Appendix A: Existing Conditions Report

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Central Southeast Area Specific Plan

Fresno, California

Existing Conditions Report

January 2018

City of FRESNO

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Introduction

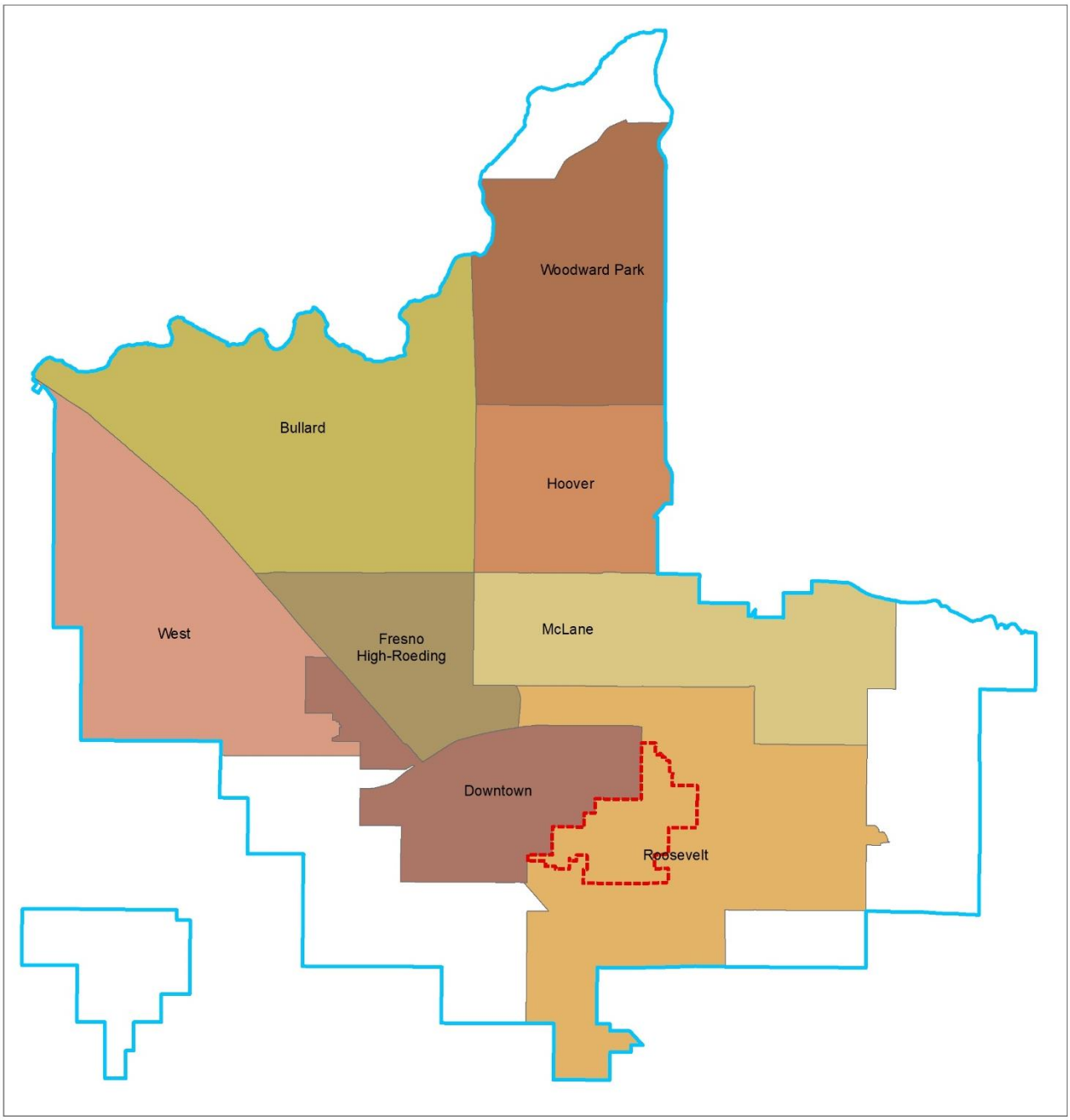
Overview

This Existing Conditions Report is an initial step in the Central Southeast Area Specific Plan process. It provides a description of the plan area as it is today. Existing land uses, economic conditions, circulation, infrastructure and environmental factors are included. It lays the groundwork for the Central Southeast Specific Plan (the "Plan").

The Plan will be a long-range planning document that provides a vision for growth and development in the community over the next 20- to 30-years. It will address a wide range of topics that impact the quality of life in the community, including affordable housing, jobs and economic development, transportation, parks and open space, and a healthy environment. The Plan will include a vision, policies, and if needed, development standards that will balance new development and preservation of the existing community identity.

Project Area

The Central Southeast Specific Plan area covers over 2,200 acres (3.4 square miles) just east and southeast of downtown, bounded by Belmont Ave to the north, S Orange Ave to the west, E Church Ave to the south, and S Peach Ave to the east. This diverse area is characterized by a mix of suburban housing developments, industrial uses, public facilities, and vacant land. The area includes 30,624 people and 9,150 homes. The first two context maps on the proceeding pages show community and specific plan boundaries within the City. The following two maps on pages 6 and 7 show the Specific Plan project area map and aerial imagery.

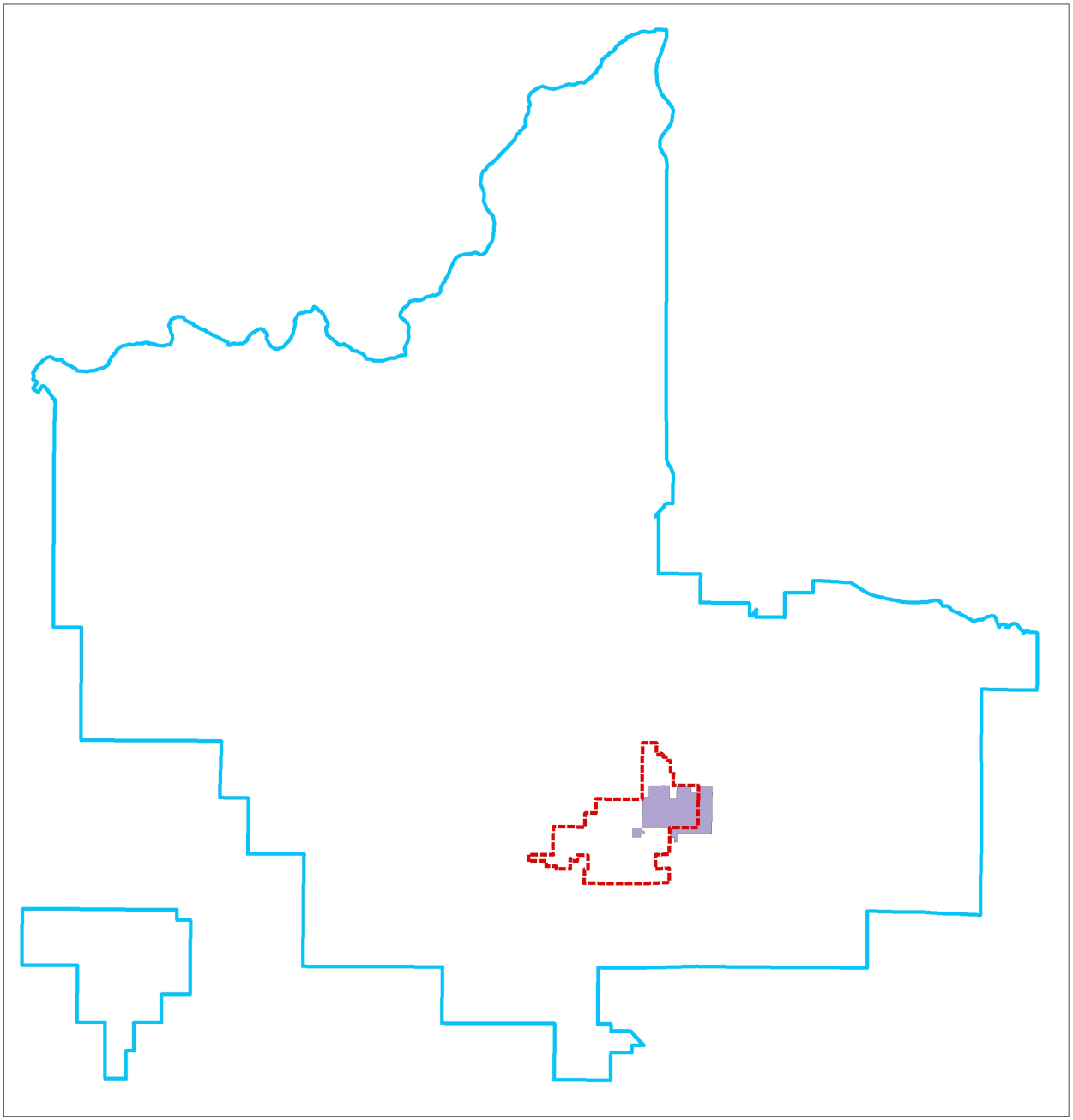


Fresno Community Plans

Central Southeast Fresno Specific Plan

Legend

- City of Fresno Boundary
- Central Southeast Plan Boundary
- Bullard
- Downtown
- Fresno High-Roeding
- Hoover
- McLane
- Roosevelt
- West
- Woodward Park



Fresno Specific Plans

Central Southeast Fresno Specific Plan

Legend

City of Fresno Boundary

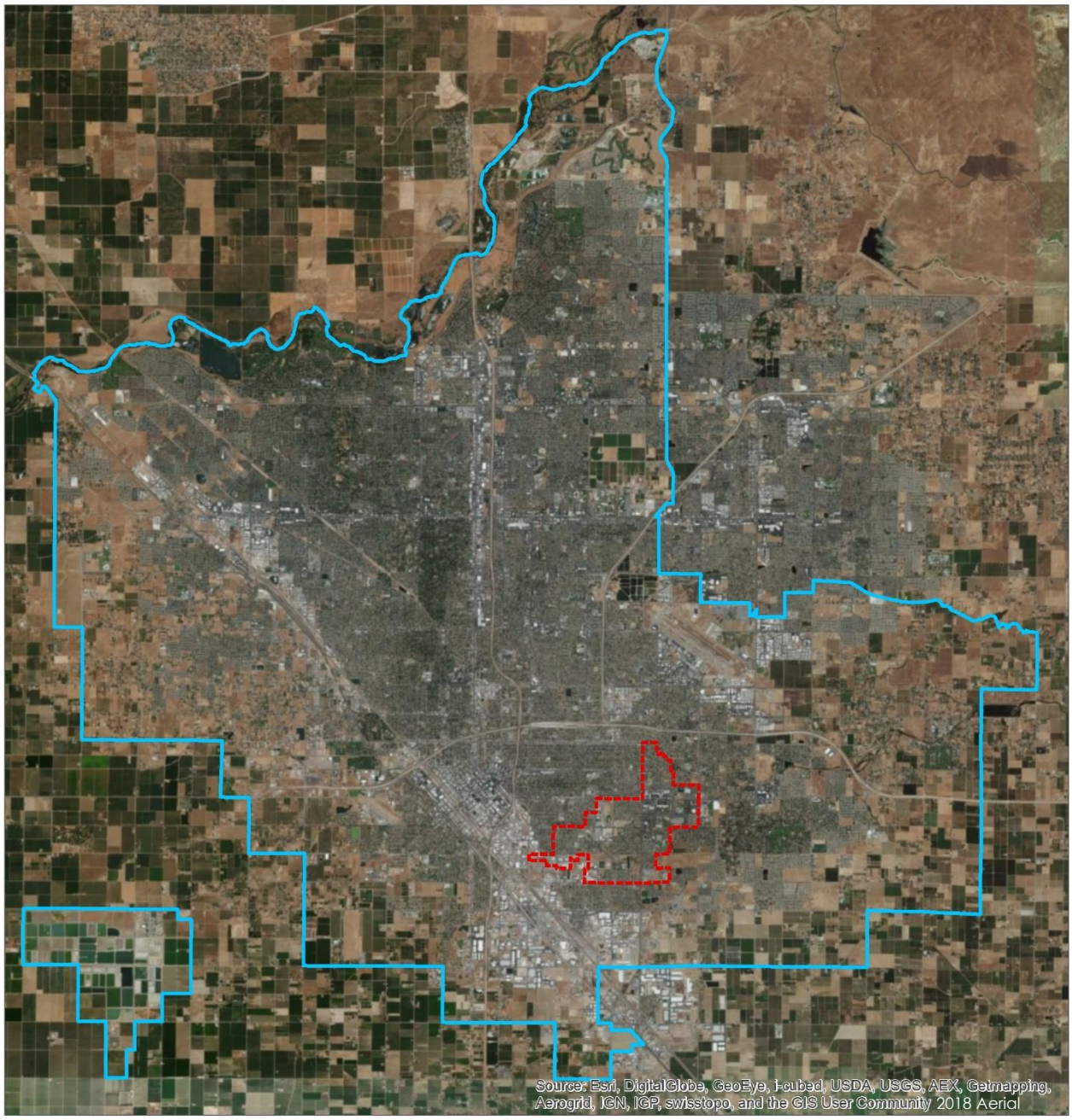
Butler/Willow Specific Plan

Central Southeast Plan Boundary

SPECPLANNM

N

0 0.75 1.5 3 Miles



City of Fresno Aerial

Central Southeast Fresno Specific Plan

Legend

City of Fresno Boundary

Central Southeast Plan Boundary

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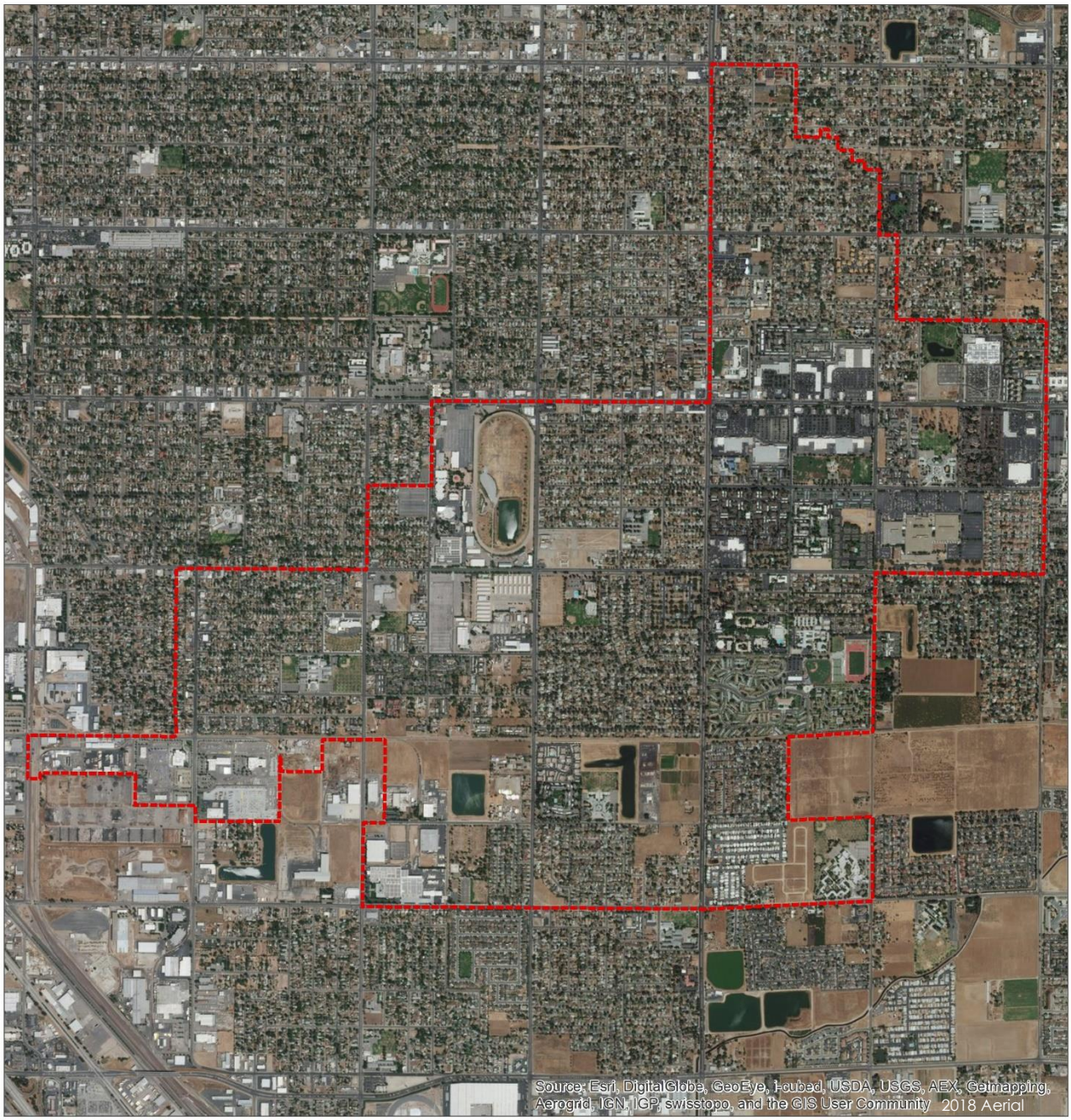

CSE Fresno Aerial

Central Southeast Fresno Specific Plan

Legend

Central Southeast Plan Boundary

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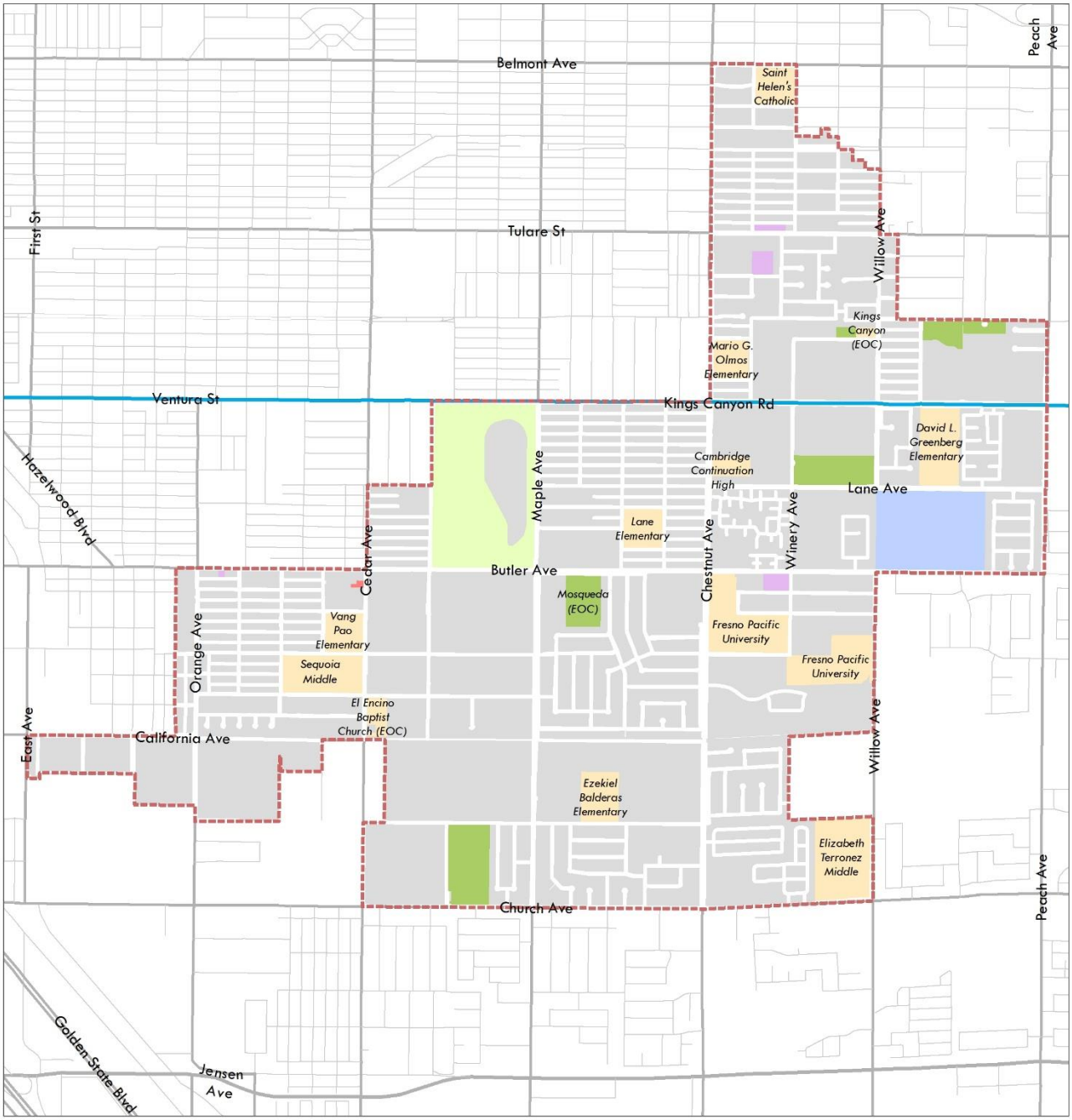


CSE Fresno Project Area

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit
- Parks
- Fairgrounds
- Schools
- Churches
- Fire Station
- IRS

N 0 0.125 0.25 0.5 Miles

Specific Plan Purpose

A Specific Plan is a long-range planning document that local governments use to implement the general plan. Specific Plans bring together detailed policies and regulations to guide future city actions in a specific geographic area – in this case, Central Southeast Fresno. The Specific Plan must address zoning, infrastructure investments and implementation programs. The plan will be developed and implemented by the City of Fresno.

The Plan will focus on physical improvements and, to a lesser degree, provision of public services in Central Southeast Fresno. These include the following:

- Housing
- Retail + Services
- Roads, sidewalks and bicycle facilities
- Transit service and access
- Parks, open space and recreational facilities
- New uses and programs that enhance economic development and allow a diversity of jobs
- Infrastructure improvements including water, sewer and storm water
- Public services including police and fire

There are other topics and issues that are critical to the community that will be addressed to a lesser degree in the Specific Plan. These topics include:

- Access to health care and public health
- Schools and the quality of education
- Air quality
- Social equity
- Crime & crime prevention

The Plan will focus on topics where there is a strong connection between physical improvements and how they impact quality of life.

The Central Southeast Specific Plan offers a special opportunity to help shape the future of Central Southeast Fresno. Based on feedback from the community and elected officials, the area could benefit from infrastructure and mobility improvements, increased access to parks and open space, development of vacant lots, and the revitalization of key commercial corridors such as Ventura/Kings Canyon Rd. The Specific Plan will help shape the places where residents live, work, shop and play, prioritize public services, and infrastructure investments, and guide the types and intensity of new development in Southeast Fresno.

Project Timeline

Contents of this Report

The report provides background information about the current conditions in the Specific Plan area and is organized into the following topic areas:

1. Introduction

This chapter provides a brief overview of the Central Southeast Area in Fresno, purpose of the Specific Plan, the project timeline, and Existing Conditions Document itself. It also contains a broad summary of the topics covered in this report.

2. Land Use and Urban Design

This chapter looks at the existing land use, general plan use and zoning in the project area. It contains a policy framework overview and the relationship of this area with respect to other plans. The urban character of the project site is broken down into place types and each place is analyzed based on physical form and characteristics.

3. Economic and Market Indicators

This chapter provides a broad overview of key socioeconomic and real estate market trends relevant to the Fresno Central Southeast Area Specific Plan (CSE Fresno or Study Area). It includes demographic and socio-economic, housing, and employment trends along with commercial real estate market analysis.

4. Circulation

This section describes the existing transportation network within the Central Southeast Area of the City of Fresno. It identifies areas of deficiency within the existing network due to poor level of service (LOS), connectivity and safety and provides opportunities for improvements.

5 Utilities

This section addresses the existing conditions related to utilities and service systems. The topics of water, wastewater, drainage/flood control, solid/hazardous waste are discussed in detail in this section.

6 Environment & Cultural

This Existing Conditions Report describes the environmental conditions in the project area including air quality, noise, hazards and greenhouse gas emissions. It addresses existing cultural resources like buildings, objects, features, structures, or locations with historic or cultural value. It also includes a federal, state and local regulatory framework and the considerations for the CSESP Plan Area.

