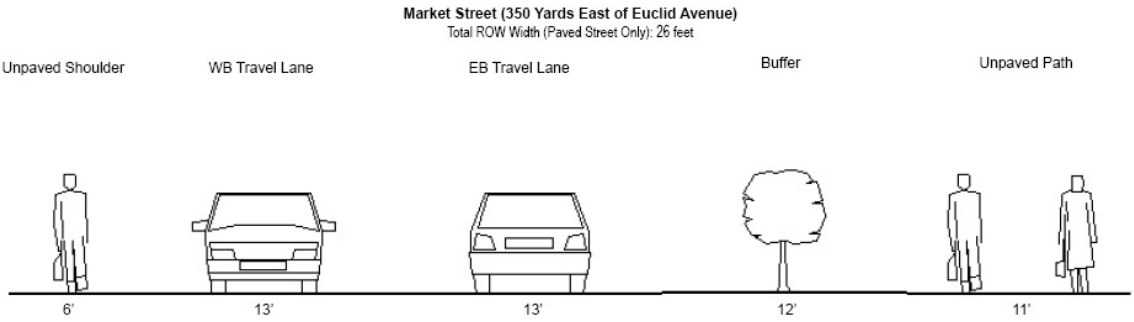


Figure 4-2K: Market Street looking east towards 54th Street

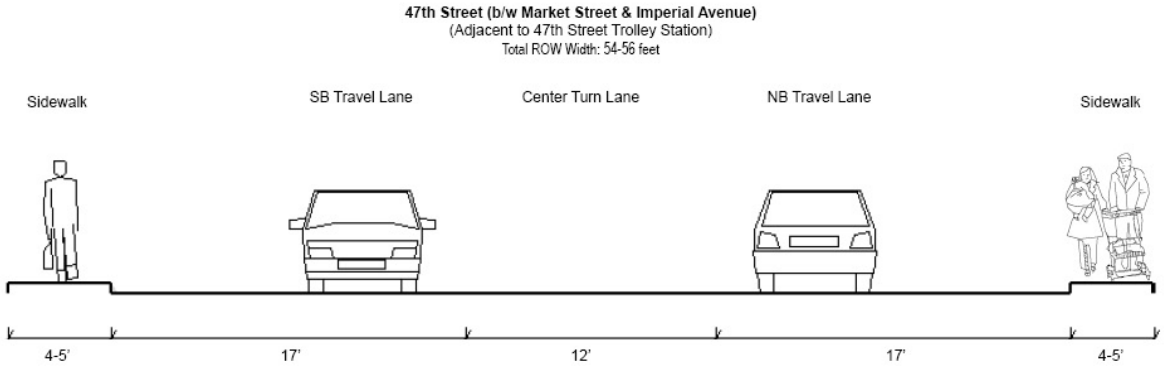
Photo Source: WRT 2011

This segment of Market Street (east of Euclid Avenue) is one of the few public right-of-way segments within the Plan Area that includes street trees bordering the roadway, and a wide (unpaved) pedestrian pathway. Based on the current street designation and City street design standards, future plans call for widening this segment to match the segment to the east (visible at the top of the photograph).

47th Street

47th Street is classified as a Major Street (requiring at least four travel lanes and a raised median), although the segment south of Market Street is not yet developed to Major Street standards. Between Market Street and Imperial Avenue it is currently constructed as a two-lane roadway with a center two-way left turn lane. On-street parking is permitted along most stretches of roadway. As on Market Street, future development along the stretch of 47th Street within the study area will likely be required to expand the street to match its functional classification, with two lanes in each direction as well as a center turn lane/median.

Figure 4-2L: Existing Right-of-way Dimensions: 47th Street



Local Streets & Off-street Paths

Local streets within the study area primarily serve housing developments and lack adequate interconnections. The area's natural topography (creeks, canyons, and mesas) and the double tracked Orange Line Trolley route that runs from west to east through the site also make it very difficult if not impossible to travel through the study area using routes other than the major arterials. The result of all of these factors combined is a feedback loop that discourages pedestrian and bicycle use and encourages further development of transportation networks designed primarily for automobiles.

There are no formal (paved) public off-street bicycle or pedestrian paths within the Plan Area. However, informal paths have developed on key "desire paths" for pedestrian travel that are not accommodated by the local street network. As shown on Figure 6-2i, two such pedestrian paths can be seen:

- Informal pedestrian path from Guymon Street (west of Horton Elementary School) southwest across the large hill to Market Street.
- Informal pedestrian paths parallel to Chollas Creek from Willie James Jones Avenue to the Market Village amphitheatre.

Figure 4-2M: Informal Pedestrian Paths within the Plan Area

Source: Google Earth 2011

Informal pedestrian paths have developed, to overcome the lack of local street connections within the Plan Area. Formalizing these pedestrian routes and improving them to accessible standards would be a significant first step in encouraging pedestrian connectivity.

Rail Lines

The Plan Area is bisected by a former freight rail corridor that has been largely retrofitted for Orange Line Trolley (light-rail) service:

- The Orange Line connects Downtown San Diego to several communities to the northeast, including Lemon Grove, La Mesa, and El Cajon, and terminates at Gillespie Field, which is just south of Santee Town Center.
- Service began at the two Plan Area stations in 1986, when the East Line (now Orange Line) was opened to Euclid Avenue; in 1989, service was extended to the communities of La Mesa and El Cajon, and the final extension to Santee opened in 1995.[i]
- Just west of the Plan Area, the Trolley right-of-way crosses I-805 on an overpass; further along the line, just east of 47th Street station, the line also crosses 47th Street on an overpass. Immediately to the east of Euclid Avenue station, the Trolley crosses that arterial at grade.

The two Trolley stations serving the Plan Area (47th Street and Euclid Avenue stations) are relatively close together – about one-half mile. Both Trolley stations include the following:

- Side platforms are roughly 350 feet in length, and feature a full range of rider amenities, including benches, shelters, trashcans, telephones, and displays.
- 47th Street station has 129 parking spaces available free of charge, of which three are dedicated for disabled parking and five are short-term (20-minute) spaces.
- Euclid Avenue station has 115 free parking spaces, of which six are reserved for disabled persons and one is limited to 20 minutes. Euclid Avenue is also a sizable transit hub, since all eight bus lines that operate in the vicinity of the project area share it as a timed stop, and five share it as a terminal.

The 47th Street station is not easily accessible by pedestrian or bicycle traffic. Depending on upcoming decisions in the planning process for the I-805 BRT, the 47th Street station may be shifted to the west, closer to the I-805 overpass, to allow for a direct connection to the BRT. As part of this process, improved connections for bicycles and pedestrians will be evaluated.

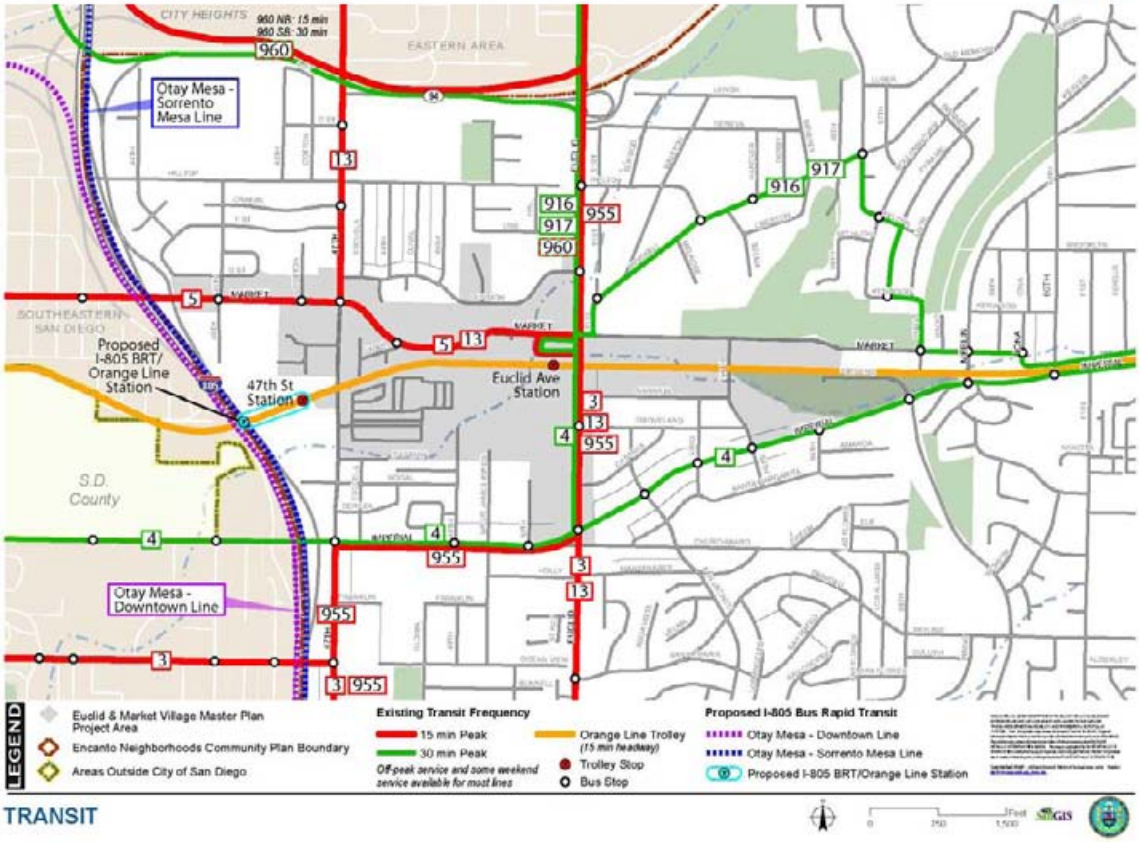
Limited freight rail service continues to use the Trolley line right-of-way. Freight runs occur on average less than once a week and only during early morning hours.

TRANSIT SERVICE & ACCESS

This section describes existing and proposed transit service and facilities within the Plan Area, including fixed-route transit and paratransit (demand-responsive) service. The section also provides information on transit stop accessibility.

Local transit services are provided by the San Diego Metropolitan Transit System (MTS) that provides fixed-route light rail ("Trolley"), local bus, and express bus service within the greater San Diego area. In addition, "MTS Access", a paratransit service, provides demand-responsive curb-to-curb service to the same areas and during the same days and hours of service that MTS' fixed route buses and trolleys operate.

Figure 4-3A: Transit Lines Serving the Plan Area



Trolley Service

MTS operates high-frequency Orange Line Trolley service at two stations within the Plan Area: 47th Street (located to the west of 47th Street between Market Street and Imperial Avenue) and Euclid Avenue (located just to the southwest of the intersection of Euclid Avenue and Market Street).

Trolley Ridership

Given its role as a major bus transfer point, the Euclid Avenue Station is among the busiest in the MTS system.

- Euclid Avenue Station accounts for 9 percent of the Orange Line's total daily ridership.[ii]
- For fiscal year (FY) 2010, boardings and alightings at Euclid Avenue in the inbound direction (towards downtown San Diego) accounted for the second and third highest total ons and offs, respectively, of all stations on the line.
- Headed outbound towards Gillespie Field, boardings and alightings at Euclid ranked fifth and second of all stations, respectively.
- Interestingly, more passengers heading both directions got on and off at Euclid Avenue during midday hours than during the traditional AM and PM peak commute periods.

By contrast, 47th Street serves only one-fifth as many trolley riders as Euclid Avenue, and accounted for only 1.9 percent of total daily ridership on the Orange Line. Lower ridership levels at the 47th Street Station may be attributed to:

- The 47th Street Station is a Trolley-only stop (with no bus service) with limited site access (there is no direct pedestrian path without interruption between the station platforms and sidewalks along 47th Street).
- The 47th Street Station is bordered by relatively low-density land uses, including undeveloped land bordering the adjacent creek as well as the Interstate 805 right-of-way.
- The lack of direct, local street access to adjacent neighborhoods further serves to limit the ridership potential of the 47th Street Station.

Bus Service

MTS operates eight bus lines in the area, all of which share the Euclid Avenue Trolley station as a hub. Throughout its entire system, MTS directly operates about half of its bus routes, and contracts the rest of its routes to Veolia, Inc. Within the Plan Area, MTS operates lines 4, 5, and 13, while Veolia operates lines 3, 916/917, 955, and 960.[iii]

The Euclid Avenue Station is the terminal stop for five of the eight bus lines that operate within the Plan Area (Lines 3, 5, 916/917, and 960). The schedules of these five lines are "pulsed", with closely coordinated departure times, to facilitate transfers. Physically, the bus station consists of six sawtooth bus bays located to the north of the trolley platforms. Buses connect to the eastbound lanes of Market Street by two driveways to the north and to the southbound lanes of Euclid Avenue by a driveway to the west. According to the San Diego Association of Government (SANDAG)'s 2009 Onboard Survey, 44 percent of riders who boarded at Euclid Avenue station reported walking to the Trolley, with nearly 34 percent having transferred from a bus. Only three percent reported biking to the station, and five percent drove alone and parked.[iv]

By contrast, the 47th Street Station is not served by any local or express bus routes; the nearest stops are nearly a third of a mile to the north and south. Because the station serves relatively few passengers on an average weekday, only seven passengers reported their mode of access in the 2009 Onboard Survey. Of these respondents, about 70 percent reported walking to the station, and 30 percent indicated that they transferred from a bus. Actual primary modes of access may be different than these results indicate, given the availability of free commuter parking and limited bus and pedestrian access to the station.

Figure 4-3A provides an overview of transit service operating in the vicinity of the Plan Area, including service frequency information and the span of service at Euclid Avenue station, where all bus routes share a stop.

Although there are a few bus stops within the Plan Area that offer improved pedestrian amenities and facilitate sidewalk access, these are primarily provided in areas where recent development has occurred. For example, in preparing the Valencia Business Park site for development, the Southeastern Economic Development Corporation installed the public art bus shelter and benches along Imperial Avenue at Valencia Parkway, seen at right in Figure 4-3B, above.[v] The prospect of increased development within the Plan Area thus presents a significant opportunity to improve adjacent bus stops.

Table 4-3A: Daily Trolley Boardings & Alightings (Orange Line, FY 2010)

Station	Direction		Total
	Inbound (To Downtown)	Outbound (To Gillespie)	
Daily Boardings (Orange Line)			
47th Street Station	379	190	**569**
Euclid Avenue Station	1,525	1,051	**2,576**
Daily Alightings (Orange Line)			
47th Street Station	179	393	**572**
Euclid Avenue Station	1,136	1,596	**2,732**

Table 4-3B: MTS bus service on-time percentage, 2011

Route	On-time percentage
3	89%
4	87%
5	89%
13	86%
916	89%
917	96%
955	87%
960	70%

Figure 4-3B: Bus Stop Amenities

Photo Source: WRT 2011

Varied levels of amenities are provided at bus stops within the Plan Area. Some bus stops (such as the one on westbound Imperial Avenue at 54th Street, shown on the left) do not have adequate sidewalk space, and the bench creates a barrier to wheelchair access. Newer bus stops (such as the one on westbound Imperial Avenue at Valencia Parkway/Stevens Way, at right) have been incorporated into recent development projects and include benches and shelters, while maintaining the required "clear space" for wheelchair access.

Bus Service Trends and Performance

The majority of bus boardings and alightings on all bus lines within the Plan Area take place at the Euclid Avenue Trolley station.

- On an average weekday,[vii] nearly 4,000 people board and over 3,500 get off a bus at the station (while 2,500 people board an Orange Line trolley, and 2,700 get off an Orange Line trolley, as the same station).
- The next tier of boarding and alighting ("on" or "off" counts greater than 100 per weekday) occurs at stops along the Euclid Avenue corridor between Market Street and Imperial Avenue, adjacent to significant trip generators such as the Market Village shopping center and the Euclid Health Center.

With the exception of the weekday-only route 960, which connects the Euclid Avenue Trolley station and University Towne Center during AM and PM peak periods, all bus lines operating within the Plan Area operate on schedule more than 80 percent of the time. The 917 line, which operates in a counterclockwise direction between the Euclid Avenue Trolley station and Cottage Grove, is the most reliable of all area routes; it operates on time nearly 96 percent of the time.

Table 4-3C provides an overview of bus frequencies and fares within the Plan Area, and Appendix A contains the latest official schedules and maps of all bus and Trolley lines serving the Plan Area.

Bus Ridership & Passenger Amenities

Table 4-3D provides boarding and alighting data, and describes passenger amenities, at each bus stop within the Plan Area.

- There are 27 bus stops within the Plan Area (not including those bus stops provided at the Trolley station) that exhibit a wide variety of passenger amenities, including benches, shelters, trash cans, informational displays, and lighting.
- Over 65 percent of bus stops feature benches.
- Just 30 percent of bus stops have no amenities.

Paratransit service

Paratransit service is available through MTS Access, a service provided by MTS to supplement bus and Trolley services for customers who due to disabilities cannot ride the fixed-route transit services. MTS Access is offered for destinations no more than three quarters of a mile away from existing bus routes and Trolley stations. Service is operated within each of the MTS' four travel zones, and riders wanting to travel between zones must transfer to another vehicle to complete their journey. Paratransit service north of La Jolla is provided by the North County Transportation District (NCTD).

Potential paratransit riders must be certified by the MTS to be eligible for MTS Access travel. Reservations may be made no later than 5 p.m. the day before the trip, and customers can expect a one-hour window of time for expected pick-up. A one-way trip costs $4.50, equivalent to twice the one-way fixed-route bus fare.

Table 4-3C: Transit Frequency & Fares

Service name	Destinations served	Service span at Euclid Avenue station & frequency of bus service	Fares
Orange Line (Trolley)	Downtown, El Cajon, Lemon Grove	MON-FRI: 4:15am - 1:15am (15 minutes) SAT: 4:45 am - 1:45am (30 minutes) SUN: 4:45am - 11:45pm (30 minutes)	One-way: $2.50 Day pass: $5.00 Discount: $1.25
MTS fixed-route bus service			
Line 3 Euclid Trolley-UCSD Med. Ctr./Hillcrest	Balboa Park, Educational Cultural Complex, Gaslamp Quarter, Ocean View Plaza	MON-FRI: 5:00am – 12:15am (15 minutes) SAT: 5:15am – 12:15am (30 minutes) SUN: 5:30am – 8:15pm (30 minutes)	One-way: $2.25 Day pass: $5.00 Discount: $1.10
Line 4 Lomita Village – 12th & Imperial	Imperial Marketplace, Lincoln HS, Skyline Hills Library	MON-FRI: 5:00am – 11:30pm (30 minutes) SAT: 6:15am – 11:00pm (60 minutes) SUN: 5:45am – 8:30pm (60 minutes)	One-way: $2.25 Day pass: $5.00 Discount: $1.10
Line 5 Euclid Trolley – Downtown	Downtown Library, Downtown Post Office, Gateway Center	MON-FRI: 5:00 am – 11:15pm (15 minutes) SAT: 5:15am – 9:30pm (30 minutes) SUN: 5:45am – 8:45pm (30 min from 10am-6pm, 60 min other times)	One-way: $2.25 Day pass: $5.00 Discount: $1.10
Line 13 24th St Trolley – Kaiser Hospital	City Heights Comm. Park, Fairmount Ave, Gompers HS, Mission Gorge Center, Paradise Valley Hospital	MON-FRI: 5:15am – 12:15am (15 minutes) SAT: 5:45am – 11:45pm (30 minutes) SUN: 6:30am – 7:45pm Every 30 min (10am-6pm), 1 hr (other times)	One-way: $2.25 Day pass: $5.00 Discount: $1.10
Line 916 Euclid Trolley – Cottage Grove (clockwise)	College Grove Shopping Center, Encanto Community Park, Lemon Grove Plaza, Metropolitan Center	MON-FRI: 6:30am – 9:45pm Every 30 min (peak), 1 hr (off-peak) SAT: 7:00am – 9:00pm Every hour	One-way: $2.25 Day pass: $5.00 Discount: $1.10
Line 917 Euclid Trolley – Cottage Grove (counterclockwise)		MON-FRI: 7:00am – 10:45pm (30 minutes peak, 60 minutes off-peak) SAT: 7:00am – 9:30pm (60 minutes)	
Line 955 8th St Trolley – SDSU	54th Street, Crawford HS, Lincoln HS, SDSU, South 43rd Street	MON-FRI: 5:15am – 11:30pm (15 minutes) SAT: 5:45am – 11:30pm (30 minutes) SUN: 6:00am – 9:00pm Every 30 min (10am -5pm), 1 hr (other times)	One-way: $2.25 Day pass: $5.00 Discount: $1.10
Line 960 Euclid Trolley – UTC	The Boulevard Transit Plaza, City Heights Transit Plaza, Kearny Mesa	MON-FRI ONLY NB to UTC: 5:15am – 7:45am (15 minutes) SB to Euclid: 3:15pm – 6:45pm (30 minutes)	One-way: $2.25 Day pass: $5.00 Discount: $1.10

Table 4-3D: Bus Stop Amenities & Daily Ridership

Weekday boardings and alightings by street, stop, and bus route - within study area																					
Street	Location	Side of Street	Amenities	Bus Routes -- Weekday Ridership by Stop																Total On	Total Off
				3		4*		5		13		916		917		955		960			
				On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off		
-	Euclid Avenue Trolley Station	Terminal	(B) (S) (T) (D) (P) (L)	358	440			569	449			171	66	113	257			82	59	1,293	1,271
		NB/EB route				279	151			770	332					675	450			1,724	932
		SB/WB route				144	195			337	636					401	587			882	1,417
Euclid Ave (North to South)	Euclid Av / Guymon St	SB	(B) (L)											5	5	10	7			15	12
	Euclid Av / Guymon St	NB	(B) (L)									1	2			18	21			19	23
	Euclid Av / Unity Place Drwy	SB	(B) (T) (L)	62	2	89	7			105	10					90	6			346	25
	Euclid Av / Naranja St	NB	(B) (L)	4	46	3	77			9	93					27	42			43	258
	Euclid Av / Euclid Health Center	SB	(B) (S) (T) (D) (L)	19	7	38	26			36	37					31	46			124	116
	Euclid Av / Brooks Hoffman Plaza	SB	(B)	48	14					48	52									96	66
	Euclid Av / Manzanares Wy	NB	(B)	11	38					31	60									42	98
Market St (West to East)	Market St / 45th St	WB	(L)					65	41											65	41
	Market St / 45th St	EB	(B) (L)					36	74											36	74
	Market St / Cotton St	WB	(B) (T) (L)					30	40											30	40
	Market St / Cotton St	EB	(L)					23	16											23	16
	Market St / 47th St	WB	(L)					31	14											31	14
	Market St / 47th St	EB	(B) (L)					21	30	27	45									48	75
	Market St / Uvas St	WB	(L)					3	4	3	3									6	7
	Market St / Uvas St	EB	(L)					2	4	3	4									5	8
	Market St / 4890 Market St	WB	(L)					1	1	1	2									2	3
47th St	47th / Guymon St	NB	(B) (T)							62	27									62	27
Imperial Ave (West to East)	Imperial Av / 50th St	WB	(B) (S) (T) (D) (L)			30	23									25	62			55	85
	Imperial Av / Euclid Ave	EB	(T) (L)			30	18													30	18
	Imperial Av / 54th St	WB	(B) (L)			59	13													59	13
	Imperial Av / 54th St	EB	(B) (L)			15	89													15	89
	Imperial Av / 55th St	EB	(L)			0	0													0	0
	Imperial Av / Valencia Pkwy (W)	EB	(L)			5	14													5	14
	Imperial Av / Valencia Pkwy	WB	(B) (S) (L)			16	6													16	6
	Imperial Av / Valencia Pkwy (E)	EB	(B) (L)			4	12													4	12
	Imperial Av / Merlin Dr	WB	(B) (L)			15	5													15	5
	Imperial Av / Linnett St	EB	(B) (L)			5	15													5	15

Amenities key: (B) Bench, (S) Shelter, (T) Trash can, (D) Display - information kiosk, (P) Phone, (L) Lighting

Shaded and non-shaded color bands indicate successive station location groupings

* Route 4 travels up and back Euclid Ave on both EB and WB journeys. Figures listed are totals of both runs.

Access to Transit

Although access to transit within the Plan Area is primarily provided by bus, pedestrian and bicycle infrastructure to and around 47th Street and Euclid Avenue stations is extremely limited. Likewise, the availability of several bus routes and walkable bus stops throughout the Plan Area is complicated by the car-friendly design of arterials, as narrow sidewalks limit ADA bus accessibility if sidewalks are crowded and relatively few signalized crosswalks prevent ease of travel.

Bicycle Access to Transit

Providing convenient bicycle access to transit facilities (as well as secure bicycle storage facilities at transit stations and key stops) can substantially increase transit accessibility, expanding the transit ridership market from the extent of walking distance to/from a transit stop (approximately one-fourth to one-third of a mile) to a much larger radius accessible to bicyclists (two to five miles from the transit station or stop).

The Euclid Avenue Trolley station is relatively accessible by bicycle, as Class II and III bicycle infrastructure provide limited safe access from the south and west. The station features two mechanical bike locker spaces that may be reserved online on a first-come, first-serve basis using SANDAG's online 511 iCommute service. Cyclists must pay a $25 bike locker key deposit fee to reserve a locker.[viii] By contrast, there are no official bike routes to 47th Street station, and no bike lockers are provided at that station.

Motor Vehicle Access to Transit

Motor vehicle access to transit is provided to both transit stations, including passengers that are dropped-off ("kiss-and-ride") and those that park in one of the two Park & Ride lots. A total of 244 parking spaces are provided (129 spaces at the 47th Street station, and 115 spaces at the Euclid Avenue station). Parking occupancy counts conducted on May 24, 2011 found that less than 60 percent of the parking spaces at the Euclid Avenue were occupied, and just 50 percent of the spaces at the 47th Street station were occupied. Table 6-3E summarizes the parking occupancy counts conducted at the two park & ride stations.

Table 4-3E: Park & Ride Lots: Parking Supply & Demand

Euclid Avenue Station				
Count period	*Parking Supply*	*Parking Demand*	*Pct Occupied*	*Vacant Spaces*
10 to 11 am	115	67	**58%**	48
2 to 3 pm	115	65	**57%**	50
47th Street Station				
Count period	*Parking Supply*	*Parking Demand*	*Pct Occupied*	*Vacant Spaces*
10 to 11 am	129	64	**50%**	65
2 to 3 pm	129	60	**47%**	69
Demand based on parking occupancy counts conducted on May 24, 2011.				
Source: Nelson\Nygaard and Wiltec, 2011.				

Pedestrian Access to Transit

Local residents or visitors looking to walk to and from bus stops have good access to transit, as bus stops are distributed well throughout the Plan Area. Still, access to these on-street stops is limited by narrow sidewalks and wide arterial streets that are difficult to cross safely. However, pedestrians looking to access Trolley transit stops face more limited options.

Figure 4-5A provides an analysis of the "walkshed" within one-quarter and one-half of a mile to the Trolley stations. The walkshed illustrates how far potential transit riders must walk to access Trolley stations along existing pathways (local and arterial streets), and offers a more accurate assessment of pedestrian mobility to transit stations within specific distances.

Though the Plan Area is well-served by transit, some gaps remain: because no buses serve the 47th Street Trolley station, for example, riders wishing to transfer must walk up to 1/3 of a mile to reach nearby bus routes. Limited bicycle storage at Trolley stops also discourages non-auto access to transit.