7 Health and Equity Factsheet

This illustrated factsheet is intended to provide a quick overview of the demographic trends, such as race, education, income, health data, such as asthma ER visits, obesity, and environmental data like CalEnviroscreen, and pollution burden in the Central Southeast Area.

Data Sources

Unless otherwise noted, all maps used data provided by the City of Fresno.

Land Use and Urban Design Analysis

Prepared by Sargent Town Planning and Raimi+ Associates

Introduction

This existing conditions report has been prepared to provide an overview of the existing land uses, existing development patterns, and existing plans for Fresno's Central Southeast Area. This information will provide the foundation for an updated vision, policies and regulations in the new Central Southeast Area Specific Plan (CSESP).

The report begins with an overview of the existing planning policy framework for the area, including policies from the Fresno General Plan, Zoning Ordinance, and a number of other relevant specific plans and area plans.

That is followed by a map and summary of Existing Land Uses, and a series of maps and descriptions of residential, non-residential, and public/civic facilities. This analysis includes not only land use but also discussion of existing urban patterns and community design characteristics, framed in terms of "existing place types." It is anticipated that the Specific Plan will be based on "place type" designations, very similar to those previously defined for the recently adopted and immediately adjacent Downtown Neighborhoods Specific Plan (DNSP). Such place types represent "composite designations" that address land use and development intensity, and that also address the physical pattern, scale and design character of new development, to help ensure that new development is compatible with and reinforces existing neighborhood character while evolving each area and each place toward the future land uses and community design envisioned for the Plan Area.

Completing the report is a map and summary of Existing General Plan Designations, and a map and summary of Existing Zoning.

Policy Framework

This section provides an overview of the policy and planning context for the CSESP area, including policy direction specific to the Plan Area. This includes relevant City of Fresno planning documents and regulations such as the General Plan, Development Code, and nearby area plans, as well as relevant city-wide planning efforts such as the Active Transportation Plan and Parks Master Plan.

Overall, the General Plan and Development Code contain very little policy direction specific to Central Southeast Fresno, with the exception of guidance for BRT corridors such as Ventura/Kings Canyon Rd. There are two existing area plans that encompass or overlap with the CSESP area – the Roosevelt Community Plan and Butler/Willow Area Specific Plan. However, both plans were

recommended to be amended or repealed by the General Plan as they are no longer relevant or would not be considered best practices based on current conditions and standards.

The Downtown Neighborhoods Specific Plan, adopted in 2016, forms the northwestern boundary of the CSESP area. The CSESP is considered a continuation of that planning effort and as such, many of the land use and transportation recommendations for Ventura/Kings Canyon Rd, Maple, Butler, and Cedar Avenues should be incorporated into the plan. Additionally, recent city-wide planning efforts such as the Active Transportation Plan and Parks Master Plan contain some guidance for central southeast Fresno that should be considered and potentially included in the mobility and open space frameworks of the CSESP. Table 1 below summarizes each plan and its relevance to the CSESP plan area.

Table 1: Policy Framework

Name	Date/ Status	Purpose/Relevance	Policy Direction Specific to CSESP
Fresno General Plan	December 2014	The Fresno General Plan articulates a vision for the City for the next 35+ years (General Plan Horizon 2035, General Plan Buildout beyond 2050) and presents a set of policies and implementation actions to achieve that vision, centered around a theme of resilience. It sets the direction for development standards found in the Citywide Development Code. Portions of the CSESP project area fall within the Ventura/Kings Canyon BRT Corridor growth area.	The General Plan contains limited policy direction specific to the CSESP project area. The following guidance related to the larger Ventura/Kings Canyon BRT corridor growth area should be considered and potentially incorporated into the plan. **Ventura/Kings Canyon BRT corridor:** • Develop the corridor with areas of multi-family housing facing directly on the street and retail centers integrated with housing at the one-mile and half-mile road intersections • Create more intense sub-regional mixed-use development at certain intersections, such as the Clovis Ave • Transform Ventura\Kings Canyon Rd west of Chestnut Ave into a "Main Street" environment with 1-2 story retail, office and minimal multi-family housing. • Encourage active ground floor frontages
Downtown Neighborhoods Community Plan (DNCP)	October 2016	The DNCP forms the northwestern boundary of the CSESP project area and no area of Central Southeast is in the DNCP. The DNCP is intended to guide successful regeneration of Downtown Fresno and its surrounding neighborhoods, including southeast Fresno. The Plan lays out the community's long-term goals for the area and provides policies concerning	The CSESP should consider and potentially incorporate overlapping recommendations from the DNCP, including: • Revitalize the principle, auto-oriented corridors in Southeast with mixed-use development • Add new neighborhood-serving commercial and more intensive mixed-use nodes of development near major intersections • Promote pedestrian-oriented buildings that face and are accessed from the

Name	Date/ Status	Purpose/Relevance	Policy Direction Specific to CSESP
		land use and development, transportation, the public realm of streets and parks, infrastructure, historic resources, and health and wellness. The plan acts as an extension of the general plan, with a more detailed focus on the downtown.	street, especially along Belmont Avenue, Kings Canyon Road, and Tulare Avenue. • Preserve single-family character of the residential neighborhoods and add modest infill with the introduction of house-like multi-family buildings (duplexes, triplexes, bungalow courts, rowhouses, etc.) • Reclaim alleys through the introduction of rear-yard carriage houses. • Introduce road diets on Belmont, Maple, and Butler Ave. • Prioritize Cedar Avenue as a pedestrian corridor • Plant more street trees • Introduce smaller and more distributed open spaces • Maintain compatibility between corridor buildings/activities and adjacent SFR. • Construct strategically located, quality commercial/retail/mixed-use centers at: Tulare and Chestnut, Butler and Cedar • Work with the Fresno Unified School District to establish joint-use agreements to share school facilities • Create a pedestrian improvement plan for the Southeast Neighborhoods that includes a detailed list of improvements to key community destinations (such as Mosqueda Park)
Citywide Development Code	December 2016	Citywide Development Code contains the standards and requirements for development and land use activity.	The updated Development Code established new zoning designations, permitted uses, and development standards that should be applied to the plan area to create the land use framework of the Specific Plan.
Fulton Corridor Specific Plan (FCSP)	October 2016	The FCSP does not overlap with the CSESP area, but is located in the downtown just west of the project area. The FCSP includes detailed goals, policies, and actions for the revitalization of the heart of Downtown and its seven subareas: the Fulton District, the Mural District, South Stadium,	The FCSP contains recommendations for several key corridors, namely Tulare St and Ventura/Kings Canyon Rd, that continue from downtown into the CSESP project area. Specific recommendations include: • Reconstruct Tulare Street between California Avenue and R Street as a complete street with wide sidewalks, on-street parking, bike lanes, and vehicular travel lanes to accommodate safer multimodal access through Downtown and to the High-Speed Rail and Amtrak

Name	Date/ Status	Purpose/Relevance	Policy Direction Specific to CSESP
		Chinatown, the Civic Center, Armenian Town/ Convention Center, and the Divisadero Triangle. It is more detailed than the DNCP and provides a detailed implementation.	Stations from the Edison and Southeast neighborhoods • Improve Ventura Ave with new sidewalks, new street trees, new pedestrian-scaled street lights, and bike lanes in some locations
Butler/Willow Area Specific Plan	June 1971	The Butler/Willow Area Specific Plan falls within the CSESP project boundary. This Plan articulates zoning and circulation recommendations for the 564-acre area surrounding the Internal Revenue Service Center. Specially, it seeks to protect the rural-suburban qualities of the area.	Many of the recommendations in the Butler/Willow Area Specific Plan have either been implemented or are no longer relevant due to current conditions and best practices.
Fresno General Plan 2015-2023 Housing Element	April 2017	The Fresno General Plan Housing Element provides a coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing for all community residents. It identifies housing needs and problems, and implementation programs to achieve community goals.	The Housing Element contains limited policy direction specific to the CSESP project area. It does include some general information on housing conditions in Southeast Fresno, such as: • Southeast includes several zip codes with the highest population of developmental disabled individuals • Southeast/Roosevelt community area contains a high percentage of housing units needing rehabilitation (8.5%)
Roosevelt Community Plan (RCP)	April 1992	The CSESP project is fully encompassed within the RCP Area. The RCP identifies and addresses issues and concerns adversely affecting the Roosevelt/SE Fresno community's growth and vitality, outlines the need for and impacts of new public facilities, and provides recommendations to stimulate the development of well-balanced quality neighborhoods.	Most of the RCP is outdated or has been retracted since its adoption. Several recommendations may still be relevant to the CSESP area, such as: • Protect Peach and Butler Ave as scenic streets • Focus new multi-family housing along major transportation corridors • Establish a Boulevard Area (BA) Overlay District with a minimum 20-foot landscaped setback along Kings Canyon Road east of Chestnut • Expand Mosqueda Community Park and add several new community and neighborhood parks • Preserve single-family residential neighborhoods established with moderate to large sized lots, to provide a transition

Name	Date/ Status	Purpose/Relevance	Policy Direction Specific to CSESP
			between low and medium density residential areas • Consider the relocation of Valley Medical Center to the City's Central Area • Consider joint use of the existing Fairgrounds facility with City Parks and Recreation
Fresno Active Transportation Plan (ATP)	March 2017	The Fresno ATP outlines a vision for active transportation in Fresno. The plan includes a roadmap for creating a complete, safe, and comfortable network of trails, sidewalks, and bikeways that serves all residents of Fresno. It includes priority projects and phasing.	The ATP contains a comprehensive bicycle, pedestrian, and trail network for the Southeast area. The following conditions and recommendations should be considered and potentially incorporated into the transportation framework of the CSESP: • The densest bicycle collision areas include Ventura Avenue – Kings Canyon Road: Cedar Avenue to Armstrong Avenue • The densest pedestrian collision areas include Ventura Avenue – Kings Canyon Road: Cedar Avenue to Peach Avenue • Develop Ventura/Kings Canyon as a BRT corridor • Install new Class II bikeways along Butler Ave and all of the N/S streets through the project area, and a Class III bikeway around FPU along S Winery and E Hamilton Ave. Designate Butler Ave, Maple Ave, Church Ave, and Lane Ave as priority bikeways. • Install new sidewalks in subdivision(s) at Butler and Peach, along the east side of the fairgrounds, and adjacent to Terronez Middle School, as well as other gaps scattered around the project area. Designate Ventura/Kings Canyon, Butler, Chestnut, and Cedar Avenues as priority pedestrian corridors. • Install crossing improvements at Kings Canyon/Peach Ave, and around Sequoia Middle School
Fresno Parks Master Plan (Final)	December 2017	The Fresno Parks Master Plan is intended to guide the growth and management of Fresno's park system into the future. It includes a vision, assesses park needs/gaps, and identifies future improvements.	The Parks Master Plan provides limited policy direction specific to the CSESP area. It does include an assessment of park conditions in Southeast Fresno and recommends Mosqueda Park as a priority park for improvement.

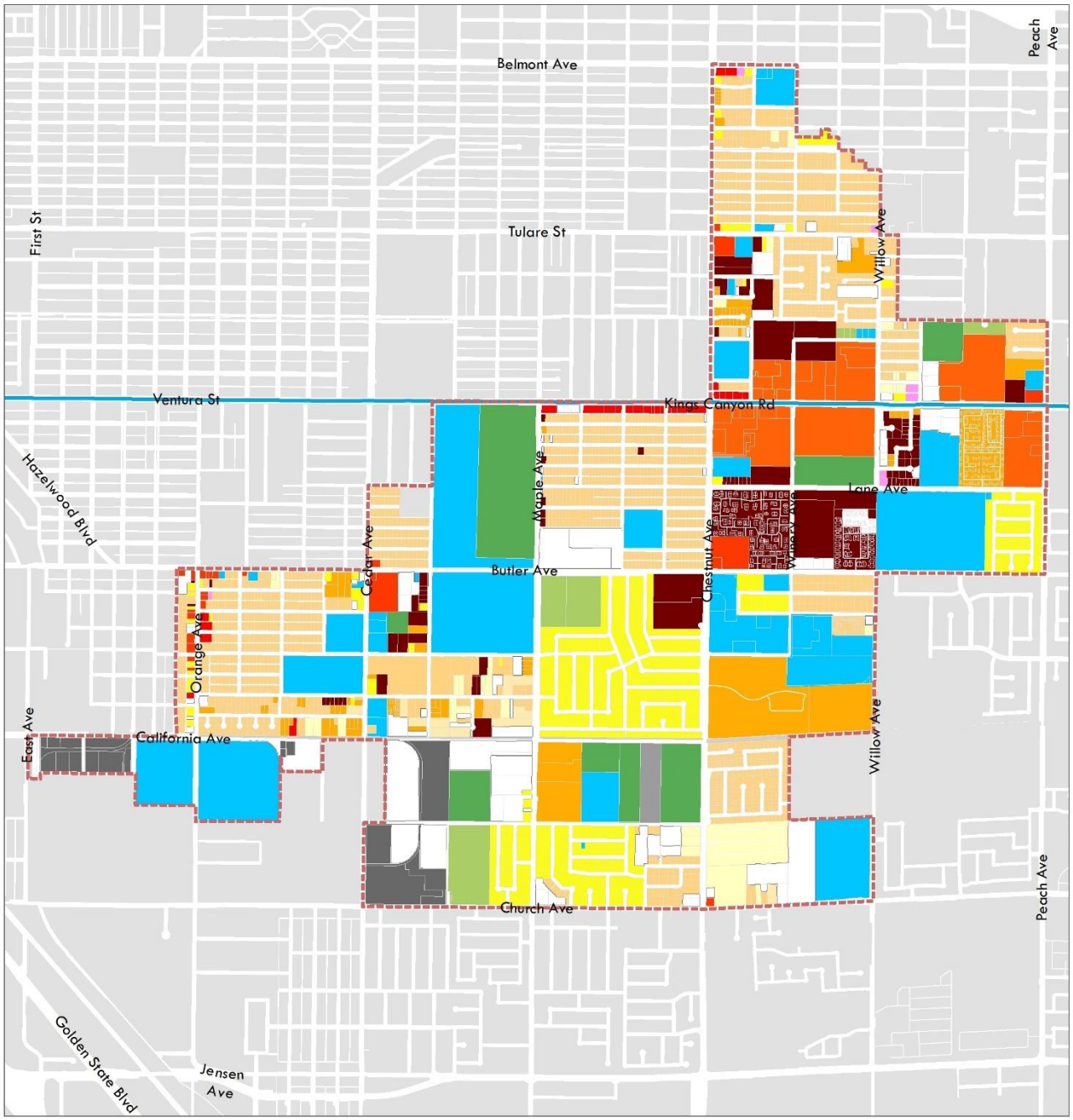
Existing Land Use

Existing uses in the CSESP area include a mix of suburban housing developments, public facilities, strip shopping centers, industrial uses, and vacant land. The maps on the proceeding pages show existing land uses by parcel in the Plan Area and approximately a half mile surrounding the project boundary, respectively. Table 2 below provides a breakdown of acreage and percentages for each existing land use.

Predominate land uses on the ground are medium-density residential (21.5%), public facilities (20.4%), medium-low density residential (9.7%), and vacant land (8.6%). The vast majority of commercial uses are located along Ventura/Kings Canyon (community commercial), with very limited neighborhood and general commercial uses along Orange and Butler Avenues. Most of the community commercial uses are in the form of strip shopping centers and include a mix of discount stores, fast food restaurants, and regional commercial retailers such as Walmart, Home Depot, and Big Lots, with a few smaller independent shops and restaurants scattered throughout. Office uses in the Plan Area are limited to just a few small parcels on either side of Ventura/Kings Canyon Rd.

Table 2: Existing Land Uses in the Plan Area

Existing Land Use	Area in Acres	% of Total
Residential - Rural	12.2	0.7%
Residential - Low Density	18.1	1.0%
Residential - Medium Low Density	173.3	9.7%
Residential - Medium Density	384.9	21.5%
Residential - Medium High Density	130.9	7.3%
Residential - High Density	134.2	7.5%
Residential - Mobile Home Park	27.6	1.5%
Commercial - Community	114.9	6.4%
Commercial - General	11.1	0.6%
Commercial - Neighborhood	22.1	1.2%
Commercial - Office	2.7	0.1%
Commercial - Parking	4.9	0.3%
Employment - Heavy Industrial	56.2	3.1%
Employment - Light Industrial	9.3	0.5%
Open Space	119.6	6.7%
Park	39.9	2.2%
Public Facilities	366.5	20.4%
Railroad	10.6	0.6%
Vacant	153.7	8.6%
Grand Total	**1792.5**	**100.0%**



Existing Land Use

Central Southeast Fresno Specific Plan

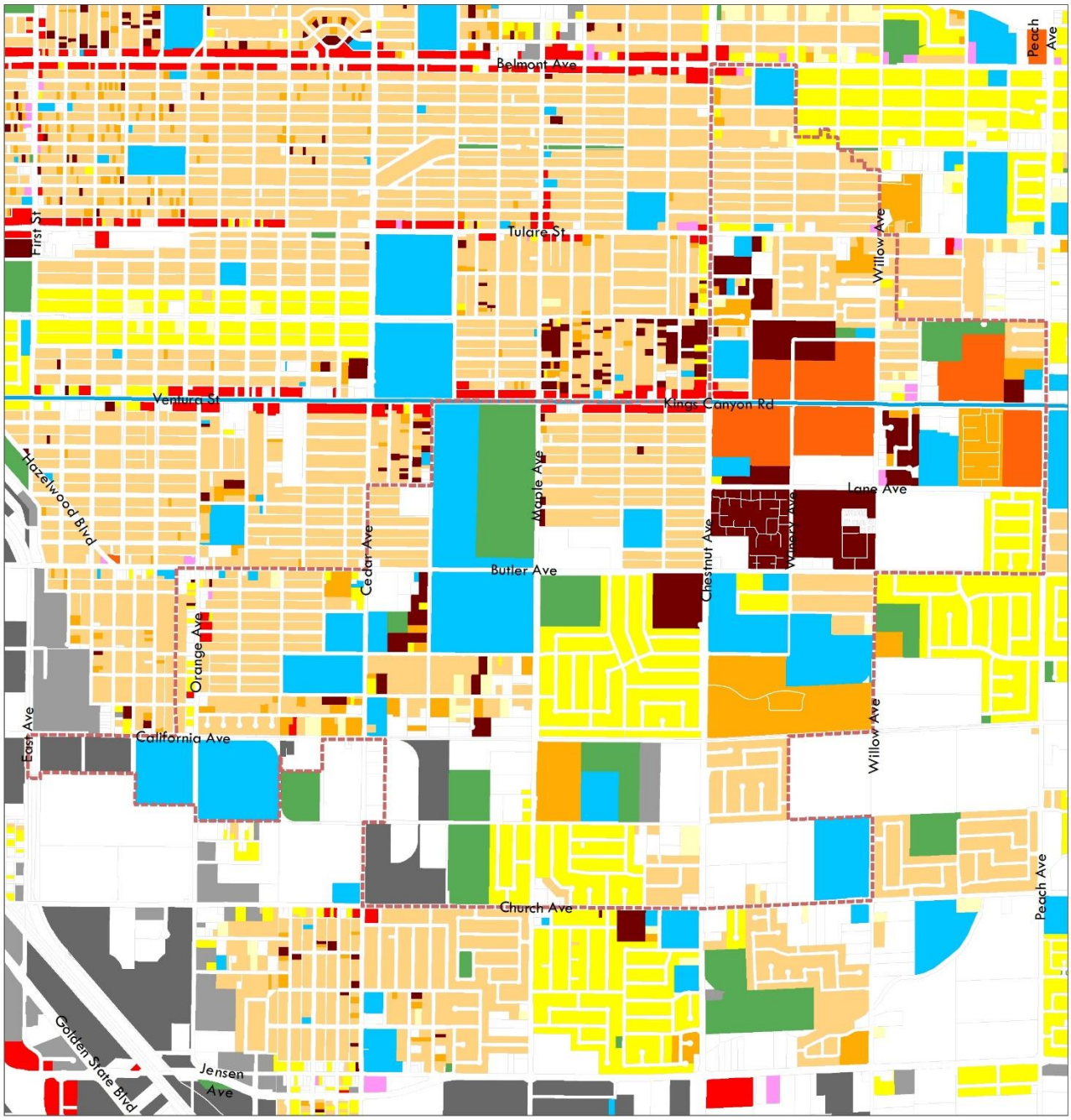
Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit

Consolid_E

- Commercial - Community
- Commercial - General
- Commercial - Neighborhood
- Commercial - Office
- Commercial - Parking
- Employment - Heavy Industrial
- Employment - Light Industrial
- Open Space
- Park
- Public Facilities
- Residential - High Density
- Residential - Low Density
- Residential - Medium Density
- Residential - Medium High Density
- Residential - Medium Low Density
- Residential - Mobile Home Park
- Residential - Rural
- Vacant
- rail

N 0 0.125 0.25 0.5 Miles



Existing Land Use- Context

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit

Consolid_E

- Commercial - Community
- Commercial - General
- Commercial - Neighborhood
- Commercial - Office
- Commercial - Parking
- Employment - Heavy Industrial
- Employment - Light Industrial
- Open Space
- Park
- Public Facilities
- Residential - High Density
- Residential - Low Density
- Residential - Medium Density
- Residential - Medium High Density
- Residential - Medium Low Density
- Residential - Mobile Home Park
- Residential - Rural
- Vacant
- rail

N

0 0.125 0.25 0.5 Miles

Place Types and Design Character

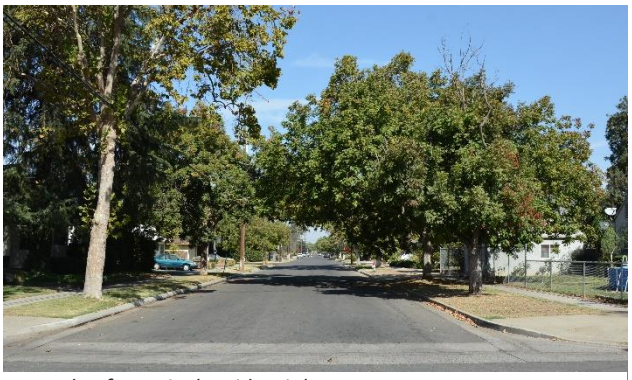
This analysis of the existing urban patterns and design character of the Central Southeast Area is organized in terms of physical "place types", which characterize these places according to their mix and intensity of land uses as well as by the predominant development patterns and community design characteristics.

Immediately adjacent to the CSESP area, the Downtown Neighborhoods Community Plan (DNCP) was developed to improve the urban form and land use, open space and streetscapes, infrastructure, natural and cultural resources, and health and wellness for the Downtown and surrounding neighborhoods. Given the bordering proximity of DNCP and the CSESP areas the CSESP will be organized on place-types similar to those that organized the DNCP.

Accordingly, this existing conditions analysis classifies the existing development within the CSESP area as a series of "existing place types". These are based on the observed land use and community design patterns in the area, including older "traditional neighborhoods", newer "suburban housing tracts", older "highway-commercial retail", newer "suburban shopping centers", "workplace industrial" areas of different vintages, a variety of open space types, vacant sites that represent key opportunities for infill development and neighborhood completions, and public amenities such as schools, churches and community centers.

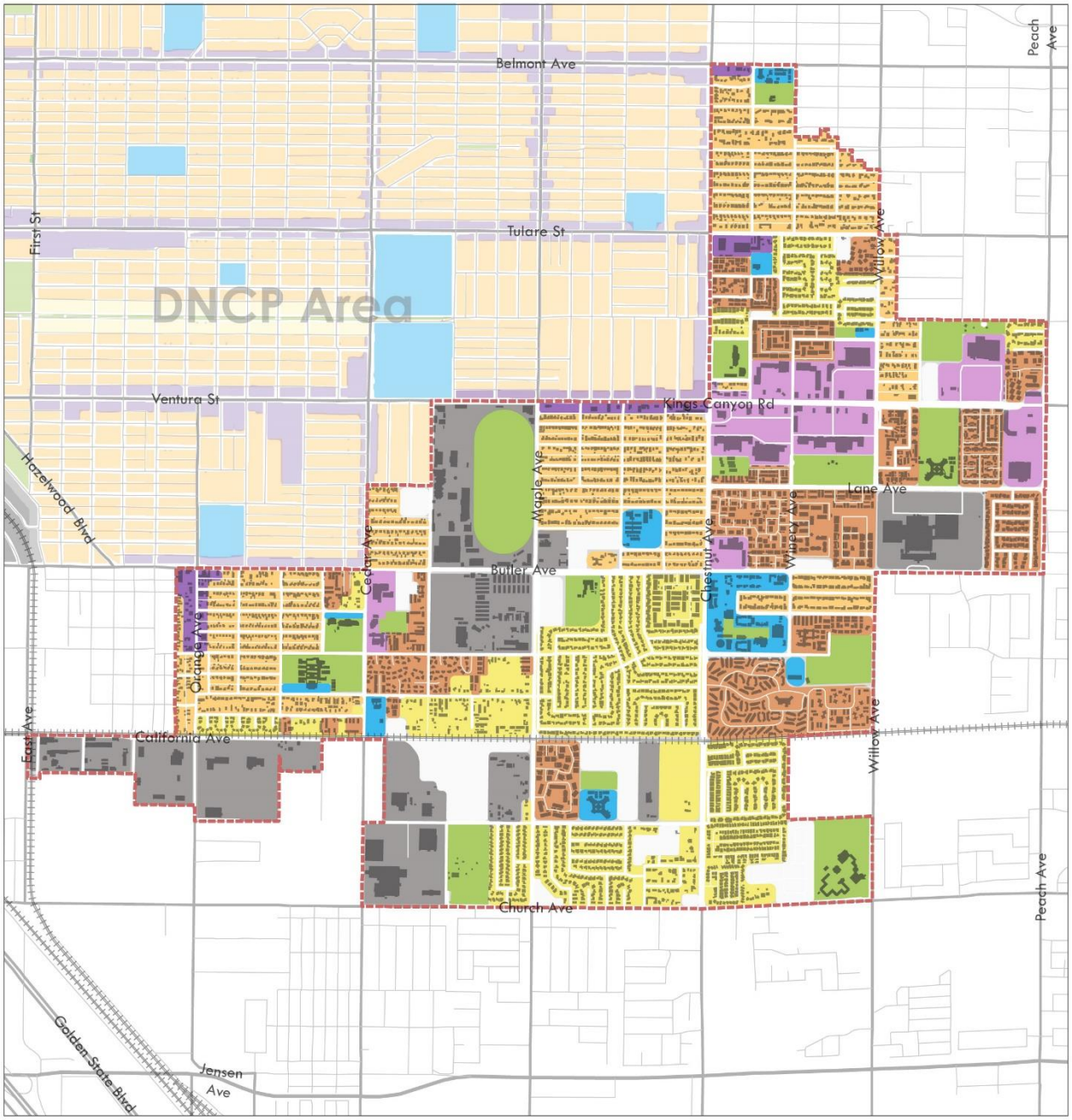
Each existing place type is a composite of the existing mixes of land uses and intensities, the block patterns and street network connectivity, streetscape and open space design character, and building form and character. The vision for future change – and the policies, strategies and regulations developed to achieve that vision – will be structured as adjustments, refinements and completions of the existing development patterns.

The simplest overview of existing urban structure is that major north-south and east-west streets organize the area into ½ mile by ½ mile square "neighborhoods", consisting of mostly single-family housing with areas of multi-family housing. Commercial services and employment centers are located mainly along major east-west avenues, and civic facilities are distributed throughout the area. The map on the following page shows this pattern as a series of "place types", which are described in the following pages.



Example of a typical residential street

Bus Rapid Transit stops along Kings Canyon Rd. aim at improving transit efficiency throughout Fresno.



Place Types

Central Southeast Fresno Specific Plan

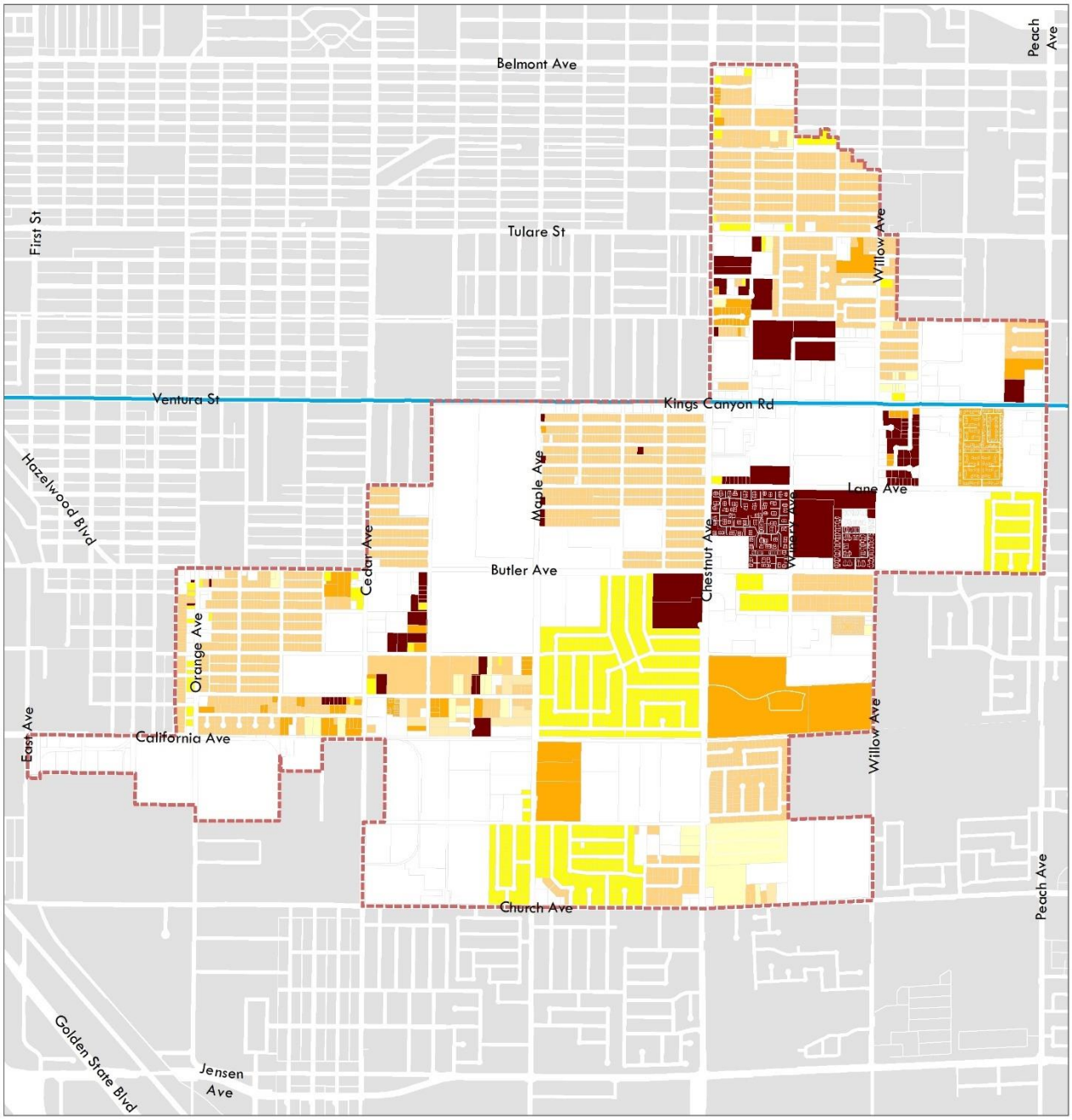
Legend

- Central Southeast Plan Boundary
- Open Space
- Commercial Corridor
- Suburban Commercial
- Traditional Neighborhood
- Suburban Housing Tract
- Suburban Apartment Project
- Workplace Industrial
- Public Amenities
- Undeveloped Land

N 0 0.125 0.25 0.5 Miles

Existing Residential Uses

Approximately half of the Plan Area currently consists of residential land uses. Existing residential uses by parcel are shown in the map on the next page. Low and medium-density residential uses, mainly in the form of single-family homes, are found throughout the Plan Area, with higher density residential uses generally located on either side of Ventura/Kings Canyon Rd between Chestnut and Peach Avenues. Multi-family housing comprises less than a third of the residential uses in the Plan Area and generally consists of 1-2 story garden style apartments.



Existing Land Use - Residential

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit

Consolid_E

- Commercial - Community
- Commercial - General
- Commercial - Neighborhood
- Commercial - Office
- Commercial - Parking
- Employment - Heavy Industrial
- Employment - Light Industrial
- Open Space
- Park
- Public Facilities
- Residential - High Density
- Residential - Low Density
- Residential - Medium Density
- Residential - Medium High Density
- Residential - Medium Low Density
- Residential - Mobile Home Park
- Residential - Rural
- Vacant
- rail

N 0 0.125 0.25 0.5 Miles

Traditional Neighborhood Place Type

Land Use and Intensities

These neighborhoods reflect a traditional early- to mid- 20th century neighborhood pattern of single family houses built within rectangular blocks formed by a simple rectangular grid of streets (see map on proceeding page). Most but not all of these are currently classified as Residential-Medium Density.

Block Pattern and Connectivity

These neighborhoods are structured by an interconnected street pattern with majority of blocks split by alleys. Block structure, streetscape and building setbacks are quite consistent throughout these neighborhoods, providing environments conducive to pedestrian and bicycle movement by the completeness of the network, lower vehicular speeds, and general presence of comfortable sidewalks. While the design of these neighborhoods is walkable, many of them lack nearby neighborhood centers that include retail conveniences, recreational open space, schools and other amenities of daily living. A number of the neighborhood streets lack sidewalks due to the development standards at the time of construction. In some cases, where the streetscape character is semi-rural, housing densities are low, and vehicular speeds are low, the lack of sidewalks may not be a problem, and in other cases future addition of sidewalks would be desirable.

Building Form and Character

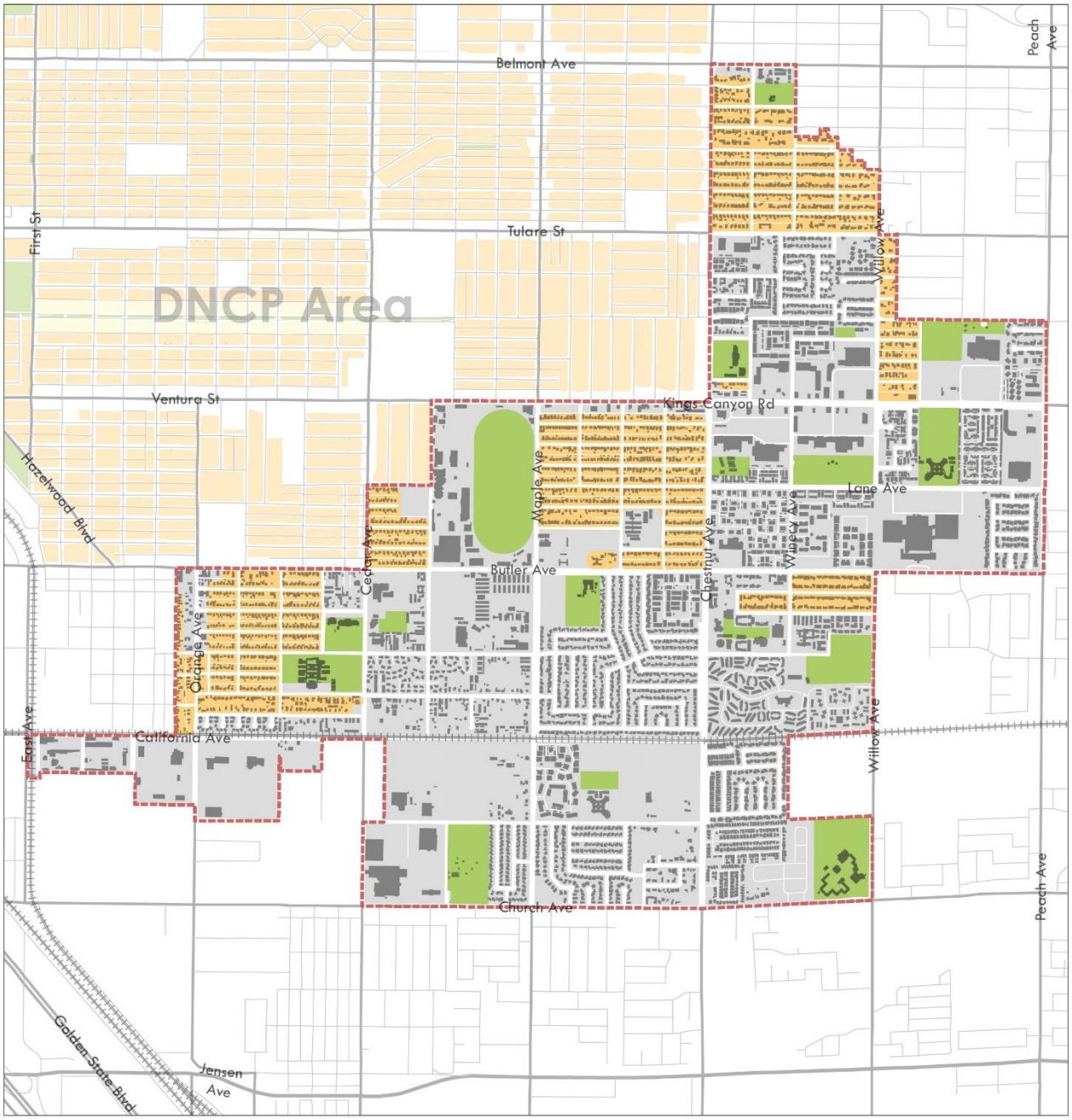
Buildings found in these neighborhoods are characterized by single family houses – many single story – on fairly large lots, consisting of single-family houses that have been built on a traditional interconnected street network. The houses are typically modest in size, have moderate and consistent setbacks from the street with stand-alone garages at mid or rear of the lot with alley access, if available. Most automobile access – even to lots served by alleys – is currently provided from the street due to the abandonment or closure of alleys. Many front yards are enclosed with chain link or metal fences.

Opportunities

A number of opportunities exist throughout these neighborhoods including the cleanup and reactivation of alleys, infilling vacant lots, restoring missing or broken sidewalk connections, improving streetscapes (trees, planter strips, street lighting), among others.

Example of typical house character found throughout traditional neighborhoods

Example of a residential streetscape providing shaded sidewalks, street parking and narrower roadways



Place Type - Traditional Neighborhood

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Traditional Neighborhood

N 0 0.125 0.25 0.5 Miles

Suburban Housing Tract Place Type

Land Use and Intensities

These neighborhoods are characterized by single-family houses, typically organized around closed networks of internal streets (some gated and some not) with limited connections to adjoining major avenues and adjacent neighborhoods. Many of these internal networks include cul-de-sacs and long blocks that limit pedestrian and bicycle movement within and to and from the neighborhood. Existing land use designations for these places include Suburban Residential Rural, Residential Medium-Low, Residential Medium, and Residential Medium-High.

Block Pattern and Connectivity

Most of these suburban housing tracts are organized by a street and block pattern that created property value by isolating and disconnecting most lots from surrounding streets and neighborhoods. Key street network characteristics include limited points of access, low levels of connectivity and dead-end streets. Blocks are typically irregular in shape, size and tend to be long with limited throughways and inconsistent landscaping.

Building Form and Character

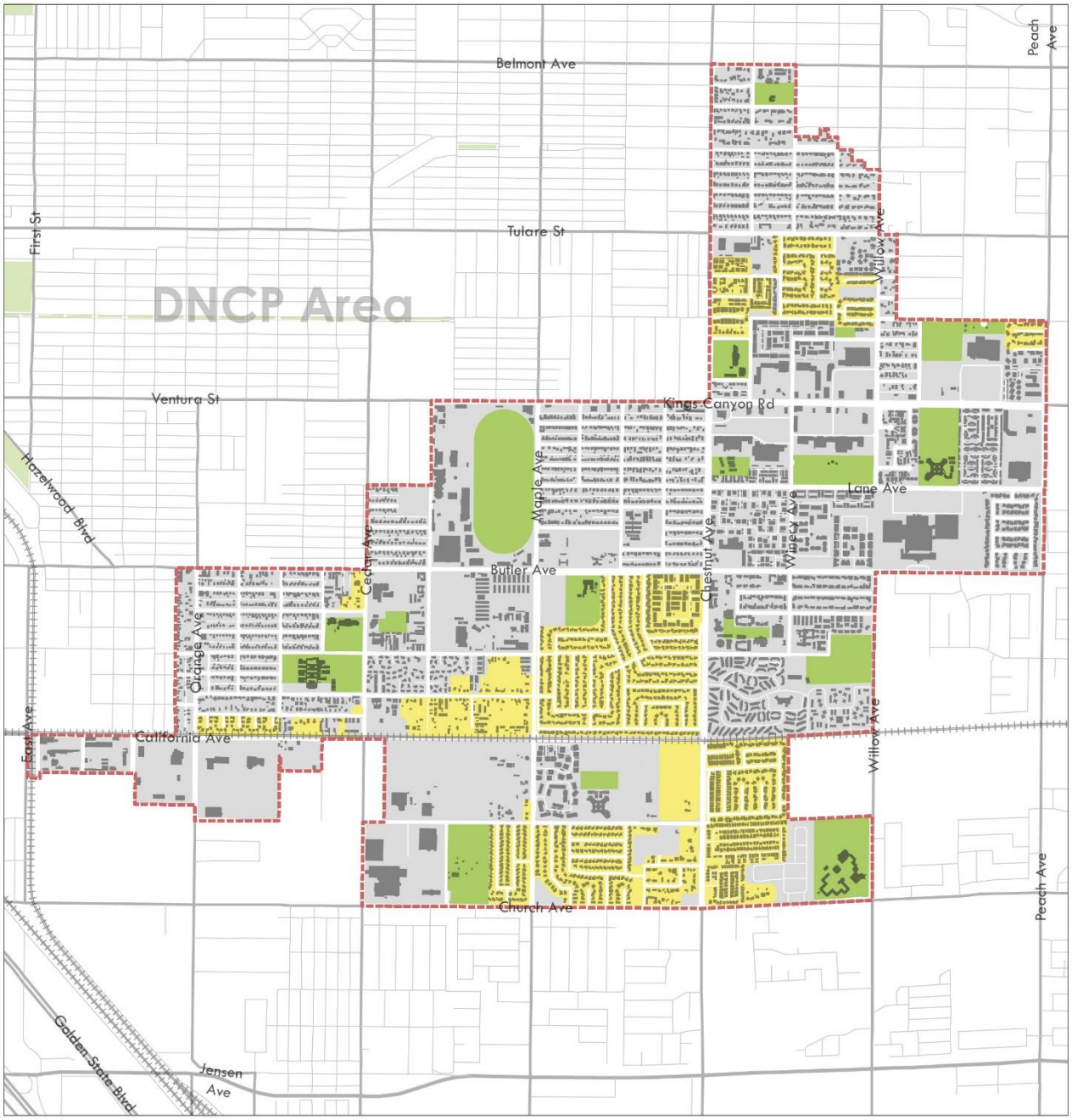
Houses in these neighborhoods include single-family houses from small to large on lots from small to large, and mobile and manufactured homes. Setbacks vary from moderate to deep, and street frontages range from landscape-dominant to house-dominant to garage/driveway dominant.

Opportunities

Greatest opportunities in these places are likely to be focused on providing targeted new connections for pedestrians and bicyclist to improve access to adjoining neighborhoods, schools, parks, shops and other amenities. Creating a more interconnected network in the CSESP area can catalyze community and commercial activity in existing or new Neighborhood Centers.

Example of a suburban housing tract

Example of a cul-de-sac single-family neighborhood



Place Type - Suburban Housing Tract

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Suburban Housing Tract

N 0 0.125 0.25 0.5 Miles

Suburban Apartment Project Place Type

Land Use and Intensities

These areas are characterized by multi-family apartment buildings, typically organized around internal private open spaces, streets or parking lots, with and without carports. Many of these projects are gated and turn their backs to the main avenues, and in some cases buildings face the main avenues but are cut off from them by security fences and walls. Existing land use designations for these areas include primarily Residential Medium-High Density and Residential High Density.

Block Pattern and Connectivity

Blocks are typically very large in these areas, with circulation provided by private streets and parking lots and private open spaces. Connections to the City street network are limited and sometimes gated, offering limited opportunities for pedestrian or bicycle access to adjoining neighborhoods or community amenities.

Building Form and Character

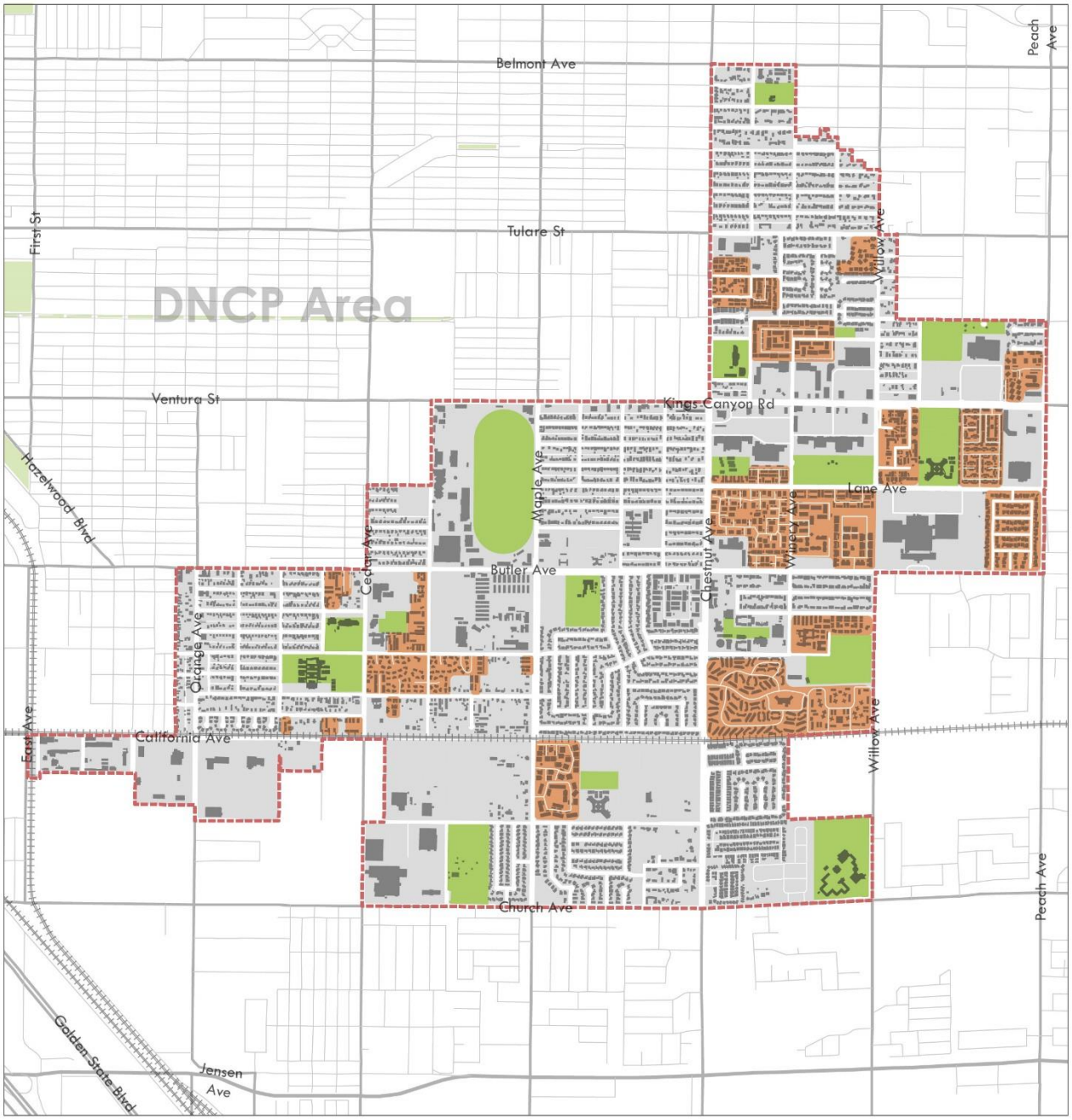
Apartment buildings range from one to two stories. Some are "house form" with pitched roofs and architecture related to houses, but many are larger boxy buildings with a scale very different from houses. Setbacks and frontage conditions vary, but property line walls and fences of some sort are typical.