Figure 4-3C: Pedestrian Access to Transit Stations

Source: Nelson\Nygaard

Directly adjacent to the Trolley stations, pedestrians face inhospitable and potentially dangerous walking conditions. While the 47th Street station features an ADA-compliant ramp from the parking lot to the station platform, pedestrian access from 47th Street is not adequately provided. As seen in Figure 4-3C (above left), pedestrians are forced to walk up a relatively steep driveway to reach the 47th Street station. Even at the heavily utilized Euclid Avenue station, there are obstructions within the pedestrian zone, immediately adjacent to the station platforms along Euclid Avenue (above right).

Planned Transit Improvements

Trolley Station Renovations (planned for 2012)

Over the next year, SANDAG will complete renovations of Euclid Avenue and 47th Street stations to prepare them for low floor trolley service. These improvements are part of the Trolley Renewal Project, which includes raising Trolley platform levels to a height of eight inches, installing new shelters at some stations (including Euclid Avenue and 47th Street), and upgrading electrical and communications systems. Additionally, the trackway at Euclid Avenue will also be reconstructed.

The Orange Line improvements are scheduled to be completed by July 2012,[ix] and the total budget for the project's set of systemwide upgrades is $620 million.

Proposed Future Transit (2014-2050)

Proposed Trolley Grade Separation at Euclid Avenue (2030-2050)

In April 2011, SANDAG released its Draft *2050 Regional Transportation Plan*. The plan included a number of transportation improvements that would help to mitigate traffic and improve mobility given increases in population and housing and employment density in the greater San Diego area.

One of the long-term projects outlined in the *RTP* is to improve Orange Line Trolley performance by building grade separations (that is, overpasses for either a road or the Trolley line which allow traffic to flow through the crossing even if a train is present) at five major intersections along the line. Euclid Avenue is one of the intersections specified in the Plan.

No detailed planning work has been completed thus far, and the proposal has yet to develop a detailed schedule, budget, or set of alternatives. The project could be implemented after 2030 and is estimated to cost between $30 and $50 million.[x]

Proposed Bus Rapid Transit Projects (2014-2050)

SR-94 HOV/BRT lanes

Caltrans is in the preliminary stages of planning the SR-94 HOV/Bus Rapid Transit Lanes project, which was included in SANDAG's *Pathways for the Future 2030 Regional Transportation Plan* as a component of the "Revenue Constrained Network". The project will construct two High Occupancy Vehicle (HOV)/Bus Rapid Transit (BRT) lanes on SR-94 from Interstate 5 to Interstate 805, and will also include dedicated HOV/BRT connectors from SR-94 to I-5 and I-805. The final environmental review document is expected to be completed in 2014, with construction of the first phase slated to be complete in 2017. The project is estimated to cost $600 million.[xi]

South Bay BRT

The South Bay Bus Rapid Transit project is being managed by SANDAG as one of the TransNet Early Action Projects financed by a half-cent sales tax for transportation projects. The first phase includes designing and building a 21-mile long BRT line from the Otay Mesa Port of Entry and

downtown San Diego by way of Chula Vista, Interstate 805, and SR 94. The first phase will feature 12 stations, and will include transit-only lanes in Chula Vista, special transit-only shoulder lanes on the two freeways, and transit signal priority. The first phase is expected to be implemented by 2014.

The completion of HOV/BRT lanes on both SR-94 and I-805 (see below), as well as the dedicated HOV/BRT flyover ramps at the SR-94 and I-805 interchange, will facilitate the second phase of the South Bay BRT project, which will transform the BRT line into a more limited-access transit route by building additional in-line stations at Plaza Boulevard and H Street in National City and direct access ramps at Palomar Street in Chula Vista.[xii]

I-805 HOV/BRT lanes and I-805 North BRT

Following recommendations in SANDAG's *Pathways for the Future 2030 Regional Transportation Plan*, Caltrans is currently in the planning stages of upgrading I-805 to function as a more transit-friendly corridor. This project, which will be completed in stages; the first stage will include two buffered HOV/BRT lanes on I-805 between Palomar Street in Chula Vista and SR-15, just north of SR-94. This stage is expected to be completed by 2014. The second stage will include HOV lanes from SR-15 to SR-52, and the third stage will build HOV lanes and two direct access ramps between SR-52 and I-5.[xiii]

Full build-out will consist of a four-lane managed lane facility along the entire I-805 corridor, and will also include an in-line BRT route connecting Chula Vista, Mid-City, and Kearny Mesa, which are all major job centers. This BRT project has been moved up in the TransNet priority list, and its first phase is projected to open in 2020. This BRT line will include an in-line station at the 47th Street Orange Line Trolley station, which is described in more detail below. SANDAG's 2050 *Regional Transportation Plan* also includes the conversion of the I-805 BRT to light rail as a potential project to be implemented in the 2041-2050 range. [xiv]

I-805 BRT/Orange Line station[xv]

The construction of a new BRT station at the 47th Street Trolley station may have profound impacts on the Plan Area; next year, SANDAG, Caltrans, and the City of San Diego will be coordinating on the planning process for the new station. One major focus of the planning process will be to widen the Market & Euclid Village Master Plan Area to include the "four corners" around the intersection of the two transit lines – the middle income neighborhood to the northwest, Chollas-Mead Elementary School to the northeast, affordable housing developments to the southeast, and the YMCA to the southwest. Topics of discussion will include whether to redevelop some surrounding parcels to encourage higher density development around the station and how to improve pedestrian and bicycle access to the area.

The proposed station would potentially serve four BRT routes:

- Otay Mesa Border to Sorrento Mesa via Otay Ranch/Chula Vista/National City/Mid-City/Kearny Mesa/University City (labeled as Route 680 in the draft 2050 *Regional Transportation Plan)*
- Otay Ranch to Downtown San Diego via Otay Ranch/Chula Vista/National City (Route 628)
- Otay Ranch Express to Sorrento Valley (Route 688 – peak, limited stop service for Rte. 680)

- Otay Ranch to UTC/Torrey Pines Road (Route 689 – peak, limited stop service for Rte. 680) [xvi]

Based on these preliminary service assumptions, SANDAG forecasts the following daily boardings at the I-805 BRT/Orange Line station in 2020:

- Orange Line: 911
- Route 628: 73
- Route 680: 355
- Route 688: 19
- Route 689: 38[xvii]

The planning process will also focus on the physical design of the joint BRT-Trolley station, which would be more costly to construct than other proposed I-805 BRT stations. Caltrans has developed a preliminary design concept for an "in-line" BRT station that could include a relocated Trolley station on the overpass above I-805 (see Figure 4-3D for an example of a similar station). However, there are several constraints that limit the appeal of that option: first, the bridge is located on a curve, which would affect sightlines at the station, and second, a station located away from local destinations and the street may have additional security problems. Further, an in-line BRT station would require reconstruction of the I-805 overpasses to the north (at Market Street) and south (Imperial Avenue) in order to accommodate the wider right-of-way needed at in-line station locations. As a result of the complexity of an in-line BRT station at 47th Street, SANDAG has estimated a budget for this project at over $100 million.

Figure 4-3D: Example of Proposed "in-line" BRT Station at H Street (Chula Vista)

Source: Caltrans/SANDAG (2011)

There are already several potential alternatives to the proposed in-line station. One is to construct side direct access ramps that would cross the Orange Line Trolley at grade; another alternative is to construct flyover ramps to connect the BRT line to the existing 47th Street Trolley station. SANDAG expects that a full set of alternatives and a more concrete budget will be developed in 2012. The I-805 BRT line (with a station at 47th Street) is proposed to be in service by 2020, subject to funding and necessary approvals.

Transit Summary: Opportunities & Constraints

Although the Plan Area is generally well-served by both rail and bus transit service, there are a few gaps in service. For example, because no buses serve the 47th Street Trolley station, for example, riders wishing to transfer must walk up to 1/3 of a mile to reach nearby bus routes.

The opportunity to plan major transit projects affecting the Plan Area presents a number of opportunities to improve overall circulation and access in the area.

Given existing system conditions, the greatest opportunity exists in the ability to capitalize on the large volume of passengers using the Euclid Avenue station as either a destination or a transfer point. The data suggest that the location will support higher density development.

Next, the scheduled upgrades to Orange Line Trolley stations in support of low floor vehicle operation provides an opportunity to rethink short term pedestrian and bicycle access and amenities at these stations. Better station access for these modes would complement improved platform access to transit vehicles, and other improvements could include additional bike lockers at Euclid Avenue station and the installation of new bike lockers at 47th Street.

As SANDAG recognizes, the upcoming planning process for a joint BRT-Orange Line Trolley station at 47th Street will uncover additional constraints and opportunities for the Euclid & Market Village Master Plan Area. A potential in-line BRT/Trolley stop severely constrains pedestrian and bicycle access to transit, and limits potential TOD redevelopment that could be tied to the project. Many more opportunities lie in locating the joint station on the hill between the current 47th Street station and the I-805 bridge: the site would have good access to any potential redevelopment on the east side of I-805 and still maintain connections to the street. The project also offers an opportunity to reconfigure area bus lines to serve the joint BRT-Trolley stations, which would benefit adjacent residential development as well as expand the pedestrian walkshed.

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MOTOR VEHICLE TRAFFIC & PARKING

This section summarizes the motor vehicle traffic and on-street parking data collected in May 2011, and provides an assessment of existing traffic levels of service (LOS).

Traffic Operations

Traffic operations were evaluated consistent with the City of San Diego *Traffic Impact Study Manual* (1998), which provides guidelines for evaluating level of service (LOS) for motor vehicles at study intersections and roadway segment locations. Based on those guidelines, the acceptable LOS for traffic operations at study intersections and roadway segment locations in San Diego is level of service D.

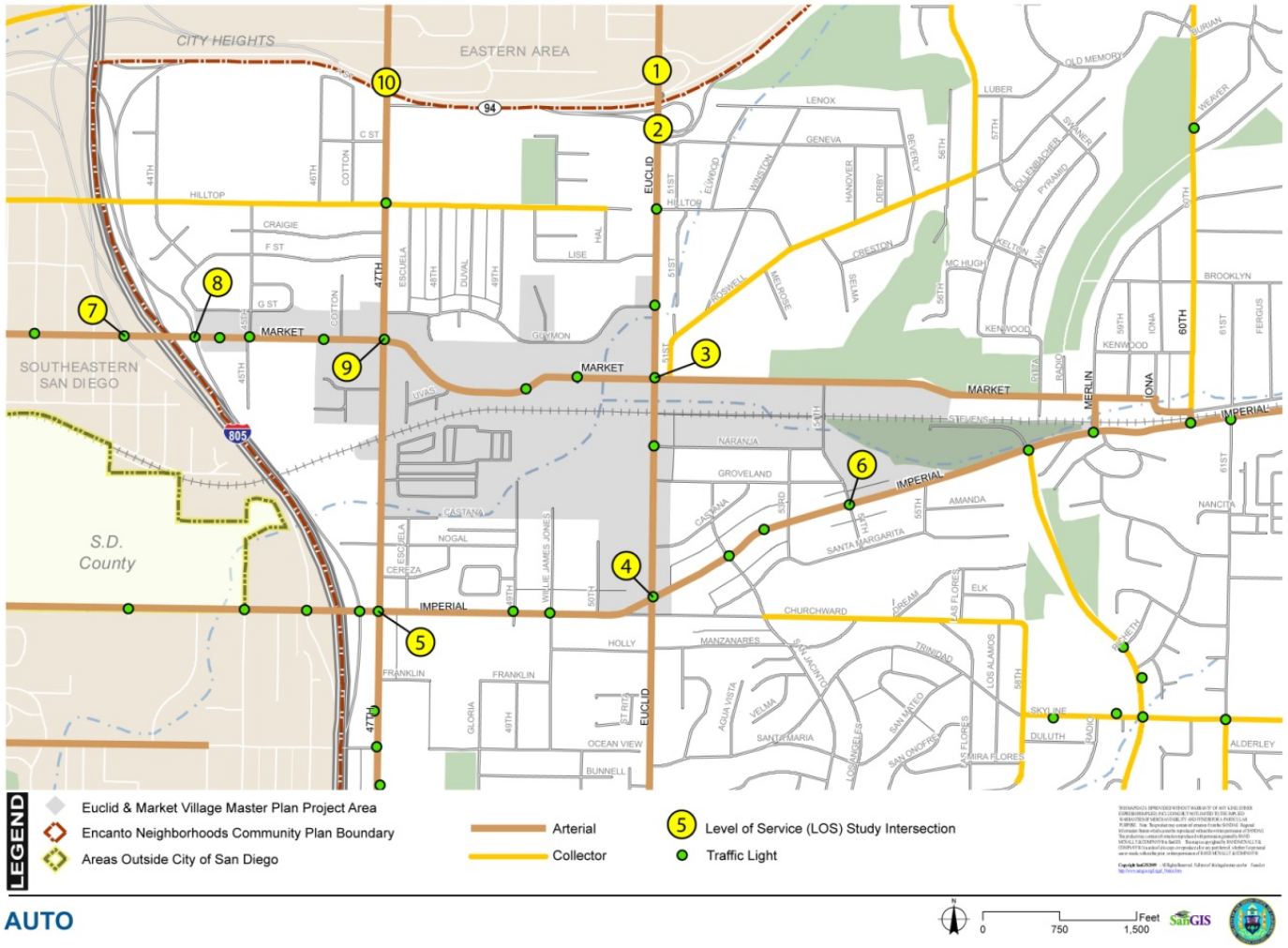
Study Intersections

Table 4-4A describes the ten study intersections selected for analysis. These ten study intersections were selected based on consultation between City staff and the Consultant Tea, based on identification of key intersections within the Plan Area (such as Euclid/Market and 47th/Market) and primary freeway access ramp ramps serving Market Street and Euclid Avenue. In addition, a review of prior traffic studies was conducted to ensure inclusion of locations with potentially constrained existing or future-year LOS.

Table 4-4A: Study Intersections

Study Intersection	Location	Traffic Signal?
1	Euclid Avenue & SR-94 WB Ramps	NO*
2	Euclid Avenue & SR-94 EB Ramps	NO*
3	Euclid Avenue & Market Street	YES
4	Euclid Avenue & Imperial Avenue	YES
5	47th Street & Imperial Avenue	YES
6	54th Street & Imperial Avenue	YES
7	I-805 SB Ramps & Market Street	YES
8	I-805 NB Ramps & Market Street	YES
9	47th Street & Market Street	YES
10	47th Street & A Street	NO
*Signalization and intersection redesign planned prior to Year 2030.		

Figure 4-4A: Study Intersections



Existing Traffic Volumes

The following traffic data was collected on May 24, 2011:

- 24-hour motor vehicle traffic volumes at seven study segment locations
- AM and PM Peak Period traffic volumes at ten study intersections, including:
  - Motor Vehicle Turning Movements
  - Breakdown of "truck" and "non-truck" traffic volumes
  - Bicycle volumes
  - Pedestrian volumes

Table 4-4B summarizes the AM & PM Peak Hour motor vehicle traffic volumes at each study intersection. Daily traffic volumes are described on Table 4-4D.

Table 4-4B: Existing AM & PM Peak Hour Traffic Volumes

Inter-section #	Intersection	Auto		Truck			
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	% Total AM Peak	% Total PM Peak
1	Euclid Avenue & SR-94 WB Ramps	2337	2807	55	31	2.3%	1.1%
2	Euclid Avenue & SR-94 EB Ramps	2197	2948	47	39	2.1%	1.3%
3	Euclid Avenue & Market Street	2302	2709	73	43	3.1%	1.6%
4	Euclid Avenue & Imperial Avenue	2860	3060	117	88	3.9%	2.8%
5	47th Street & Imperial Avenue	3028	3072	27	10	0.9%	0.3%
6	54th Street & Imperial Avenue	1606	1582	6	2	0.4%	0.1%
7	I-805 SB Ramps & Market Street	1475	1937	44	20	2.9%	1.0%
8	I-805 NB Ramps & Market Street	1747	1762	33	14	1.9%	0.8%
9	47th Street & Market Street	1939	2079	21	14	1.1%	0.7%
10	47th Street & A Street	918	1262	21	16	2.2%	1.3%

Existing Conditions – Daily Traffic

Table 4-4C describes the level of service (LOS) criteria for study segment locations based on daily traffic volumes, street classifications and lane configurations (cross sections).

Table 4-4D summarizes the results of the 24-hour traffic volume counts conducted at seven study segment locations, and the corresponding level of service (LOS) based on City of San Diego Guidelines.

Table 4-4C: Level of Service Criteria for Daily Segment Operations (City of San Diego)

CITY OF SAN DIEGO STREET CLASSIFICATIONS		LEVEL OF SERVICE (1)				
STREET CLASSIFICATION	**LANES**	**A**	**B**	**C**	**D**	**E**
Freeway	8 lanes	60,000	84,000	120,000	140,000	150,000
Freeway	6 lanes	45,000	63,000	90,000	110,000	120,000
Freeway	4 lanes	30,000	42,000	60,000	70,000	80,000
Expressway	6 lanes	30,000	42,000	60,000	70,000	80,000
Primary Arterial	6 lanes	25,000	35,000	50,000	55,000	60,000
Major Arterial	6 lanes	20,000	28,000	40,000	45,000	50,000
Major Arterial	4 lanes	15,000	21,000	30,000	35,000	40,000
Collector	4 lanes	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) (continuous left-turn lane)	4 lanes 2 lanes	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2 lanes	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2 lanes	2,500	3,500	5,000	6,500	8,000
Collector (multifamily)	2 lanes	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2 lanes	—	—	2,200	—	—

Notes:
(1) Level of service based on approximate recommended Average Daily Traffic (ADT) based on the City of San Diego Traffic Impact Study Manual.

(2) Cross sections (XX/XXX)= Curb-to-curb width / Right-of-way width for each street classification, based on City of San Diego Traffic Impact Study Manual.

Source: *City of San Diego Traffic Impact Study Manual* (1998)

Table 4-4D: Daily Segment Operations – Existing Traffic Volumes & Level of Service

24-hour traffic volumes (May 24, 2011)					
Street	**Segment Location**		**LOS E Capacity (1)**	**24-hour Traffic Volume (2)**	**City of San Diego LOS (3)**
Euclid Avenue	Between SR-94 & Market Street	4-lane Major Arterial (center turn lane / median)	40,000	25,364	C
Euclid Avenue	Between Market Street & Imperial Avenue	4-lane Major Arterial (center turn lane / median)	40,000	20,933	C
Market Street	West of 47th Street	4-lane Major Arterial (center turn lane at signalized intersections only)	40,000	14,860	A
Market Street	Between 47th & Euclid	4-lane Collector (center turn lane at signalized intersections only)	15,000 (see note 4)	10,022	C
Market Street	East of Euclid Avenue	2-lane Collector (continuous 2-way center turn lane)	15,000 (see note 5)	11,136	C
47th Street	North of Market Street	4-lane Major Arterial	40,000	12,263	A
47th Street	South of Market Street	2-lane Collector (with center turn lane)	15,000 (see note 5)	10,145	C

Bold indicates failing conditions based on City of San Diego Traffic Impact Study Manual. (LOS E or F is considered failing).

NOTES:

(1) LOS E Capacity based on City of San Diego Traffic Impact Study Manual (1998).

(2) 24-hour traffic volume counts conducted on May 24, 2011.

(3) LOS based on City of San Diego Traffic Impact Study Manual (1998).

(4) Capacity of 4-lane collector (without center turn-lane) is typically over 30,000 daily vehicles. Value shown here is based on City of San Diego Traffic Impact Study Manual (1998).

(5) Capacity of 2-lane collector (with center turn lane) is typically over 20,000 daily vehicles. Value shown here is based on City of San Diego Traffic Impact Study Manual (1998).

Source: Nelson\Nygaard 2011

As shown above on Table 4-4D, all of the study segments within the Plan Area have excess capacity.

Existing Conditions – Peak Hour Traffic Volumes

Tables 4-4E and 4-4F summarize the motor vehicle LOS criteria for Peak Hour conditions at signalized and unsignalized intersections, based on Highway Capacity Manual (HCM) methodology.

Table 4-4E: Level of Service (LOS) Definitions for Signalized Intersections

Level of Service (LOS)	Average Delay (sec/veh)	Description
A	≤ 10.00	**Very Low Delay:** This level of service occurs when progression is extremely favorable and most vehicles arrive during a green phase. Most vehicles do not stop at all.
B	10.1-20.0	**Minimal Delays:** This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	20.1-35.0	**Acceptable Delay:** Delay increases due to only fair progression, longer cycle lengths, or both. Individual cycle failures (*to service all waiting vehicles*) may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	35.1-55.0	**Approaching Unstable/Tolerable Delays:** The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55.1-80.0	**Unstable Operation/Significant Delays:** This is considered by many agencies the upper limit of acceptable delays. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.
F	≥ 80.0	**Excessive Delays:** Describes operations with average delay in excess of 60 seconds per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.
Source: Transportation Research Board, *Highway Capacity Manual*, 2000. Washington DC		

Table 4-4F: Level of Service (LOS) Criteria for Unsignalized & Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	
	Unsignalized Intersection	Signalized Intersection
A	0 to 10	≤10
B	>10 to 15	>10 to 20
C	>15 to 25	>20 to 35
D	>25 to 35	>35 to 55
E	>35 to 50	>55 to 80
F	>50	>80

Source: Highway Capacity Manual 2000.

Table 4-4G summarizes the results of the LOS analysis for existing conditions at each study intersection during the AM and PM Peak Hour. Detailed LOS reports for each study intersection are provided in the Technical Appendices to this report.

Table 4-4G: Intersection Level of Service

EXISTING CONDITIONS (AM & PM PEAK HOURS)						
			AM Peak Hour		PM Peak Hour	
Study Intersection	Location	Intersection Control	Level of Service (LOS)	Average Vehicle Delay (seconds)	Level of Service (LOS)	Average Vehicle Delay (seconds)
1	*Euclid Avenue & SR-94 Westbound Ramps*	*Side-street stop (1)*	*D*	*25.1*	*E*	***46.8***
2	*Euclid Avenue & SR-94 Eastbound Ramps*	*Side-street yield (2)*	*C*	*21.0*	*F*	***>50***
3	Euclid Avenue & Market Street	Signalized	C	31.2	D	39.7
4	Euclid Avenue & Imperial Avenue	Signalized	D	48.2	D	36.0
5	47th Street & Imperial Avenue	Signalized	D	47.2	D	48.9
6	54th Street & Imperial Avenue	Signalized	B	11.1	B	10.4
7	I-805 SB Ramps & Market Street	Signalized	B	18.9	D	38.6
8	I-805 NB Ramps & Market Street	Signalized	B	18.9	B	17.2
9	47th Street & Market Street	Signalized	D	48.0	D	44.6
10	*47th Street & A Street*	*Side-street stop (3)*	*C*	*15.6*	*D*	*19.1*

Bold indicates failing conditions (LOS E or F based on City of San Diego standards).

Notes:

1. LOS at Euclid & SR-94 Wesbound Ramps is based on westbound left-turn (stop-controlled) movement.

2. LOS at Euclid & SR-94 Eastbound Ramps is based on eastbound right-turn (yield-controlled) movement.

10. LOS at 47th & A Street is based on westbound left-turn (stop-controlled) approach.

Source: Nelson\Nygaard 2011

Key findings of the Peak Hour Intersection LOS analysis are:

- Existing LOS is acceptable (LOS D or better) at all 10 study intersections during the AM Peak Hour.
    - 6 out of 10 study intersections operated at LOS C or better during the AM Peak Hour
    - The following 4 study intersections operated at LOS D during the AM Peak Hour (indicating acceptable operations, but just one LOS level above failing conditions which would occur at LOS E):
        - Euclid Avenue & SR-94 Westbound Off-ramp
        - Euclid Avenue & Imperial Avenue
        - 47th Street & Imperial Avenue
        - 47th Street & Market Street
- Existing LOS is acceptable (LOS D or better) at 8 out of 10 study intersections during the PM Peak Hour.
    - Just 2 out of 10 study intersections operate at LOS C or better during the PM Peak Hour
    - The following six study intersections operate at LOS D during the PM Peak Hour (indicating acceptable operations, but just one LOS level above failing conditions which would occur at LOS E):
        - Euclid Avenue & Market Street
            - Traffic operation at this location is affected by the southbound "downstream" capacity on Euclid Avenue (between Market Street and Naranja Street) which is reduced by the following factors:
                - Delay Factor #1: Traffic signal at Naranja Street (primary entrance to the Market Village Shopping Center) leads to upstream delays (southbound), triggered in large part by the significant volume of pedestrian crossings that occur across Euclid Avenue at this location. Provision of additional signalized pedestrian crossings on Euclid Avenue (south of Naranja Street) could help to reduce this impact on southbound traffic operations approaching Naranja Street.

- Delay Factor #2: Shopping center driveway between the light-rail tracks and Naranja Street contributes to delay(s) to southbound traffic approaching the light-rail crossing, due to (1) the very close proximity of the shopping center driveway to the at-grade light-rail crossing; (2) the steady volume of pedestrians during peak periods requires inbound motorists (marking a southbound right-turn from Euclid Avenue into the Market Creek shopping center) to yield prior to entering the shopping center. As a result, those vehicles block southbound through traffic for brief periods.

- Delay Factor #3: the southbound vehicle queue on Euclid Avenue (approaching Naranja Street) extends past the at-grade light-rail crossing (due to Delay Factors #1 and #2 identified above). The queue length is longer than normal, due to motorists' wise aversion to stopping directly on the light-rail tracks.

- Delay Factor #4: the relatively high frequency of bus service on Euclid Avenue results in increased vehicle delay approaching the at-grade rail crossing. This is due to the necessary "safety stop" that each bus makes within the northbound and southbound travel lane(s), prior to crossing the rail tracks.

- Delay Factor #5: lengthy pedestrian crossing distances at Market Street & Euclid Avenue intersection requires nearly 30 seconds for each pedestrian phase. Reducing the pedestrian crossing distances would potentially allow the overall signal cycle length (currently 100 seconds) to be reduced, allowing for more efficient traffic operations.

- Delay Factor #6: light-rail train (LRT) crossings south of Market Street. Although delays at the Euclid & Market intersection are typically blamed on the LRT crossing, Nelson\Nygaard observed that the passage of each LRT train had a relatively benign effect on traffic operations (with vehicle delays primarily attributable to Delay Factors #1 to #5 above).

- To account for the reduced vehicle capacity at this location (due to the delay factors described above), Nelson\Nygaard reduced the saturation flow rate for the affected movements (see Level of Service reports provided in the Technical Appendices).

- Euclid Avenue & Imperial Avenue

        - 47th Street & Imperial Avenue
        - Interstate 805 Southbound Ramps & Market Street
        - 47th Street & Market Street
        - 47th Street & A Street (note: LOS at this side-street stop-controlled intersection is based on average delay to the stop-controlled westbound left-turn movement, which is limited to less than 50 peak hour vehicles; most vehicles passing through this intersection experience little or no delay).

    - In addition to the above study intersections, Nelson\Nygaard observed lengthy vehicle queues on the Interstate 805 Southbound Off-Ramp approaching the intersection Euclid Avenue. Based on the Central Imperial Redevelopment EIR (2009), this intersection operates at LOS C under Existing Conditions during both the AM & PM Peak Hour. Nonetheless, Nelson\Nygaard will confer with City staff to confirm the best approach for including this location in the upcoming analysis of potential future-year traffic impacts.

- Failing conditions (LOS E or F conditions) were identified at the following two study intersections during the PM Peak Hour:

    - Euclid Avenue & SR-4 Westbound Off-ramp
        - LOS at this intersection is based on the delay to the stop-sign controlled westbound left-turn movement.
        - Signalization of this intersection by Year 2030 was identified as a planned improvement by the *Central Imperial Redevelopment Plan Transportation Impact Study* (2009).
    - Euclid Avenue & SR-94 Eastbound Off-ramp
        - LOS at this intersection is based on the delay to the yield-controlled eastbound right-turn movement (vehicles exiting SR-94 and merging with southbound traffic on Euclid Avenue)
        - Signalization of this intersection by Year 2030 was identified as a planned improvement by the *Central Imperial Redevelopment Plan Transportation Impact Study* (2009).