Opportunities

Opportunities for improvement in these places probably focus on improved pedestrian and bicycle connections to adjoin single- or multi-family developments and neighborhoods, nearby public parks, schools, shops and other neighborhood amenities.

Example of a gated suburban apartment project along Winery Avenue

Example of multi-family residential



Place Type - Suburban Apartment Project

Central Southeast Fresno Specific Plan

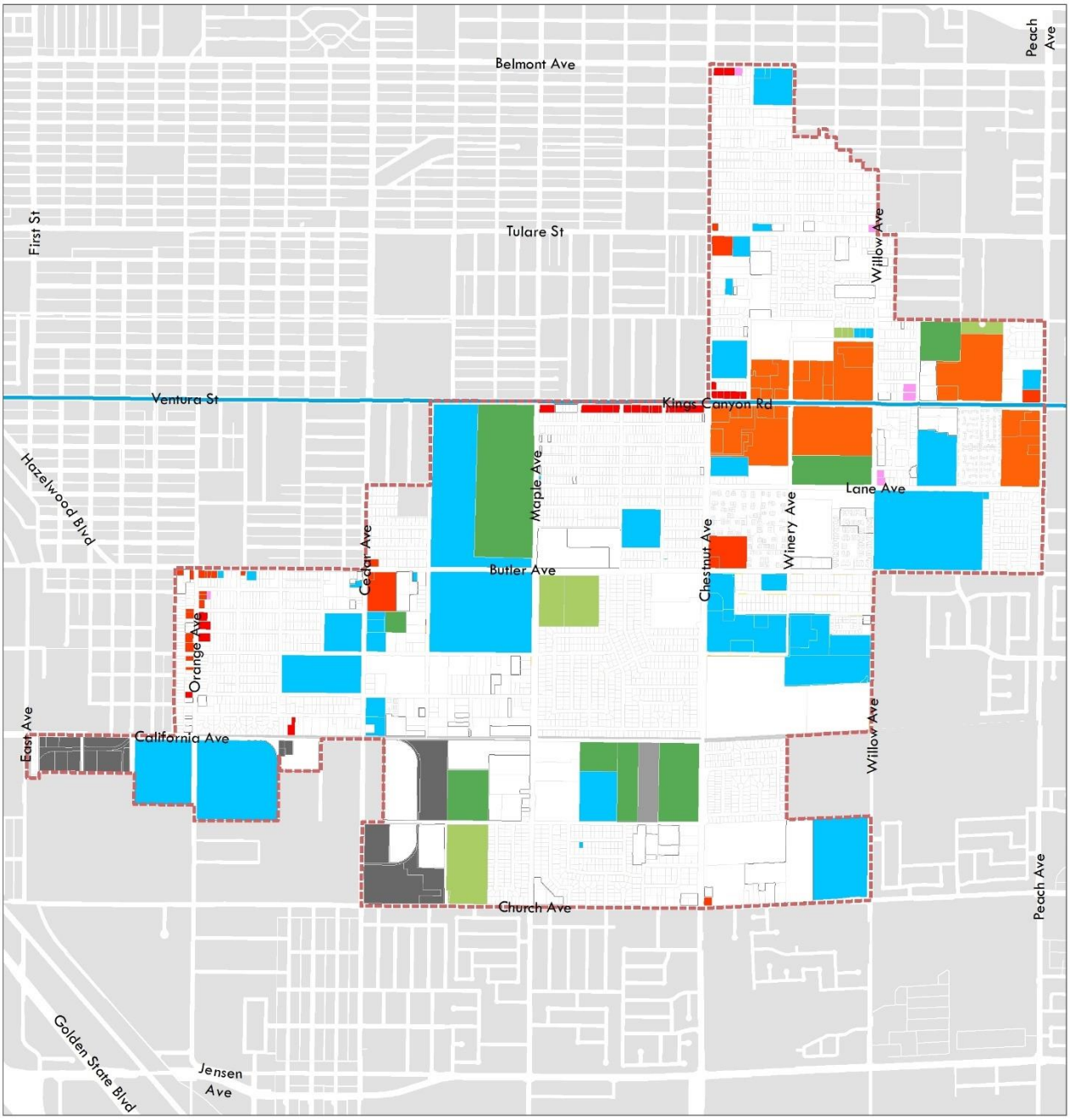
Legend

- Central Southeast Plan Boundary
- Open Space
- Suburban Apartment Project

N 0 0.125 0.25 0.5 Miles

Existing Non-Residential Uses

The map on the next page displays existing non-residential land uses in the Plan Area. Commercial uses are focused along Ventura/Kings Canyon Rd, Butler, and Orange Avenues. A limited number of industrial parcels are clustered near the southern boundary of the Plan Area between California and Church Avenues. There are a large number of public/institutional facilities and parks/open space scattered throughout central and southern portion of the Plan Area, including the Fairgrounds, Fresno Pacific University, an IRS facility, and several public schools.



Existing Land Use - Non Residential

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit

Consolid_E

- Commercial - Community
- Commercial - General
- Commercial - Neighborhood
- Commercial - Office
- Commercial - Parking
- Employment - Heavy Industrial
- Employment - Light Industrial
- Open Space
- Park
- Public Facilities
- Residential - High Density
- Residential - Low Density
- Residential - Medium Density
- Residential - Medium High Density
- Residential - Medium Low Density
- Residential - Mobile Home Park
- Residential - Rural
- Vacant
- rail

N

0 0.125 0.25 0.5 Miles

Highway Commercial Place Type

Land Use and Intensities

This place type is strip-commercial and semi-rural retail primarily along main east-west avenues, with low intensity activity despite the high traffic volume on these main avenues.

Block Pattern and Connectivity

Located on major arterials such as Kings Canyon Rd. and intersecting collectors such as Orange Ave., Highway Commercial typically lines these streets and intersections, and back up to existing neighborhoods and alleys.

Building Form and Character

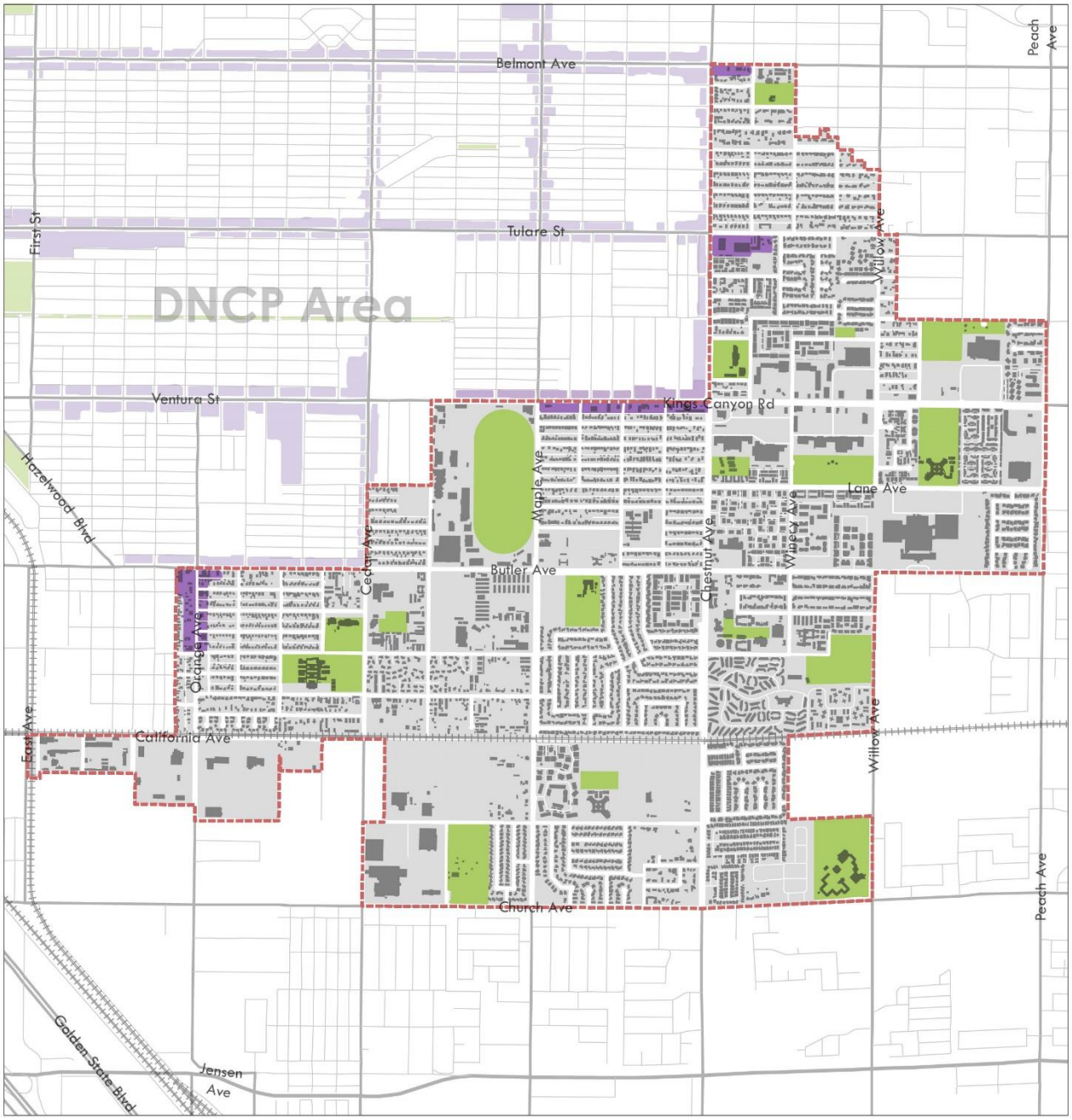
Buildings are primarily one-story retail buildings with varying setbacks and are generally strip-commercial in character. Some front the street directly with on-street parallel parking in front, others retain the older rural "pull in parking", from which customers back out directly into the street, and others have front parking lots with internal access drives. Front setbacks vary in depth but for the most part they are filled with pavement and parking.

Opportunities

Key opportunities to improve these commercial corridors include infilling the vacant and abandoned parcels, renovating facades, and focusing infill development around selected intersections in the form of more complete, more walkable neighborhood centers that are better connected to adjoining neighborhoods. Such centers would include an expanded range of commercial and civic amenities, and over time could expand to include mixed-use, multi-story buildings and infill multi-family and attached single-family housing. By providing more attractive on-street parking and parking lots beside or behind buildings, these corridors can become more attractive, useful and walkable. Pedestrian-friendly amenities such as complete and shaded sidewalks, better street lighting, planted medians and frequent crosswalks can help revitalize existing centers and provide public transit nodes along the corridors.

Example of a high-volume arterial street with semi-rural and suburban commercial activity

Example of varying and inconsistent setbacks that break up cohesion along the corridor



Place Type - Highway Commercial

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Highway Commercial

N 0 0.125 0.25 0.5 Miles

Suburban Commercial Place Type

Land Use and Intensities

These larger suburban commercial centers – most are currently classified as Commercial Community – provide concentrations of larger retail and restaurant organized around large parking lots. Automobile access is prioritized with very limited access on foot or by bicycle, either from the main avenue or from adjoining neighborhoods.

Block Pattern and Connectivity

These centers are typically located in very large- blocks, most of which is devoted to surface parking. Access is typically provided by private Drive Lanes.

Building Form and Character

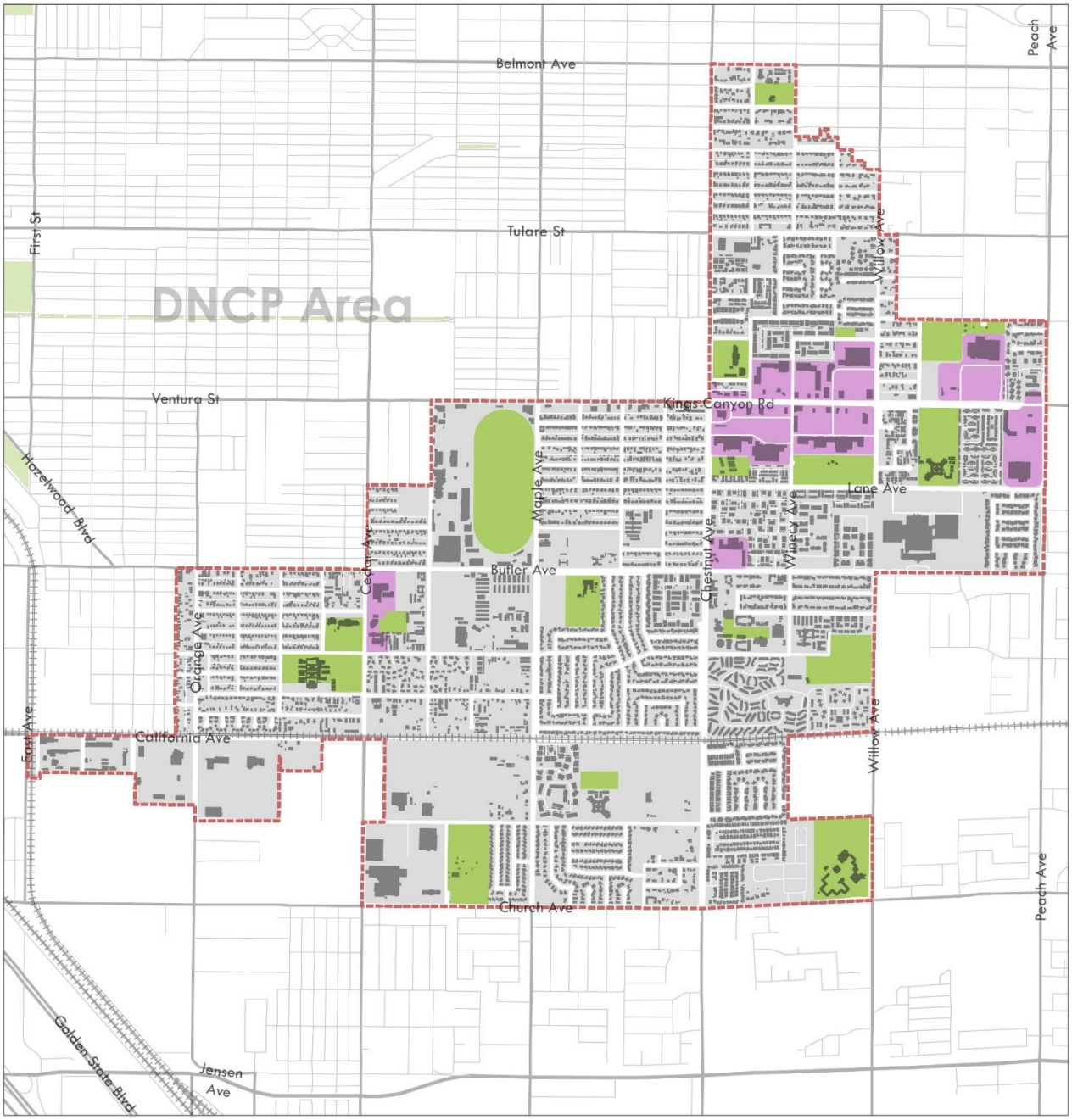
Buildings in this place type are typically large, one-story boxes with deep setbacks filled with parking lots that separate most of the buildings from the street. Pedestrian circulation is typically limited to walkways along the fronts of the buildings and around parking lot edges.

Opportunities

Many of these commercial destinations reach full use-capacity only a few times per year, meaning their large parking lots are underutilized most of the time. This provides an opportunity for new infill development -including reactivation of streets by adding new street-fronting commercial infill along major streets. In some cases there are opportunities to provide new secondary connections from these centers into adjoining properties or neighborhoods to facilitate multi-modal access.

Example of a suburban shopping center drive lane, serving as a limited point of access into and within the center

Example of a typical suburban shopping center parking lot



Place Type - Suburban Commercial

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Suburban Commercial

N 0 0.125 0.25 0.5 Miles

Workplace Industrial Place Type

Land Use and Intensities

This place type is characterized by one-story, low intensity industrial and office buildings, frequently surrounded by parking lots and ranging in character from suburban to rural. Despite its use and designation for industrial activities, this place type is in many cases immediately adjacent to residential neighborhoods or public use facilities, including open spaces and playing fields. Existing land use designations include Employment-Heavy and Employment-Light Industrial, and Public Facilities.

Block Pattern and Connectivity

These parcels are typically situated within large, irregular blocks with limited safe pedestrian connectivity, and in some cases constrained access by all modes. Some parcels in the southwest portion of the Plan Area are still served by heavy rail.

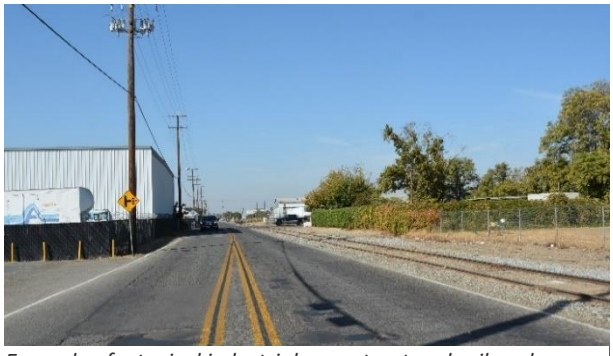
Building Form and Character

Buildings are standalone warehouses and service buildings with large footprints, deep setbacks, and industrial in character and are surrounded by outdoor storage, parking or other uses.

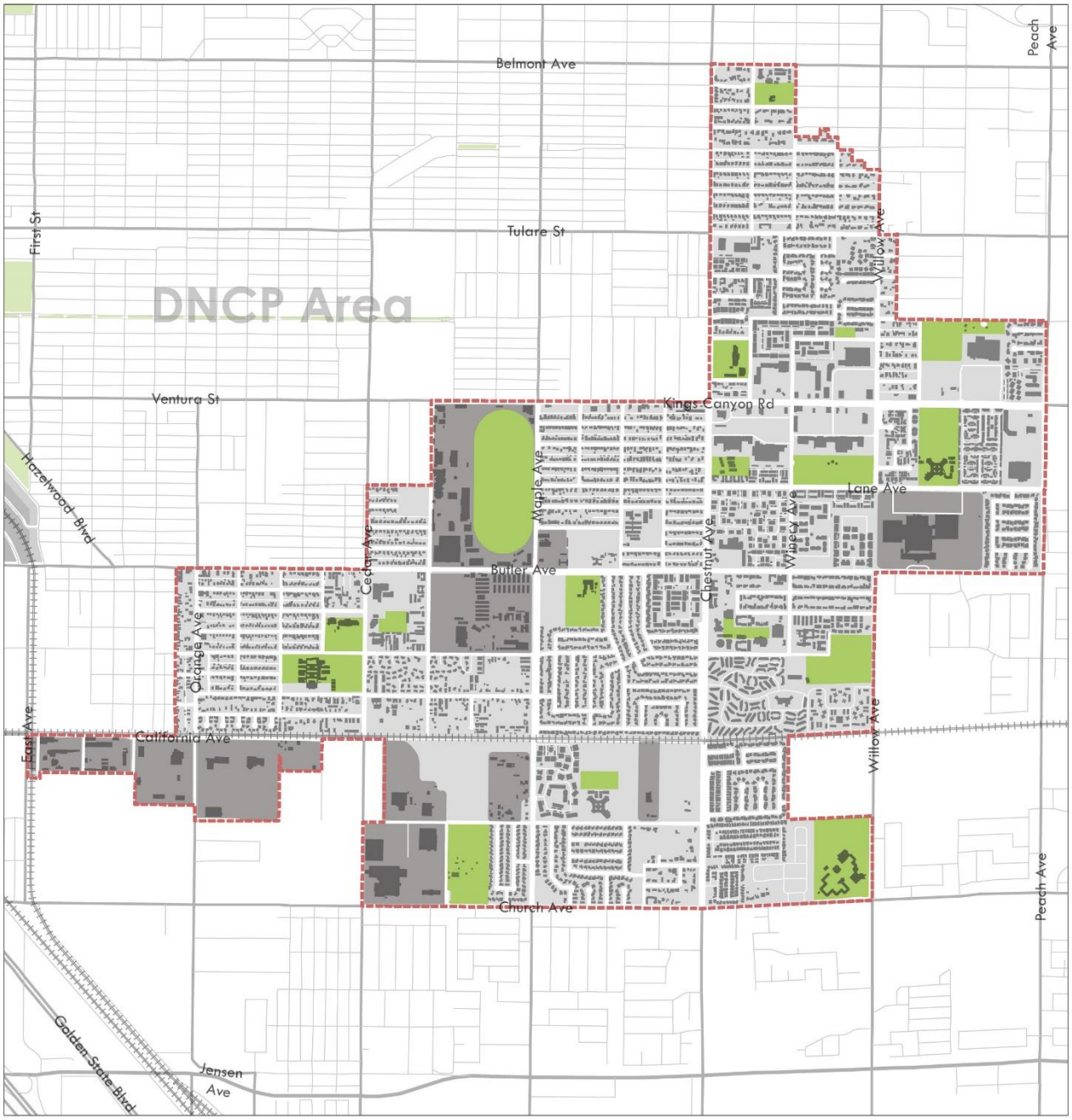
Opportunities

While some of these properties are heavily utilized by thriving businesses, many very low intensity and outdated facilities that might likely be replaced by newer light industrial, R&D and office facilities. As this occurs – and particularly when new uses are less noxious than older, heavier industrial uses – there are opportunities to connect new employment centers to existing and future neighborhoods and centers, to enable better multi-modal access to jobs, and access from the employment centers to shops, restaurants and services.

Example of an industrial area in proximity to a residential neighborhood along California Avenue



Example of a typical industrial area street and railroad



Place Type - Workplace Industrial

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Workplace Industrial

N 0 0.125 0.25 0.5 Miles

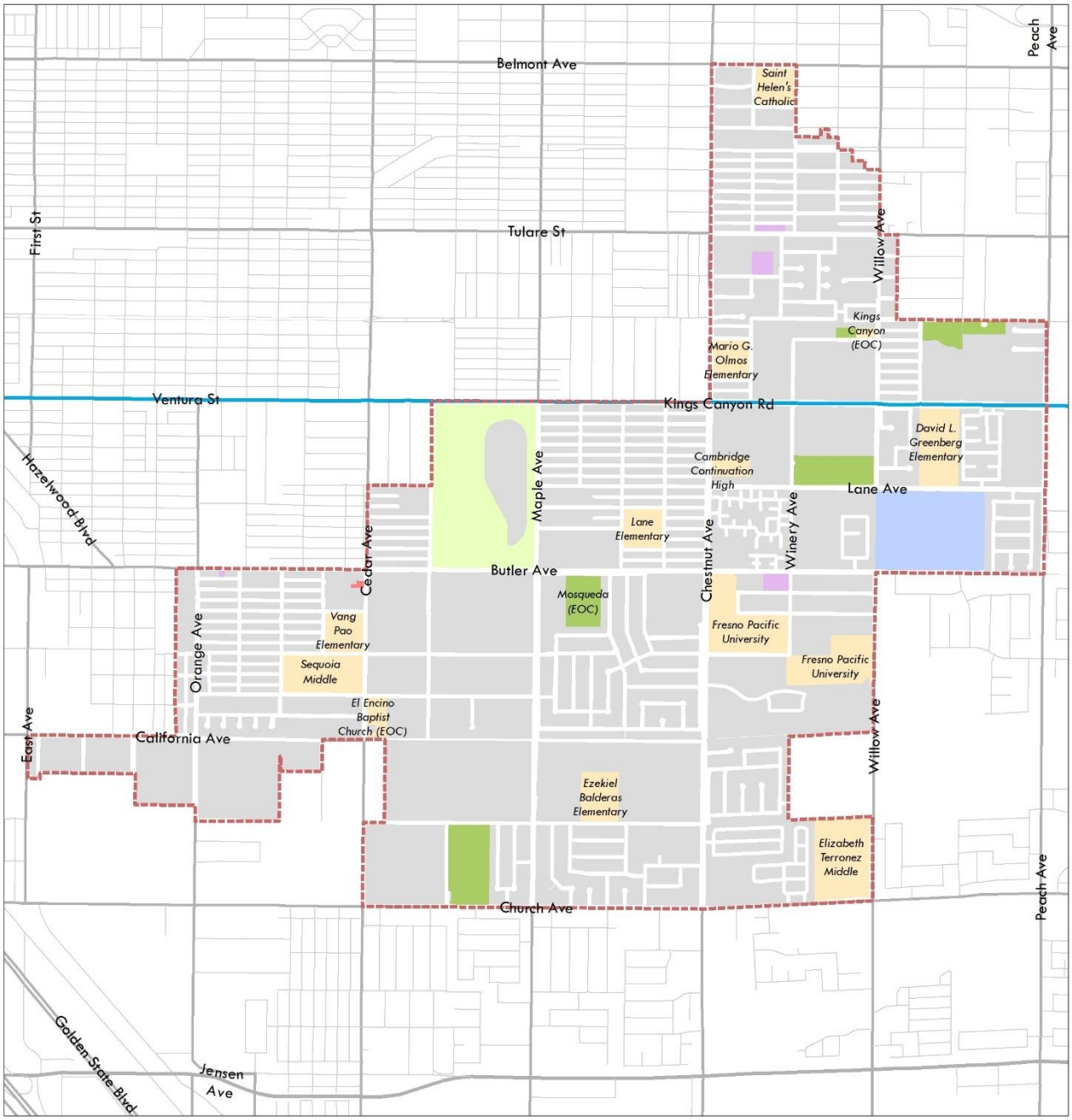
Public Facilities

The map on the next page focuses specifically on public facilities in the Plan Area. Approximately one quarter of the Plan Area consists of public facilities and parks/open space, as described below:

- Notable community facilities and services in the Plan Area include the Fairgrounds, the Mosqueda and Calwa Community Centers, Fresno Pacific University, and several public elementary, middle, and high schools. Additional public and institutional facilities in the area include an IRS facility, one fire station, and three churches.
- Parks are distributed throughout the Plan Area in the form of several community center parks (CALWA and Mosqueda), and smaller pocket parks nestled amongst low-density residential areas.
- Open spaces in Plan Area are limited to several ponding basins and the Fairgrounds (see Existing Open Spaces map), which is predominately hardscaped and inaccessible to the public for most of the year
- Additional recreational facilities can be found at many of the twelve schools located within the Plan Area (see Table 3). Currently two schools, Elizabeth Terronez Middle School and Vang Pao Elementary, have joint use agreements with the City to enable public use of their facilities.

Table 3: Schools in the Plan Area

School	Type	Level
Ezekiel Balderas Elementary	Public school	Elementary
Mario G. Olmos Elementary	Public school	Elementary
Cambridge Continuation High	Public school	High
Elizabeth Terronez Middle	Public school	Middle
David L. Greenberg Elementary	Public school	Elementary
Fresno Pacific University	Private university	University
Lane Elementary	Public school	Elementary
El Encino Baptist Church (EOC)	Head start	Head start
Mosqueda (EOC)	Head start	Head start
Vang Pao Elementary	Public school	Elementary
Saint Helen's Catholic	Private school	Elementary
Sequoia Middle	Public school	Middle
Kings Canyon (EOC)	Head start	Head start



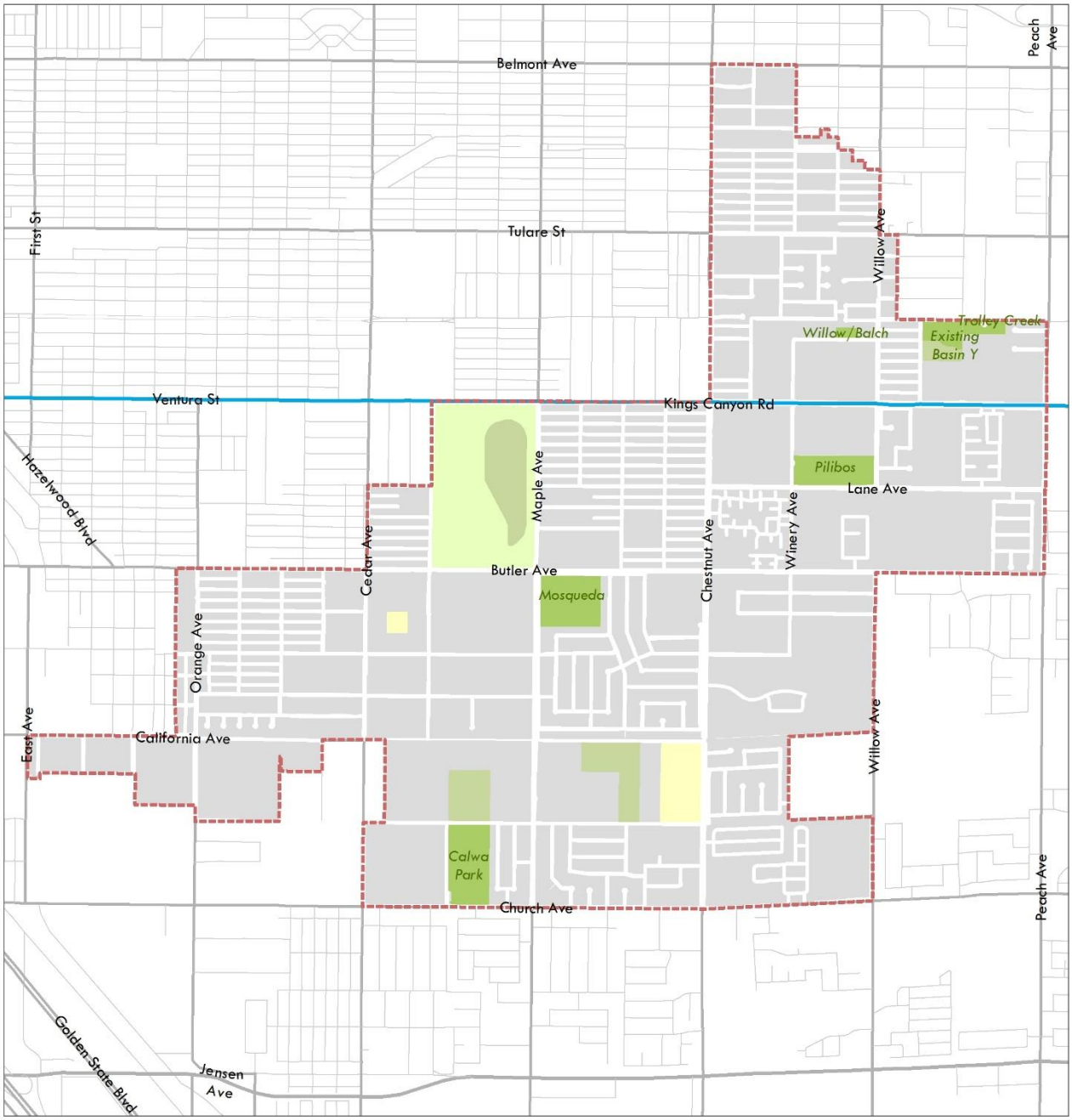
Existing Public Facilities

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit
- Parks
- Fairgrounds
- Schools
- Churches
- Fire Station
- IRS

N 0 0.125 0.25 0.5 Miles



Existing Open Spaces

Central Southeast Fresno Specific Plan

Legend
- Central Southeast Plan Boundary
- Bus Rapid Transit
- Parks
- Ponding Basin
- Fairgrounds
- Open Space

N 0 0.125 0.25 0.5 Miles

Park Facilities

There are 50.79 acres of park land within the CSESP project area, with a ratio of 1.68 acres of park per 1,000 residents, above the current City average of 1.06 (pocket, neighborhood and community parks) but below the General Plan goal of 3 acres per 1,000 residents. Table 4 lists all of the parks within the Plan Area. Most of the parks in the Plan Area are in "fair condition," indicating some mechanical/equipment defects that require major repair and/or replacement. Additional park issues include crime/safety, accessibility problems, and lack of shade structures and adult programming. Mosqueda Park has been identified as a priority park for improvement (Fresno Parks Master Plan, 2017)

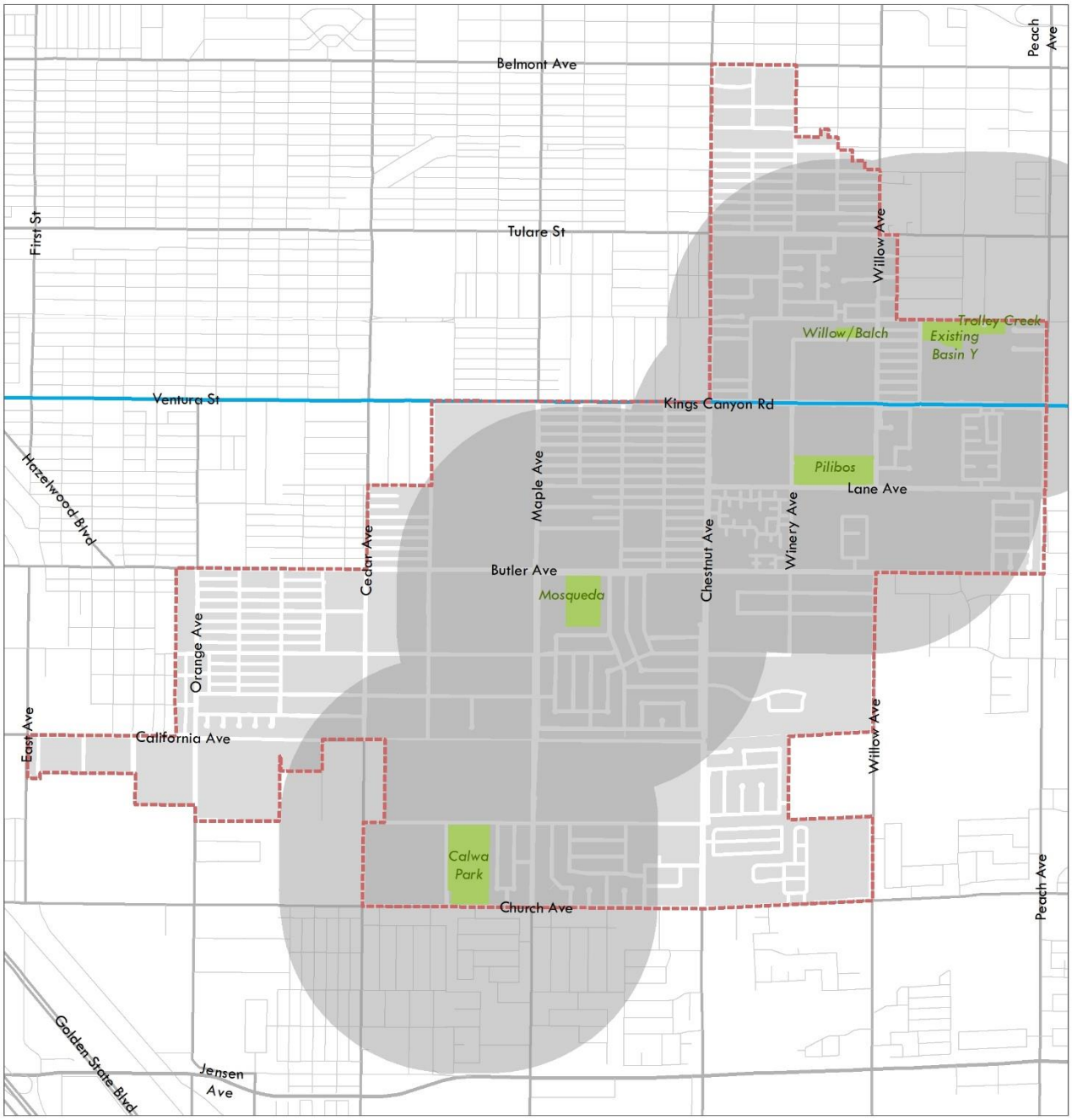
A majority of the Plan Area is within a half-mile of a park or open space (see Park Facilities – Half Mile Radius map), with the exception of the neighborhoods around the southeastern boundary of the plan. Vacant parcels present opportunities to add new park space and the City could target vacant parcels outside of the quarter mile buffer. As seen in the Park Facilities & Vacant Parcels – Quarter Mile Radius map, there a fair number of vacant parcels located outside of the quarter mile buffer of an existing park, indicating the potential to add new parks so that a greater number of residents are within a quarter mile of a park.

Table 4: Parks in the Plan Area

Park Name	Acreage	Park Classification	Agency	Condition	Amenities
Mosqueda	10.02	Community	City of Fresno PARCS Department	Fair	1-Parking lot, 1-Baseball/softball field (lighted), 2-Basketball courts (lighted), 1-BBQ, 5-Bench, 5-Bike rack, 4-Bleachers, 1-Drinking fountains, 6-Picnic tables, 1-playground (non-shaded), 5-Restroom (mens/womens), 1-BMX park (above-ground), 1-Swimming pool, 2-tennis courts (lighted), 1-playground (non-shaded), 1-signage (rules & regs), 1-Monument sign, 5-Trash receptacles, and 1-Recreation center
Pilibos	13.22	Community	City of Fresno PARCS Department	Fair	1-Parking lot, 8-BBQ, 1-Bench, 1-Bike rack, 4-Bleachers, 1-Drinking fountains, 17-Picnic tables, 2-playground (non-

Park Name	Acreage	Park Classification	Agency	Condition	Amenities
					shaded), 2-Ramadas, 1-Restroom (mens/womens), 4-Soccer fields (lighted), 1-signage (rules & regs), 1-Monument sign, 3-Trash receptacles
Trolley Creek	3.07	Neighborhood	City of Fresno PARCS Department	Good	4-BBQ, 2-Ramadas, 6-Bench, 1-Bike rack, 4-Bleachers, 2-Drinking fountains, 3-playground (non-shaded), 1-Restroom (mens/womens), 1-signage (rules & regs), 1-Monument sign, 5-Trash receptacles, 1-Shade structure, and 1-Amphitheater/stage.
Willow/Balch	1.14	Pocket	City of Fresno PARCS Department	Fair	3-BBQ, 1-Bench, 1-Drinking fountain, 2-Playground (non-shaded), 1-Signage (rules & regs), 1-Monument sign, 1-Trash receptacle
Ponding Basin Park Y	4.98	Neighborhood	FMFCD Ponding Basin Parks	Fair	Accessible path
Calwa Park	18.35	Community	Calwa Recreation Park District	Unknown	3-Soccer/baseball, 1-Soccer, 2.5-Basketball, 1-Community Center, 1-Pool, 3-Play structure, 5-picnic shelters, 2-Restroom (mens/womens)
Total:	**50.79**				

Note: Sunnyside Park, a 4.27-acre neighborhood park is located just outside the CSESP area at Butler and Peach Ave.



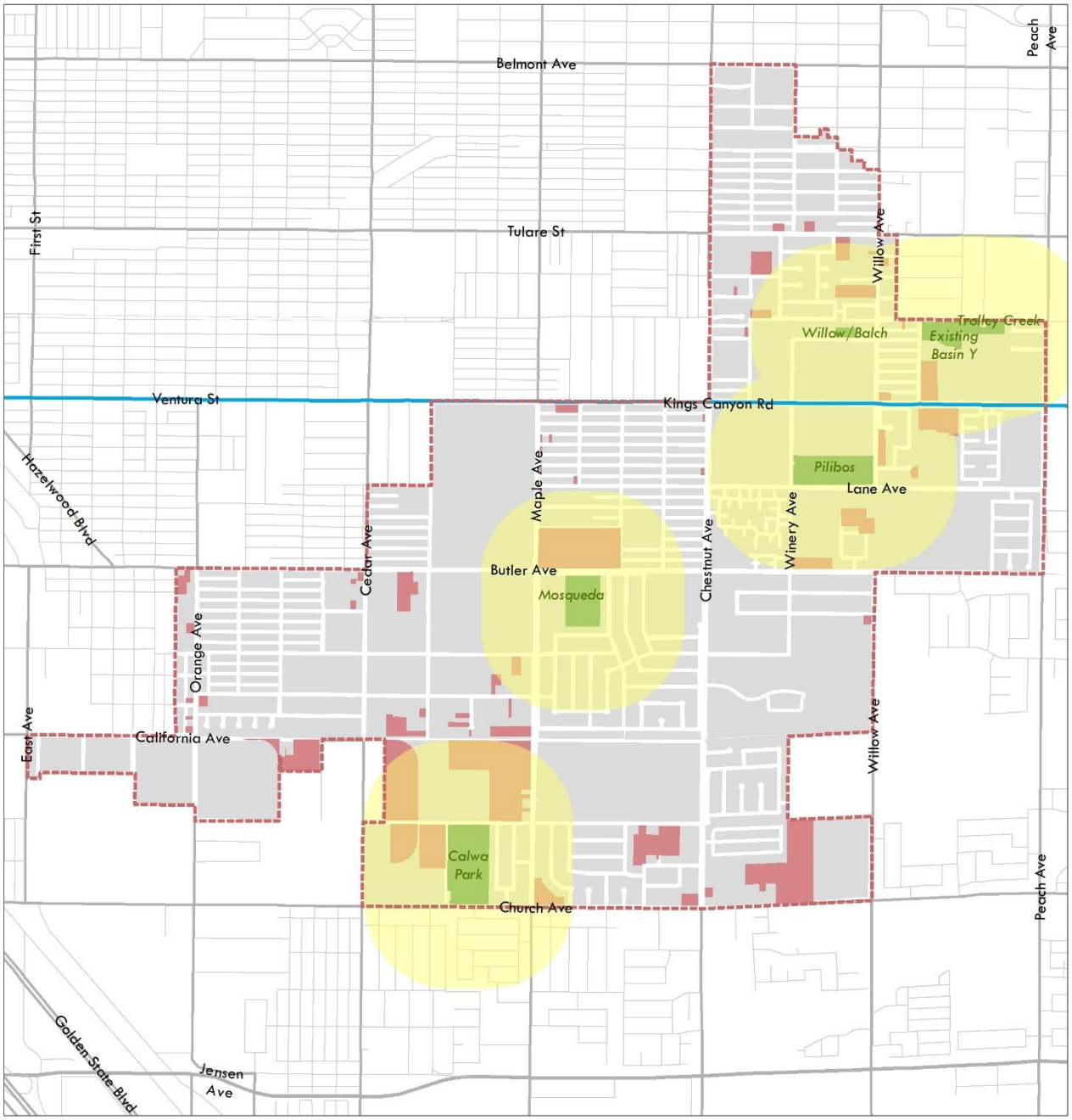
Park Facilities- Half Mile Radius

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit
- Parks
- Half Mile Radius

N 0 0.125 0.25 0.5 Miles



Park Facilities & Vacant Parcels- Quarter Mile Radius

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit
- Parks
- Quarter Mile Radius
- Vacant Parcels

N 0 0.125 0.25 0.5 Miles

Public Amenity Place Type

Land Use and Intensities

This place type includes schools and universities, churches, community centers and other amenities found within the CSESP area. They are generally of low intensity and in most cases, are adjacent to open spaces and parks. Most are currently designated as Public Facilities.

Block Pattern and Connectivity

Public Amenities tend to be situated along collector streets, but can also be found integrated into existing neighborhood blocks. Some of these facilities occupy one or more large blocks in campus form– for example Fresno Pacific University and other schools – with connectivity provided mainly by an internal network of private streets and other open spaces. Other parks and community facilities fit within the block pattern of the neighborhood they serve, with access provided by the neighborhood street network. Despite their zoning and place type designation, some of these facilities have limited public access open due to safety concerns or intermittent use patterns.

Building Form and Character

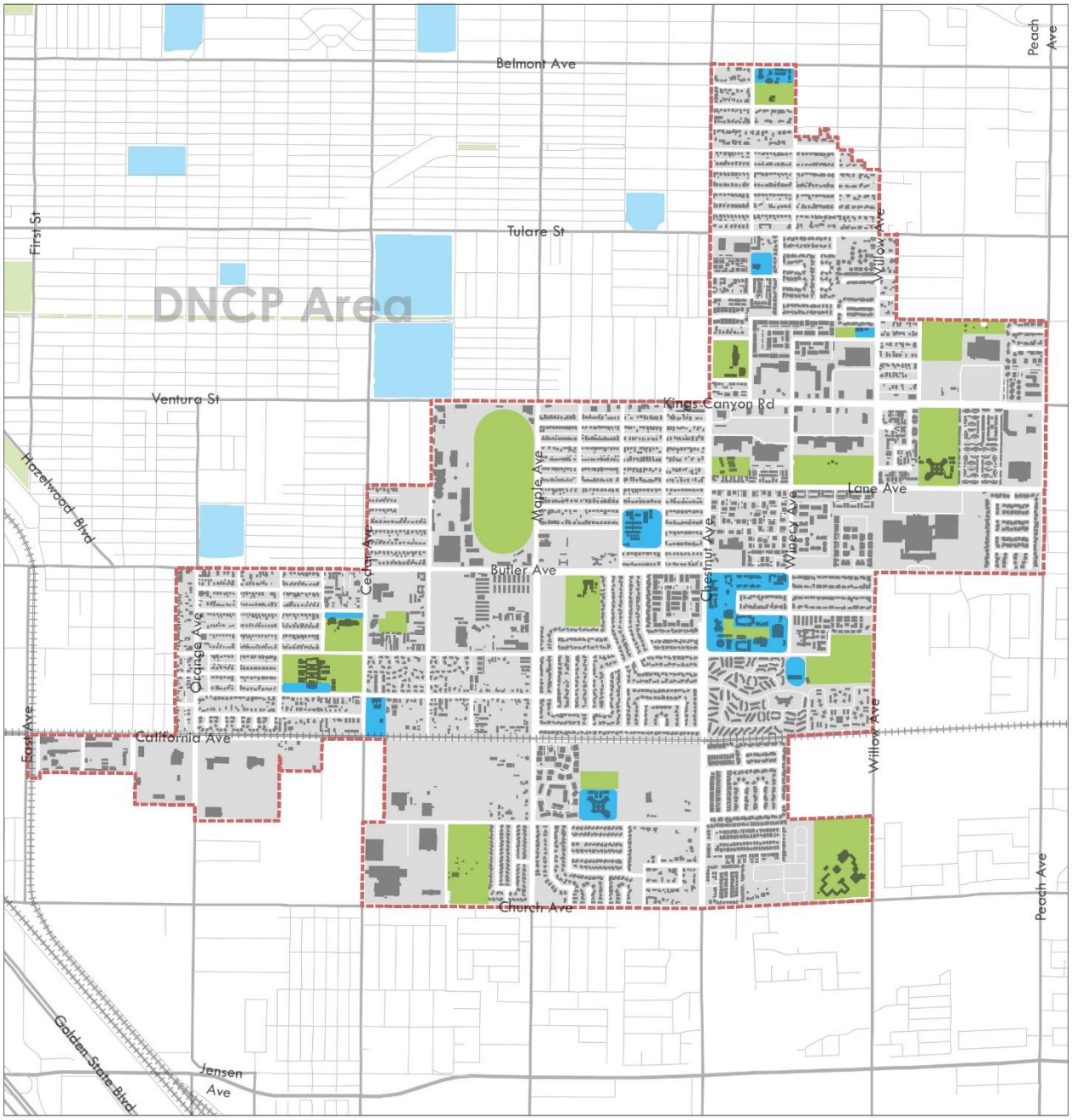
Buildings vary in character and size depending on their use and location. Most are of moderate to large size with fairly deep setbacks and are occasionally surrounded by surface parking. Buildings that are integrated into existing neighborhoods tend to be more reflective in size and character of their immediate context.

Opportunities

Key opportunities for enhancing Public Amenities include a focus on circulation and connectivity, frontage enhancements and stronger public realm integration. A number of schools have incomplete pedestrian and bike route connections within adjacent neighborhoods that would be better served with streetscape improvements including shaded sidewalks, lighting, landscaped medians and more frequent crosswalks.