Future Traffic Volumes – Year 2030 Forecast

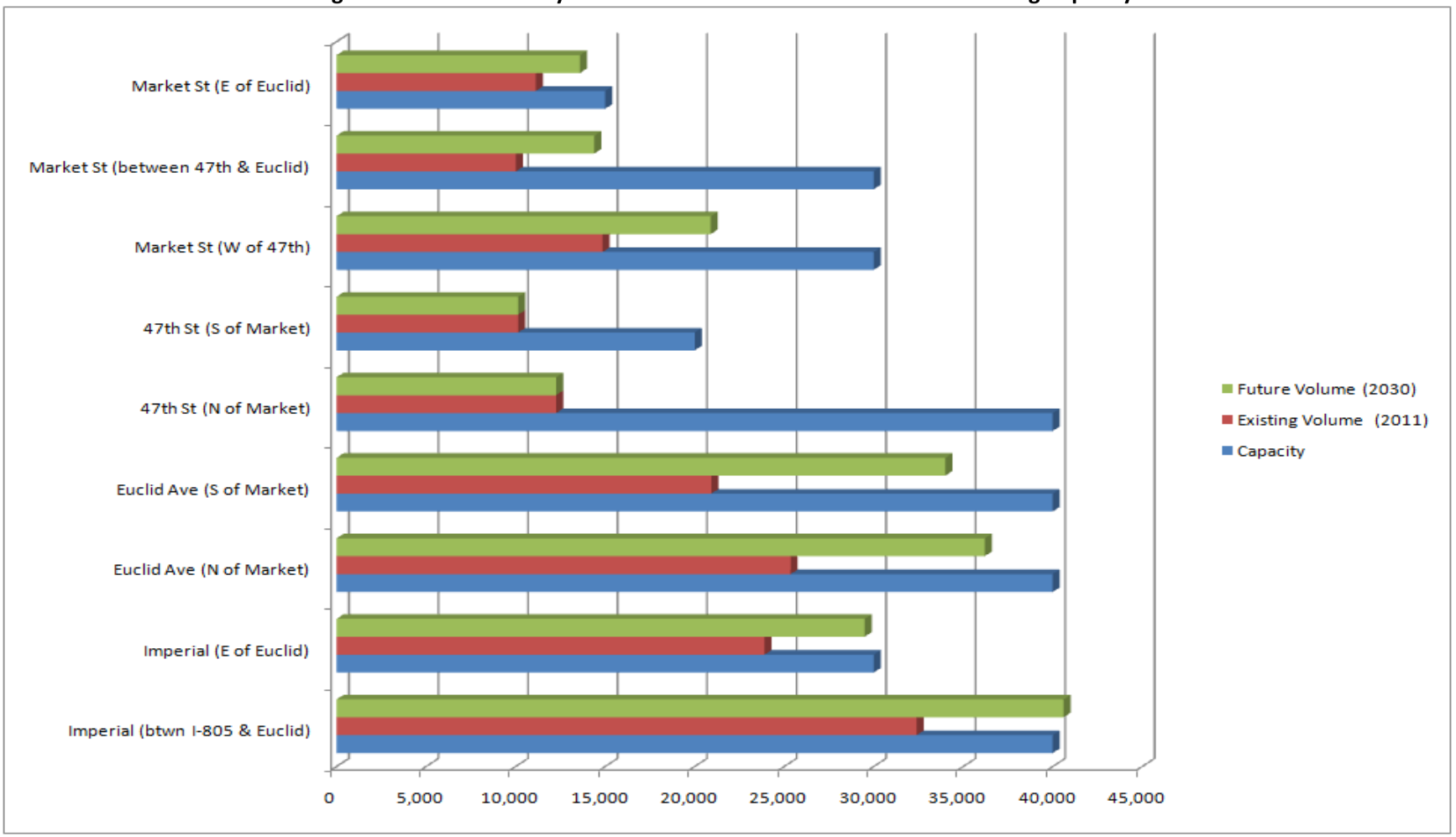
Figure 4-4B provides a preliminary comparison of future (Year 2030) forecasted traffic volumes based on the "Cumulative Plus Project" volumes described in the Central Imperial Redevelopment Plan Transportation Impact Study (2009). Capacity as shown is based on the current lane allocations.

Vehicular Network Opportunities and Constraints

Excess traffic capacity along Market Street offers a key opportunity for redesigning the street to better meet the needs of the surrounding community. Narrowing the street to one lane in each direction (with a center turn lane where necessary) east of 47th Street could allow for enhanced pedestrian and bicycle circulation, by enabling wider sidewalks and dedicated bike lanes. Such an improvement is called a "road diet."

- Consider modifying the street designation for Market Street to allow a 2-lane configuration with wider sidewalks, bicycle lanes and other enhancements, given the relatively low traffic volumes (just 10,000 to 11,000 vehicles per day east of 47th Street)
    - Develop "road diet" plan for Market Street, which could be initially implemented with a low-cost "restriping"
- Similarly, 47th Street could be redesignated, as traffic volumes (just 10,000 to 12,000 daily vehicles) do not warrant a 4-lane road configuration.
- Investigate opportunities to connect the local street network within the Plan Area

Figure 4-4B: Preliminary Year 2030 Traffic Volume Estimates & Existing Capacity



On-Street Parking Supply & Demand

An inventory of existing, on-street parking facilities and parking occupancies on the Major Arterial & Collector Street segments within the Euclid & Market study area was conducted on May 24, 2011.

Based on a review of street dimensions on Euclid, Market and 47th street, just over 300 vehicles could be accommodated within the existing on-street parking supply.

Figure 4-4i provides a summary of the existing parking supply and occupancy for each of the street segments (and additional details concerning the on-street parking data is provided in the Technical Appendices).

Based on this analysis, on-street parking occupancy on Major Arterial and Collector street segments is relatively low (less than 30 percent occupancy) during all three count periods (morning, afternoon and evening). The relatively low levels of on-street parking occupancy likely reflects the rather generous provision of off-street parking within the Plan Area and the fact that many parcels are not yet developed.

Table 4-4i: On-Street Parking Occupancy

STREET	MORNING (10 to 11 AM)			AFTERNOON (2 to 3 pm)			EVENING (8 to 9 pm)		
	Supply	Demand	Pct Occupied	Supply	Demand	Pct Occupied	Supply	Demand	Pct Occupied
Euclid Avenue	52	10	19%	52	7	13%	52	16	31%
Market Street	166	47	28%	166	50	30%	166	33	20%
47th Street	88	33	38%	88	29	33%	88	37	42%
TOTAL	**306**	**90**	**29%**	**306**	**86**	**28%**	**306**	**86**	**28%**

Source: Nelson\Nygaard and Wiltec. Parking occupancy counts conducted on May 24, 2011.

Parking opportunities and constraints

Since most on-street parking within the Plan Area is unused at all times of the day, there exists a significant opportunity to reduce the amount of on-street parking spaces along major transportation corridors. In conjunction with a "road diet", a reduction of on-street parking spaces would yield more space for wider sidewalks and improved bicycle infrastructure.

In areas where on-street parking will remain beneficial, such as outside of businesses and public institutions, there is an opportunity to introduce metered parking. The City of San Diego operates parking meters from 8am to 6pm, Monday through Saturday, at a standard rate of $1.25 per hour. Outside of the downtown area, the City of San Diego has established several Community Parking Districts, where neighborhood Business Improvement Associations (BIAs) oversee the operation and management of parking meters. For example, the Mid-City Parking District, which is just north of the study area, is primarily managed by the El Cajon Boulevard Business Improvement Association. The City of San Diego recently decided to allow Community Parking Districts to set their own parking rates on a range of $0.25 to $2.50 per hour. If several local businesses were to

join to form a Euclid & Market Business Improvement Association, then the area could benefit from better on-street parking management, and parking meter revenues could be used to fund other area improvements. [xviii]

Should there be a parking capacity problem in the area, another opportunity is to introduce Residential Parking Permits (RPP zones) in residential neighborhoods. Residential parking permits are used in areas of heavy parking demand (where people looking to park near popular destinations 'spill over' into nearby residential districts) to ensure that nearby residents are still able to park near their homes. Under the City of San Diego's residential parking permit program, a neighborhood interested in designating an RPP area must submit to the City a petition signed by at least 50 percent of the residents of the proposed zone. Once a zone is established, permits cost $14 each; the price is reduced to $7 per permit during the last six months of the permit year. In some cases, one permit may be purchased by a person who owns or leases commercial property and actively engages in business activity within a residential permit parking area. [xix]

PEDESTRIAN CIRCULATION & ACCESS

This section provides an overview of existing conditions for pedestrians within the Euclid & Market Plan Area, including pedestrian circulation along major streets and natural features (such as the branches of Chollas Creek), within and between residential developments, and between trip generators and transit stops.

Existing Pedestrian Network

Narrow sidewalks and lengthy walking distances characterize the pedestrian circulation network serving the Plan Area, providing a stark contrast to the high quality of transit service that is provided.

Although it would be easy to assume that the incomplete nature of the pedestrian network is a result of the area's geographical constraints, particularly the steep hill grades and Chollas Creek, such geographic obstacles have been overcome elsewhere (for example: some of the world's most walkable cities have had their share of hills and waterways to overcome). Ultimately, a key factor is the era in which the Plan Area developed. Street design standards adopted during the middle of the 20th Century (a period of enthusiasm for automobile travel) typically mandated as many as four 11 to 12 foot travel lanes on arterial streets (even on relatively low-volume arterials such as Market Street, which carries less than 11,000 daily vehicles). By contrast, sidewalks were an afterthought with permissible widths as narrow as four to six feet in width on those same arterial streets, even in locations where arterial streets provide the primary access to pedestrian trip generators such as schools and transit centers.

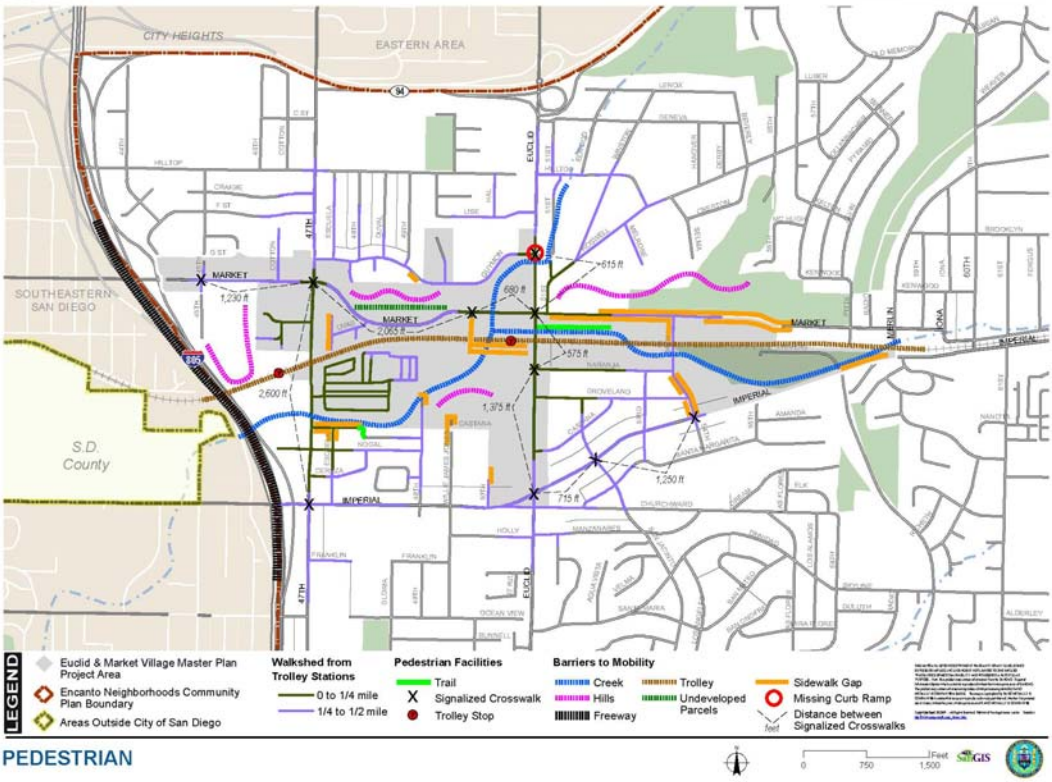
As a result of the limited sidewalk space along the Plan Area's north-south and east-west arterials, convenient and desirable walking routes within the Plan Area are extremely hard to find. Market Street between 47th Street and Euclid Avenue is essentially a closed network: for one-half mile, one hilly parcel separates it from Guymon Street residential neighborhoods to the north, and another hill, the Trolley line, and Chollas Creek separate it from the El Rey Trailer Park and other residential developments to the south. Despite these constraints, pedestrian volumes are surprisingly high within the Plan Area.

Pedestrians looking to travel from local streets to shops, community centers, or transit stations are left to travel on the major arterials (Market Street, 47th Street, Euclid Avenue, or Imperial Avenue), which are primarily designed for motor vehicle travel and are inhospitable to pedestrians. Sidewalks within the Plan Area are, on average, only four to six feet wide (and sometimes narrower, where sidewalk obstructions such as light poles, utility boxes, and trolley gates further reduce the "clear space" for pedestrians).

Although there are a few pedestrian-only paths within the Plan Area, they do not provide useful connections. One trail is located beside the Encanto Branch of Chollas Creek between the Tubman-Chavez Community Center and the office park at 5275 Market Street. The trail, completed in 2008, is approximately 800 feet long, about seven feet wide, and was completed in conjunction with the restoration/rehabilitation project of the adjacent creek channel. It features interpretive signage and benches. Unfortunately, the trail is incomplete, and ends just before the office park parking lot. Furthermore, while the trailhead is directly across Euclid Avenue from the entrance to the Orange Line Trolley station, pedestrians must cross the street elsewhere, either at Market Street to the north or Naranja Street to the south. Another stretch of trail along the Encanto Branch of Chollas Creek was built by the Southeastern Economic Development Corporation (SEDC) as part of site preparation for the incomplete Valencia Business Park. The trail extends westward from Stevens Way alongside the creek nearly to 54th Street but does not

provide any formal connections to local destinations. The trail itself is attractive and relatively accessible, but currently serves as a recreational option rather than a functional means of interconnection within the study area.

Figure 4-5A: Pedestrian Circulation and Access within the Plan Area



Sidewalk Design and Use

Sidewalks along arterials within the study area are on the whole very narrow, and thus are not optimized for accessible pedestrian mobility. Further, the lack of a dedicated zone for street furniture (such as signal boxes, fire hydrants, or other mechanical equipment), street trees, and amenities such as benches at bus stops forces often forces these items into the pedestrian realm, creating significant barriers to access for all.

ADA Standards

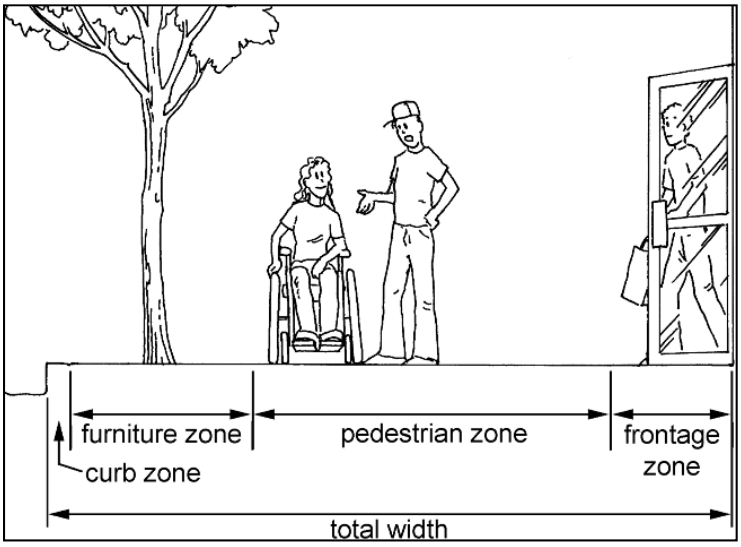
The Americans with Disabilities Act (ADA) requires a minimum sidewalk passage of one meter (or three feet); if this minimum sidewalk width is used, then 1.5 meter by 1.5 meter (five feet by five feet) passing areas are required at 60 meter (200 foot) intervals, maximum.[xx] The average sidewalk width within the Plan Area is roughly four feet; although this measurement exceeds the ADA's minimum requirement, required passing areas are not readily available. Further, as seen in Figure 4-5B below left, the sidewalks do not provide adequate space to accommodate the two-way flow of pedestrian traffic around popular destinations. In this instance, while the planted vegetation strip is desirable (as it provides a needed buffer for walkers from busy Euclid Avenue), it should be accompanied by a wider sidewalk given the high of pedestrian traffic within one-quarter mile of the light-rail station. Nonetheless, compared with the sidewalk conditions roughly

300 yards to the south (shown on Figure 4-5B), where pedestrians are closely bordered by automobiles passing within feet of the sidewalk, it is clear that the improved buffer treatment at Market Village creates one of the few comfortable sidewalk experiences in the study area.

Figure 4-5B: Narrow Sidewalks on Euclid Avenue

Photo Source: WRT 2011

Figure 4-5C: Sidewalk Zones (Example)



Source: USDOT/FHWA

Sidewalk Zones

In the 1998 *Portland Pedestrian Design Guide*, the city of Portland, Oregon, devised a standard sidewalk design system that divides the pedestrian corridor into four zones, illustrated above in Figure 4-5C. Each zone corresponds to the different uses of the sidewalk realm. The zones are described in the guidelines as follows, with recommended minimum widths for each zone along arterials or in pedestrian districts[xxi]:

- *Curb Zone*: The curb helps to define the pedestrian environment within the streetscape, prevents water in the street gutters from entering the pedestrian space, and discourages vehicles from driving over the pedestrian area. **Recommended width: 6 inches.**
- *Furniture Zone*: The Furniture Zone buffers pedestrians from the adjacent roadway, and is also the area where elements such as street trees, signal poles, utility poles, street lights, parking meters, and street furniture are properly located. Wherever it is wide enough, the furniture zone should include street trees. **Recommended width: 4 feet.**
- *Pedestrian Zone*: This is the area intended for pedestrian travel, and should be entirely free of permanent and temporary objects. **Recommended width: 8 feet.**
- *Frontage Zone*: This zone is the area between the Pedestrian Zone and the property line. Where no Furniture Zones exist, elements that would normally be sited in that zone, such as transit shelters and benches, may occupy the Frontage Zone. **Recommended width: 2 feet 6 inches.**

Crosswalks

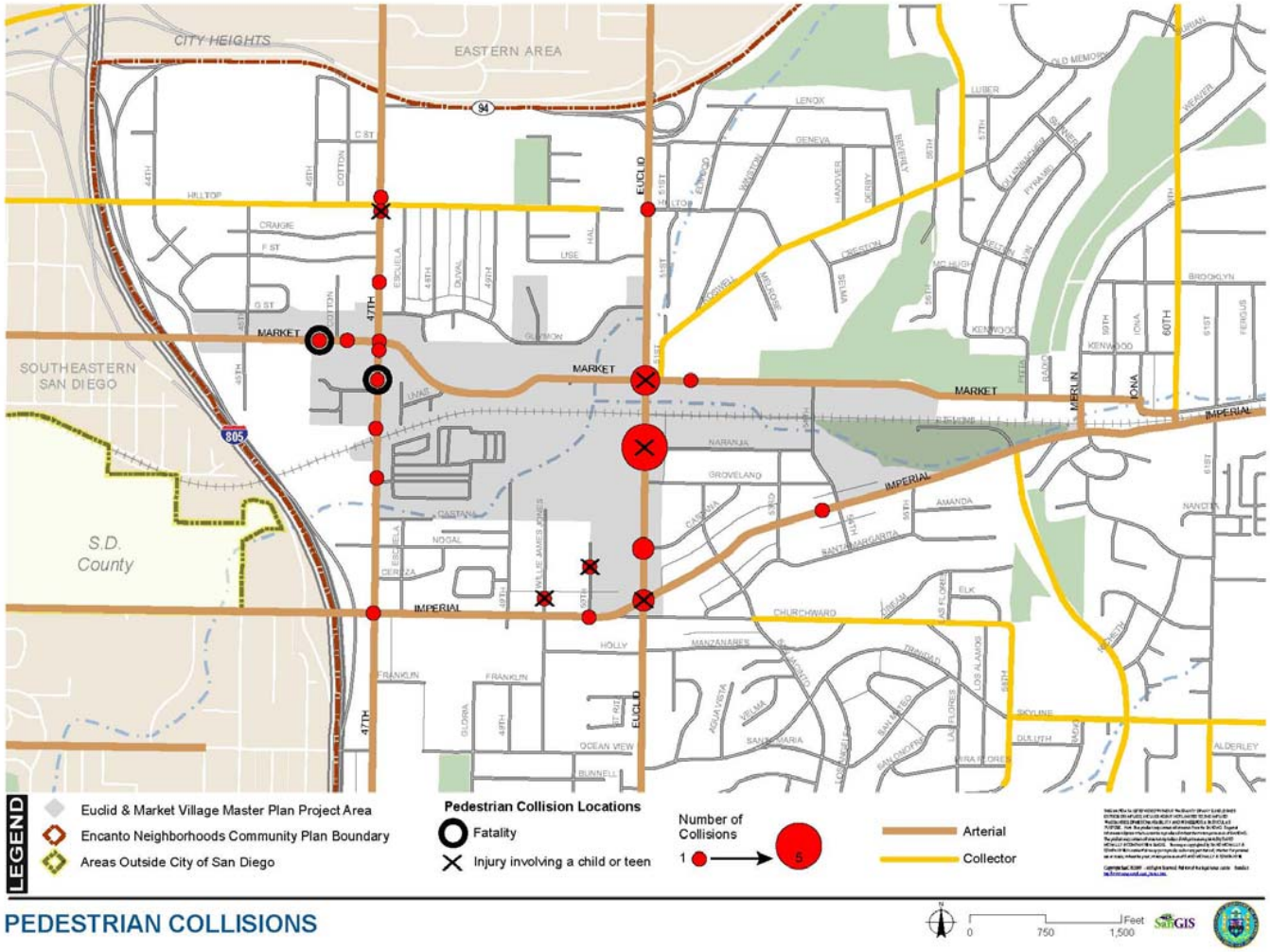
Under California law, pedestrians may cross the street at any intersection (regardless of whether or not the crosswalk is marked). Marked crosswalks within the Plan Area are few and far between, and occur with little exception only at signalized roadway intersections.

Ideally, pedestrians should not have to walk more than 300 feet to the nearest street crossing. However, the average distances between signalized crosswalks on the major streets within the Plan Area results in potentially lengthy travel distances for those pedestrians that do not wish to cross at unsignlized locations:

- Market Street: 1,325 feet between signalized pedestrian crossings
- Euclid Avenue: 855 feet between signalized pedestrian crossings
- 47th Street: 2,600 feet between signalized pedestrian crossings

The only mid-block crosswalk adjacent to the Plan Area was observed on Guymon Street at Horton Elementary School and is unsignalized.

Figure 4-5D: Pedestrian / Motor Vehicle Collision Locations (2006-11)



Existing Pedestrian Volumes

Pedestrian volumes during AM and PM peak periods were collected at the ten study intersections on Tuesday, May 24th, 2011. Figure 4-4A in the Traffic & Parking section for a map of the ten study intersections. A summary of the findings follows below.

Table 4-5A: Pedestrian Volumes at Study Intersections (AM & PM Peak Hours)

Study Intersection	Location	AM Peak Hour	PM Peak Hour
1	Euclid Avenue & SR-94 WB Ramps	14	22
2	Euclid Avenue & SR-94 EB Ramps	16	25
3	Euclid Avenue & Market Street	130	95
4	Euclid Avenue & Imperial Avenue	127	83
5	47th Street & Imperial Avenue	81	50
6	54th Street & Imperial Avenue	20	20
7	I-805 SB Ramps & Market Street	135	39
8	I-805 NB Ramps & Market Street	84	28
9	47th Street & Market Street	123	122
10	47th Street & A Street	16	29

At most of the study intersections, AM peak period pedestrian counts were higher than PM peak period figures. This may be explained by the fact that students counted as they traveled to school in the morning were not counted during the evening observations, as most schools let out in the mid-to-late afternoon.

Relatively few pedestrians were found to travel through locations such as the Euclid Avenue & SR-94 ramp intersections and the 47th Street & A Street intersection to the north of the Plan Area during AM and PM peak periods. Rather, higher volumes of pedestrians traveled through intersections located closer to a variety of commercial and institutional destinations within the Plan Area, including Euclid & Imperial Avenue, Euclid Avenue and Market Street, and 47th & Market Streets, counts exceeded 100 pedestrians per AM peak hour.

Proposed Pedestrian Improvements

The City of San Diego *Pedestrian Master Plan*, adopted in 2006, provided a framework for citywide implementation of pedestrian walkway improvements. Its stated goal was:

"To create a safe, accessible, connected and walkable pedestrian environment that enhances neighborhood quality and promotes walking as a practical and attractive means of transportation in a cost-effective manner."

Proposed Chollas Creek Pathway

Within the Plan Area, the City of San Diego's *Chollas Creek Master Plan* (2002) contains recommendations that, if implemented, would have significant implications for pedestrian route connectivity within the Plan Area.

Acknowledging that "Trails provide important continuity and accessibility throughout all reaches of Chollas Creek, effectively creating the much needed linear park-open space system that will ultimately link San Diego's central mesas to San Diego Bay," the report proposed that the Chollas Creek "trail system will encompass not only the creek-bed and edges, but adjacent streets and open spaces." Moreover, the proposal recommends that:

"Public access should be provided to the creek from every parcel of private development or every 200 feet. Public access points should include a path 10 feet wide with shade trees flanking the pathway, provide adequate signage, be well-lit, and contain any necessary amenities. This is intended to reduce the possibility of the trail being an isolated amenity in the community."

A trail is proposed to follow the main branch of Chollas Creek from 47th Street to the Euclid Avenue Trolley station, where it then turns and follows the Encanto branch to 60th Street; the existing interpretive trail forms a short part of this route. A connecting trail parallel to the Emerald Hills branch of the creek is depicted along Euclid Avenue north of Market Street, as is another connecting trail along 47th Street meeting the creek near the El Rey Trailer Park (where the creek runs underneath I-805). The proposal calls for a "Future Trail" to be built along the creek under I-805, though no timetable is specified for this project.[xxii]

Design and construction of the proposed pedestrian improvements along Chollas Creek remain unfunded at this time.

Opportunities to Enhance Pedestrian Circulation within the Plan Area

Until trails are built alongside and across Chollas Creek, the unimproved creek bed presents an enormous constraint to improving pedestrian connectivity in the area.

Still, there are many opportunities to improve the pedestrian network without making significant capital investments. Widening sidewalks wherever possible would help walkers feel safer along arterial corridors, and identifying and publicizing safe walking routes within the area would help encourage pedestrian travel.

At potential development sites that are not slated for development in the short term, there exists an opportunity to designate temporary walking paths to encourage cross-area connectivity.

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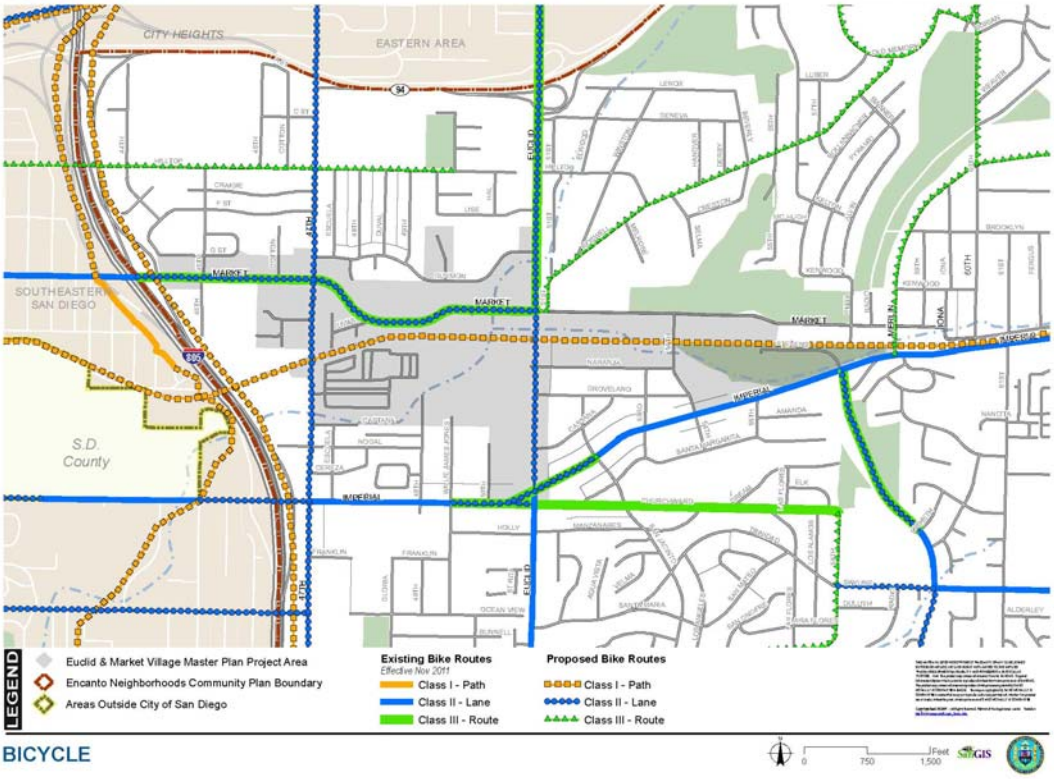
BICYCLE CIRCULATION & ACCESS

Existing Bicycle Facilities

Bicyclists, like pedestrians, are affected by the natural topography, variable land development patterns, and inhospitable street infrastructure within the Plan Area. Natural barriers occur at hill contours, such as along Euclid Avenue south from Market Street to Imperial Avenue, and west along Guymon Street between Euclid Avenue and Horton Elementary School. Bicyclists are also limited in their ability to travel between neighborhoods and trip generators because of the lack of continuous north-south and east-west bikeways in Southeastern San Diego.

Moreover, official bicycle infrastructure within the Plan Area is disconnected and incomplete, as some major streets have striped bike lanes, others bicycle route signs, and yet others no bicycle infrastructure at all. However, as part of their respective local and regional bicycle plans, both the City of San Diego and SANDAG are preparing to implement improved cycling connectivity within and outside of the Plan Area.

Figure 4-6A: Bikeway Network Map



Bicycle infrastructure within the Plan Area is currently limited to the following:

- Class III bike routes ("signed" bicycle routes, that designate shared travel lanes between bicycles and motor vehicles, often without physical improvements to accompany the route designation) are designated on:
  - Market Street between I-805 and Euclid Avenue
  - Imperial Avenue between Euclid Avenue and San Jacinto Drive
  - Valencia Parkway between Imperial Avenue and just north of Skyline Drive
  - Euclid Avenue north of Market Street (effective late fall 2011)
- "Other suggested routes" (not official bike routes; designated by SANDAG & San Diego's 511 service in their San Diego Region bike map as alternate connecting routes) on:
  - San Jacinto Drive between Imperial Avenue and Churchward Street
  - 47th Street between Market Street and Logan Avenue
- Euclid Avenue between Market Street and SR-94 (and further north) is designated as a bicycle route.
- There are no Class I bicycle paths within the Plan Area.
  - Near the Plan Area, there is a relatively short (0.2 miles) Class I path paralleling I-805 on the west side of the freeway from Market Street southeast to Maxim Street

Existing Bicycle Volumes

Bicycle volumes during AM and PM peak periods were collected at the ten study intersections on Tuesday, May 24th, 2011. A summary of the findings follows the table below.

Table 4-6A: Bicycle Volumes at Study Intersections (AM & PM Peak Hours)

Study Intersection	Location	AM Peak Hour	PM Peak Hour
1	Euclid Avenue & SR-94 WB Ramps	2	5
2	Euclid Avenue & SR-94 EB Ramps	2	4
3	Euclid Avenue & Market Street	12	12
4	Euclid Avenue & Imperial Avenue	5	10
5	47th Street & Imperial Avenue	5	3
6	54th Street & Imperial Avenue	1	4
7	I-805 SB Ramps & Market Street	6	10
8	I-805 NB Ramps & Market Street	7	8
9	47th Street & Market Street	7	8

10	47th Street & A Street	3	17

Bicycle volumes were higher during the PM peak rather than the AM peak period. While the intersection of Euclid Avenue and Market Street exhibited consistent AM and PM peak period bicycle volumes, the highest share of peak period bicyclists was observed during the PM peak at the 47th & A Street intersection. This last figure is likely due to the fact that 47th Street represents a safer north-south cycling route crossing SR-94 than Euclid Avenue, given the sizable SR-94/Euclid Avenue interchange.

The observations indicate that bicycle usage in the Plan Area during peak hours is relatively low, even compared with pedestrian volumes. These findings confirm that the natural topography and lack of a cohesive cycling network are real impediments to bicycling in the Plan Area.

Planned & Proposed Bicycle Improvements

City of San Diego Bicycle Master Plan

The City of San Diego adopted its first *Bicycle Master Plan* in 2002, and updated the document in April 2011. The goals and policies of this update were derived from the 2008 San Diego General Plan and expanded to include additional implementation guidelines for improved citywide bicycle infrastructure. The goals of the 2011 Update strive to create:

- A city where bicycling is a viable travel choice, particularly for trips of less than five miles
- A safe and comprehensive local and regional bikeway Network
- Environmental quality, public health, recreation and mobility benefits through increased bicycling

The Master Plan proposes a more specific network of City bikeways that would affect more streets within the Plan Area than SANDAG's Regional Bike Plan. Changes to bicycle infrastructure within the Plan Area would include:

- Constructing Class I bicycle paths along both sides of I-805 and along the Orange Line Trolley route
- Upgrading Market Street from a Class III bike route by installing Class II bicycle lanes from I-805 to 47th Street
- Upgrading Imperial Avenue from Euclid Avenue to San Jacinto Drive from a bike route by adding striped bike lanes
- Designating Roswell Street as a Class III bike route
- Possibly adding bike lanes along Market Street from 47th Street to Euclid Avenue and along Euclid Avenue north of Market Street

As the City conducts more detailed area and community-specific studies (such as the Euclid & Market Village Master Plan), these recommendations will be refined to fit the needs of the local community.

"Riding to 2050" Regional Bike Plan

SANDAG's regional bike plan, which was adopted in 2010, established a number of bike corridors to be completed by 2050 that will enhance connectivity between communities across all of San Diego County. Two of these corridors are located within the Plan Area:

- Centre City – La Mesa Corridor, an Enhanced Class II bike lane following Imperial Avenue from 47th Street to Merlin Drive
- Mission Valley – Chula Vista Corridor, an Enhanced Class II bike lane along 47th Street

Bicycle opportunities and constraints

There are no bicycle lanes or Class I bicycle paths within the Plan Area.

The existing street network is designed for automobiles, and the bicycle infrastructure network is primarily limited to "bicycle route" signs placed along arterial streets that have specific accommodations to accommodate bicycle travel. Moreover, the lack of local street connections and the Plan Area's natural topography restricts both north-south and east-west connectivity where streets slope up hills and down to Chollas Creek.

For the most part, the lane requirement allocated for motor vehicle use, and the nature of the existing street network that includes a lack of cross-neighborhood connectivity, are significant constraints to encouraging increased safe bicycle use. However, the planned expansion of bicycle facilities will enhance the comfort and safety for cyclists traveling through and within the Plan Area.

A key opportunity exists to add bike lockers at the 47th Street Trolley station, especially as new regional bike routes are added along 47th Street and bike paths are extended along I-805 just to the west of the station. Another opportunity is to expand the number of bike lockers at the Euclid Avenue Trolley station, which already benefits from having bicycle infrastructure along nearby streets. There is also a significant opportunity to include bike parking and other bike-friendly facilities like lockers and showers as a part of TOD redevelopment projects.

SUMMARY OF MOBILITY OPPORTUNITIES & CONSTRAINTS

The Plan Area is well-served by frequent and reliable MTS transit (Trolley and bus) service, but the area's natural topography—hills, valleys, and creeks, as well as its street network of wide arterials and disconnected local streets, restricts pedestrian and bicycle mobility in all directions. The following is a summary of preliminary findings for three modes of non-automotive travel: transit, pedestrian (walking), and bicycle access.

To the extent that the Master Plan could include strategies aimed at attracting job-producing land uses to the Plan Area:

- The Plan Area's most marketable asset, for attracting development to support community goals, could be the direct access to two trolley stations that could be provided to potential development sites.
- Improving mobility and access within the Plan Area should be a key goal of the upcoming Master Plan update, in order to identify strategies and potential improvement options that will allow the community to fully benefit from proximity to the two transit stations.
    - For trips of up to one-half mile from the transit station(s), improvements to pedestrian paths to and from the trolley stations are recommended to facilitate "transit-oriented" (not just "transit-adjacent") development.
    - For trips between one-half mile and up to five miles, improvements to bicycle circulation and access would substantially improve access to the station from a broader area (beyond the one-quarter mile to one-half mile walking distance generally identified as a convenient walking distance for facilitating transit-oriented development).

Constraints to Access & Mobility

Several key barriers serve to restrict access to the Plan Area from adjacent neighborhoods, as well as mobility within the Plan Area.

- The area's natural topography—hills, valleys, and creeks—does not allow for many direct connections, and most travel occurs via the arterial streets and transit corridors serving the Plan Area.

- Local streets are disconnected, and do not allow for direct access from adjacent neighborhoods. As a result, most people must enter the Plan Area, and travel within the Plan Area, via just three arterial streets (Euclid, Market, 47th) and one rail corridor (the Orange Line).

- The transportation rights-of-way themselves serve as barriers to internal circulation, particularly the wide arterial street segments on Euclid, Market and Imperial, as well as the Trolley tracks.

- Despite a relatively steady volume of pedestrians within the Plan Area, sidewalks are extremely narrow, generally just 4 to 6 feet wide in most places, and most pedestrian travel must occur adjacent to arterial streets that are 60 to 80 feet across (curb-to-curb width). In many locations, obstructions (such as light poles and trolley gate arms) block

a portion of the sidewalk. Many sidewalk locations (such as at the Imperial Avenue and 54th Street bus stop, where travel on an already narrow sidewalk is further impeded by a bench for waiting bus riders, seen at left in Figure 4-3B) do not provide an adequate unobstructed width to accommodate two-way pedestrian circulation.

- There are no Class II bicycle lanes, or Class I bicycle paths, within the Plan Area.

The current pedestrian network does not adequately serve the community. Residents and visitors who choose to walk to and from destinations within the neighborhood are severely constrained by a lack of north-south connectivity and inhospitable arterial routes. Bicycle and pedestrian access to the Plan Area is not yet adequate to accommodate potential travel demand, especially given the proximity to schools and two major transit centers.

- The arterial streets that provide access to the Plan Area were primarily designed to accommodate motor vehicle travel, with minimal provisions for pedestrian and bicycle travel.

- Barriers to walking tend restrict mobility within the Plan Area, including access to the Euclid and 47th Street Stations.

- Walking within the Plan Area often requires circuitous routes on narrow sidewalks, and lengthy crossing distances at key crosswalk locations.
- Undeveloped parcels throughout the Plan Area (and especially north of Market Street) and Chollas Creek are major barriers to north-south connectivity. Wide streets with narrow sidewalks and few signalized crosswalks also discourage safe pedestrian travel.

Key Assets

Despite the mobility barriers described above, the Plan Area benefits from convenient transit and motor vehicle access:

- Frequent and reliable Trolley and bus service is provided to the Plan Area by the Orange Line trolley and eight different bus lines, with the majority of transit riders arriving to the Plan Area via bus. On a typical weekday, approximately 6,500 passengers board a bus or trolley at the Euclid Station (approximately 4,000 passengers board the many bus lines serving the station, and 2,500 passengers board the Trolley at this location), making the Euclid Avenue station among the busiest in the system. In addition, another 500 people per day board a Trolley at the 47th Street Station.

- Future access to the Plan Area will potentially be enhanced by proposed bus rapid transit (BRT) service on the 805 corridor, which could serve additional Plan Area transit riders at the 47th Street Station, as well as accommodating transfers between bus and rail.

- Traffic capacity is more than sufficient to accommodate traffic volumes on the three arterial streets serving the Plan Area (Euclid, Market and 47th). Although traffic volumes occasionally approach capacity on Euclid, there is substantial excess traffic capacity on Market Street (east of 47th).

Opportunities to Improve Mobility

Opportunities are evident for enhancing local mobility, to allow residents to fully take advantage of the transit lines that serve the area. Key opportunities include:

- Provision of a pathway along the Creek could eliminate some of the key barriers to pedestrian and bicycle travel within the Plan area, particularly by providing walking and bicycling connections to the local streets that terminate near the Creek (between 47th and Euclid Streets).

- Market Street (east of 47th Street) carries relatively low traffic volumes for a 4-lane street. This excess capacity could allow for future roadway modifications that could include bicycle lanes and wider sidewalks.

- The proposed I-805 Corridor Bus Rapid Transit (BRT) project could include modifications to the 47th Street Station, which would become more important as a regional transit transfer point. Future planning for the 47th Street Station could create opportunities for improving walking and bicycling paths between the Euclid and 47th Street stations, and provide additional bicycle parking at both stations.

Initial Recommendations

- Consider implementing "road diet" improvements (potentially reducing the amount of space allocated to motor vehicle travel) along some arterials, which could allow for widening sidewalks, providing dedicated bike lanes, and reducing motor vehicle traffic speeds near residences, schools and other sensitive uses
- Widen sidewalks wherever possible, and designate and publicize safe walking routes to encourage walking. Formalize existing "desire paths" on vacant parcels of land.
  - Incorporate sidewalk and transit stop improvements into new development projects in the Plan Area (potentially as a lower-cost alternative to expensive road widening projects)
  - Provide better pedestrian and bicycle access to the Trolley stations, and add additional bicycle parking and storage at both stops
  - Provide bicycle storage lockers for commuters at the 47th Street Trolley station, and expand number of bike lockers at Euclid Avenue station
- Improve regional access to the Plan Area through planning process for joint BRT/Trolley station at 47th Street.
  - In the future, bus routes may be relocated to the 47th Street station.
  - However, this should be balanced with a careful evaluation of the ramifications of reducing the current level of bus service at the Euclid Avenue station.
- Take advantage of the Plan Area's proximity to downtown San Diego, by identifying an appropriate bicycle route for short-term implementation
  - Ideally, a commuter bicycle corridor could be provided between downtown and the Plan Area. Based on a review of street conditions and local land uses along the key corridors, Market Street would be the recommended corridor. Installation of

uninterrupted bicycle lanes on Market Street between Euclid Avenue and downtown San Diego would be the most likely to generate regular commute trips to and from the Plan Area by bicycle.

- Within the Plan Area: provide internal street connections to allow travel to occur without requiring travel on Euclid or Imperial Avenue for trips to neighborhood destinations, including schools and the two trolley stations.
- Adopt development standards to encourage true "transit-oriented" (not just "transit-adjacent) development near the two trolley stations serving the Plan Area.
- Investigate reduced parking requirements for transit-oriented development (TOD) projects, incorporating relevant data from TOD "best practices" in other US cities.

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[i] http://www.sdmts.com/MTS/timeline.asp

[ii] Boardings and alightings for both directions. Data from SANDAG's Passenger Counting Program, provided by Mark Thomsen, MTS.

[iii] Mark Thomsen, MTS, email 5/16/11

[iv] Data from the 2009 Onboard Survey, provided by Brian Lane of SANDAG (6/8/11)

[v] *Valencia Business Park – Lots 2-7 Request for Proposals*, SEDC, February 2010, p.2

[vii] Data courtesy of Mark Thomsen, MTS. He provided parameters for the data: "The weekday data are all from FY 2011 (July 1, 2010-June 30, 2011). For the routes operated in house (the 4, 5 and 13), it represents an average for a booking, which are Sep-Jan, Jan-Jun or Jun-Sep. The data you have are averages to date for the Jan-Jun 2011. For the contracted routes (the 3, 13, 916/917, 950 and 960), that data represent one-day snap shots for each trip, although they may not all be collected on the same weekday, taken sometime during the fiscal year."

[viii] http://www.icommutesd.com/Bike/Lockers.aspx

[ix] http://www.keepsandiegomoving.com/Libraries/Trolley-doc/Summary_Schedule_10-0625.sflb.ashx

[x] Dave Schumacher, SANDAG (5/18/11)

[xi] State Route 94 HOV/Bus Rapid Transit Lanes Project Fact Sheet, Caltrans, December 2010. For more information, visit http://www.keepsandiegomoving.com/SR-94-Corridor/SR94-Intro.aspx

[xii] South Bay Bus Rapid Transit Fact Sheet, SANDAG, July 2009. For more information, visit http://www.keepsandiegomoving.com/SouthBay-BRT/south-bay-brt-intro.aspx

[xiii] Interstate 805 Corridor – Managed Lanes Projects Fact Sheet, Caltrans, July 2010. For more information, visit http://www.keepsandiegomoving.com/I-805-Corridor/I-805-intro.aspx

[xiv] Dave Schumacher, SANDAG (5/18/11)

[xv] Most of the information below derived from a conversation with Dave Schumacher of SANDAG (5/18/11)

[xvi] Dave Schumacher, SANDAG (6/7/11)

[xvii] Tom King, SANDAG (6/8/11)

[xviii] There is a precedent for this proposal. The Diamond Business Improvement District (now defunct), was formed in 1996 and included stretches of Market Street and Euclid Avenue within its service area.

[xix] San Diego Municipal Code 86.2008 (b) (2)

[xx] *Oregon Bicycle and Pedestrian Plan*, 1995, p.97

[xxi] *Portland Pedestrian Design Guide*, June 1998, pp. A-6-12

[xxii] *Chollas Creek Enhancement Program*, p. 41

Euclid + Market
LAND USE AND MOBILITY PLAN

5. MARKET ANALYSIS

KEYSER MARSTON

MARKET AND ECONOMIC ANALYSIS

This chapter discusses the market and economic conditions of the Plan Area as well as provides an assessment of the strengths, weaknesses and overall development potential within the Plan Area. The objective of the market assessment is to measure the development potential for standard land uses. The assessment specifically addresses the following:

- Key demographic and economic trends.
- Near- and long-term market demand for four major land use categories:
  - Residential (single-family and multi-family)
  - Office
  - Industrial
  - Retail/Restaurant
- Principal strengths and weaknesses affecting development potential in the Plan Area
- Key development opportunities and constraints

In preparing this analysis, Keyser Marston Associates, Inc. (KMA) undertook the following work tasks:

- Kick-off meeting with the WRT consultant team and City staff.
- Review of background information such as resource documents, maps and relevant plans.
- Tours of the area, environs, and competitive developments.
- Review of key demographic and economic trends in the trade area.
- Interviews with stakeholders.
- Evaluation of market factors such as inventory, vacancy, and value indicators for each land use.
- Review of competitive proposed developments planned or under construction.
- Estimated supportable demand by land use.
- Identification of the key assets and constraints affecting development potential in the Plan Area.
- Identification of the near- and long-term development opportunities.

Sections within the Market and Economic Analysis include:

- Key Findings
- Market and Economic Conditions
  - Demographic Overview
  - Residential Market Overview
  - Office Market Overview
  - Industrial Market Overview
  - Retail/Restaurant Market Overview

- Supportable Demand by Land Use
- Assessment of Market Potential
- Limiting Conditions

At the present time, new real estate development ventures are severely hampered by depressed market demand, market oversupply, impaired financing markets, and a gloomy outlook for the national economy. As these conditions are alleviated in the mid-term, KMA believes that the Plan Area represents an excellent opportunity for a new mixed-use development.

The ability to foster and attract economically desirable growth is influenced by the availability and accessibility of land for employment, i.e., commercial land. The Plan Area is primarily an urban residential neighborhood, with commercial uses concentrated along the main corridors, Euclid Avenue and Market Street. The majority of the remaining developable vacant land is controlled by the Jacobs Center for Neighborhood Innovation (JCNI).

The following summarizes KMA's key findings:

- The JCNI is the largest property owner in the Plan Area and has developed a conceptual development program titled The Village at Market Creek. This conceptual plan may serve as a catalyst for future development.
- The Plan Area (or 1-mile radius from the intersection of Euclid Avenue and Market Street) contains a younger population, with a median age of 28, while the City and San Diego County (County) population is about 35 years of age.
- The Plan Area is a very diverse community. In the 1-mile trade area, 57 percent of population is of Hispanic decent. In terms of race, the population is largely comprised of Persons of Another Race (32 percent), African American (26 percent), and White (25 percent).
- Within a 1-mile radius of the Plan Area, the median income is approximately $35,000 which is 40 percent lower than that of the City and County, ranging between $58,000 and $60,000. Approximately 20 percent of households within the 1-mile radius earn an annual income of less than $15,000.
- Large household sizes and the young population in the Plan Area (or 1-mile radius) indicate that households are largely made up of families with children. The household size in 1-mile trade area is 3.7 persons per household, which is higher than the City and County (2.6 and 2.8, respectively).
- The following summarizes the demographics found in the 1-mile area as compared to the City:

Table 5-1: Summary of Key Demographic Factors, 2011

Demographic Summary	Plan Area (1-Mile)	City
Households:		
Number of Households	7,822	487,221
Average Household Size	3.69	2.62
Income:		
Median Household Income	$35,078	$58,173
Families Below Poverty	24.9%	9.8%
Families Below Poverty with Children	23.2%	7.7%
Population of Hispanic Ethnicity	57.4%	29.5%
Language Spoken at Home:		
English Only Spoken at Home	42.3%	60.6%
Other Spoken at Home	57.7%	39.4%
Educational Attainment:		
Less Than High School Graduate	38.0%	14.6%
High School Graduate (or GED)	25.6%	16.9%
Some College – No Degree	21.5%	20.9%
Completed Degree	14.9%	47.6%

Source: Claritas, Inc.

- The largest employment sector in the 3-mile trade area is the retail trade industry with 24.3 percent, followed by professional and business services of 16.8 percent and educational services (16.2 percent).
- About 51 percent of the residential housing inventory is comprised of single-family homes, similar to that of the County.
- Median home prices have dropped dramatically in the Encanto neighborhood since 2005. For detached single-family homes, the median home price dropped 47% and for attached homes approximately 63%. In comparison, the Central San Diego neighborhood lost approximately 29% for single-family homes and 41% for attached homes.
- With the exception of the Joe and Vi Jacobs Center, the Plan Area has limited traditional format office space. The majority of office space in the Plan Area is one- to two-stories and single tenancy.
- Industrial development in the Plan Area is concentrated along Market Street and primarily located east of Euclid Avenue.
- Retail space in the Plan Area is generally located within three shopping centers and makes up about 75 percent of the Plan Area's total retail inventory.
- The following summarizes the amount of commercial and industrial square footage and asking lease rates in the Plan Area:

Table 5-2: Commercial and Industrial Space in Plan Area, 2011

Land Use	Total Square Feet (SF)	Average Asking Lease Rate (1)
Office	156,000 SF	$2.02/SF (FSG)
Industrial	245,000 SF	$0.88/SF (NNN)
Retail/Restaurant	167,000 SF	$1.52/SF (NNN)

(1) Full-service gross (FSG) is defined as a type of rental rate in which the cost of taxes, insurance, and maintenance is included in the rent. Triple net (NNN) is defined as a type of rental rate in which the tenant assumes the cost for taxes, insurance, and maintenance in addition to the base rental rate.

Source: CoStar Group, Inc.

- Retail sales have decreased in nearly all retail categories within the Southeastern and Encanto Community Plan Areas (CPAs), City, and County. The retail sales import/export (leakage) model for the Southeastern San Diego and Encanto CPAs combined indicate a leakage of approximately $130 million per year.
- The following presents a summary of KMA's space demand analysis for each land use:

Table 5-3: Estimate of Space Demand in Plan Area

Demand by Land Use	Low	High
Office	63,000 SF	105,000 SF
Retail/Restaurant	21,500 SF	44,000 SF
Residential	1,100 Units	2,200 Units

- Based on the demographics and market conditions found in CPAs and the Plan Area, KMA assessed the market support for each land use in the near-, mid-, and long-term. These rankings are summarized as follows:

Table 5-4: Estimate of Market Support in Plan Area

Market Support by Land Use	Retail/ Restaurant	Office	Residential	Industrial
Near Term (0-5 years)	Moderate	Weak	Weak	Moderate
Mid-Term (5 to 10 years)	Moderate	Weak	Moderate	Moderate
Long-Term (10 to 15+ years)	Moderate	Moderate	Moderate	Moderate

MARKET AND ECONOMIC CONDITIONS

Demographic Overview

This section reviews various demographic factors, as provided by Claritas, Inc., for a 1-, 2-, and 3-mile radius from the center point of the Plan Area (Euclid Avenue and Market Street) and compares them to the City of San Diego and County of San Diego. According to Claritas, Inc., the 1-mile radius is growing more slowly than the 2-mile radius, City, and County. Generally, households within the three radii yield lower household and per capita incomes than the City or County, have larger household sizes, and are younger in age. Key demographic and economic trends impacting the area encompassing the Plan Area are discussed below.

Population and Households

Over the last decade, population in the 1-, 2-, and 3-mile radii experienced minor average annual growth, ranging between 0.28 percent and 0.43 percent. The City experienced slightly higher growth (0.85 percent) while the County outpaced the City at 1.09 percent. According to Claritas, Inc. the 1-mile radius contains a population of about 29,000. Over the next five years, the 1- and 3-mile areas are projected to increase at a similar pace, 4.81 percent and 4.88 percent, respectively. The 2-mile radius along with the City and County are expected to increase between 5 percent and 6 percent.

Table 5-5: Population, 2011

Population	1-Mile	2-Mile	3-Mile	City	County
2011 Estimate	29,053	108,332	279,288	1,320,817	3,103,053
2016 Forecast	30,450	114,282	292,912	1,389,384	3,283,639
Percent Increase	4.81%	5.49%	4.88%	5.19%	5.82%

Source: Claritas, Inc.

There are currently an estimated 7,800 households in the 1-mile radius. Over the next five years, the number of households in the 1-, 2-, and 3-mile radii are expected to have a lower increase in households (between 4.4 and 4.9 percent) compared to the City and County. The City and County are expected to increase by about 6 percent through 2016. The average size of households in the 1-, 2-, and 3-mile radii is significantly larger than those of the City or the County. The radii range between 3.6 and 3.7 persons per household while the City contains an average household size of 2.6 and the County at 2.8.