Sequoia Middle School is one of seven public schools in the CSESP area

Maintained open spaces are a much-needed community resource



Place Type - Public Amenities

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Public Amenities

N 0 0.125 0.25 0.5 Miles

Large Vacant Parcels for Infill Development

Vacant parcels are shown on the following page. Overall there are over 150 acres, or almost 10% of the total Plan Area, that are substantially vacant land. The large number of vacant sites in the study area provide opportunities for new residential and commercial development, which is anticipated to catalyze improvements to the Plan Area. Vacant sites could also be purchased for additional public facilities, including parks and open spaces.

- Most of the larger vacant parcels (over 1-2 acres in size) are located in the southern, industrial portion of the Plan Area between California and Church Avenues.
- In addition, land uses like the fairgrounds (approximately 70 acres) are used only for a short duration during the year, and are otherwise vacant or underutilized. This presents an opportunity to consider joint use of the Fairgrounds facility for temporary uses and/or recreational activities.

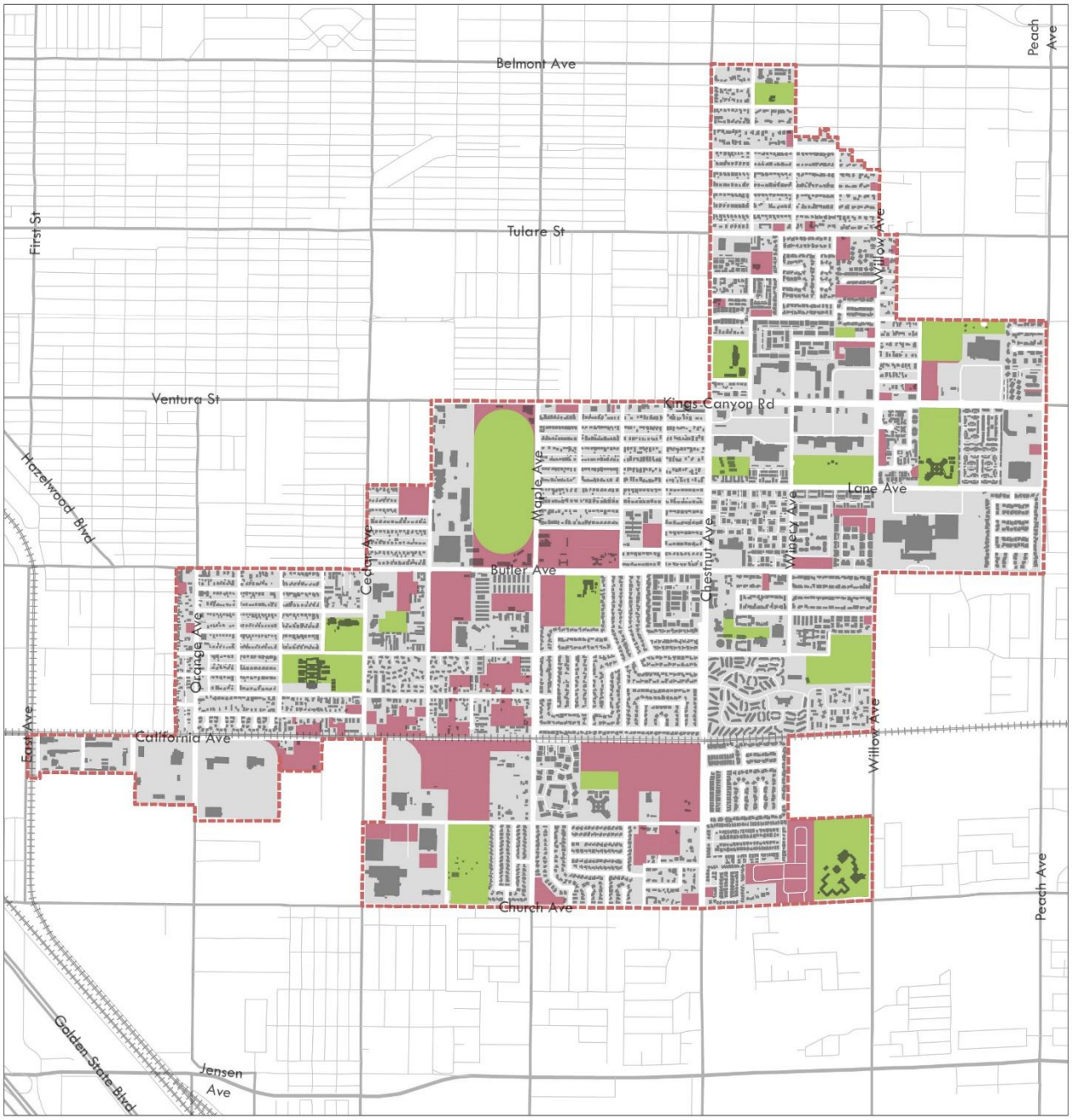
While not displayed on the map, there is an Internal Revenue Service (IRS) facility at the corner of Butler and Willow Avenue in the process of moving out. This 48-acre parcel is well-suited for redevelopment given its size and proximity to several parks and schools, as well as BRT and retail amenities along Ventura/Kings Canyon Rd.

Vacant parcels within the Plan Area will be developed over time and it is vital to set a strategic plan for their future potential. Appropriate future infill development can better connect existing neighborhoods, commercial centers, open spaces, schools and other public facilities. It can allow for a mix of housing types and enable strategically-located centers that offer amenities at walkable and bikeable distances within existing neighborhoods.

In addition to large infill sites, there are a number of smaller-scale opportunities for improving existing urban form and character. The northeast and northwest corners of the fairgrounds along Kings Canyon Rd. have the potential to transform this commercial corridor, reactivate the intersections and serve as anchor points for commercial and social activity.

Example of a large vacant parcel along Sierra Vista Ave.

Vacant parcel along Kings Canyon Rd.



Infill Opportunity Sites

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Infill Opportunity Sites

N 0 0.125 0.25 0.5 Miles

General Plan Land Use

The City updated their General Plan in December of 2014, including revisions to their land use designations and density/intensity regulations for each. The updated General Plan focuses on infill and reinvestment in existing neighborhoods and growth along key corridors such as Ventura/Kings Canyon Rd. The General Plan Land Use Designations map shows the General Plan land uses in the project area. A table of the acreages, percentages, and density/intensity ranges for each General Plan land use designation in the Plan Area can be found in Table 5 below.

Predominate General Plan land uses in the Plan Area are medium-density residential (26.4%), public facilities (22.7%), medium-high density residential (16.3%), and corridor/center mixed use (9.9%). Public facilities and parks/open spaces are generally consistent with what is currently on the ground today. For residential, office, industrial, and commercial uses, the General Plan envisions the following for the Plan Area:

- Horizontal and vertical mixed-use development with retail along the ground floor and residential or office uses above along Ventura/Kings Canyon
- A limited amount of community commercial and office uses along Butler and Orange Avenues
- Re-designation of some of the existing multi-family housing around Butler and Chestnut Avenues from high density to medium-high density residential to match what is currently on the ground
- Medium-high density residential infill, generally along Cedar, Butler, and Chestnut Avenues
- Light and heavy industrial uses concentrated in the southern portion of the Plan Area, south of Church Avenue, filling in existing vacant parcels

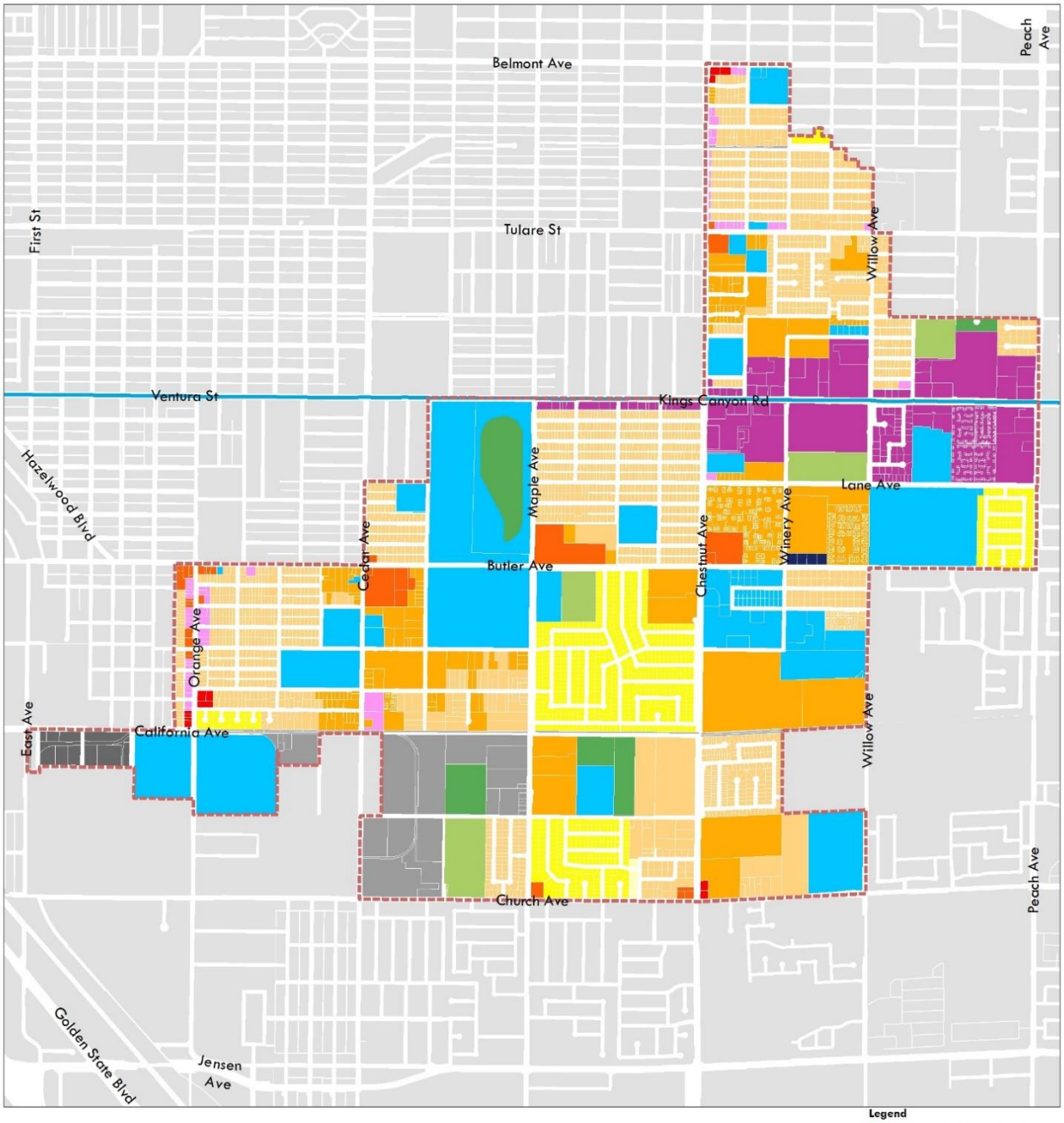
Table 5: General Plan Land Uses in the Plan Area

General Plan Designation	Area in Acres	% of Total	Density/ Intensity	Description
Residential - Low Density	1.8	0.1%	1 - 3.5 du/acre	Large lot residential development
Residential - Medium Low Density	145.7	8.1%	3.5 - 6 du/acre	Single-family detached housing

General Plan Designation	Area in Acres	% of Total	Density/ Intensity	Description
Residential - Medium Density	474.0	26.4%	5 - 12 du/acre	Intended for areas with predominantly single-family residential development, but permitted uses also accommodate a mix of housing types, including small-lot starter homes, zero-lotline developments, duplexes, and townhouses.
Residential - Medium High Density	293.2	16.3%	12 - 16 du/acre	Mix of single-family residences and townhomes, garden apartments, and multi-family units intended to support a fine-grain, pedestrian scale.
Commercial - Community	38.9	2.2%	FAR 1.0	Commercial development that primarily serves local needs such as convenience shopping and small offices. Allowed uses include medium-scale retail, office, civic and entertainment uses, supermarkets, drug stores and supporting uses.
Commercial - General	4.3	0.2%	FAR 2.0	Range of retail and service uses that are not appropriate in other areas because of higher volumes of vehicle traffic and potential adverse impacts on other uses. Strip malls fall into this designation. Allowed uses include: building materials, storage facilities with active storefronts, equipment rental, wholesale businesses, and specialized retail not normally found in shopping centers.
Commercial - Office	18.1	1.0%	FAR 2.0	Administrative, financial, business, professional, medical, and public offices. Mainly intended to apply to existing office uses on smaller lots, generally located on arterial roadways. Retail uses limited to business services, food services, and convenience goods for those who work in the area.

General Plan Designation	Area in Acres	% of Total	Density/ Intensity	Description
Corridor - Center Mixed Use	177.4	9.9%	16 - 30 du/acre FAR 1.5	Horizontal and vertical mixed-use development in multiple story buildings along key circulation corridors where height and density can be easily accommodated. Primary uses are ground-floor retail and upper-floor residential or offices, with personal and business services and public and institutional space as supportive uses.
Neighborhood Mixed-Use	2.6	0.1%	12 - 16 du/acre FAR 1.5	Requires a minimum of 50 percent residential uses and provides for mixed-use districts of local-serving, pedestrian-oriented commercial development, such as convenience shopping and professional offices in two- to three-story buildings. Development is expected to include ground-floor neighborhood retails uses and upperlevel housing or offices, with a mix of small lot single family houses, townhomes, and multi-family dwelling units on side streets, in a horizontal or vertical mixed-use orientation. Built form is expected to be small-scale, pedestrian-oriented and walkable. Automobile-oriented uses are not permitted.
Employment - Heavy Industrial	16.5	0.9%	FAR 1.5	Broad range of industrial uses including manufacturing, assembly, wholesaling, distribution, and storage activities. Small-scale commercial services and ancillary office uses are also permitted.
Employment - Light Industrial	98.4	5.5%	FAR 1.5	Diverse range of light industrial uses, including limited manufacturing and processing, research and development, fabrication, utility equipment and service yards, wholesaling, warehousing, and distribution activities. Small-scale retail and ancillary office uses are also permitted.
Open Space	53.3	3.0%	NA	Intended for undeveloped park lands and permanent open spaces in the community,

General Plan Designation	Area in Acres	% of Total	Density/ Intensity	Description
				including environmentally-sensitive lands, waterways, and wetlands. may include trails and other low-impact public recreational uses, ponding basins, riverbottoms/riverbeds, and airport approach/clear zones.
Park	50.7	2.8%	NA	Intended to maintain areas for active and passive public parks and multi-purpose trails, including outdoor and indoor recreation such as playing fields, trails, playgrounds, community centers, and other appropriate recreational uses. The PR district may include ponding basins or airport approach/clear zones if developed for, programmed, and actively used as recreation fields.
Public Facility	406.8	22.7%	NA	Public or quasi-public facilities, including City facilities, utilities, schools, health services, corporation yards, utility stations, and similar uses. Accessory retail uses and services, including food facilities and childcare, are permitted.
Railroad	11.6	0.6%	NA	Railroad parcels
Total	**1793.4**	**100%**		



General Plan Land Use Designations

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit

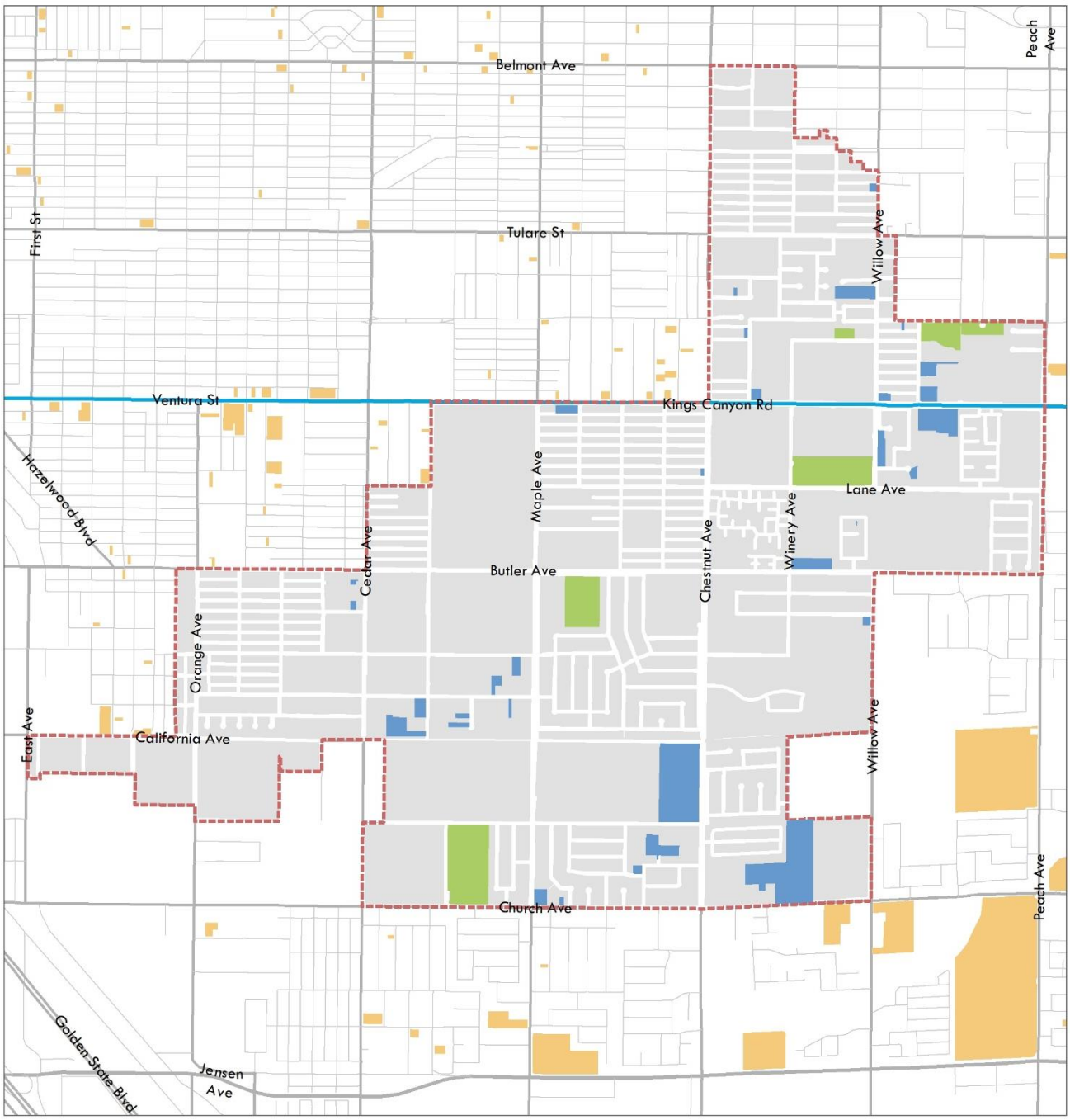
Consolidat

- Commercial - Community
- Commercial - General
- Commercial - Office
- Corridor - Center Mixed Use
- Employment - Heavy Industrial
- Employment - Light Industrial
- Neighborhood Mixed-Use
- Open Space
- Park
- Public Facility
- Railroad
- Residential - Low Density
- Residential - Medium Density
- Residential - Medium High Density
- Residential - Medium Low Density
- Parks

N 0 0.125 0.25 0.5 Miles

Housing Element

The Fresno General Plan 2013-2023 Housing Element identifies vacant parcels and other opportunity sites for infill housing development. The map on the proceeding page highlights sites put forward in the Housing Element, both within and outside of the project area.



Housing Element Sites 2013-2023

Central Southeast Fresno Specific Plan

Legend

- Housing Element Sites in CSE Fresno
- Housing Element Sites
- Central Southeast Plan Boundary
- BusRapitTransit
- Parks

N

0 0.125 0.25 0.5 Miles

Zoning

The City of Fresno adopted a new Development Code in December 2015, establishing new zoning districts, permitted uses, development standards, and procedures to align with the updated General Plan. The zoning designations and map is consistent with the General Plan land use designations and map (see Zoning map). A table of the acreages, percentages, and density/ intensity ranges for each zoning district can be found in Table 6 below.

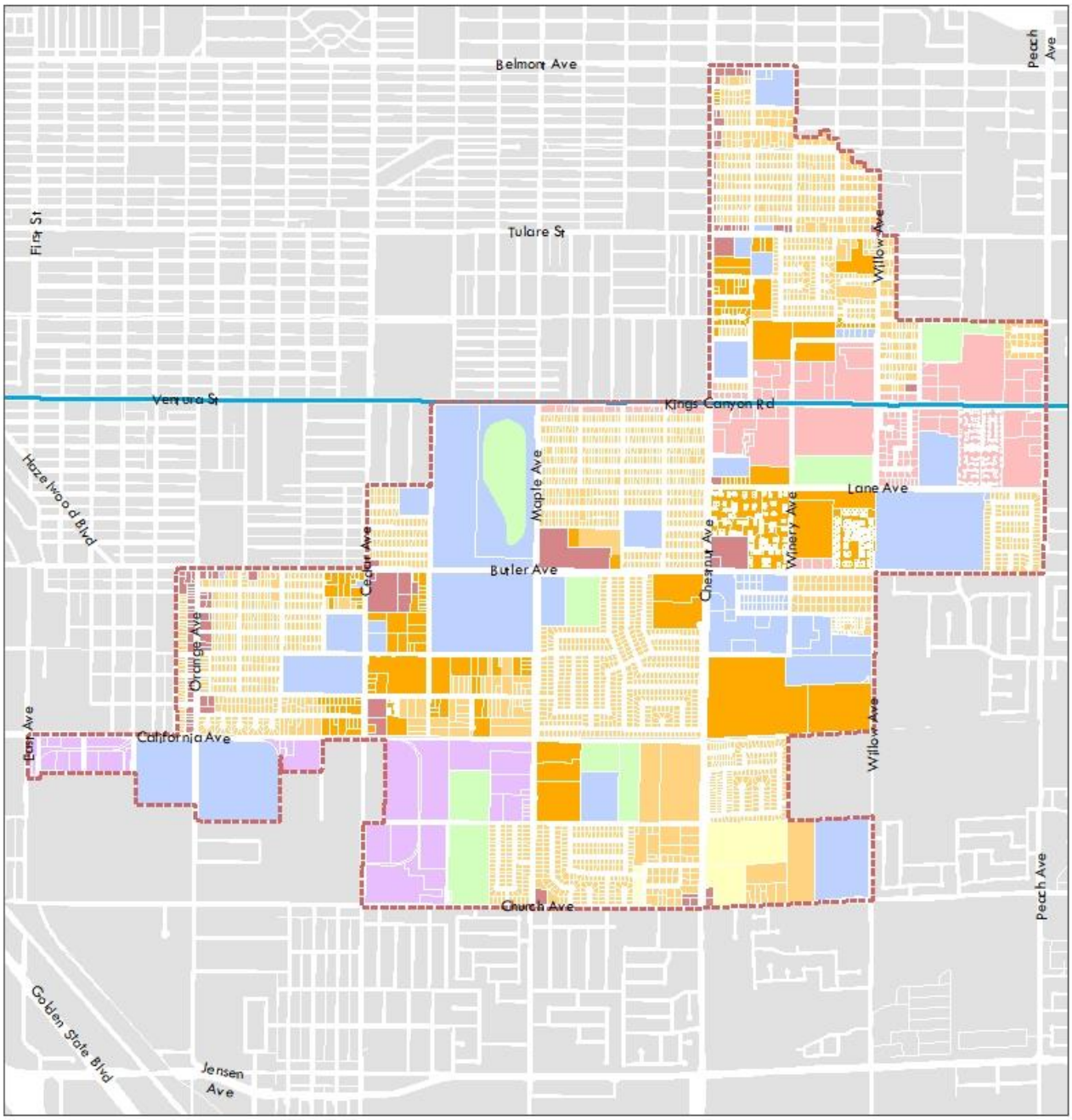
Table 6: Zoning Designations in the Plan Area

Zoning Designation	Area in Acres	% of Total	Density/ Intensity	Description
Residential Single-Family, Low Density	1.8	0.1%	1 - 3.5 du/acre	Large lot residential development
Residential Single-Family, Medium Low Density	145.7	8.1%	3.5 - 6 du/acre	Single-family detached housing
Residential Single-Family, Medium Density	473.7	26.4%	5 - 12 du/acre	Intended for areas with predominantly single-family residential development, but permitted uses also accommodate a mix of housing types, including small-lot starter homes, zero-lotline developments, duplexes, and townhouses.
Residential Multi-Family, Medium High Density	265.8	14.8%	12 - 16 du/acre	Mix of single-family residences and townhomes, garden apartments, and multi-family units intended to support a fine-grain, pedestrian scale.
Mobile Home Park	27.6	1.5%	NA	Manufactured homes within a mobile home park
Commercial Community	38.9	2.2%	FAR 1.0	Commercial development that primarily serves local needs such as convenience shopping and small offices. Allowed uses include medium-scale retail, office, civic and entertainment uses, supermarkets, drug stores and supporting uses.