Table 5-6: Households, 2011

Households	1-Mile	2-Mile	3-Mile	City	County
2011 Estimate	7,822	29,103	76,762	487,221	1,089,831
2016 Forecast	8,166	30,548	80,289	516,711	1,158,934
Percent Increase	4.40%	4.97%	4.59%	6.05%	6.34%

Source: Claritas, Inc.

Age Distribution

The large sized households and young population are indicators that the area is generally made up of families with young children. The 1-, 2-, and 3-mile areas have a relatively young population when compared to the City and County. According to Claritas, Inc., the current median age for the three areas ranges between 28 and 30 years of age, while the City and County hover at about 35 years of age. The 1-mile radius has a significantly higher proportion of population under the age of 17 (approximately 34 percent), when compared to the City and County at 23 percent and 25 percent, respectively.

Race and Ethnicity

Southeastern San Diego in general is a racially and ethnically diverse community as evidenced by the demographics for the 1-, 2-, and 3-mile areas. According to Claritas, Inc., one-third of the population in the 1-mile radius is made up of Persons of Some Other Race Alone, followed by the African American population (26 percent), and White population (25 percent). The 1-mile area also contains an approximately 57 percent Hispanic population. The demographics for the 2-mile and 3-mile radius are similar to the 1-mile radius, but have a higher proportion of Asian residents (15 to 16 percent) and a lower percentage of African American residents (13 to 18 percent). The City and County have similar demographics, with the largest amount of White population (58 to 63 percent) and a Hispanic population of approximately 30 percent to 32 percent, respectively.

Income

Residents within the 1-mile radius of the Plan Area have a median household income of about $35,000, which is approximately 40 percent lower than the median income for the City ($58,000) and the County ($60,000). Residents in the 2- and 3-mile areas have similar median household incomes of about $40,000. Per capita income in the 1-mile area ($12,500) is substantially lower than the City ($29,800) and County ($28,700).

Approximately 20 percent of households in the 1-mile radius earn annual incomes of $15,000 or less. By comparison, the proportion of households in the City and County earning less than $15,000 is lower than the 1-mile area and ranges between 9 and 11 percent, respectively.

Overall, 85 percent of households in the 1-mile radius earn below $75,000 in annual income. The 2- and 3-mile areas have a slightly lower proportion of households earning less than $75,000 or about 81 percent.

Table 5-7: Household Income, 2011

Household Income	1-Mile	2-Mile	3-Mile	City	County
Less Than $15,000	19.8%	16.0%	15.9%	10.7%	9.3%
Less Than $75,000	84.6%	81.2%	80.5%	62.4%	61.5%
Median Household Income	$35,078	$39,479	$39,750	$58,173	$60,140

Source: Claritas, Inc.

Employment

KMA evaluated employment by industry (place of work), as provided by Claritas, Inc., for the 3-mile radius as compared to the County. As of 2010, the 3-mile radius contains a total of 42,251 jobs. Based on the current population, the 3-mile area's jobs to resident ratio was 0.15, as compared to 0.39 in the County. The survey of employment by industry finds that the largest employment sector within the 3-mile radius is in the retail trade industry (24.3 percent), followed by professional and business services (16.8 percent), educational services (16.2 percent) and health and social services (14.3 percent).

According to the California Employment Development Department, 2010 closed with the County having 1.2 million jobs. The largest employment sectors in the County are government (18.5 percent), professional and business services (17 percent), leisure and hospitality (12.7 percent), and retail trade (10.7 percent). Since 2000, the County has added 26,000 jobs. The largest increase in jobs was in the leisure and hospitality sector, which may be attributable to several key developments including the expansion of the San Diego Convention Center, development of PETCO Park, and construction of more than 4,000 hotel rooms in downtown San Diego. The largest decreases in employment occurred in manufacturing (30,200 jobs), financing, insurance, and real estate (14,700 jobs), and construction (14,200 jobs).

Residential Market Overview

From 2006 forward, the national housing market has suffered substantial declines in pricing and sales activity. As a result, new ownership housing development slowed considerably. As the economy begins to slowly improve and mortgage interest rates remain at historically low levels, the for-sale housing market has begun to experience slight increases in home sales.

Likewise, demand in the national apartment and rental housing market is expected to strengthen, due in part to stricter single-family and condominium lending standards. In the long-term, there are strong fundamentals supporting attached housing development in in-fill locations. Scarcity of land, rising housing costs, and the increase in non-family households will continue to generate

demand for townhomes and condominiums. One trend that is expected to continue in the multi-family housing market is affordable housing due to the financial benefits (such as tax credits and other financing vehicles) that it offers developers. However, due to the state of the current economy and fiscal crisis locally and Statewide, sources of financial assistance are limited and/or highly competitive.

Similar to the national housing market, the Southern California housing market seemed to have hit bottom and the recovery is expected to be sluggish. According to the real estate brokerage firm of Grubb & Ellis, development will continue to be slow due to the scarcity of developable land, high construction costs, and underwriting difficulties. However, a modest increase in new home construction, mainly for single-family homes, is expected.

Local Market Conditions

During the housing boom preceding the current downturn, new housing production in San Diego County was concentrated in Downtown San Diego, eastern Chula Vista, and the State Route (S.R.) 56 communities in the City of San Diego. The San Diego housing market was hit particularly hard by the national housing downturn, with many development proposals and entitlements put on hold. However, the long-term outlook for San Diego's multi-family market remains positive due to numerous barriers to entry, including high land costs, a large rental population, and extremely limited new multi-family development sites. Low vacancy rates, stricter lending requirements for homebuyers, and changing demographics have increased demand for rental housing.

The majority of Southeastern San Diego's housing supply consists of older single-family homes. The majority of the Encanto neighborhood's remaining developable acres is reserved for single-family development. SANDAG's 2009 estimate of vacant acres for residential development for the Encanto neighborhoods is about 171 acres, distributed as 147 for single-family development and 24 acres for multi-family. This assessment includes parcels that are not developed, are not under construction, and currently do not have any plans for development.

The 1-mile area has about 8,100 residential units. Based on the residential inventory in the 1-mile radius, a little over half of the housing is single-family, similar to the County's inventory. The City's inventory is slightly lower than the rest of the County, presumably due to the large amount of multi-family units produced in downtown San Diego during the housing boom five years ago.

Table 5-8: Housing Inventory, 2011

Housing Inventory	1-Mile	2-Mile	3-Mile	City	County
Single-Family	51.4%	58.3%	54.5%	46.3%	51.8%
Multi-Family	44.0%	38.2%	43.9%	52.5%	44.3%
Other (1)	4.6%	3.5%	1.6%	1.2%	3.9%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%
Median Year Built	1965	1967	1966	1975	1977

(1) Includes mobile homes.

Source: Claritas, Inc.

Based on the tenure of occupied housing units in the 1-mile area, it appears that the Plan Area contains a high concentration of renters, similar to the County. The City seems to be split about 50/50, half owner-occupied and half renter-occupied, while the County has a larger proportion of owner-occupied units.

Table 5-9: Household Tenure, 2011

Household Tenure	1-Mile	2-Mile	3-Mile	City	County
Owner-Occupied	44.3%	50.5%	44.2%	49.5%	56.1%
Renter-Occupied	55.7%	49.2%	55.8%	50.5%	43.9%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Claritas, Inc.

According to DataQuick, the current median home price for a resold single-family detached home in the Central San Diego submarket (as of April 2011) is $385,000. The Plan Area is located within the 92114 zip code with the balance of the Southeastern San Diego community occupying the 92102 and 92113 zip codes. The 92114 zip code contains a median home price of $230,000. The 92114 zip code ranked third to last in terms of median home price among the other zip codes in the Central San Diego submarket. Single-family home sales in the 92114 zip code have decreased nearly 47 percent since 2005, while the Central San Diego submarket decreased by approximately 28 percent.

In terms of condominium resales, the current median home price in the Central San Diego submarket is $250,000. The 92114 zip code contains a median home price of $162,500. Condominium median home sales in the Encanto neighborhood have decreased 63 percent since 2005, while the Central San Diego submarket decreased by approximately 41 percent.

According to a survey conducted by MarketPointe Realty Advisors, the Southeastern San Diego community has an average monthly rent of $1,080, approximately 24 percent lower than the County's average. Vacancy in Southeastern San Diego is at a 5.5 percent, slightly higher than the County (5.1 percent).

Table 5-10: Comparison of Apartment Market Conditions, March 2011

Area	Monthly Rent	SF	Rent Per SF	Vacancy	Number of Units
Southeastern San Diego (1)	$1,080	857 SF	$1.26	5.5%	1,467 Units
San Diego County	$1,335	869 SF	$1.54	5.1%	118,009 Units

(1) Includes the communities of Golden Hill, Lincoln Park, Mount Hope, Paradise Hills, Southcrest, and Southeastern San Diego, as defined by MarketPointe Realty Advisors, Inc.

Source: MarketPointe Realty Advisors, Inc.

A survey from CoStar Comps, Inc. reveals that apartment building sales from January 2009 to the present yield a median value of $87,500 per residential unit. Cap rates generally range between 6.0 and 9.0 percent, with a median cap rate of 7.1 percent. A cap rate is defined as the percentage number used to determine the current value of a property based on estimated future operating income. The sales ranged between $41,000 and $310,000 per unit. The highest sale occurred in January 2010 for a development built in 2008 in the Barrio Logan neighborhood. Based on the survey, the majority of the apartment buildings are older in age (average 1956) and built prior to 1990.

While the Plan Area has experienced growth in commercial and industrial space over the last decade, very little new residential development has come to fruition. The Plan Area is encompassed within the Central Imperial Redevelopment Project Area. The Southeastern Economic Development Corporation (SEDC) was created in 1981 by the City of San Diego to manage all redevelopment and economic development activities within the southeastern San Diego community, and more specifically four projects areas. Through proposals from various developers and SEDC's projection of housing production, the Central Imperial Project Area has an anticipated 1,300 residential units proposed for development through 2020. The majority of the proposed residential developments are expected to be multi-family rental and contain affordable housing.

The JCNI has a conceptual development program titled The Village at Market Creek for a portion of the Plan Area along Market Street extending from 47th Street (western boundary) to nearly 54th Street (eastern boundary). Of the 1,300 residential units proposed, The Village at Market Creek is expecting to construct 1,000 of those residential units.

Office Market Overview

The national residential market downturn likely contributed to decreased office space demand from related users, e.g., mortgage, title, escrow companies, lenders, and investors. While the residential downturn was likely the initial cause of the decreased demand for office space, the recession that followed was a major contributing factor for increased vacancies in office space as many businesses downsized or shut their doors permanently. As businesses downsized or closed, the inventory of sublease space put additional downward pressure on rental rates for Class A and B office space. (Based on the Building Owners and Managers Association International's rating

system, Class A and B office space facilities typically are considered good to premier and have rents that are above the average for the region.) Regardless of the rental rate decreases, many firms are avoiding major expenditures in regards to long-term space.

Local Market Conditions

According to Cushman and Wakefield, the San Diego County office market comprises approximately 72.6 million SF of space. The County office market is the weakest it has been in more than a decade, with an overall vacancy of 16.8 percent and negative absorption. The Downtown office market comprises about 15 percent of the County's total office space. Although it is the largest office submarket in the County, it is not dominant. In the recent past, the strongest office submarkets in the County have been in the I-5 and I-15 corridors in North County, where major high tech employment is located. In addition, the submarkets of Mission Valley, Sorrento Mesa, Kearny Mesa, University City, Del Mar Heights and Carlsbad each have significant concentrations of space each ranging from four million to nine million SF.

Construction of office development in the County is nominal – Rancho Bernardo is the only submarket in the County currently constructing office space (83,000 SF). The real estate brokerage firm of Cushman and Wakefield reported at the end of the 1st quarter 2011 that the County had an average asking rental rate of $2.17 per SF full-service gross (FSG). (FSG is a rental agreement where the landlord assumes the payment of all real estate taxes, building insurance and maintenance.) High vacancy rates are being experienced throughout the County and are most likely attributable to businesses downsizing or closing.

A survey based on Loopnet.com, finds there to be approximately 86,000 SF of office space for lease in the Southeastern San Diego area. The average asking lease rate is $1.50 per SF per month. Due to the limited number of office building sales in the Southeastern San Diego area, KMA's survey included the City of National City which has comparable office space to the Southeastern San Diego area. According to CoStar Group, Inc., office building sales in Southeastern San Diego and National City from January 2010 to the present ranged between $76 and $163 per SF of building area. There were no office building sales in Southeastern San Diego in 2009.

As identified by the CoStar Group, Inc., there is currently about 156,000 SF of office space in the Plan Area. Asking lease rates are at $2.02 per SF per month (FSG). The office space is housed within eight office developments which are scattered throughout the Plan Area.

Table 5-11: Comparison of Office Market Conditions, 1st Quarter 2011

Area	SF	Rent Per SF	Vacancy
Plan Area	156,000 SF	$2.02	2.7%
San Diego County	72,610,000 SF	$2.17	16.8%

Source: Cushman and Wakefield; CoStar Group, Inc.

The four largest employment sectors in a 3-mile radius of the Plan Area are retail trade, professional and business services; educational services, and health and social services. These four categories comprise 71.6 percent of the area's employment. With the exception of retail trade, these industry categories can often inhabit flex space which allows flexibility to be utilized as office or industrial space, such as business service providers, education, heath care, etc.

SANDAG's 2009 estimate of vacant acres for employment development for the Encanto neighborhoods is 9 acres. Employment land is defined as land designated for light and heavy industrial, warehousing, public storage, wholesale trade, or office space. This assessment includes parcels that have zoning and entitlements in place but do not have any infrastructure improvements to the property.

The Southeastern San Diego Area has one main office/flex industrial business park, Gateway Center East Business Park. Gateway Center East Business Park was developed from a 66-acre area of excess cemetery land which was owned primarily by the City of San Diego. Gateway Center East Business Park contains about 507,000 SF, of which approximately 43,000 SF is medical office space. The only new office space constructed in the last five years is the JCNI three-story office building containing approximately 75,000 SF. The building, named Joe and Vi Jacobs Center, is 100 percent leased to non-profit tenants. With the exception of the Joe and Vi Jacobs Center, the Plan Area has limited traditional format office space.

The JCNI Village at Market Creek conceptual development program, as currently proposed, is projecting to develop approximately 153,000 SF of office development. JCNI has two entitled development sites that may yield up to 73,000 SF of office development. This office development is expected to be developed within the next five years.

Industrial Market Overview

Similar to the office market, the national residential market downturn likely contributed to decreased industrial space demand from related users, e.g., homebuilders, textile industry, home furnishings. The nation's economy is expected to make a healthy recovery after these difficult years. The industrial sector is anticipated to recover stronger than the other real estate sectors as employment and demand rises which will lead to manufacturing output and growth in the shipment of goods. Vacancy rates are projected to decrease as demand rises and there is little to no new construction of industrial space.

Local Market Conditions

According to Cushman and Wakefield, the San Diego County industrial market contains 55.2 million SF of research and development (R&D) space and 137.4 million of manufacturing/warehouse space for a total of 192.6 million SF. As of the 1st quarter of 2011, the County had an average asking rental rate of $0.84 per SF triple net (NNN). The vacancy rate was measured at 11.5 percent. The largest submarkets for industrial space in the County are Miramar,

Kearny Mesa, and Otay Mesa. Approximately 29 percent of the total industrial space in the County is R&D space. The submarkets with the largest amount of R&D space are Sorrento Mesa, Carlsbad, and Kearny Mesa.

A survey of asking lease rates for industrial properties in Southeastern San Diego reveals that there is approximately 326,000 SF of industrial space available with an average asking lease rate of $0.71 per SF. According to CoStar Group, Inc., industrial buildings in Southeastern San Diego and the adjacent City of National City between January 2009 and the present sold for a low of $79 to a high of $313 per SF of building. The median price per SF of building was $118. According to CoStar Group, Inc., there is currently about 245,000 SF of industrial space in the Plan Area. Asking lease rates are at $0.88 per SF per month (NNN).

Table 5-12: Comparison of Industrial Market Conditions, 1st Quarter 2011

Area	SF	Rent Per SF	Vacancy
Plan Area	245,000 SF	$0.88	2.7%
San Diego County	192,671,000 SF	$0.84	11.5%

Source: Cushman and Wakefield; CoStar Group, Inc.

Industrial space in the Plan Area is mainly concentrated along Market Street and east of Euclid Avenue. However, there are several industrial properties between 47th Street and Euclid Avenue that are intermixed with other land uses. As referenced in the office market section, SANDAG's 2009 estimate of vacant acres for employment development for the Encanto neighborhoods is a mere 9 acres. There have been very few industrial developments over the last decade in the Southeastern San Diego community. The Har-Bro industrial development located along Market Street at 54th Street and east of Euclid Avenue was completed in 2007. The Har-Bro industrial development contains approximately 30,000 SF.

SEDC currently owns the 14.8-acre Valencia Business Park site along Imperial Avenue and the San Diego Trolley line in the Central Imperial Redevelopment Project Area. Constructed in 2004, the Valencia Business Park site currently houses a U.S. Post Office. Development for the balance of the site has yet to be determined.

The JCNI Village at Market Creek conceptual development program, as currently proposed, is projecting to develop approximately 23,000 SF of industrial development. This industrial space is expected to be developed within the next five years.

Retail/Restaurant Market Overview

Commercial real estate markets are experiencing a high level of uncertainty, dysfunction and lack of confidence due to the national recession and credit crisis. Problems originally concentrated in the housing market have spread to other land use sectors, with new real estate development of all types grinding to a halt. The retail sector is particularly impacted, with consumer spending at its

lowest level in years, and retail landlords struggling to find or retain tenants. Given the current and anticipated near-term economic climate, it is difficult to be optimistic about demand for new real estate development within a reasonable planning horizon. However, many regional economists project the beginning of a market turnaround in Southern California within the next two years.

Local Market Conditions

Overall, San Diego experienced the impact of the economic downturn first-hand as evidenced by the closings of The Sharper Image, Mervyn's, Linens 'n' Things, Circuit City, and various Starbucks locations. Even as corporate retailers have scaled back or shuttered a number of their stores, small "mom & pop" stores have been able to take advantage of the current market conditions. The current vacancy rates and lower rents have provided them with leasing opportunities in markets that were previously inaccessible. Similarly, even amidst the challenging economy, Wal-Mart, dollar stores and other discount retailers are doing quite well and have been able to capture market share from their upscale competitors.

The growth in baby boomer, senior, and immigrant populations is increasing the demand for mixed-use destinations with active pedestrian environments that offer specialty stores, eating and drinking and entertainment destinations. In order to capitalize on this demand, regional retail centers are being re-positioned as "lifestyle centers" emphasizing apparel, home goods, books and music stores in combination with restaurants and entertainment in an open-air, "main street" environment. Locally, many of the regional malls throughout the County are undergoing expansion, renovation and re-tenanting to remain competitive.

The San Diego County retail market contains a total of 68.7 million SF. CB Richard Ellis reported at the end of the 1st quarter 2011 that the County had an average asking rental rate of $1.96 per SF triple net (NNN). The vacancy rate was measured at 7.1 percent. The Chula Vista/Bonita and East Chula Vista submarkets combined rank first in terms of largest retail submarket, which is no surprise considering the vast retail development that has occurred in eastern Chula Vista over the last decade.

A survey of asking lease rates for retail space in Southeastern San Diego reveals that there is approximately 49,000 SF of retail space available with an average asking lease rate of $1.46 per SF.

According to CoStar Group, Inc., retail buildings in Southeastern San Diego and the adjacent City of National City between January 2009 and the present sold for a low of $85 to a high of $499 per SF building. The median price per SF of building was $209.

Table 5-13: Comparison of Retail Market Conditions, 1st Quarter 2011

Area	SF	Rent Per SF	Vacancy
Plan Area	167,000 SF	$1.52	9.1%
San Diego County	68,674,000 SF	$1.96	7.1%

Source: CB Richard Ellis; CoStar Group, Inc.

Based on data from the CoStar Group, Inc., there is approximately 167,000 SF of retail/restaurant space in the Plan Area. Asking lease rates are at $1.52 per SF per month (NNN). There are essentially three shopping centers in the Plan Area: Market Creek Plaza, Euclid Plaza, and an untitled center at 47th and Market Streets. Euclid Plaza is a 28,000-SF center built in 1990 including small fast food restaurants, personal retail services, and health care related businesses. Current asking lease rates at Euclid Plaza are at $1.00 per SF NNN. The center at 47th and Market Streets is approximately 26,000 SF and was built in 1991. The center contains several food-related businesses, and business and personal service type tenants.

In 2001, the JCNI, constructed Market Creek Plaza, which contains approximately 75,000 SF and is anchored by a Food-4-Less grocery store. Prior to the construction of Market Creek Plaza, the area was in desperate need of a full-service supermarket and did not have a single sit-down restaurant. Market Creek Plaza delivered and built the grocery store, a sit-down restaurant, several fast food restaurants, and business and personal service type tenants. The center is currently 100 percent leased with recently leased space for the new Felix's BBQ With Soul restaurant beginning at $1.25 per SF.

Market Creek Plaza was the first phase of the JCNI Village at Market Creek conceptual development program. JCNI is projecting to develop approximately 312,000 SF of commercial space. This large amount of commercial space will be built on multiple sites along Market Street and is anticipated to be developed over the next ten years.

Of the 312,000 SF of commercial space, the JCNI is expecting to begin construction in early 2012 on an approximately 15,000-SF Walgreens drug store. The Plan Area and Southeastern San Diego, east of Interstate 805, do not currently have a drug store.

Taxable Retail Sales

KMA evaluated the strength of sales exhibited by retail uses for the Southeastern San Diego and Encanto Community Plan Areas (CPAs combined) from 2005 to 2010 in comparison to the taxable retail sales for the City and County. Retail sales categories analyzed include:

Table 5-14: Definitions by Retail Category

Retail Category	Definition
General Merchandise	Variety stores, department stores, and general merchandise
Comparison Goods	Apparel stores, home furnishings and appliances, and specialty goods
Convenience Goods	Food stores, grocery stores with or without alcohol, drug stores, and packaged liquor stores
Eating and Drinking	Restaurants with or without liquor
Home Improvement	Lumber/building materials, hardware stores, plumbing/electrical supplies, and farm construction equipment
Automotive Outlets	New and used auto dealers, service stations, and auto supplies
Other Retail Stores	Second-hand stores, garden supplies, watercraft dealers, airplane dealers, fuel and ice dealers

Due to the limited amount of retail establishments in the CPAs and the State Board of Equalization's minimum threshold requirements for release of sales tax information, the following retail categories were combined: Comparison Goods, Convenience Goods, and Home Improvement. For purposes of KMA's analysis, these categories are referenced as Aggregated Confidential within the technical analysis.

Due to economic conditions, retail sales have decreased in nearly all retail categories within the CPAs, City, and County. In 2010, the population in the CPAs spent approximately 22.3 percent of their per capita income on retail goods and services. By comparison, population in the City and County spent about 46 to 47 percent of their per capita income on retail goods and services. Retail sales on a per person basis in the CPAs are significantly lower than those of the City and County. This is likely due to the lack of retail shops and services within the CPAs. The retail sales generated in the CPAs equate to 2.4 percent of the City's total retail sales.

Table 5-15: Sales Per Capita by Area, 2010

Area	Sales Per Person (2010)	Sales as Percent of Per Capita Income
Southeastern San Diego and Encanto CPAs	$3,286	22.3%
San Diego City	$11,120	47.1%
San Diego County	$10,576	46.1%

SUPPORTABLE DEMAND BY LAND USE

Retail/Restaurant Demand Analysis

Demand from Existing Residents (Retail Sales Leakage Analysis)

Based on the low amount of sales on a per person basis, it is evident that the CPAs are experiencing a leakage (or export) of retail sales. Leakage refers to purchases made by residents in the CPAs outside of CPAs' boundaries; the sales are "leaked" out to other communities. From this analysis, it appears that there is retail sales leakage of approximately $130 million per year from the CPAs.

KMA prepared a retail sales import/export (leakage) model for the CPAs to determine how much in retail/restaurant space can be recaptured in the CPA and further recaptured in the Plan Area. Essentially, the methodology employed consists of estimating the total potential retail expenditures of the CPAs' population, and then deducting the actual retail sales achieved within the CPAs.

KMA calculated the amount of potential retail expenditures by analyzing spending ratios in the City and County relative to population and per capita income. KMA then deducted from that total potential retail sales figure the actual 2010 retail sales for each retail category as provided by MuniServices to the City of San Diego

Based upon KMA's estimated capture rates for the Plan Area, KMA finds that approximately 3,300 to 7,900 SF of retail/restaurant space can be recaptured within the Plan Area.

Demand from New Residents

Growth in retail space demand is dependent upon the increase of population in a given market area and the amount a person spends within the various retail sectors. The Plan Area possesses a competitive advantage in capturing demand growth due to the lack of existing national credit retailers, younger population, larger families, and accessibility to transit. The largest disadvantages for the Plan Area are the lower income households and the lack of daytime population.

KMA's retail space demand analysis for the Plan Area consists of the following steps:

- Claritas, Inc.'s projection of population growth within a 3-mile radius of the Plan Area (further projected by KMA to 2030) and the average per capita income for 2011 provide the basic inputs into the demand forecast. With an increase of 55,000 residents through 2030 and an average per capita income of approximately $14,400, the increase in personal income within the 3-mile radius of the Plan Area is estimated to be $797 million through 2030.

  - To determine the low and high scenarios of estimated personal spending within the Plan Area, KMA applied the following:
    - KMA estimated per capita income to spending by retail category based upon the percent of retail sales for each category for the CPAs and City in 2010.
    - KMA estimated capture rates ranging between of 1.5 to 5.0 percent for each retail category for the Plan Area to determine estimated annual spending. Capture rates of 2.0 to 5.0 percent were used to estimate annual spending in restaurants. The capture rates were based on the Plan Area's percent share of the City's taxable retail sales for each retail category.
- The estimated growth in retail and restaurant spending is then converted to retail and restaurant space demand by applying industry standards of estimated sales productivity per SF for each category. For retail space, estimated sales productivity ranged from $350 to $400 per SF. For restaurant space, estimated sales productivity is assumed at $400 per SF.

KMA estimates that the Plan Area is able to support additional retail development in the range of 13,300 to 22,100 SF from new residents through 2030. In addition, KMA estimates that the Plan Area can also support between 1,200 to 3,000 SF of restaurant space through 2030.

Demand from New Office Workers

KMA also analyzed projections of new office workers and their potential spending within the Plan Area to determine additional office-worker supported retail and restaurant space within the Plan Area through 2030.

KMA estimates that new office workers the Plan Area are able to support additional retail and restaurant development in the range of 3,700 to 11,000 SF to 2030, of which 2,800 SF to 8,400 SF is for retail and 900 SF to 2,600 SF is for restaurant space.

Summary of Retail/Restaurant Space Demand

The following presents a summary of the retail space demand analysis as described above:

Table 5-16: Estimate of Retail Space Demand Through 2030

Retail Space Demand	Low	High
Existing Residents	2,800 SF	6,500 SF
New Residents	13,300 SF	22,100 SF
New Office Workers	2,800 SF	8,400 SF
Total Retail Space Through 2030	18,900 SF	37,000 SF

The following presents a summary of the restaurant space demand analysis:

Table 5-17: Estimate of Restaurant Space Demand Through 2030

Restaurant Space Demand	Low	High
Existing Residents	500 SF	1,400 SF
New Residents	1,200 SF	3,000 SF
New Office Workers	900 SF	2,600 SF
Total Restaurant Space Through 2030	2,600 SF	7,000 SF

Office Demand Analysis

KMA estimated office space demand within the Plan Area based on the estimated number of new employees and potential capture of future office space for the 3-mile radius. The steps taken are summarized as follows:

- KMA estimated the growth of new employees within the 3-mile radius based on average annual growth rates by industry in San Diego County between 2000 and 2010. A total of approximately 56,000 employees will work within the 3-mile radius by 2030, representing a growth of an estimated 14,000 new jobs. Much of the new employment is expected to occur in the educational, healthcare and social services, and retail trade industries.
- KMA then applied a percentage to each employment category that would likely occupy office space.
- Given these percentages, KMA then calculated the number of new office users that would demand office space from each employment category to 2030. The results show that approximately 8,400 new employees within the 3-mile radius will need office space.
- To estimate the amount of office square footage needed to accommodate the increase in new office users in the 3-mile radius, KMA estimates that each new office user will need 250 SF of office space. A total of approximately 2.1 million SF of space is needed within the 3-mile radius.
- KMA estimates that the Plan Area could potentially capture 3 to 5 percent of the 3-mile radius' new office space demand through 2030, as the Plan area becomes a more mixed-use environment due to new development, enhanced amenities, access, and services.

Based on the methodology described above, projected office space demand for the Plan Area is estimated to range between 63,000 SF (low) and 105,000 SF (high) of office space demand through 2030.

Residential Demand Analysis

Based on SANDAG's housing unit average annual growth rate for the City of San Diego, the City is projected to contain a total of approximately 629,500 housing units through 2030, an increase of about 160,000 new units from 2000, or 0.98 percent annually.

The Plan Area represents 1.5 percent of the City's total housing units. Based on the Plan Area's current capture of Citywide housing units, KMA estimates the Plan Area will continue to capture 1 percent (low) to 2 percent (high) of the City's 160,000 new housing units. On this basis, KMA anticipates that the Plan Area can support a total of approximately 1,100 to 2,200 units through 2030.

Industrial Demand Analysis

While KMA believes there is demand for light industrial development, it is difficult to project demand for industrial development in the Plan Area. The demand for industrial development is a function of several variables that are inherently different from the variables that affect market demand for residential or commercial uses. Commercial uses are driven primarily by demographics and the population's purchasing habits. Industrial markets, on the other hand, are linked to cost factors, such as land, capital, and access to supporting industry (i.e., goods and services sometimes considered "clustering" or sometimes parts of the supply-chain).

As industrial development sites are built-out in Southeastern San Diego and industrial businesses located in Downtown San Diego are forced into surrounding communities, the demand for industrial space will become greater. KMA believes any new industrial development should be focused along Market Street, east of Euclid Avenue, and adjacent to the existing industrial inventory as to not affect community cohesion.

ASSESSMENT OF MARKET POTENTIAL

This section summarizes the Plan Area's key strengths and weaknesses with respect to the market potential, supply, and demand for a range of land uses. The KMA assessment is based on review of demographic and economic trends and market support factors for retail/restaurant, office, residential, and industrial uses.

Strengths

- *Master Development Plan:* Jacobs Center for Neighborhood Innovation (JCNI) has acquired, assembled, entitled, and prepared a conceptual plan for key development sites. Implementation of the JCNI plan has already begun with developments such as Market Creek Plaza and the Joe and Vi Jacobs Center.

- *Redevelopment Project Area:* Located within the Central Imperial Redevelopment Project Area, SEDC may be able to assist in assembly of development sites and/or provide financial assistance.
- *Transportation:* Accessibility to various types of transportation including Interstate 805 and State Route 94 freeways, San Diego Trolley Orange line, and bus transfer station are benefits to office workers and appealing to residents.
- *Community Involvement:* Large support and involvement from the community reduce community opposition for potential new development. The existence of community gatherings and events present a welcoming environment for existing and future residents.
- *Demographics:* Higher proportion of young population and large family households can assist in attracting new retailers to the Plan Area.

Weaknesses

- *Development Costs:* Typically development in an urban context requires development of structured parking due to the use of small constrained sites, which significantly increases costs of construction. High cost of construction and site assembly is only supportable where buyers/renters are willing to pay a premium for urban living, which is unlikely given the current demographics (i.e., lower incomes) in the Plan Area.
- *Market Rents/Values:* Current market rents will make new development highly infeasible considering the cost of construction and acquisition of improved properties.
- *Competition from Established Nodes:* Plan Area is not recognized as an office or retail destination as there is significant competition in other areas south of Interstate 8.
- *Retail/Entertainment:* Retail and entertainment uses in the Plan Area are limited, which provides a weak base for future retail/entertainment and/or similar uses to locate in the Plan Area.
- *Demographics:* Low household incomes in the Plan Area are a disincentive for many new retailers and retail developers. Household income and spending potential for households within the 1-mile radius is weak relative to the City and County medians.

Development Opportunities and Constraints by Land Use

Due to the national credit crisis, all real estate markets are experiencing a high level of uncertainty, dysfunction, and lack of confidence. Problems originally concentrated in the housing market have spread to other land use sectors, with new real estate development of all types grinding to a halt. The retail sector is particularly impacted, with consumer spending at its lowest level in years, and retail landlords struggling to find or retain tenants. Given the current and anticipated near-term economic climate, it is difficult to be optimistic about demand for new real estate development within a reasonable planning horizon. However, many regional economists project the beginning of a market turnaround in Southern California within the next two years. In the mid- to long-term, KMA remains confident that housing demand will once again outpace

construction. Additionally, housing and mixed-use development in urban locations can be expected to appeal to a number of market segments.

Exhibit 5-1 presents KMA's findings related to opportunities and constraints by land use.

Exhibit 5-1: Overview of Development Opportunities and Constraints by Land Use

RETAIL/RESTAURANT	OFFICE SPACE	RESIDENTIAL	INDUSTRIAL
A. POTENTIAL DEVELOPMENT OPPORTUNITIES			
• Retailers such as Wal-Mart, Target, Fresh & Easy have expressed interest in the Plan Area • Several sites have been identified and are in the planning stages at The Village at Market Creek along Market Street • Type V construction (Type V) served by surface parking is the most cost-efficient type of construction • Retailers that provide local-serving business/personal services and convenience goods • Retail services to support residential development at the Euclid Avenue and Market Street and 47th Street transit stations	• Development of local-serving employment uses to meet the needs of the current and projected population, and to provide jobs for local residents • Several sites have been identified and are in the planning stages at The Village at Market Creek • Potential tenant/user types could include: - financial services - real estate - insurance - medical/dental - education	• Sites have been assembled and entitled in The Village at Market Creek • Entry- to mid-level ownership housing to serve working population • Mixed-income or affordable senior rental developments • Several financing mechanisms available to finance affordable housing (Low Income Housing Tax Credits, Redevelopment Agency assistance, etc.) • Residential development at or in proximity to the Euclid Avenue and Market Street and the 47th Street transit stations	• Light industrial site for 23,000 SF has been identified and is in planning stage at The Village at Market Creek • Success from the recently constructed industrial building (Har-Bro) in the Plan Area demonstrates potential for new industrial • Industrial development in the form of small-suite "flex" space would be more desirable in an urban mixed-use format
B. DEVELOPMENT CONSTRAINTS			
• Current market rents for retail development do not support cost of new construction • Development of large format retailers will require substantial on-site and development mitigation costs • Low household incomes within the Plan Area is a disincentive for some new retailers and retail developers due to the populations limited discretionary income	• Countywide there is no new office construction south of Interstate 8; and Plan Area is not recognized as an office node to attract large amounts of office • Current rents/values for office development do not support cost of new construction • High vacancy factors throughout the County are discouraging • Potentially high acquisition costs for improved properties	• Due to the housing downturn many development proposals and entitlements have been put on hold • Current home values for for-sale housing do not support cost of new construction • Apartment building sales in Southeastern San Diego average a per-unit value of approximately $88,000, well below replacement cost even for garden-style product • Due to the state of the current economy and fiscal crisis locally and Statewide, sources of financial assistance are limited and/or highly competitive	• Potentially high acquisition costs for improved properties • Limited sites available for industrial development

Euclid + Market
LAND USE AND MOBILITY PLAN

6. ENVIRONMENTAL ANALYSIS ASSESSMENT

RBF

AIR QUALITY

The following summary is based upon the Air Quality analysis given in the March 2009 Final EIR for the Fifth Amendment to the Central Imperial Redevelopment Plan (Redevelopment Plan), which includes the area affected by the proposed Euclid and Market Land Use and Mobility Plan (Plan Area). The Final EIR analysis is based upon estimates of air quality emissions contained in EIR Volume II, Appendix C1 of the Fifth Amendment to the Central Imperial Redevelopment Plan, and the Greenhouse Gas/Global Warming Risk Assessment prepared for the Project by Investigative Science and Engineering, Inc. (ISE, September 2008). When applicable, and where additional data was available, discussion of the Plan Area has been updated to better reflect existing conditions that may present potential land use conflicts.

The following table provides a brief summary of the findings described herein:

Sensitive Receptors (Air Quality)	▫ Land uses considered to be sensitive receptors include schools, residential uses, day care centers, community centers, parks, and homes for the elderly.
Potential Constraints	▫ Sites where hazardous conditions may pose constraints to future redevelopment are shown on Figure 6-1: *Sites of Potential Environmental Concern – Air Quality.* ▫ Two future CO hotspots (2030), intersections due to vehicular traffic delays associated with LOS E and F. ▫ Sites where known hazardous materials have been previously identified should be re-evaluated at the time redevelopment is proposed, as conditions may have changed since previous evaluation.

Existing Conditions

Climate and Meteorology

The Plan Area, like the rest of San Diego County, has a warm-summer Mediterranean climate characterized by warm, dry summers and mild, wet winters. The maximum and minimum average temperatures are 84 degrees Fahrenheit (°F) and 44°F, respectively. Precipitation in the area averages 13 inches annually, 90 percent of which falls between November and April. The prevailing wind direction is from the west-northwest with an annual mean speed of 8 to 10 miles

per hour.[1] Sunshine is usually plentiful in the Plan Area, but night and morning cloudiness is common during the spring and summer. Fog can occur occasionally during the winter.

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

Fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the San Diego Air Basin (SDAB), in which the Plan Area is located. Beneath the inversion layer, pollutants become "trapped" as their ability to disperse diminishes. The mixing depth is the area under the inversion layer. Generally, the morning inversion layer is lower than the afternoon inversion layer. The magnitude of the change between the morning and afternoon mixing depths determines the ability of the atmosphere to disperse pollutants.

The prevailing westerly wind pattern is sometimes interrupted by regional "Santa Ana" conditions. A Santa Ana condition occurs when a strong high pressure develops over the Nevada-Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

Strong Santa Ana winds tend to blow pollutants out over the ocean and produce clear days; however, at the onset or during breakdown of these conditions or if the Santa Ana condition is weak, local air quality may degrade. In these cases, winds blow emissions from the SDAB out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send these pollutants ashore in the SDAB. When this event occurs, the combination of transported and locally-produced contaminants produce the worst air quality measurements recorded in the Basin.

Sensitive Receptors

Some population groups or activities are more sensitive to substantial pollutant concentrations than others. Sensitive population groups typically include children, the elderly, and the acutely and chronically ill, especially those with cardio-respiratory diseases. Residential areas are also sensitive to air pollution because residents (including children and the elderly) tend to be at home

[1] NOAA 2006

for extended periods of time, resulting in sustained exposure to any pollutants present. Land uses considered to be sensitive receptors typically include schools, residential uses, day care centers, parks, and homes for the elderly. As such, the sighting of sensitive land uses should be considered with regard to potential land use conflicts and adverse effects on such populations.

Refer to Figure 6-1: *Sensitive Receptor Locations – Air Quality*, which identifies existing land use designations in the Plan Area in relation to potential sensitive receptors. Sensitive land uses either adjacent or within close proximity to the Project Area include a number of schools to the south, north, and west. Additionally, existing single- and multi-family residential uses are present both within and adjacent to the Plan Area. Two mobile home parks are located in the southwesterly and easterly portions of the Plan Area. The Tubman/Chavez Multi-Cultural Youth Family Center is also located within the Plan Area, and may represent a potentially sensitive receptor.

Air Quality

Federal

The U.S. Environmental Protection Agency (EPA) is responsible for implementing the Federal Clean Air Act (CAA), which was first enacted in 1970 and subsequently amended numerous times. The Federal CAA established Federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 and 2.5 micrometers in diameter (PM_{10} and $PM_{2.5}$, respectively), and lead.

State

Additionally, individual states can identify their own criteria pollutants, create more stringent standards, require more stringent compliance, or include different exposure periods, then establish corresponding air quality regulations at the State level. The California Air Resources Board (CARB) administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969, pursuant to the Mulford-Carrell Act. These standards are generally more stringent and apply to a greater number of pollutants than the NAAQS. In addition to the criteria pollutants, the CAAQS have been established for visibility-reducing particulates, hydrogen sulfide, and sulfates.

Table 6-1: *Ambient Air Quality Standards and Air Pollution Control District Attainment Status,* gives the Federal and State threshold levels for each of the criteria pollutants. Additionally, attainment and non-attainment status is identified at both the Federal and State levels.

Table 6-1: Ambient Air Quality Standards and Air Pollution Control District Attainment Status

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[4]	Attainment Status
Ozone	1 Hour	0.09 ppm (180 μg/m^3)	Nonattainment	NA[5]	NA[5]
	8 Hours	0.07 ppm (137 μg/m^3)	Nonattainment	0.075 ppm (147 μg/m^3)	Nonattainment
Particulate Matter (PM_{10})	24 Hours	50 μg/m^3	Nonattainment	150 μg/m^3	Attainment
	Annual Arithmetic Mean	20 μg/m^3	Nonattainment	NA[6]	Attainment
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard		35 μg/m^3	Attainment
	Annual Arithmetic Mean	12 μg/m^3	Nonattainment	15 μg/m^3	Unclassified
Carbon Monoxide	8 Hours	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Attainment
	1 Hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Attainment
Nitrogen Dioxide[7]	Annual Arithmetic Mean	0.030 ppm (56 μg/m^3)	NA	0.053 ppm (100 μg/m^3)	Attainment
	1 Hour	0.18 ppm (338 μg/m^3)	Attainment	0.100 ppm	NA
Lead	30 days average	1.5 μg/m^3	Attainment	N/A	NA
	Calendar Quarter	N/A	NA	1.5 μg/m^3	Attainment

Table 6.1-1, continued

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[4]	Attainment Status
Sulfur Dioxide	Annual Arithmetic Mean	N/A	NA	0.030 ppm (80 μg/m^3)	Attainment
	24 Hours	0.04 ppm (105 μg/m^3)	Attainment	0.14 ppm (365 μg/m^3)	Attainment
	3 Hours	N/A	NA	N/A	NA
	1 Hour	0.25 ppm (655 μg/m^3)	Attainment	N/A	NA
Visibility-Reducing Particles	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	No Federal Standards	
Sulfates	24 Hour	25 μg/m^3	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m^3)	Unclassified		
Vinyl Chloride	24 Hour	0.01 ppm (26 μg/m^3)	Unclassified		

μg/m^3 = micrograms per cubic meter; ppm = parts per million; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time.
N/A = Not Applicable

Table 6.1-1, continued

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter-PM_{10} and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In 1990, the California Air Resources Board (CARB) identified vinyl chloride as a toxic air contaminant, but determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 parts per million ambient concentration specified in the 1978 standard.
2. National standards (other than ozone, particulate matter and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. EPA also may designate an area as *attainment/unclassifiable*, if: (1) it has monitored air quality data that show that the area has not violated the ozone standard over a three-year period; or (2) there is not enough information to determine the air quality in the area. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. The Federal 1-hour ozone standard was revoked on June 15, 2005 in all areas except the 14 8-hour ozone nonattainment Early Action Compact (EAC) areas.
6. The Environmental Protection Agency revoked the annual PM_{10} standard in 2006 (effective December 16, 2006).
7. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).

Source: California Air Resources Board and U.S. Environmental Protection Agency, February 16, 2010.

Local

The SDAB is administered by the San Diego Pollution Control District (SDAPCD). Air quality within the SDAB is largely influenced by the quality of other surrounding areas, in particular the South Coast Air Basin which includes Los Angeles, San Bernardino County, Orange County, and Riverside County. For Ozone ($O_{3)}$, the SDAB has had a transitional-attainment status of Federal standards. With regard to Federal standards of carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), total suspended particulate matter smaller than 10 microns in diameter (PM_{10}), and lead, the SDAB is either in attainment or unclassified. With exception of O_3 and PM_{10}, the SDAB is also in attainment of State air quality standards for all pollutants.

With regard to the Plan Area, air quality monitoring data obtained from the Downtown San Diego monitoring station (closest to the Project Area) indicates that for the years 2005 through 2008, no

air quality standards were exceeded, with the exception of the State O_3 and PM_{10} levels; refer to Table 6-2: *Local Air Quality Levels*, below.

Table 6-2: Local Air Quality Levels

Pollutant	California Standard	Federal Primary Standard	Year	Maximum[2] Concentration	Days (Samples) State/Federal Std. Exceeded
1-hour Ozone[1]	0.09 ppm for 1 hour	NA[5]	2005 2006 2007 2008	0.074 ppm 0.082 0.087 0.087	0/0 0/0 0/0 0/0
8-hour Ozone[1]	0.07 ppm for 8 hours	0.075 ppm for 8 hours	2005 2006 2007 2008	0.063 ppm 0.071 0.073 0.073	0/0 1/0 1/0 1/0
Carbon Monoxide[1]	9.0 ppm for 8 hour	9.0 ppm for 8 hour	2005 2006 2007 2008	3.10 ppm 3.27 3.01 2.60	0/0 0/0 0/0 0/0
Nitrogen Dioxide[1]	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2005 2006 2007 2008	0.100 ppm 0.094 0.098 0.091	0/NA 0/NA 0/NA 0/NA
Fine Particulate Matter ($PM_{2.5}$)[1, 4]	No Separate Standard	35:g/m^3 for 24 hours	2005 2006 2007 2008	44.1 µg/m 63.3 69.6 42.0	NA/NM NA/2.1 NA/8.9 NA/3.5
Particulate Matter (PM_{10})[1, 3, 4]	50 :g/m^3 for 24 hours	150 :g/m^3 for 24 hours	2005 2006 2007 2008	78.0 µg/m 74.0 111.00 59.0	5/0 11/0 4/0 4/0

Source: Aerometric Data Analysis and Measurement System (ADAM), summaries from 2004 to 2008, http://www.arb.ca.gov/adam.

ppm = parts per million; PM_{10} = particulate matter 10 micrometers in diameter or less; NM = not measured; µg/m^3 = micrograms per cubic meter; $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or less; NA = not applicable.

Table 6.1-2, continued

Notes:

1. Data collected from the San Diego Monitoring Station- 1110A Beardsley St, San Diego CA 92112.
2. Maximum concentration is measured over the same period as the California Standards.
3. PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
4. PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.
5. The Federal standard was revoked in June 2005.

Potential Impacts and Constraints with Regard to Air Quality

The following discussion provides an overview of potential impacts and constraints occurring with existing or anticipated future conditions within the Plan Area. The discussion is based upon the findings of the Final EIR for the Fifth Amendment to the Central Imperial Redevelopment Plan and has been updated to reflect current conditions, as appropriate, and as to the extent that data was available.

Short-Term - Construction

Future development within the Plan Area would generate emissions during the construction phase as the result of demolition of existing land uses, grading and building activities, and the use of construction-related vehicles and equipment. With all future development, and in particular with projects located adjacent to sensitive receptors, such activities would be required to be conducted consistent with all applicable Federal, State, and local standards and requirements and local standard development procedures (i.e. utilizing water or dust control agents, properly maintaining diesel-powered construction equipment, washing of trucks prior to leaving the site, etc.) intended to minimize air quality emissions to ensure that potential impacts are reduced to less than significant, or to the extent feasible. Although the scope and duration of construction activities would vary based on the size and type of any future project proposed, no specific constraints with regard to air quality were identified, as the potential effects on sensitive receptors would be reduced through adherence to standard and project-specific mitigation or design measures. Future construction activities within the Plan Area may generate emissions that would be experienced by adjacent or surrounding sensitive land uses; however, such impacts would be temporary and are not expected to be significant or to represent a constraint to future development within the Plan Area.

Potential Constraints: None identified.

Long-Term - Operation

Mobile Sources

Long-term emissions would be generated by mobile sources (motorized vehicle travel) and stationary sources (localized energy consumption), within the Plan Area. Although future development would result in additional area vehicle trips that would generate emissions, overall, continued implementation of Federal, State, and local mobile source air pollution control programs and use of clean-fueled vehicles is anticipated to result in decreases in pollution concentrations, as has occurred over the last several decades.

It is not anticipated that heavy industrial uses would be developed within the Plan Area that would potentially represent a constraint to locating sensitive land uses in the vicinity, due to emissions from operational activities. The land uses anticipated, such as light industrial, commercial, business park, institutional, or open space/parks, are not anticipated to generate significant emissions during operation that would substantially affect a large number of sensitive receptors within the Plan Area or beyond. Additionally, any emissions generated by larger-scale developments that would generate high volumes of traffic and related vehicle emissions would be required to conduct a project-specific air quality analysis to ensure that established Federal or State pollutant thresholds are not exceeded, or are reduced to the extent feasible. Additionally, all future development within the Plan Area would be required to conform to applicable Federal, State, and local regulations, as well as City of San Diego General Plan goals and policies and mitigation measures given in the Final Program EIR for the City General Plan to reduce air quality impacts, thereby minimizing potential constraints caused by emissions adversely affecting sensitive land uses.

Potential Constraints: None identified.

CO Hot Spots

Future development within the Plan Area would potentially generate traffic on area roadways and increase the exposure of sensitive receptors to carbon monoxide (CO) levels in excess of State and Federal standards, creating CO hot spots. These CO hot spots generally occur in areas where there is a poor level of service (LOS) on roadways where cars idle at heavily-utilized, congested intersections, particularly in morning hours when atmospheric conditions may restrict or otherwise affect air flows.

Presently, three intersections within the Project vicinity operate at LOS E or below and may result in the occurrence of CO hot spots. These intersections (unsignalized) include Euclid Avenue and SR 94 (Westbound Ramp) at LOS F; Euclid Avenue and SR 94 (Eastbound Ramp) at LOS E;

and, 47th Street and "A" Street at LOS E. These intersections are listed in Table 6-3: *Poorly Operating Intersections*, below.

Additionally, seven intersections in the Project vicinity were identified as performing at LOS E or below and may result in the occurrence of CO hot spots, as evaluated in the Traffic Analysis prepared for the Fifth Amendment to the Central Imperial Redevelopment Plan by Rick Engineering in 2008 . The LOS at each intersection was modeled for 2030 conditions, which would encompass anticipated buildout of the Plan Area. These intersections are listed in Table 3-6: *Poorly Operating Intersections*, below. Plan Area

Figure 6-1, *Sensitive Receptor Locations*, identifies the location of the CO hot spots. Three of these locations occur within the Plan area and may result in an increased potential for air quality impacts on sensitive receptors in the vicinity as future development within the Plan Area occurs. It is recommended that project-specific analyses be conducted for any future residential or other sensitive land use proposed in proximity to any of these (or other) highly congested, poorly operating intersections at the time development is proposed to determine potential effects and constraints; however, it is anticipated that mitigation measures would be implemented to reduce any impacts to less than significant, or to the extent feasible, as appropriate.

Potential Constraints: Existing (or future) CO hotspots may restrict the potential location of sensitive receptors (residential uses) within adjacent areas.

Table 6-3: Poorly Operating Intersections

Intersections	Existing LOS (2008)	Projected LOS (Year 2030)
47th Street/A Street	E	F
Euclid Avenue/SR 94 Interchange	E/F	F
Euclid Avenue/Market Street	--	F
47th Street/Market Street	--	F
Imperial Avenue/47th Street	--	E
Imperial Avenue/54th Street	--	F
Imperial Avenue/I-805 Southbound Ramps	--	E

Source: Rick Engineering Company, 2008.

Transit

Three bus routes operated by the Metropolitan Transit System (MTS) traverse the Plan Area: one running east/west along Market Street; one running north/south along Euclid Avenue; and, one extending east/west along Imperial Avenue. Bus travel along these routes occurs adjacent to several areas that presently support multi- and single-family land uses, which may represent potential constraints if adverse air quality conditions were to result from operation of the buses; refer to Figure 6-1, *Sensitive Receptor Locations – Air Quality*. Although such routes should be encouraged within residential areas to improve ridership and facilitate the mobility of area residents, design and/or mitigation measures may be required to reduce potential air quality impacts on planned adjacent sensitive receptors. Such measures may entail relocating bus stops away from areas of high sensitivity; reducing the length of time buses are allowed to idle at each bus stop or staging area, or utilizing hybrid or similar vehicles with start/stop technologies to eliminate idling; and/or, actively supporting efforts to transition the entire bus fleet operated by the MTS to clean-fueled (i.e. natural gas) buses.

A trolley line (light rail) operated by the MTS runs east-west from west of I-805 through the Plan Area and to points father to the east; refer to Figure 6-1, *Sensitive Receptor Locations*. Trolley stops along this line in the Project vicinity are located just west of 47th Street and just west of Euclid Avenue and south of Market within the Plan Area; however, as the Trolley line is electric and would not generate emissions from the burning of fossil fuel sources, land use constraints with regard to air quality emissions that would affect sensitive receptors within the Plan Area are not anticipated.

It should be noted that with future development of the Euclid and Market Village Master Plan Area, an increase in density of land uses is anticipated, with a focus on increased mobility and transit-oriented development. As a result, increased trolley activity would occur within the Plan Area to encourage ridership and improve mobility of both residents and visitors. This may in turn result in an increase in traffic congestion at the grade crossing located at Euclid Avenue, as traffic would be required to stop at the intersection when the trolley is present and loading/unloading passengers. As such conditions may increase the potential effects of vehicular emissions in these areas, additional evaluation for air quality impacts may be appropriate in the future to determine conditions at that time.

Potential Constraints: Operation of buses along existing or planned bus routes may result in the exposure of sensitive receptors to increased emissions from buses, particularly in areas where buses would idle, or where bus travel occurs immediately adjacent to sensitive receptors (i.e. residential neighborhoods).

Greenhouse Gases

Greenhouse gases (GHGs) are defined as those gases that occur naturally and anthropogenic chemical compounds within the atmosphere that absorb and reflect infrared radiation emitted by the Earth's surface, ultimately causing a warming trend. The most abundant greenhouse gases are water vapor and carbon dioxide. Other greenhouse gases include methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexide. Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of greenhouse gases, scientists have established a Global Warming Potential (GWP) for each greenhouse gas, based on its ability to absorb and re-radiate long wave radiation, and utilizing carbon dioxide as the reference gas with a GWP of one (1).

Vehicle trips associated with the Plan Area are (and would be) the greatest generator of GHGs. Based on traffic modeling performed for the Fifth Amendment to the Central Imperial Redevelopment Plan, the Project as analyzed was determined to generate 37,798 average daily trips (ADT), which would contribute 171,867.5 pounds of CO_2 emissions per day, or $1/100^{th}$ of one percent of the overall daily vehicular-generated CO_2 level within the State. Additionally, Project-generated GHG emissions (CO_2) from operation of the anticipated land uses were calculated to be 42.422.7 pounds per day. The Project's contribution to GHG emissions to result in an increase in temperature within the State would be insignificant; however, because development activities would increase GHG emissions and would conflict with California Assembly Bill 32 (AB 32), which is intended to reduce GHG emissions by 25 percent by the year 2020, significant air quality impacts would occur. The generation of GHGs with future development of the Plan Area would be influenced by proximity to public transit and public services and well-designed, pedestrian-friendly neighborhoods to reduce vehicle miles traveled; however, no constraints with regard to GHG emissions were identified.