Zoning Designation	Area in Acres	% of Total	Density/ Intensity	Description
Commercial General	4.3	0.2%	FAR 2.0	Range of retail and service uses that are not appropriate in other areas because of higher volumes of vehicle traffic and potential adverse impacts on other uses. Strip malls fall into this designation. Allowed uses include: building materials, storage facilities with active storefronts, equipment rental, wholesale businesses, and specialized retail not normally found in shopping centers.
Corridor/Center Mixed Use	177.4	9.9%	16 - 30 du/acre FAR 1.5	Horizontal and vertical mixed-use development in multiple story buildings along key circulation corridors where height and density can be easily accommodated. Primary uses are ground-floor retail and upper-floor residential or offices, with personal and business services and public and institutional space as supportive uses.
Neighborhood Mixed Use	2.6	0.1%	12 - 16 du/acre FAR 1.5	Requires a minimum of 50 percent residential uses and provides for mixed-use districts of local-serving, pedestrian-oriented commercial development, such as convenience shopping and professional offices in two- to three-story buildings. Development is expected to include ground-floor neighborhood retails uses and upper level housing or offices, with a mix of small lot single family houses, townhomes, and multi-family dwelling units on side streets, in a horizontal or vertical mixed-use orientation. Built form is expected to be small-scale, pedestrian-oriented and walkable. Automobile-oriented uses are not permitted.
Office	18.1	1.0%	NA	Administrative, financial, business, professional, medical, and public offices. Mainly intended to apply to existing office uses on smaller lots, generally located on

Zoning Designation	Area in Acres	% of Total	Density/ Intensity	Description
				arterial roadways. Retail uses limited to business services, food services, and convenience goods for those who work in the area.
Heavy Industrial	18.4	1.0%	FAR 1.5	Broad range of industrial uses including manufacturing, assembly, wholesaling, distribution, and storage activities. Small-scale commercial services and ancillary office uses are also permitted.
Light Industrial	98.7	5.5%	FAR 1.5	Diverse range of light industrial uses, including limited manufacturing and processing, research and development, fabrication, utility equipment and service yards, wholesaling, warehousing, and distribution activities. Small-scale retail and ancillary office uses are also permitted.
Open Space	53.3	3.0%	NA	Intended for undeveloped park lands and permanent open spaces in the community, including environmentally-sensitive lands, waterways, and wetlands. May include trails and other low-impact public recreational uses, ponding basins, riverbottoms/riverbeds, and airport approach/clear zones.
Park and Recreation	50.7	2.8%	NA	Intended to maintain areas for active and passive public parks and multi-purpose trails, including outdoor and indoor recreation such as playing fields, trails, playgrounds, community centers, and other appropriate recreational uses. The PR district may include ponding basins or airport approach/clear zones if developed for, programmed, and actively used as recreation fields.

Zoning Designation	Area in Acres	% of Total	Density/ Intensity	Description
Public and Institutional	406.8	22.7%	NA	Public or quasi-public facilities, including City facilities, utilities, schools, health services, corporation yards, utility stations, and similar uses. Accessory retail uses and services, including food facilities and childcare, are permitted.
Railroad	10.9	0.6%	NA	Railroad parcels
Total	**1794.7**	**100%**		



Zoning

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Bus Rapid Transit

Zoning

- Business Park
- Commercial Community
- Commercial General
- Commercial Highway and Auto
- Commercial Main Street
- Commercial Recreation
- Commercial Regional
- Corridor/Center Mixed Use
- Heavy Industrial
- Light Industrial
- Mobile Home Park
- Neighborhood Mixed Use
- Office
- Open Space
- Park and Recreation
- Public and Institutional
- Regional Mixed Use
- Residential Estate
- Residential Multi-Family, High Density
- Residential Multi-Family, Medium High Density
- Residential Multi-Family, Urban Neighborhood
- Residential Single-Family, Extremely Low Density
- Residential Single-Family, Low Density
- Residential Single-Family, Medium Density
- Residential Single-Family, Medium Low Density
- Residential Single-Family, Very Low Density
- Parks

N 0 0.125 0.25 0.5 Miles

Economic and Market Indicators

Prepared by Economic & Planning Systems, Inc.

Introduction

This chapter provides a broad overview of key socioeconomic and real estate market trends relevant to the Fresno Central Southeast Area Specific Plan (CSESP or Plan Area). It is designed to serve as background information and to support a discussion of critical long-term planning and policy issues that will be investigated in more depth in subsequent phases of the study process.

The information is presented in a series of tables and figures supported with a brief description of key issues and implications. Initial findings regarding economic development and revitalization potential for the CSESP are presented in the next section, and more detailed analysis on targeted CSESP areas and conclusions will be developed as the Specific Plan process proceeds.

The primary purpose of the economic analysis in the context of the Specific Plan is to ensure that the goals, policies, and land use alternatives of the document are realistic and achievable over the long term. Specifically, the economic analysis will inform the following interrelated Specific Plan issues:

- **Economic Development**: What economic sectors should the City seek to target and how can those sectors improve economic outcomes in the CSESP area?
- **Land Use Development Feasibility**: What are the economic or financial impediments affecting real estate investment in the CSESP? Are there key opportunity sites or neighborhoods well positioned to accommodate economic development objectives?
- **Implementation Considerations**: What policy interventions and incentives will facilitate growth in targeted economic sectors? What policies or actions might the City take to facilitate development or redevelopment of key opportunity sites?

Preliminary findings are offered below, with supporting technical analysis and data provided in the subsequent sections.

Summary of Findings

Presented in detail in the sections to follow, the Project Team's review of the CSESP area demographics, housing and employment trends, and commercial real estate indicators generate the following initial findings with implications for future study and planning efforts.

1. **The CSESP struggles economically and is characterized by high rates of poverty and unemployment.** The CSESP boundary was established specifically to capture this concentration of economically disadvantaged neighborhoods, and several higher performing neighborhoods abut the Plan Area. Within the Plan Area, median household incomes are well below City averages, as are educational attainment levels. The CSESP area populace is notably younger than the remainder of the City but is more likely to report health concerns and limited access to healthcare. Overall, economic opportunities and achievements in the Plan Area appear more limited than in the City as a whole, but the Plan Area may benefit from and leverage economic opportunities presented by proximate, higher performing neighborhoods.

2. **Socioeconomic dynamics in the CSESP are mirrored in the Plan Area's sluggish real estate market.** Home and rental values in the CSESP are well below City averages, home ownership rates are low, and housing cost burdens are significant. Residential real estate transaction activity is light, affected by low population and household growth, particularly relative to rates observed on a citywide basis. Commercial real estate markets demonstrate low vacancies, but the absence of new deliveries and limited upward pressures on lease rates suggest that demand for new space is low to nonexistent. Overall, economic activity and growth in the CSESP area appears to be quite constrained – focused primarily around a few major retail nodes along the Kings Canyon Corridor. Moreover, the expected departure of the Plan Area's single largest employer, the Internal Revenue Service tax processing center, will result in the loss of around 3,000 workers, roughly one-third of CSESP area jobs.

3. **While employment opportunities in the CSESP do not appear to align with the labor force characteristics of a substantial proportion of Plan Area's employed residents, industrial nodes in nearby neighborhoods bolster job opportunities for Plan Area's residents.** Employment activity in the CSESP is focused primarily on the retail, health care and social assistance, retail trade, and accommodation and food services sector, and many of these jobs are held by non-CSESP area residents. Employed residents of the Plan Area show greater concentrations of employment in the manufacturing sector and many work in areas proximate to the CSESP area or elsewhere in the City. However, overall labor force participation rates are somewhat lower than the City as a whole, further contributing to lower household income levels for the Plan Area.

4. **Despite heavy concentrations of retail activity in the CSESP and expected continued strength in specialized retail markets, future revitalization efforts should target diversification of economic activity and employment opportunities.** Kings Canyon Road is a major retail corridor and the locus of much of the newer construction and economic activity in the CSESP area. This area will likely continue to offer a strong retail presence, particularly for retail opportunities that provide specialized ethnic offerings not available in other areas of the City. However, nationwide trends relative to the decline of bricks and mortar retail coupled with indications that the CSESP real estate sector is weakening, highlight the need to diversify commercial offerings and economic opportunities in the Plan Area. Expanding job opportunities in the CSESP area could have carryover effects for the residential real estate market, offering the potential to bolster the housing market and potentially creating demand for new housing products.

5. **Economic development and business attraction efforts should be focused on those uses and industry sectors gaining traction in the CSESP (and elsewhere) and that will contribute to labor force development.** Industry employment data as well as local and national trends offer insight regarding potential industry sectors that may be well positioned to locate in the CSESP area and contribute to revitalization and economic diversification efforts. CSESP revitalization efforts should focus on bolstering and creating opportunities in health care and personal services; educational services; data processing and call centers; and manufacturing, warehousing, and distribution uses.

    a. **Health care and personal services are in significant demand** throughout the nation as the Baby Boomer generation ages. While the future of the Affordable Care Act is uncertain, it and the associated Medicaid expansion have had the effect of further increasing demand for health services. Health care and personal services employment has demonstrated growth in the CSESP and these growth patterns are expected to continue. Location of medical clinics, skilled nursing facilities, adult daycare, and other healthcare and personal services proximate to aging and otherwise medically needy populations should be a focus of CSESP planning efforts.

    b. **Educational services provide important institutional uses that can contribute to improvements in the built environment and offer critical opportunities for workforce development.** While a site outside of the CSESP area has been identified for a future community college campus, attraction of other educational service providers to the Plan Area should be a cornerstone of future economic development efforts. Trade schools and smaller scale certificate programs focused on the medical, construction, energy, information technology, and other industries offer critical workforce development opportunities that will improve the Plan Area and the City's ability to attract businesses reliant on those skills. The availability of bus rapid transit along the Kings Canyon corridor positions this area well to accommodate in-commuting students.

c. **Data Processing and Call Center activities are a primary focus of ongoing economic development efforts in the City**. Reliant upon adequate fiber optic and broadband service as well as a seismically stable environment, these industries are a natural fit for the City of Fresno and its workforce. The CSESP may be able to attract some of these uses, and the IRS tax return processing site may be appropriately repositioned for these uses.

d. **Manufacturing, processing, warehouse distribution and fulfillment centers are a primary source of employment for CSESP area residents.** Sites appropriate for expansion of these uses are limited as they generally need to be in excess of 100 acres with easy access to major freeways and other modes of transportation. However, to the extent that sites suitable for a subset of industrial users are identified, the City should continue efforts to attract those users. The CSESP's proximity to areas of the City designated and targeted for these uses will bolster employment opportunities for CSESP employment as they provide critical opportunities aligned with current workforce characteristics.

6. **As part of the CSESP planning process, City and Project Team should identify opportunity sites appropriate to accommodate targeted industry sectors**. Planning and revitalization efforts should focus on identifying and positioning sites appropriate to accommodate desired uses, paying particular attention to access, land use adjacencies, infrastructure needs, and site configuration. Among other efforts, City staff will need to work assertively to identify potential re-use opportunities for the IRS facility, overcoming challenges associated with the site's location well away from major transportation corridors and within a predominantly residential neighborhood.

7. **Infrastructure investments should be calibrated to attracting desired users and facilitating the provision of "shovel-ready" development sites.** The opportunity site analysis should consider deficiencies in terms of access and infrastructure and identify critical improvements to ameliorate such deficiencies. Infrastructure improvements should be prioritized relative to the economic development opportunity presented.

8. **Other economic incentives are available to attract private sector investment and should be considered as part of an overall policy and public-private partnership strategy.** The City may consider implementation of a number of infrastructure financing mechanisms to effect needed infrastructure investments and defray costs of development to incentivize private sector investment. To the extent that the City controls any opportunity sites, property disposition strategies can help to mitigate risk and uncertainty to the degree needed to attract private investment. Overall, economic development policies should focus on cost and development risk reduction as a primary means to improve the private investment environment in the CSESP.

Future CSESP planning efforts will build upon the findings and conclusions presented herein to develop specific economic development, land use policies and revitalization strategies based in part on the findings presented in this report. The sections to follow provide additional technical details and data regarding the basis for these findings. Key economic and real estate market indicators presented below are organized by the following categories:

- Demographic and Housing Trends
- Employment and Commute Trends
- Commercial Real Estate Market Indicator
  - Retail Uses
  - Office Uses
  - Industrial Uses

Demographic and Housing Trends

This section offers a summary of demographic characteristics and an evaluation of housing trends intended to establish a baseline understanding of socioeconomic dynamics in the CSESP area relative to the City of Fresno as a whole. As documented by the trends presented below, socioeconomic trends in the Plan Area contribute to slow population and household growth, low household incomes and home values, low home ownership rates, and higher housing cost burdens relative to the City at large.

Demographic and Socioeconomic Indicators

The CSESP area represents an economically disadvantaged section of the City occasionally marked by areas of disinvestment and blight. It is important to note that the Plan Area boundary was established specifically to capture neighborhoods demonstrating these characteristics with the goal of improving economic outcomes for this population. With that in mind, this evaluation recognizes that the data and trends reported below exclude proximate, higher performing neighborhoods. As the planning process proceeds, the economic and demographic analysis should be understood within the context of the influence of and opportunities associated with these adjacent neighborhoods. Socioeconomic and demographic characteristics of the CSESP are detailed in full elsewhere and summarized below to provide context for the real estate and economic analysis:

- More than 60 percent of CSESP area residents identify as Hispanic/Latino as compared to approximately 47 percent citywide. Residents identifying as White comprise 8 percent of CSESP population as compared to 30 percent citywide.

- Incomes in the CSESP area are well below that of the City as a whole. Of the approximately 7,600 households in the Plan Area, more than 60 percent earn less than $35,000 per year. The median household income in the Plan Area is just under $26,000, as compared to more than $45,000 for the entire City. More than 50 percent of households in the CSESP fall below the poverty line. Citywide, approximately 30 percent of households are impoverished.

- More than 47 percent of CSESP area residents did not finish high school, and fewer than 8 percent have attained a college degree. This is substantially lower than educational attainment levels observed citywide, where less than 15 percent of the population does not have a high school diploma and more than 12 percent have a college degree.
- Nearly 34 percent of the Plan Area residents are under the age of 18 years, with roughly 9 percent over the age of 65 years. Citywide, residents under the age of 18 years comprise only 28 percent of the population, and those over the age of 65 years comprise nearly 12 percent of the citywide population.
- While the CSESP area generally is younger than the rest of the City, health outcomes are somewhat worse, with Plan Area residents more likely to report fair or poor health, obesity, and no health insurance coverage.

Population and Household Growth

Population and household growth estimates in the CSESP has lagged behind City growth levels over the last 7 years. Estimates shown in **Table 1**, in the CSESP, total population and households have grown at rates less than 1 percent, whereas citywide population growth over that same timeframe is nearly 6 percent, with households growing at a rate of just under 5 percent. Persons per household in the CSESP are higher than that of the City as a whole – at 3.8 persons per household versus 3.1 for the City. Persons per household trends for both the Plan Area and the City have remained stable over time.

Table 1: Population and Household Trends

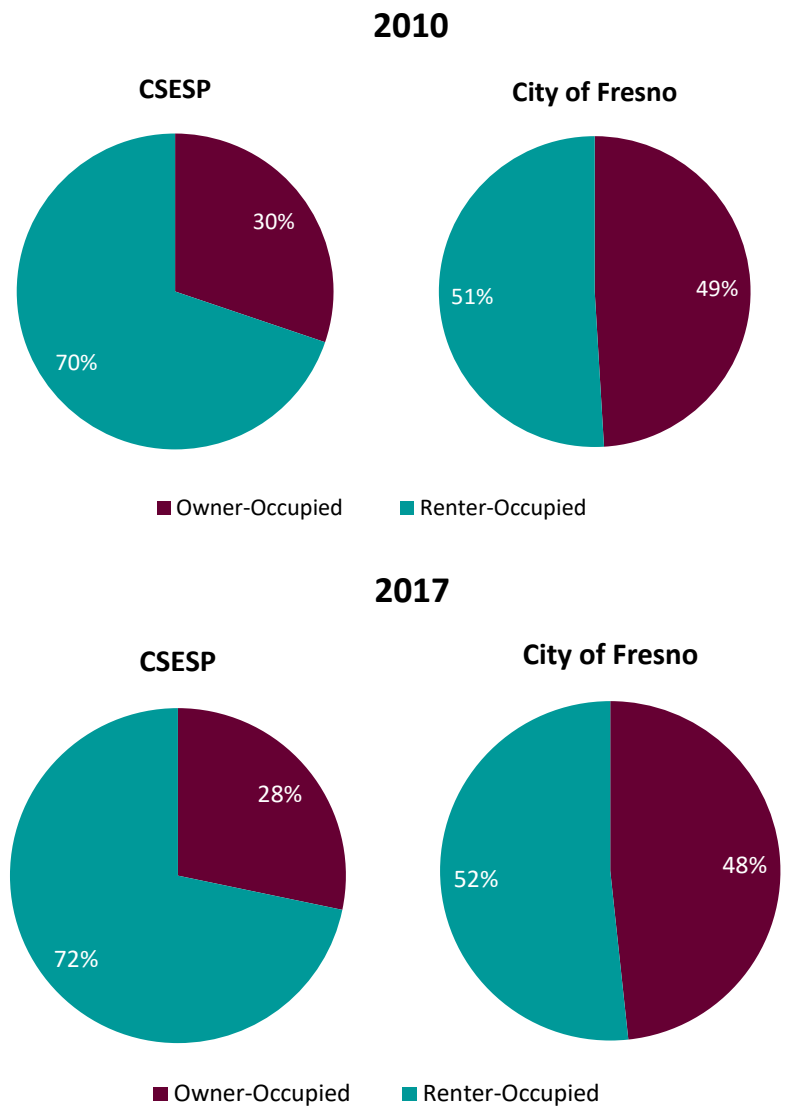
	CSESP			City of Fresno		
Item	Population	Households	Persons/HH	Population	Households	Persons/HH
Year						
2010	27,347	7,565	3.6	496,113	158,868	3.1
2011	27,376	7,572	3.6	500,221	159,942	3.1
2012	27,603	7,635	3.6	504,363	161,267	3.1
2013	27,832	7,698	3.6	508,540	162,602	3.1
2014	28,062	7,762	3.6	512,751	163,948	3.1
2015	28,294	7,826	3.6	516,996	165,306	3.1
2016	28,529	7,891	3.6	521,278	166,675	3.1
2017	27,553	7,614	3.6	525,594	166,542	3.2
Growth (2010 - 2017)						
Number	206	49		29,481	7,674	-
% Change	0.8%	0.6%		5.9%	4.8%	
Avg. Annual Change	0.1%	0.1%		0.8%	0.7%	

Sources: ACS, 2011-2015 retrieved in 2017; U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2017; and EPS.

Residential Tenure

Between 2010 and 2017, the share of owner-occupied homes in the CSESP area declined slightly and remained generally stable for the City – see **Figure 1**. Rates of home ownership are substantially lower in the CSESP– only 28 percent of homes are owner-occupied as compared to 48 percent citywide. Shown in **Table 2**, the percentage of single-family (detached and attached) housing units in the Plan Area comprises just 40 percent of the total housing inventory, whereas for the City of Fresno, single-family housing units comprise 65 percent of total housing inventory. Based on the housing tenure data presented in **Figure 1**, much of this existing single-family housing stock is available on the rental market.

Figure 1: Housing Tenure in the CSESP and City of Fresno (2010 and 2017)



Sources: ACS, 2011-2015 retrieved in 2017; U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2017; and EPS.

Table 2: Housing Inventory by Type (2011-2015)

Type	CSESP		City of Fresno	
	No	%	No	%
Single Family Detached	3,061	37%	100,986	63%
Single Family Attached	225	3%	4,711	3%
Multifamily	4,694	57%	51,958	32%
Mobile Home / Other	236	3%	3,817	2%
Total	**8,216**	**100%**	**161,472**	**100%**

Sources: ACS, 2011-2015 retrieved in 2017; U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2017; and EPS.

Home Values

Home values in the City have not quite reached pre-recession levels, but have demonstrated substantial recovery, increasing 64.3 percent from the 2012 nadir. While also demonstrating significant improvement over 2012 levels, home values in the CSESP are consistently lower than that of the City of the whole, with values in the Plan Area generally achieving only approximately 80 percent of the citywide average value. See **Figure 2**. It is important to note that there are several neighborhoods adjacent to the CSESP that demonstrate higher home values, and spillover from those areas could benefit revitalization efforts in the Plan Area.

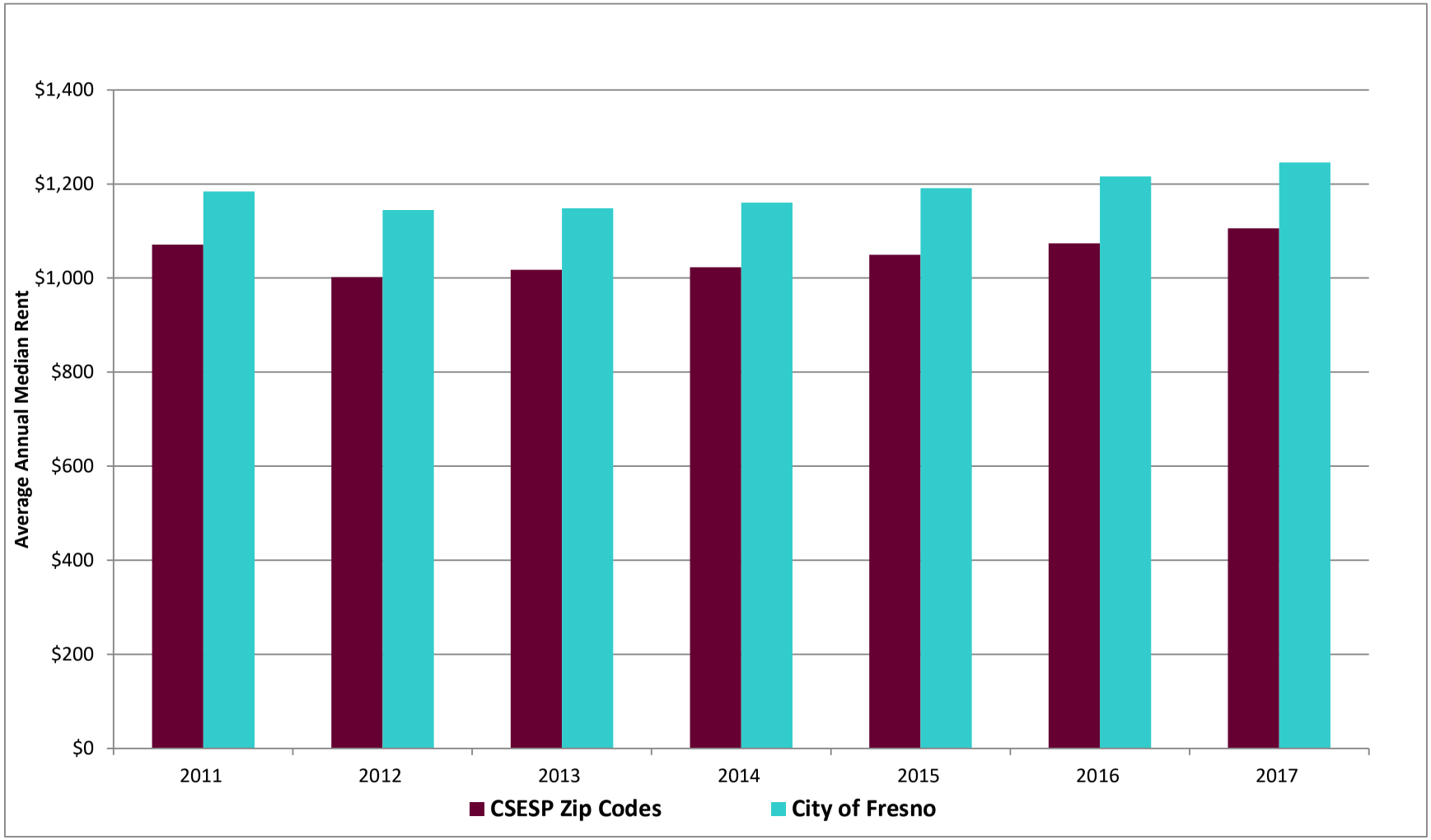
Median Rents

Shown in **Figure 3**, median rents for all rental homes (single-family homes and apartments) have increased slightly over the last several years, demonstrating a 10 percent gain over 2012 levels similar to the City growth of 9 percent. CSESP area rents have generally ranged between 88 and 90 percent of City of Fresno levels. Note that this data, however, is available only at the zip code level, and the CSESP area data includes significant land area outside the Plan Area boundary, including aforementioned higher performing neighboring areas.