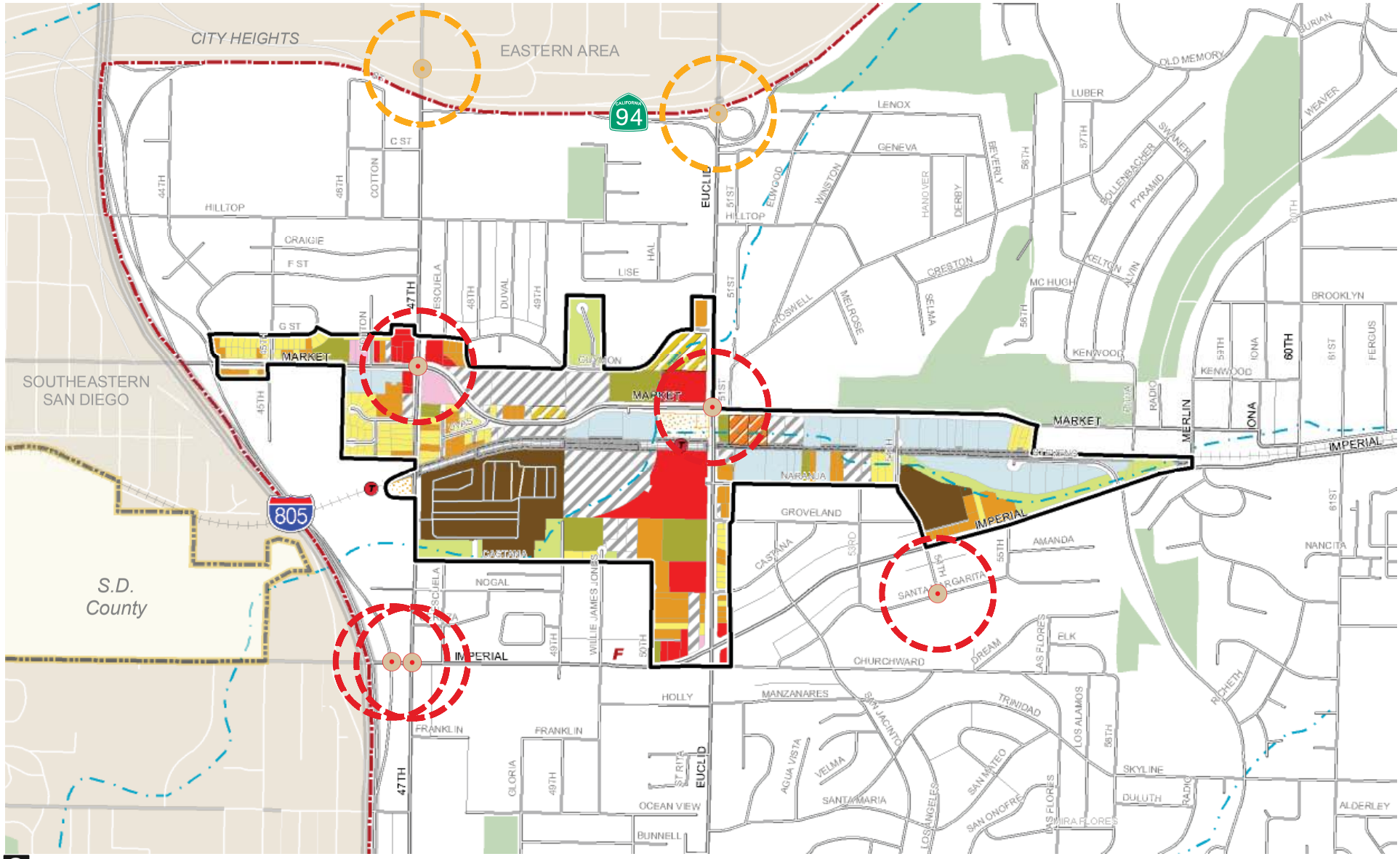
Additionally, the City's adopted General Plan has integrated goals and policies within the Conservation; Land Use and Community Planning; Mobility; Urban Design; and, Public Facilities, Services, and Safety Elements that are intended to achieve a reduction in potential cumulative impacts resulting from GHG emissions and climate change. Additionally, mitigation measures to achieve these goals and policies and reduce potential impacts are identified in the Final EIR for the City's General Plan and would be implemented, as applicable, by future development projects in the Plan Area to ensure consistency with the General Plan. Furthermore, all future development projects would be required to comply with other applicable Federal, State, and local regulations aimed at reducing GHGs to minimize cumulative effects to the extent feasible.

Potential Constraints: None identified.

Odors

Development of future uses within the Plan Area would have the potential to generate potential odors; however, no specific existing odor-generating uses that would result in land use constraints were identified. Certain future land uses, such as a dry cleaning establishment, may be considered on a project-specific basis by the City to determine whether the use has the potential to generate significant odors that would adversely affect surrounding sensitive receptors, thereby creating a potential conflict.

Potential Constraints: None identified.



LEGEND

Hot Spots
- Existing
- Future (2030)

Existing Land Use
- Institutional
- Commercial
- Office
- Light Industry
- Single-Family
- Multi-Family
- Mobile Home Park
- Open Space
- Utilities
- Other Transportation
- Rail Road
- Rail Terminal
- Warehousing
- Parking/ Vacant Lot

- **Market & Euclid Master Plan Project Area**
- **Community Plan Boundary**
- **Areas Outside City of San Diego**
- Trolley Stop
- Trolley

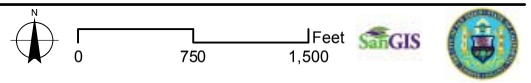


FIGURE 6-1: SENSITIVE RECEPTORS LOCATIONS - AIR QUALITY

NOISE

The following summary is based on the Noise analysis given in the March 2009 Final EIR for the Fifth Amendment to the Central Imperial Redevelopment Plan (Redevelopment Plan). The technical noise study, *Environmental Noise Study for the Proposed Fifth Amendment to the Central Imperial Redevelopment Plan in the City of San Diego*, prepared by Wieland Associates, Inc. (September 2006), which provided the data for the Final EIR evaluation of potential noise impacts, is included in Volume II, Appendix D, of the Final EIR. The majority of the 16 FEIR "Redevelopment Activity Areas" studied fall within the boundaries of the proposed Euclid and Market Village Master Plan Area (Plan Area). As such, they are evaluated herein to determine their potential to represent land use constraints to future redevelopment activities. When applicable, and where additional data was available, discussion of the Plan Area has been updated to better reflect existing conditions that may present potential land use conflicts.

The following table provides a brief summary of the findings described herein:

Sensitive Receptors (Noise)	▫ Land uses considered to be sensitive receptors include schools, residential uses, day care centers, community centers, parks, and homes for the elderly.
Potential Constraints	▫ Existing residential land uses along segments of Euclid Avenue, 47th Street, Imperial Avenue, 1-805, portions of Market Street, SR-94 (north and south sides), and Woodman Street experience traffic noise levels that exceed, and will continue to exceed in the future, the City's 65dB threshold. ▫ Existing office land use types along 1-805, and SR-94 (north and south sides) are exposed to traffic noise levels that exceed, and will continue to exceed in the future, the City's 70dB standard. ▫ Existing commercial and industrial land use types along 1-805 and SR-94 (north and south sides) are exposed to traffic noise levels that exceed, and will continue to exceed in the future, the City's 75dB standard. ▫ Groundborne vibration from operation of the trolley system would exceed noise standards at 72VdB for residential uses and 75VdB for commercial uses (for more than 70 vibration events per day). These noise levels would be achieved at a distance of approximately 60 feet and 38 feet, respectively, measured from the nearest trolley tracks. ▫ Interior noise levels are anticipated to potentially exceed the 45dB noise threshold at future residential uses within the Plan Area due to

	proximity to the trolley line, I-805, SR 94, Market Street, Euclid Street, Imperial Avenue, Woodman Street, and 47th Street, and would require appropriate distance or insulation/isolation to reduce noise levels to less than significant. ▫ Assuming that future commercial/retail development would include operation during the hours of 7:00 p.m. to 10:00 p.m., when surrounding land uses would be more sensitive, significant noise levels are anticipated if mechanical equipment is located within approximately 225 feet of an R-1 residential zone, 125 feet of an R-2 residential zone, 70 feet of an R-3 or R-4 residential zone, 40 feet of a commercial zone, or 7 feet of an industrial zone.

Existing Conditions

The Plan Area is located in a highly-urbanized area within the City of San Diego. Notable sources of noise include vehicles traveling along area roadways, in particular I-805 to the west, and Market Street, Euclid Avenue, and Imperial Avenue within the Plan Area, and operation of existing uses such as commercial or industrial establishments. The San Diego Trolley also runs east-west through the central portion of the site, and generates temporary, periodic increases in area noise levels upon scheduled arrivals/departures. Additionally, ambient noise levels within the Plan Area are temporarily increased as the result of aircraft flying over the site and landing at the San Diego International Airport, located approximately five miles to the northwest of the site.

Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others because of the amount of noise exposure, in terms of both duration and insulation from noise, and the types of activities typically involved. Land uses considered to be sensitive typically include schools, residential uses, day care centers, and homes for the elderly. As such, the sighting of sensitive land uses should be considered with regard to potential land use conflicts and adverse effects on such populations.

Sensitive land uses either adjacent or within close proximity to the Plan Area include a number of schools to immediately adjacent and within close proximity to the south, north, and west; however, no schools are present within the Plan Area boundary. Additionally, existing single- and multi-family residential uses are present both within and adjacent to the Plan Area. Two mobile home parks are located in the southwesterly and easterly portions of the Plan Area. Other than the residential uses, no other noise sensitive land uses occur within the Plan Area.

Noise

The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the A-weighted decibel.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In general, a 1 dB change in the sound pressure levels of a given sound is detectable only under laboratory conditions. A 3 dB change in sound pressure level is considered a “just detectable” difference in most situations. A 5 dB change is readily noticeable and a 10 dB change is considered a doubling (or halving) of the subjective loudness. It should be noted that, generally speaking, a 3 dBA increase or decrease in the average traffic noise level is realized by a doubling or halving of the traffic volume, or by about a seven mile per hour increase or decrease in speed.

Many methods have been developed for evaluating community noise to account for the variation of noise levels over time, the influence of periodic individual loud events, and a community’s response to changes in the community noise environment. The State Department of Aeronautics and the California Commission of Housing and Community Development have adopted the community noise equivalent level (CNEL) measure of noise exposure. This measure considers an A-weighted noise level averaged for the evening hours, 7:00 p.m. to 10:00 p.m. increased by 5dB, and the late evening and early morning hourly noise levels, 10:00 p.m. to 7:00 a.m., increased by 10dB. Daytime noise levels are added to these weighted levels and then an average is calculated to obtain a CNEL value.

City of San Diego General Plan

The Noise Element of the City of San Diego General Plan Noise Element is intended "To protect people living and working in the City of San Diego from an excessive noise environment." The Noise Element addresses several key issue areas which include Noise and Land Use Compatibility; Motor Vehicle Traffic Noise; Trolley and Train Noise; Aircraft Noise; Commercial and Mixed-Use Activity Noise; Industrial Activity Noise; Construction, Refuse Vehicles, Parking Lot Sweepers, and Public Nuisance Noise; and, Typical Noise Attenuation Methods. Examples of suggested noise attenuation methods identified in the Noise Element are listed as Additional Measures at the end of this summary.

Additionally, the Mobility Element addresses the following issues that may affect the noise environment: Walkable Communities; Transit First; Transportation Demand Management (TDM); Bicycling; Passenger Rail; and Goods Movement/Freight.

City of San Diego Noise Ordinance

Table 6-4, below, provides the City of San Diego Noise Ordinance standards for varying land uses. Wherein the one-hour average sound level exceeds the applicable limit given in the Table 6-4, on or beyond the boundaries of the property on which the noise is produced would be considered significant.

Table 6-4: Sound Level Limits

Land Use Zone	Time of Day	One-Hour Average Sound Level (dB)
All R-1 residential	7 AM to 7 PM 7 PM to 10 PM 10 PM to 7 AM	50 45 40
All R-2 residential	7 AM to 7 PM 7 PM to 10 PM 10 PM to 7 AM	55 50 45
R-3, R-4, and all other residential	7 AM to 7 PM 7 PM to 10 PM 10 PM to 7 AM	60 55 50
All commercial	7 AM to 7 PM 7 PM to 10 PM 10 PM to 7 AM	65 60 60
Manufacturing all other industrial including agriculture and extractive industry	Anytime	75

Source: City of San Diego Municipal Code, Chapter 5 – Public Safety, Morals, and Welfare, Article 9.5 – Noise Abatement and Control, Division 4 – Limits (59.5.0404).

Existing Noise Levels

The greatest noise generator within the Plan Area is vehicular traffic noise. Other potential sources of noise include commercial and industrial uses, sand and gravel extraction activities, and operation of the San Diego Trolley. Measured ambient noise levels at 10 locations are shown in Table 6-5, below.

Table 6-5: Ambient Noise Level Measurements

Monitoring Location #	Monitoring Location	Equivalent/Nearest Redevelopment Activity Site	Measured Noise Levels, Leq (dB(A))
1	Adjacent to 1038 Euclid Avenue	Hilltop & Euclid Residential (#1)	60.3
2	Adjacent to 1036 Euclid Avenue	Hilltop & Euclid Residential (#1)	71.4
3	Adjacent to 4822 Market Street	Village Center at Euclid and Market (#3)	64.3
4	On site – Lincoln Park Paseo Phase I Residential	Lincoln Park Paseo Phase I Residential (#4) and Imperial Avenue Master Plan (#7, west)	58.0
5	Corner of Ocean View Boulevard and Willie James Jones Avenue	Lincoln Park Paseo – Phase II (#5)	52.1
6	Adjacent to 325 54th Street	54th & Imperial Residential Valencia Villas (#6)	55.5
7	Adjacent to 6219 Imperial Avenue	Imperial Avenue Master Plan (#7, east)	62.2
8	Across from 5305 Naranja Avenue	Naranja & 53rd Street Residential (#8)	57.6
9	Vacant property across from 420 45th Street	45th & Ocean View Residential (#9)	54.0
10	Adjacent to 151 YMCA Way	Jackie Robinson YMCA Expansion (#10)	66.7

Note: Leq is the equivalent (i.e., average) noise level during the measurement period.

Source: Wieland Associates, 2006.

Key roadways in and around the Plan Area along which vehicle traffic generates high levels of noise include I-805, SR-94, Euclid Avenue, Imperial Avenue, 47th Street, and Market Street. Table 6-5 identifies existing traffic noise levels.

Table 6-6: Existing Traffic Noise Levels

Arterial/Reach	Unmitigated CNEL @ 50 Feet	Distance to CNEL Contour				
		60 dB (ft.)	65 dB (ft.)	70 dB (ft.)	75 dB (ft.)	80 dB (ft.)
Euclid Avenue						
Federal to SR-94	70.0dB	300	130	50	---	---
SR-94 to Market	68.0dB	215	90	---	---	---
Market to Imperial	68.0dB	215	90	---	---	---
Imperial to Logan	65.5dB	143	56	---	---	---
South of Logan	64.5dB	76	---	---	---	---
47th Street						
Federal to SR-94	66.0dB	155	62	---	---	---
SR-94 to Market	65.5dB	143	56	---	---	---
Market to Imperial	66.0dB	82	57	---	---	---
Imperial to Ocean View	66.0dB	82	57	---	---	---
Imperial Avenue						
West of I-805	69.0dB	255	110	---	---	---
I-805 to Euclid	69.0dB	255	110	---	---	---
Euclid to Valencia	67.5dB	200	83	---	---	---
Valencia to Woodman	68.5dB	235	100	---	---	---
Woodman to 69th	68.5dB	235	100	---	---	---
East of 69th	67.5dB	200	83	---	---	---
Interstate 805 (I-805)						
SR-94 to Market	84.5dB	890	530	203	98	76
Market to Imperial	85.0dB	930	560	235	100	78

Table 6-6, continued

Arterial/Reach	Unmitigated CNEL @ 50 Feet	Distance to CNEL Contour				
		60 dB (ft.)	65 dB (ft.)	70 dB (ft.)	75 dB (ft.)	80 dB (ft.)
South of Imperial	84.5dB	890	530	203	98	76
Market Street						
West of I-805	67.0dB	185	75	---	---	---
I-805 to 47th	65.5dB	143	56	---	---	--
47th to Euclid	64.0dB	110	---	---	---	---
East of Euclid	67.0dB	185	75	---	---	---
State Route 94 (SR-94) North Side						
I-805 to 47th	83.0dB	770	440	140	90	69
47th to Euclid	83.0dB	770	440	140	90	69
Euclid to Kelton	83.0dB	770	440	140	90	69
State Route 94 (SR-94) South Side						
I-805 to 47th	83.0dB	1,400	860	460	---	---
47th to Euclid	83.0dB	1,400	860	460	---	---
Euclid to Kelton	83.0dB	1,400	860	460	---	---
Valencia Parkway						
South of Imperial	63.0dB	69	---	---	---	---
Woodman Street						
South of Imperial	65.0dB	78	50	---	---	---

Source: Wieland Associates, Inc., 2006

Additionally, the San Diego Trolley line runs through the Plan Area, generally east-west along Market Street and Imperial Avenue. The trolley generates noise within the Plan Area. Estimated CNEL generated by the trolley is 67dB at a distance of 50 feet from the tracks. Previous measurements have identified that movement of the trolley generates maximum noise levels of 70 to 85dB(A) at adjacent properties.

Operation of the trolley results in groundborne vibration, measured in terms of the velocity of the vibration oscillations. In general, groundborne vibration that exceeds 72VdB(for more than 70 vibration events per day) is typically considered as annoying to those occupying adjacent structures. Damage from vibration generally occurs when vibration levels exceed 1OOVdB. Groundborne vibration associated with the trolley is estimated at 72VdB at a distance of 60 feet from the tracks.

Thresholds of Significance

According to the City of San Diego's Significance Determination Thresholds, impacts to noise would be considered significant if the project would:

- Generate temporary or periodic construction noise that exceeds 75dB during the 12-hour period from 7:00 a.m. to 7:00 p.m. at or beyond the property lines of any property zoned residential;
- Generate temporary construction noise that would substantially interfere with normal business communication, or affect sensitive receptors, such as day care facilities or residential uses;
- Result or create a significant increase in the existing ambient noise levels:
- Expose people to noise levels which exceed the City's adopted noise ordinance or are incompatible as identified in Table 6-4;
- Project-related traffic at any off-site location causes the CNEL to exceed the standards identified in Table 6-7; and/or,
- Generate noise levels at the property line which exceed the City's Noise Ordinance Standards.

Table 6-7: Traffic Noise Significance Thresholds (dBA CNEL)

Structure or Proposed Use That Would Be Impacted by Traffic Noise	Interior Space	Exterior Usable Space[1]	General Indication of Potential Significance
Single-family detached	45dB	65dB	Structure or outdoor usable area[2] is less than 50 feet from the corner of the closest (outside) lane on a street with existing or future ADTs greater than 7500
Multi-family, schools, libraries, hospitals, day care, hotels, motels, parks, convalescent homes.	Development Services Department (DSD) ensures 45dB pursuant to Title 24	65dB	

Table 6-7, continued

Structure or Proposed Use That Would Be Impacted by Traffic Noise	Interior Space	Exterior Usable Space[1]	General Indication of Potential Significance
Offices, Churches, Business, Professional Uses.	N/A	70dB	Structure or outdoor usable area[2] is less than 50 feet from the corner of the closest (outside) lane on a street with existing or future ADTs greater than or equal to 20,000
Commercial, Retail, Industrial, Outdoor Spectator Sports Uses.	N/A	75dB	Structure or outdoor usable area[2] is less than 50 feet from the corner of the closest (outside) lane on a street with existing or future ADTs greater than or equal to 40,000

Notes: 1=If a project is currently at or exceeds the significance thresholds for traffic noise described above and noise levels would result in less than a 3dB increase, then the impact is not considered significant. 2=Exterior usable areas do not include residential front yards or balconies, unless the areas such as balconies are part of the required usable open space calculation for multi-family units.

Source: City of San Diego Significance Determination Thresholds (January 2007).

Potential Impacts and Constraints with Regard to Noise

The following discussion provides an overview of potential impacts and constraints occurring with existing or anticipated future conditions within the Plan Area. The discussion is based upon the findings of the *Final EIR for the Fifth Amendment to the Central Imperial Redevelopment Plan* and has been updated to reflect current conditions, as appropriate, and as to the extent that data was available. The FEIR identified stationary noise sources associated with planned development of Redevelopment Sites 1 and 3 through 10. Sites 1, 3, 7, and 10 had one or more stationary sources that could result in significant impacts resulting from outdoor recreational activities, parking lot activities, delivery truck activities, and/or mechanical equipment.

Short-Term - Construction

Future redevelopment activities within the Plan Area would generate noise from construction activities, including demolition of existing land uses, grading, excavation, construction of new facilities, and the use of construction vehicles and equipment.

With all future development, and in particular with projects located adjacent to sensitive receptors, such activities would be required to be conducted consistent with all applicable Federal, State, and local standards and requirements and local standard development procedures intended to minimize noise levels to ensure that potential impacts are reduced to less than significant, or to the extent feasible. Construction for all future redevelopment would be required to comply with the City of San Diego Municipal Code Section 59.5.040 to ensure that established noise thresholds are not exceeded, or that significant noise impacts are reduced to the extent feasible. If future demolition, site clearing and grading, or construction activities occur at distances of less than 50 feet (demolition), 45 feet (clearing and grading), or 89 feet (construction activities), the City's noise standard of 75dB(A) would be exceeded at or beyond the property line of any property zoned residential.

Although the scope and duration of construction activities would vary based on the size and type of any future projects proposed, no specific constraints with regard to noise were identified, as the potential effects on sensitive receptors would be reduced through adherence to standard and/or project-specific mitigation or design measures. Future construction activities within the Plan Area may generate increased noise levels that would be experienced by adjacent or surrounding sensitive land uses; however, such impacts would be temporary and are not expected to be significant or to represent a constraint to future development within the Plan Area.

Potential Constraints: None identified.

Long-Term - Operation

The following noise sources would have the potential to generate significant noise levels within the Plan Area as the result of typical daily operational activities. Long-term noise would be generated by mobile sources (motorized vehicle travel) and stationary sources (operation), within the Plan Area.

Traffic Noise Levels

The *Final EIR for the Fifth Amendment to the Central Imperial Redevelopment Pla*n indicated that existing residential land uses along segments of Euclid Avenue, 47th Street, lmperial Avenue, 1-805, portions of Market Street, SR-94 (north and south sides), and Woodman Street

experience traffic noise levels that exceeded, and will continue to exceed in the future, the City's established 65dB threshold. Similarly, existing office land use types along 1-805, and SR-94 (north and south sides) are exposed to traffic noise levels that exceed, and will continue to exceed, the City's 70dB standard. Existing commercial and industrial land use types along 1-805 and SR-94 (north and south sides) were also identified as being exposed to traffic noise levels that exceeded, and will continue to exceed, the City's 75dB standard. Refer also to Table 6-6: *Existing Traffic Noise Levels*, for potentially constrained areas with regard to noise.

Significant noise levels along these roadway segments may act as a potential constraint to future redevelopment activities within the Plan Area. As occupants in these areas would experience adverse effects of noise, current (and future) noise conditions should be considered in the planning of uses in these areas, as some uses may be more appropriate (i.e. office use versus residential). Additionally, as redevelopment would occur over future years, reassessment of the current conditions at the time when development is proposed would be required to determine if conditions have changed (i.e. worsened), or if changes in the physical landscape (i.e. large structures, walls, or landscaping that would buffer roadway noise) have occurred.

Potential Constraints: Noise level thresholds along segments of Euclid Avenue, 47th Street, lmperial Avenue, 1-805, portions of Market Street, SR-94 (north and south sides), and Woodman Street are currently exceeded. Future location of noise sensitive land uses along these segments would be constricted due to noise and such effects should be considered in future land use planning.

Stationary Noise Impacts

Outdoor Recreational

Future redevelopment that includes outdoor recreational uses would have the potential to increase noise levels and impacts sensitive receptors that may be adjacent to the use. Potential impacts would vary based on the type and scale of activity proposed, operating characteristics (number of users, daytime v. nighttime use, hardcourt v. playfield, etc.), and intervening topography or structures that may serve to buffer noise effects on offsite uses. Significant noise impacts would require mitigation to reduce potential noise levels to less than significant; however, such uses are not considered to represent a constraint with regard to future redevelopment of the Plan Area.

Potential Constraints: None identified.

Parking Lots

The estimated average noise level of a conversation (with raised voices) is 65dB(A) at a distance of three feet. This corresponds to an average level of approximately 41 dB(A) at a distance of 50 feet. Other typical activities would include people shouting, car doors slamming, cars idling, and cars starting or accelerating.

Parking lot activities associated with future redevelopment activities would be temporary and intermittent. The location of parking lots relative to adjacent properties would produce varying levels of noise, which may exceed City noise standards. Commercial/retail areas operating during the evening hours (7:00 a.m. to 10:00 p.m.), when adjacent uses would be more sensitive to increases in noise, would potentially exceed the City's noise standard if a parking lot is located within approximately 175 feet of an R-1 residential zone, 95 feet of an R-2 residential zone, 55 feet of an R-3 or R-4 residential zone, 30 feet of a commercial zone, or 5 feet of an industrial zone.

Parking lot activities may potentially increase the ambient noise level by more than 3dB, which would be considered a significant impact; however, such activities would be temporary and would therefore not be considered a constraint to future land uses within the Plan Area. Implementation of Mitigation Measure N-1 would reduce potential impacts to less than significant.

Potential Constraints: None identified.

Truck Deliveries and Loading Docks

Truck deliveries and/or loading dock activities associated with future commercial, retail, and industrial areas would have the potential to increase noise levels and impact sensitive receptors within adjacent areas. Loading dock activities are estimated to generate an average noise level of 64dB(A).

Assuming that loading docks would only operate during daytime hours (7:00 a.m. to 7:00 p.m.), such activities would exceed the City's thresholds if located within approximately 1,052 feet of an R-1 residential zone, 590 feet of an R-2 residential zone, 330 feet of an R-3 or R-4 residential zone, 190 feet of a commercial zone, or 60 feet of an industrial zone. It is anticipated that, although temporary and intermittent, loading dock activities would increase the ambient noise level by more than 3dB, and therefore, significant impacts on sensitive receptors would result.

Although effects on sensitive receptors would be reduced through mitigation and through such design measures as restricting operating hours, location of the loading dock relative to

surrounding uses and other methods, potential land use constraints with regard to future redevelopment activities are not anticipated. Implementation of Mitigation Measure N-1 would reduce impacts to less than significant.

Potential Constraints: None identified.

Mechanical Equipment

Mechanical equipment noise would be associated with commercial, retail, office, residential, and light industrial uses. Noise generated would vary based on the type of equipment used, length of use, and distance to surrounding sensitive receptors.

Utilizing available manufacturers' data, noise levels produced by typical Heating, Ventilation and Air Conditioning (HVAC) equipment (such as air conditioning or refrigeration units) are in the range of 41-58dB(A) at a distance of 50 feet. Depending on the type of equipment used and where it is located relative to nearby properties, noise levels produced by the mechanical equipment may exceed the City's standards. Assuming that future commercial/retail development would include operation during the hours of 7:00 p.m. to 10:00 p.m., when surrounding land uses would be more sensitive, a significant impact would occur if mechanical equipment is located within approximately 225 feet of an R-1 residential zone, 125 feet of an R-2 residential zone, 70 feet of an R-3 or R-4 residential zone, 40 feet of a commercial zone, or 7 feet of an industrial zone.

Additionally, light industrial uses within the Plan Area would vary and may generate low noise levels (fabrication facilities) or high noise levels (auto repair). Therefore, it is assumed that light industrial uses would have the potential to generate high noise levels resulting in a significant impact. Implementation of Mitigation Measure N-1 would reduce such impacts to less than significant.

Potential Constraints: Operation of mechanical equipment would have the potential to impact sensitive noise receptors during nighttime hours if located within approximately 225 feet of an R-1 residential zone, 125 feet of an R-2 residential zone, 70 feet of an R-3 or R-4 residential zone, 40 feet of a commercial zone, or 7 feet of an industrial zone. Additionally, due to operational noise characteristics, light industrial uses should be distanced from sensitive receptors, such as residential uses.

Exterior Noise Levels

Existing and future offsite noise sources would have the potential to adverse affect the Plan Area. Such noise would be generated by vehicle traffic on surrounding roadways and by such stationary

uses as parks or outdoor areas, schools, commercial/industrial uses, and transit-related uses (i.e. intermodal center at Market Street and Euclid, which operates during nighttime hours). Table 6-8 identifies anticipated noise levels within the Redevelopment Activity Areas identified in the *Final EIR for the Proposed Fifth Amendment to the Central Imperial Redevelopment Plan*, and indicates that noise thresholds would be exceeded at all but one of the areas, due to proximity to roadways and/or transit. As such, it is anticipated that similar noise levels would be experienced within the Plan Area, and therefore, may pose a land use constraint to siting sensitive receptors within proximity to these areas.

Potential Constraints: Exterior noise levels may be exceeded at sensitive land uses located along I-805; SR-94; Market Street; Euclid Avenue; the trolley line and/or intermodal center; Imperial Avenue, Woodman Street, and 47th Street. Table 6-8, below, identifies the specific distances required from these sources to reduce noise levels to below the established thresholds.

Table 6-8: Summary of Estimated Exterior Noise Levels

Redevelopment Activity	General Location	Exterior Noise Levels	Significant?
#3 – Village Center at Euclid and Market	Surrounding and adjacent to Market Creek Plaza on Euclid Avenue and Market Street	The exterior CNEL will exceed 65dB if proposed residences and parks are located within 56 feet – 83 feet of Market Street, 72 feet of 47th Street, 120 feet – 143 feet of Euclid Avenue, 95 feet of the intermodal center, or 80 feet of the trolley line. The exterior CNEL will exceed 70 dB if proposed office uses are located within 25 feet of the trolley line or 53 feet of the intermodal center. The exterior CNEL will exceed 75dB if proposed commercial/industrial uses are located within 10 feet of the trolley line or 30 feet of the intermodal center. The exterior Leq will exceed 45 – 50 dB(A) if proposed residences are located within 450 feet – 790 feet of the intermodal center. The exterior Leq will exceed 60dB(A) if a proposed commercial use is located	CNEL 65 dB – Yes 70 dB – Yes 75dB – Yes Leq 45-50 dB(A) – Yes 60 dB(A) – Yes 75 dB(A) – Yes

Table 6.2-5, continued

Redevelopment Activity	General Location	Exterior Noise Levels	Significant?
		within 140 feet of the intermodal center. The exterior Leq will exceed 75 dB(A) if a proposed industrial use is located within 25 feet of the intermodal center.	
#4 – Lincoln Park Paseo Phase I Residential	5003 Imperial Avenue	The exterior CNEL will exceed 65dB if proposed residences are located within 130 feet of Imperial Avenue	65dB – Yes 70dB – No 75dB – No
#5 – Lincoln Park Paseo Phase II Residential	East of Willie James Jones Avenue between Holly Drive and Ocean View Boulevard	The exterior CNEL will not exceed 65dB at any proposed residence.	65dB – No 70dB – No 75dB – No
#6 – 54th & Imperial Residential Valencia Villas	325 N. 54th Street	The exterior CNEL will exceed 65dB if proposed residences are located within 120 feet of Imperial Avenue or 80 feet of the trolley line.	65dB – Yes 70dB – No 75dB – No
Source: Wieland Associates, Inc., 2006.			

Groundbourne Noise

Operation of the existing trolley system would result in groundbourne noise. Affected areas would generally be within the central portion of the Plan Area, between Market Street and Imperial Avenue. Noise modeling for these areas determined that groundbourne vibration levels are 72VdB at 60 feet from the trolley tracks and 75VdB at 38 feet from the trolley tracks. These sound levels are generally accepted as the threshold at which groundbourne vibration begins to cause human annoyance at residential uses and commercial, office, and industrial uses, respectively.

Although noise generated from present and future operation of the trolley would cause annoyance, the anticipated noise levels would not be not high enough to cause structural damage; however, such noise effects may represent a potential constraint to future land uses within the Plan Area. As such, commercial, office and industrial uses may be better suited for location closer to the trolley tracks and could serve as a buffer for residential uses.

Potential Constraints: Noise resulting from groundbourne vibration from operation of the trolley system would exceed established thresholds at various uses within the Plan Area. To reduce significant noise levels, residential uses are restricted to greater than 60 feet from the trolley line, and commercial, office and industrial buildings are restricted to approximately 38 feet of the trolley line.

Interior Noise Levels

For standard residential construction, a reduction of at least 20dB is generally achieved with all of the windows and doors closed; however, even under such conditions, noise thresholds would likely be exceeded at a number of uses within the Plan Area. As shown in Table 6-9, below, the estimated interior noise levels at the majority of redevelopment activity sites identified in the *Central Imperial Redevelopment Plan* would exceed the established threshold of 45dB at residential uses. Implementation of Mitigation Measure N-1 would reduce these impacts to less than significant.

As it is anticipated that interior noise thresholds would be exceeded at various areas throughout the Plan Area, potential land use constraints may occur with future redevelopment activities. Although the location of sensitive land uses should be considered with regard to distancing such uses from areas where significant noise levels would occur, the required reduction in noise levels may also be achieved with new construction or through retrofits by installing sound-rated doors and windows and other features (such as sound walls or berms or landscaping). As such, potential land use constraints may otherwise be overcome.

Potential Constraints: Interior noise level thresholds would be exceeded at residential uses within the Plan Area and may therefore restrict the location of uses. As such, future location of noise sensitive land uses in these areas and the adverse effects of such noise should be considered in future land use planning.

Table 6-9: Summary of Estimated Interior Noise Levels

Redevelopment Activity	General Location	Exterior Noise Levels	Threshold/ Significance?
#1 – Hilltop & Euclid Residential	North of Hilltop Drive and West of Euclid Avenue	The interior CNEL will exceed 45dB if proposed residences are located within 143 feet of Euclid Avenue or 950 feet of SR-94.	45dB – Yes

Table 6-9, continued

Redevelopment Activity	General Location	Exterior Noise Levels	Threshold/ Significance?
#3 – Village Center at Euclid and Market	Surrounding and adjacent to Market Creek Plaza on Euclid Avenue and Market Street	The interior CNEL will exceed 45dB if proposed residences are located within 56 feet – 83 feet of Market Street, 72 feet of 47th Street, 120 feet – 143 feet of Euclid Avenue, 95 feet of the intermodal center, or 80 feet of the trolley line.	45dB – Yes
#4 – Lincoln Park Paseo Phase I Residential	5003 Imperial Avenue	The interior CNEL will exceed 45dB if proposed residences are located within 130 feet of Imperial Avenue.	45dB – Yes
#6 – 54th & Imperial Residential Valencia Villas	325 N. 54th Street	The interior CNEL will exceed 45dB if proposed residences are located within 120 feet of Imperial Avenue or 80 feet of the trolley line.	45dB – Yes
#7 – Imperial Avenue Corridor Master Plan	Both sides of Imperial Avenue from 47th Street to Euclid Avenue and 61st to 69th Street	The interior CNEL will exceed 45dB if proposed residences are located within 120 feet of Imperial Avenue or 80 feet of the trolley line.	45dB – Yes
#8 – Naranja & 53rd Street Residential	North of Naranja Avenue at 53rd Street	The interior CNEL will exceed 45dB if proposed residences are located within 80 feet of the trolley line.	45dB – Yes
#9 – 45th & Ocean View Residential	45th Street and Ocean View Boulevard	The interior CNEL may exceed 45dB at the proposed residences due to I-805.	45dB – Yes

HAZARDS AND HAZARDOUS MATERIALS

The following summary is based on the Final EIR for the Fifth Amendment to the Central Imperial Redevelopment Plan (Redevelopment Plan). Data and findings for the Final EIR were based on the results of the Hazardous Materials Technical Study - Central Imperial Redevelopment Plan, Sixteen Plan Areas, San Diego, California (Ninyo & Moore, June 2005), also available in Volume II, Appendix H1, of the Final EIR for the Redevelopment Plan. The majority of the 16 Final EIR "Redevelopment Activity Areas" studied fall within the boundaries of the proposed Euclid and Market Village Master Plan Area (Plan Area); refer to Figure 6-2, *Sites of Potential Environmental Concern*. As such, they are evaluated herein to determine their potential to represent land use constraints to future redevelopment activities. When applicable, and where additional data was available, discussion of the Plan Area has been updated to better reflect existing conditions that may present potential land use conflicts.

The following table provides a brief summary of the findings described herein:

Sensitive Receptors (Hazards and Hazardous Materials)	▫ Land uses considered to be sensitive receptors include schools, residential uses, day care centers, community centers, parks, and homes for the elderly. ▫ The sensitivity of a particular group may vary (or be increased), based on proximity to a known or unknown hazard or hazardous materials site [i.e. leaking underground storage tank (LUST)].
Potential Constraints	▫ Sites where hazardous conditions may pose constraints to future redevelopment are shown on Figure 6-2*, Sites of Potential Environmental Concern*. Potentially hazardous conditions anticipated or identified onsite occur within three future FEIR Redevelopment Activity Areas. ▫ Most known and identified sites included leaking underground storage tanks (LUSTs). ▫ Sites where known hazardous materials have been previously identified should be re-evaluated at the time redevelopment is proposed, as conditions may have changed since previous evaluation.

Historic Conditions

Historically, the Plan Area has supported a mixture of uses. Such uses generally include vacant/undeveloped lands, light and heavy industrial (including equipment storage) uses, and single- and multi-family residential uses, as well as mobile home parks. Historic commercial uses

have included a plant nursery, associated outdoor storage, gas stations (with potential underground storage tanks), a YMCA, and various other small-scale commercial uses. A portion of the Plan Area also formerly supported limited agricultural uses (row crops), along with an associated ranch house.

Existing Conditions

The Plan Area supports a variety of land uses, including multi- and single-family residential uses dispersed throughout the area, but generally focused in the northwesterly and southeasterly portions of the Plan Area. Two mobile home parks are also present, located in the southwesterly and easterly portions of the site. Other land uses include a mixture of commercial/office space largely focused along Euclid Avenue and Market Street. Expansive parking areas are also present to the north and south of Market Street in the central portion of the Plan Area. Additionally, light industrial uses are concentrated along the Market Street corridor in the northeasterly and central portions of the site, with similar limited uses in the northwesterly portion. Several small areas of open space also occur within the central portion of the Plan Area, adjacent to the site boundaries. A number of institutional uses (schools) are located either adjacent to the Plan Area boundary or offsite in surrounding areas to the south, north, and west.

Sensitive Receptors

Some population groups or activities are more sensitive to substantial pollutant concentrations than others. Sensitive population groups typically include children, the elderly, and the acutely and chronically ill, especially those with cardio-respiratory diseases. Residential areas are also sensitive to hazardous materials or conditions because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Land uses considered to be sensitive receptors typically include schools, residential uses, day care centers, parks, and homes for the elderly. Additionally, the sensitivity of a particular group may vary based on proximity to an identified hazard or hazardous materials site [i.e. a known underground storage tank (UST) versus a known leaking underground storage tank (LUST) that may affect a much greater population if it results in groundwater contamination]. As such, the siting of sensitive land uses should be considered with regard to potential land use conflicts and adverse effects of hazards or hazardous conditions on such populations.

Sensitive land uses either adjacent or within close proximity to the Plan Area include a number of schools to the south, north, and west. Additionally, existing single- and multi-family residential uses are present both within and adjacent to the Plan Area. Two mobile home parks are located in the southwesterly and easterly portions of the Plan Area. The Tubman/Chavez Multi-Cultural Youth Family Center is also located within the Plan Area, and may represent a potentially sensitive receptor.

Potential Impacts and Constraints with Regard to Hazardous and Hazardous Materials

The following discussion provides an overview of potential impacts and constraints occurring with existing or anticipated future conditions within the Plan Area. The discussion is based upon the findings of the Final EIR for the Fifth Amendment to the Central Imperial Redevelopment Plan and has been updated to reflect current conditions, as appropriate, and as to the extent that data was available. Mitigation measures referenced are those identified in the Final EIR for the Redevelopment Plan, unless otherwise described.

Sites of Potential Environmental Concern within the Plan Area

Environmental conditions, as identified for the area affected by the Final EIR for the Fifth Amendment to the Central Imperial Redevelopment Plan, Plan Area were determined in 2005 through a site reconnaissance of the 16 "Redevelopment Activity Areas" and adjacent lands. Additionally, an environmental database search of Federal, State, and local databases was conducted to identify previously-recorded, potentially hazardous sites within 1,000 feet of the Plan Area boundaries, which includes the proposed Plan Area. The database search identified 41 sites of potential concern within the Plan Area and surrounding areas. Based on the individual redevelopment activity areas described in the Central Imperial Redevelopment Plan, Table 6-10 below, *Summary of Hazardous Materials Cases within Redevelopment Activity Sites #1, #3 through #10*, lists those sites identified by the database search. Figure 6-2, *Sites of Potential Environmental Concern*, shows the location of the sites that represent a potential environmental concern with regard to the Plan Area, as not all listed sites were determined to pose a hazard. Additionally, Table 3 of Volume II, Appendix H1, of the Final EIR includes an in-depth description and database results for each site.

It should be noted that the case status for the sites of potential concern identified may have changed since 2009 when the Final EIR for the Fifth Amendment to the Central Imperial Redevelopment Plan was prepared. Cases that were previously identified as having an "open" case status may have been remediated and are now "closed" and in compliance with applicable Federal, State, or local requirements. Additionally, new hazardous sites may have been identified within the Plan Area since the time of the previous site reconnaissance and database search were performed and may pose new land use constraints to future redevelopment activities; however, as a subsequent evaluation of the Plan Area has not been conducted, such information is unavailable at this time.

Table 6-10: Summary of Hazardous Materials Cases within Redevelopment Activity Sites #1, #3 through #10

Redevelopment Activity	Potentially Hazardous Materials Present or Anticipated Onsite?	Type of Waste	Potentially Significant Impact?	Mitigation Measures Required?
#1 – Hilltop and Euclid Residential	No	N/A	No Significant Impact	No
#3 – Village Center at Euclid and Market	Yes	UST: Hazardous Waste	Potentially Significant Impact	Yes – HM1, HM2, HM3,HM4
#4 – Lincoln Park Paseo – Phase I	Yes	Hazardous Materials (potential onsite waste storage)	Potentially Significant Impact	Yes – HM1, HM2, HM4
#5 – Lincoln Park Paseo – Phase II	No	N/A	No Significant Impact	No[1]
#6 – 54th and Imperial Residential Valencia Villas	No	N/A	No Significant Impact	No[1]
#7 – Imperial Avenue Corridor Master Plan	Yes	UST: Hazardous Materials and/or Wastes	Potentially Significant Impact	Yes – HM1, HM2, HM3, HM4
#8 - Naranja and 53rd Street Residential	No	N/A	No Significant Impact	No
#9 - 45th and Ocean View Residential	No	N/A	No Significant Impact	No
#10 - Jackie Robinson YMCA Expansion	No	N/A	No Significant Impact	No[1]

Table 6.3-1, continued

[1] These sites have a low likelihood that significant quantities of hazardous materials and/or wastes would be encountered during redevelopment activities; however, due to the potential presence of buildings constructed prior to the 1980's, lead-based paint (LBPs), asbestos-containing materials (ACMs), and/or poly-chlorinated biphenyls (PCBs) may be present, and implementation of Mitigation Measure HM-1 is therefore recommended.

Short-Term - Construction

Redevelopment activities within the proposed Plan Area would result in the demolition of existing structures, grading and excavation, and other land-disturbance and construction activities that would have the potential to uncover or encounter known or unknown hazards and hazardous materials sites. Depending on the construction activity, the type of identified (or unidentified) hazard, the status of a known case, and distance to affected land uses (both onsite and offsite), the degree to which such sites could pose a land use constraint to redevelopment would vary. For example, a site that formerly supported a LUST could have been remediated wherein removal of any contamination would have occurred and therefore, the site would no longer represent a potential constraint to redevelopment as multi-family housing (or other land use). As such, no impacts could occur, or impacts could be less than significant or significant and requiring the implementation of mitigation measures to reduce potentially hazardous effects on the general public or sensitive populations.

Due to the historic and existing land uses within the Plan Area (i.e. heavy industrial, gas stations, etc.), there is a moderate to high potential that soil and/or groundwater contamination has occurred within the Project boundaries, or via offsite locations that may have affected the Plan Area (i.e. through underlying groundwater flows). As excavation activities required for redevelopment projects within the Plan Area have the potential to encounter groundwater that is contaminated, there is a moderate to high potential that the affected properties would be constrained and their use restricted until such conditions were remediated. In order to reduce the potential for land use constraints to occur on sites where potentially hazardous conditions are known (or suspected), redevelopment of such sites would require remediation, thereby removing any contamination and avoiding the potential for harm to public health and safety, making the site suitable for development.

Potential Constraints: Refer to Table 6-10: *Summary of Hazardous Materials Cases within Redevelopment Activity Sites #1, #3 through #10*, and Figure 6-2, *Sites of Potential Environmental Concern* which identify sites within the Plan Area where hazardous conditions may represent potential land use constraints with regard to redevelopment; however, as the status of the identified hazardous sites may have changed since the original assessment, and potential constraints would vary based on the characteristics of the hazard and the distance to sensitive land uses, such sites should be evaluated on a project-specific basis.

Long-Term - Operation

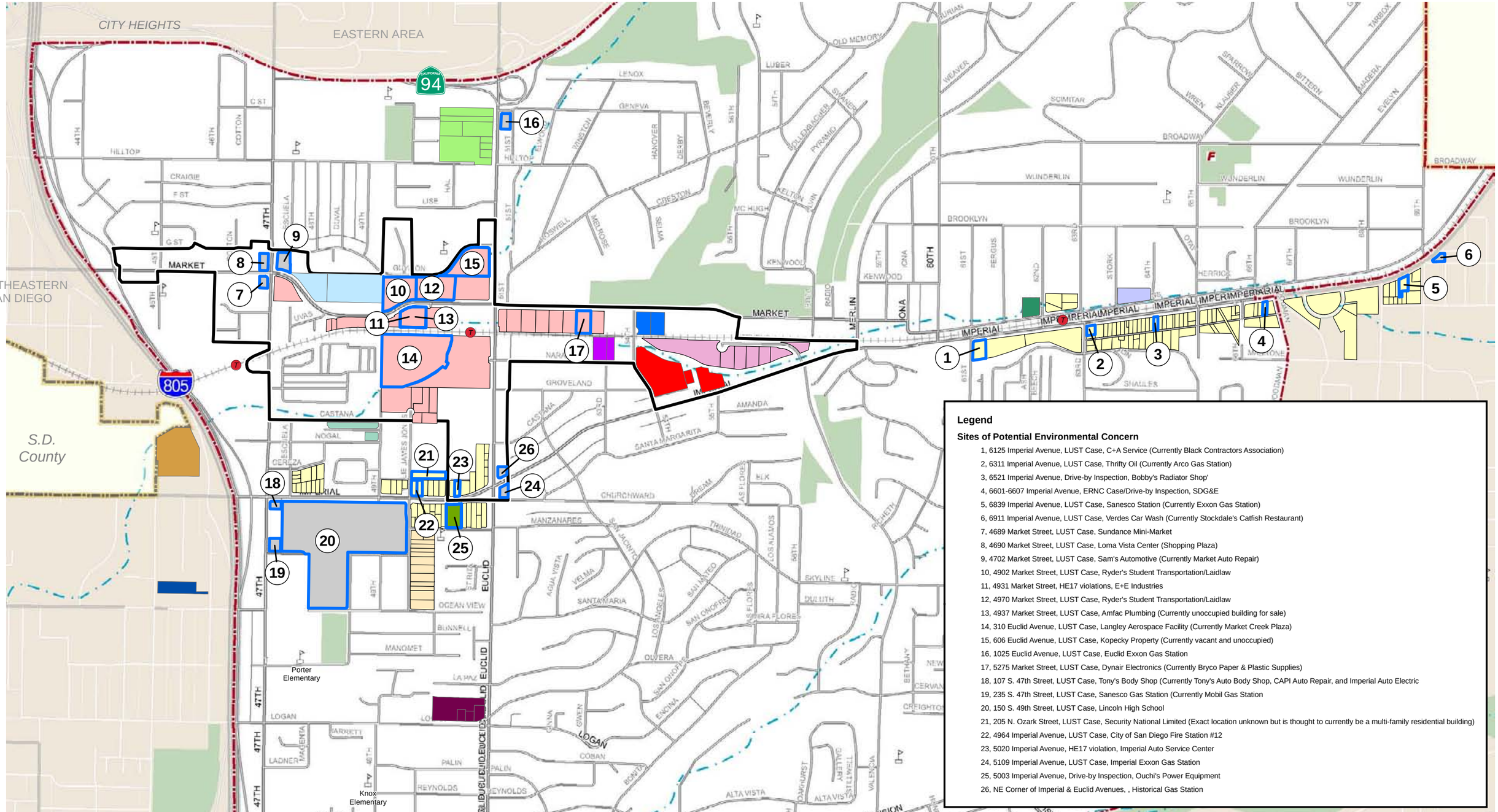
Due to the nature and type of land uses anticipated within the Plan Area (i.e. no heavy industrial), it is not expected that long-term operational activities would require the routine transport, use, or disposal of hazardous materials, nor would hazardous materials be released into the environment. In addition, although a number of schools are present within the area surrounding the Plan Area, redevelopment activities would not result in any land uses that would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Additionally, all new development would be required to comply with applicable Federal, State, and local regulations regarding the use, storage, and transport of hazardous materials. As such, no land use constraints were identified with regard to operation of land uses within the Project area and potential hazards or hazardous conditions.

The San Diego International Airport (Lindbergh Field) lies approximately eight miles to the northwest of the Plan Area. The majority of the Plan Area lies outside of the Airport Influence Area (AIA) as identified in the Airport's Land Use Compatibility Plan (ALUCP); however, the AIA does affect several redevelopment activity areas. These areas include the western portion of Redevelopment Activity Site #7 and all of Redevelopment Activity Sites #9 and #10. Therefore, a potential land use constraint may occur with regard to the type, design, and operational characteristics of future land uses within these areas. Project sites within the AIA would be required to demonstrate consistency with the ALUCP, as applicable, to minimize potential safety hazards for people residing or working in Redevelopment Activity Sites #7, #9, and #10. No anticipated land use constraints would occur for Redevelopment Activity Sites #1, #3, #4, #5, #6, or #8 with regard to safety hazards relative to operation of the San Diego International Airport. It should be noted that the ALUCP is currently being updated and should be reviewed for applicability to future redevelopment activities within the Plan Area at the time when the ALUCP is approved or when redevelopment is proposed.

Potential Constraints: Properties in the Plan Area located within the AIA of the San Diego International Airport would be subject to land use, design, and operational restrictions given in the ALUCP, and may therefore be subject to potential constraints.

September 2011

Euclid + Market
LAND USE AND MOBILITY PLAN



Legend

Sites of Potential Environmental Concern

1, 6125 Imperial Avenue, LUST Case, C+A Service (Currently Black Contractors Association)
2, 6311 Imperial Avenue, LUST Case, Thrifty Oil (Currently Arco Gas Station)
3, 6521 Imperial Avenue, Drive-by Inspection, Bobby's Radiator Shop'
4, 6601-6607 Imperial Avenue, ERNC Case/Drive-by Inspection, SDG&E
5, 6839 Imperial Avenue, LUST Case, Sanesco Station (Currently Exxon Gas Station)
6, 6911 Imperial Avenue, LUST Case, Verdes Car Wash (Currently Stockdale's Catfish Restaurant)
7, 4689 Market Street, LUST Case, Sundance Mini-Market
8, 4690 Market Street, LUST Case, Loma Vista Center (Shopping Plaza)
9, 4702 Market Street, LUST Case, Sam's Automotive (Currently Market Auto Repair)
10, 4902 Market Street, LUST Case, Ryder's Student Transportation/Laidlaw
11, 4931 Market Street, HE17 violations, E+E Industries
12, 4970 Market Street, LUST Case, Ryder's Student Transportation/Laidlaw
13, 4937 Market Street, LUST Case, Amfac Plumbing (Currently unoccupied building for sale)
14, 310 Euclid Avenue, LUST Case, Langley Aerospace Facility (Currently Market Creek Plaza)
15, 606 Euclid Avenue, LUST Case, Kopecky Property (Currently vacant and unoccupied)
16, 1025 Euclid Avenue, LUST Case, Euclid Exxon Gas Station
17, 5275 Market Street, LUST Case, Dynair Electronics (Currently Bryco Paper & Plastic Supplies)
18, 107 S. 47th Street, LUST Case, Tony's Body Shop (Currently Tony's Auto Body Shop, CAPI Auto Repair, and Imperial Auto Electric
19, 235 S. 47th Street, LUST Case, Sanesco Gas Station (Currently Mobil Gas Station
20, 150 S. 49th Street, LUST Case, Lincoln High School
21, 205 N. Ozark Street, LUST Case, Security National Limited (Exact location unknown but is thought to currently be a multi-family residential building)
22, 4964 Imperial Avenue, LUST Case, City of San Diego Fire Station #12
23, 5020 Imperial Avenue, HE17 violation, Imperial Auto Service Center
24, 5109 Imperial Avenue, LUST Case, Imperial Exxon Gas Station
25, 5003 Imperial Avenue, Drive-by Inspection, Ouchi's Power Equipment
26, NE Corner of Imperial & Euclid Avenues, , Historical Gas Station

LEGEND

- Sites of Potential Environmental Concerns
- **Market & Euclid Master Plan Project Area**
- **Community Plan Boundary**
- **Areas Outside City of San Diego**

Redevelopment Activities

- Additional Parcels
- 45th and Ocean View Residential
- 54th and Imperial Residential Valencia Villas
- 54th and Market Industrial
- Chollas Creek Villas
- Encanto Village
- Esperanza Townhomes
- Hilltop and Euclid Residential
- Imperial Avenue Corridor Master Plan
- Jackie Robinson YMCA Expansion
- Lincoln Park Paseo - Pahse II
- Lincoln Park Paseo - Phase I
- Logan and Euclid Residential
- Mar Vista Mixed-Use
- Naranja and 53rd Street Residential
- Valenzia Business Park
- Village Center at Euclid and Market
- Trolley Stop
- Trolley

Source: Ninyo & Moore 2005, SEDC, 2005; BRG Consulting, 2008

N
0 550 1,100 Feet

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FIGURE 6-2: SITES OF POTENTIAL ENVIROMENTAL CONCERN