Figure 2: Average Annual Home Sales Price

Sources: Zillow; Redfin; and EPS.

Figure 3: Average Annual Median Rent (Single-family Homes and Apartments)



Sources: Zillow; and EPS.

A specific evaluation of multifamily properties shown in **Figure 4** offers additional information regarding the performance of the apartment rental market specifically within the confines of the CSESP area boundary. Apartment lease rates in the Plan Area are notably lower than that of the City as a whole (approximately 70 percent), but have demonstrated growth over the last several years as vacancies have declined. Vacancies are quite low citywide, indicating a tightening rental market, but remain within stable ranges in the Plan Area. While housing inventories appear to be declining citywide, housing supply constraints do not appear prevalent in the CSESP at this time.

Housing Cost Burden

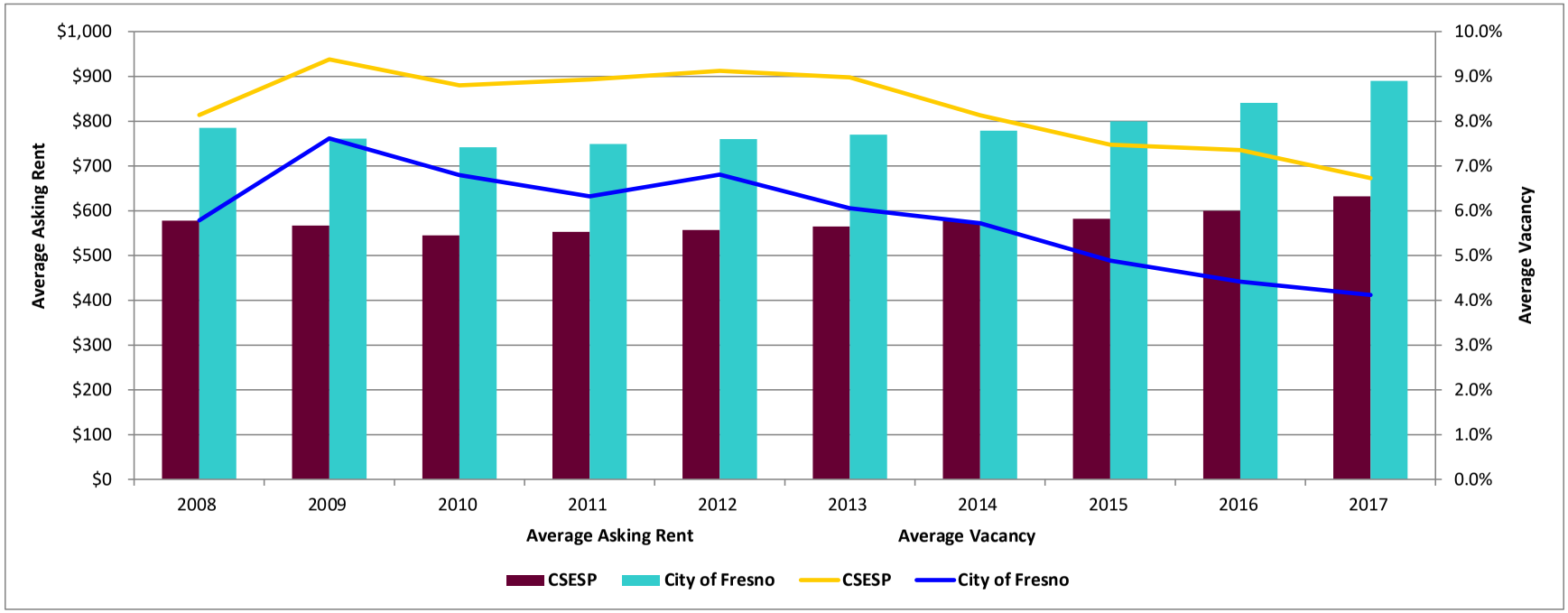
Figure 5 compares the cost burden associated with housing costs experienced by households in the CSESP area versus the City as a whole. As defined by the American Community Survey, a cost burdened household expends 30 percent or more of household income on housing costs (including rent, utilities, mortgage payments, real estate taxes, condominium fees, and insurance). Severely cost-burdened households expend over 50 percent of household income on housing costs.

Roughly 22 percent of households in the City experience housing cost burdens greater than 30 percent of household income. In the Plan Area, however, the rate of severely cost-burdened households is significantly higher than that of the City, at 34 percent and 19 percent respectively.

Residential Turnover

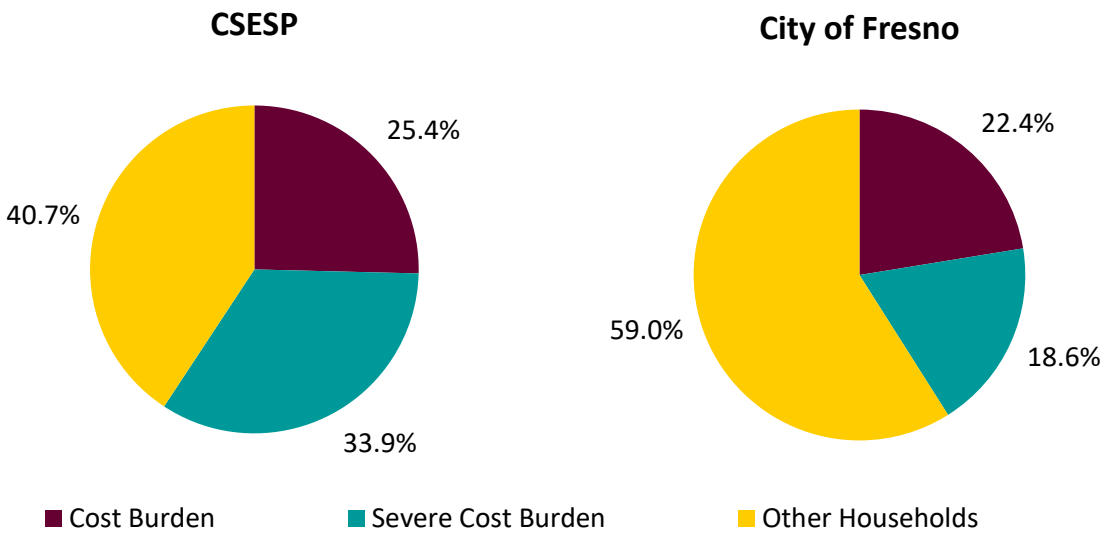
After peaking in 2008, and likely attributable to high rates of foreclosure activity, average annual turnover rates have declined substantially, as seen in **Figure 6.** Standard turnover in residential properties generally averages between 6 and 10 percent – levels below 5.0 percent as seen in the CSESP and the City at large can indicate a tightening housing market. As noted earlier, however, vacancy and price escalation rates do not indicate major supply constraints, and this lack of turnover activity is likely more attributable to generally lower levels of economic activity and wealth creation that would allow renters to access the home ownership market and for home owners to “move-up” and purchase more expensive homes.

Figure 4: Multifamily Performance Indicators



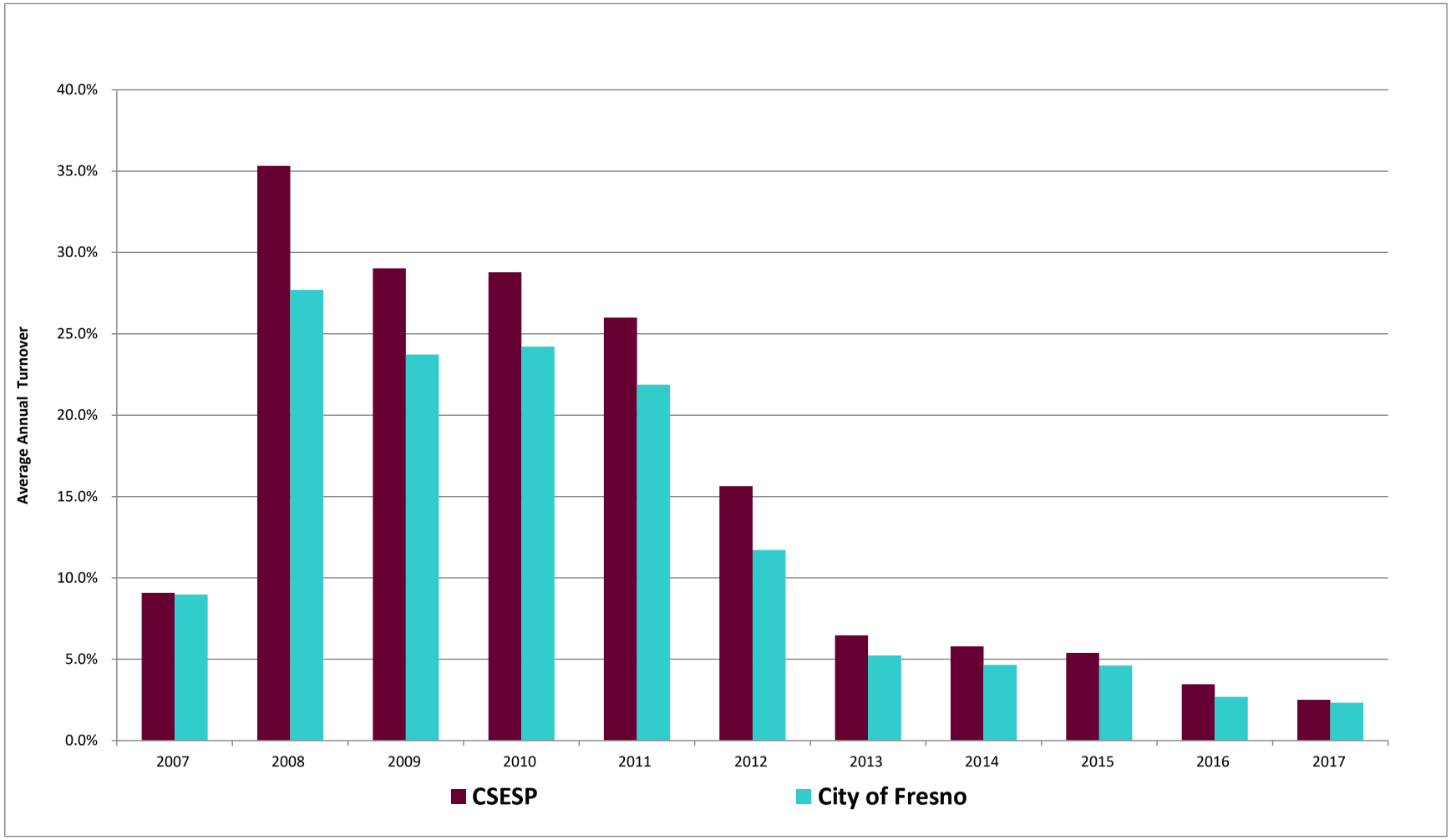
Sources: CoStar data retrieved October 5, 2017; and EPS.

Figure 5: Owner- and Renter-Occupied Housing Costs



Sources: ACS, 2011-2015 retrieved in 2017; U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2017; and EPS.

Figure 6: Average Annual Resales



Sources: Zillow; Redfin; and EPS.

Age of Housing Stock

As an older neighborhood, most homes in the CSESP area were constructed before the 1980s, with very little new or replacement housing stock added in the last decade – see **Table 3**. The overall housing stock throughout the City reflects recent new home communities constructed in the northern portion of the City and elsewhere, resulting in a somewhat newer housing stock outside the Plan Area. Overall, however, the City's housing stock is in many cases dated, which has resulted in certain communities, including portions of the Plan Area, falling into a state of disrepair and disinvestment.

Table 3: Age of Housing Stock

	CSESP		City of Fresno	
Year Built	Number	%	Number	%
1939 or earlier	408	5.0%	11,869	6.8%
1940-1949	687	8.4%	9,985	5.7%
1950-1959	1,337	16.4%	21,696	12.4%
1960-1969	1,104	13.5%	18,291	10.5%
1970-1979	1,826	22.4%	33,567	19.3%
1980-1989	1,525	18.7%	26,668	15.3%
1990-1999	434	5.3%	24,919	14.3%
2000-2009	771	9.4%	24,052	13.8%
2010 +	72	0.9%	3,272	1.9%
Total	**8,164**	**100.0%**	**174,319**	**100.0%**
Median Year Built	**1973**		**1978**	

hsg age

Sources: ESRI BAO, ACS 2011-2015; and EPS.

Employment and Commute Trends

The following sections offer additional detail regarding the economic dynamics of the CSESP area, focusing specifically on employment trends – evaluating what jobs exist within the Plan Area and how those jobs align with the workforce living in the Plan Area. By establishing an understanding of the underlying fundamentals of the local economy, the background information provided in this section will help the Project team to establish economic development and diversification strategies as part of future phases of work. Again, it is critical to note that this analysis is calibrated to the confines of the CSESP area boundary, which was constructed specifically to capture economically disadvantaged areas. Future planning efforts, including identifying opportunity sites, also must consider the influence of and opportunities presented by adjacent neighborhoods.

Employment Trends by Sector

CSESP area unemployment rates are somewhat higher and labor force participation rates are somewhat lower than the City as a whole. Average unemployment rates for the Plan Area are approximately 17.1 percent as compared to 14.3 percent for the City. Labor force participation rates are roughly 57 percent for the Plan Area, compared to 62 percent for the City.

Table 4 identifies workers in the Plan Area and the City by industry sector. Major industries in the City include Health Care and Social Assistance, Educational Services, Retail Trade, and Accommodation and Food Services. The CSESP demonstrates similar job concentrations, with a greater intensity of employment activity in the Retail Trade and Educational Services sector. These concentrations are produced by the heavy retail presence in the Plan Area, particularly concentrated on the major retail corridor of Kings Canyon Road, and the presence of Fresno Pacific University within the CSESP.

Table 5 offers additional detail regarding employment trends by industry sector in the CSESP area. As shown, from 2005 to 2015, the CSESP added 1,760 net jobs. Within those jobs, 667 were added in the retail sector, and another 707 were added in the Health Care and Social Assistance sector.

A major Internal Revenue Service tax return processing center is located within the CSESP area, but the associated employees do not appear to be included in the US Census data used to derive the employment data cited herein. It is likely that the associated employees are not recognized by traditional data sources because they are reported based on headquarter or central office location or are not located at the local facility full time. Based on media reports, the tax processing center in Fresno employs approximately 3,000 workers, which represents approximately 30 percent of the Plan Area employment. The IRS has indicated that it plans to close the Fresno tax processing center in 2021, eliminating most of the associated jobs, although employees may be transitioned to other positions in the IRS or to other sites.

Major Employers

Table 6 identifies major employers located in the CSESP – this table identifies those establishments employing more than 100 workers. As expected based on the prior data presented, major employers include educational service providers such as Fresno Pacific University, major retailers such as Vallarta Supermarkets, Walmart, Home Depot, and Winco Foods, and Health Care Services provided by various skilled nursing facilities and other health providers.

The single largest employer in the Plan Area is the Internal Revenue Service, which reportedly employs over 3,000 workers at its tax return processing center located in the Plan Area. The IRS has reported that it intends to close this processing center following the 2021 tax season, which will have major impacts on the employment characteristics of the CSESP area and City.

Table 4: Workers

NAICS		CSESP No.	CSESP %	City of Fresno No.	City of Fresno %	CSESP % of Total
11	Agriculture, Forestry, Fishing and Hunting	57	1%	2,561	1%	2%
21	Mining, Quarrying, and Oil and Gas Extraction	0	0%	4	0%	0%
22	Utilities	0	0%	1,368	1%	0%
23	Construction	6	0%	8,826	4%	0%
31-33	Manufacturing	55	1%	13,049	6%	0%
42	Wholesale Trade	391	6%	8,438	4%	5%
44-45	Retail Trade	1,625	26%	22,191	11%	7%
48-49	Transportation and Warehousing	140	2%	5,876	3%	2%
51	Information	40	1%	3,636	2%	1%
52	Finance and Insurance	44	1%	7,322	3%	1%
53	Real Estate and Rental and Leasing	72	1%	3,633	2%	2%
54	Professional, Scientific, and Technical Services	23	0%	9,060	4%	0%
55	Management of Companies and Enterprises	52	1%	1,932	1%	3%
56	Administration & Support, Waste Management and Remediation	313	5%	14,417	7%	2%
61	Educational Services	1,453	23%	21,812	10%	7%
62	Health Care and Social Assistance	1,303	21%	43,193	20%	3%
71	Arts, Entertainment, and Recreation	112	2%	2,501	1%	4%
72	Accommodation and Food Services	509	8%	19,254	9%	3%
81	Other Services (excluding Public Administration)	64	1%	8,148	4%	1%
92	Public Administration	0	0%	13,950	7%	0%
	Total	**6,259**	**100%**	**211,171**	**100%**	**3%**

Sources: US Census LEHD OnTheMap, 2015; and EPS.

Table 5: CSESP Worker Trends

NAICS		2005 No.	2005 %	2010 No.	2010 %	2015 No.	2015 %	2005-2015 Change	2005-2015 Average Annual Growth
11	Agriculture, Forestry, Fishing and Hunting	16	0%	12	0%	57	1%	41	14%
21	Mining, Quarrying, and Oil and Gas Extraction	0	0%	0	0%	0	0%	0	NA
22	Utilities	19	0%	30	1%	0	0%	(19)	(100%)
23	Construction	57	1%	6	0%	6	0%	(51)	(20%)
31-33	Manufacturing	38	1%	98	2%	55	1%	17	4%
42	Wholesale Trade	369	8%	371	7%	391	6%	22	1%
44-45	Retail Trade	958	21%	1,262	23%	1,625	26%	667	5%
48-49	Transportation and Warehousing	119	3%	63	1%	140	2%	21	2%
51	Information	1	0%	13	0%	40	1%	39	45%
52	Finance and Insurance	46	1%	33	1%	44	1%	(2)	(0%)
53	Real Estate and Rental and Leasing	89	2%	83	1%	72	1%	(17)	(2%)
54	Professional, Scientific, and Technical Services	17	0%	49	1%	23	0%	6	3%
55	Management of Companies and Enterprises	50	1%	52	1%	52	1%	2	0%
56	Administration & Support, Waste Management and Remediation	343	8%	367	7%	313	5%	(30)	(1%)
61	Educational Services	1,274	28%	1,590	28%	1,453	23%	179	1%
62	Health Care and Social Assistance	596	13%	531	9%	1,303	21%	707	8%
71	Arts, Entertainment, and Recreation	110	2%	103	2%	112	2%	2	0%
72	Accommodation and Food Services	196	4%	300	5%	509	8%	313	10%
81	Other Services (excluding Public Administration)	201	4%	622	11%	64	1%	(137)	(11%)
92	Public Administration	0	0%	12	0%	0	0%	0	NA
	Total	**4,499**	**100%**	**5,597**	**100%**	**6,259**	**100%**	**1,760**	**3%**

Sources: US Census LEHD OnTheMap, 2015; and EPS.

Table 6: CSESP Major Employers

Employer	Industry	Number of Employees
Internal Revenue Service [1]	Government	3,000
Fresno Pacific University	Schools-Universities & Colleges Academic	300
Vallarta Supermarkets	Supermarkets and other grocery stores	300
Walmart Supercenter	Department Stores	262
Foods Co.	Supermarkets and other grocery stores	200
Home Depot	Home centers	200
Winco Foods	Supermarkets and other grocery stores	150
Donaghy Sales LLC	Beer and ale merchant wholesalers	135
Greenberg Elementary School	Elementary and secondary schools	125
Twilight Haven	Services for the elderly and disabled	120
Valley Health Care Center	Nursing care facilities, skilled nursing	100
Genesis Health Care LLC	All other ambulatory health care services	100
Lane Elementary School	Elementary and secondary schools	100

Sources: InfoUSA; FresnoBee; and EPS.

[1] This facility is scheduled to cease operations following the 2021 tax season.

Commute Trends

To provide more information related to workforce characteristics and employment commute trends, **Table 7** evaluates the industries in which residents of the CSESP and the City work – actual jobs may be located outside the subject geography. Occupational concentrations mirror that of jobs with the City and the CSESP; however, higher concentrations of manufacturing employment emerge when looking at the occupations of the Plan Area residents. As will be discussed later in this section, a large amount of industrial uses are located proximate to the Plan Area, and this data suggests that a significant portion of CSESP area residents are working at those and other manufacturing facilities outside the Plan Area.

A more detailed analysis of commuting trends within and around the Plan Area reveals that there are more employed residents living in the CSESP area than jobs, which contributes to, but does not fully explain commuting trends. The Plan Area produces a net outflow of employees, with roughly 7,400 employees commuting to jobs outside the CSESP area. Only 3.4 percent of employed residents of the CSESP actually work within the CSESP area and 94.2 percent of jobs in the CSESP are filled by workers residing outside the Plan Area and commuting in daily.

To better understand how commute patterns relate to employment trends and to understand the role that neighborhoods proximate to the CSESP affect economic dynamics, **Table 8** below expands this commute analysis to a 3-mile radius from the approximate center of the CSESP to capture adjacent industrial areas likely heavy in manufacturing and related jobs, as depicted in **Map 1.** Expanding the analysis geography demonstrates a higher proportion of employed residents working in jobs within the area (24.2 percent) but in-commuting still prevails with more than 84 percent of jobs filled by nonresidents.

Further expanding the analysis to the entire City demonstrates a roughly equal split between workers who live and work in the City and those who live in the City but work elsewhere. This data suggest that a much larger proportion of CSESP area residents work within the City, indicating that commute burdens are likely limited. However, the data also suggests that there is a substantial imbalance between the available jobs within the Plan Area and the characteristics of the labor force that lives there. This imbalance is somewhat, but not entirely, ameliorated by job opportunities in adjacent neighborhoods and elsewhere in the City.

Table 7: Employed Residents

NAICS		CSESP No.	CSESP %	City of Fresno No.	City of Fresno %	CSESP % of Total
11	Agriculture, Forestry, Fishing and Hunting	564	8%	7,797	5%	7%
21	Mining, Quarrying, and Oil and Gas Extraction	4	0%	118	0%	3%
22	Utilities	31	0%	1,236	1%	3%
23	Construction	389	5%	7,622	5%	5%
31-33	Manufacturing	893	12%	12,755	8%	7%
42	Wholesale Trade	303	4%	6,889	4%	4%
44-45	Retail Trade	781	11%	17,964	11%	4%
48-49	Transportation and Warehousing	234	3%	5,065	3%	5%
51	Information	78	1%	2,298	1%	3%
52	Finance and Insurance	126	2%	4,666	3%	3%
53	Real Estate and Rental and Leasing	89	1%	2,570	2%	3%
54	Professional, Scientific, and Technical Services	205	3%	6,437	4%	3%
55	Management of Companies and Enterprises	48	1%	1,490	1%	3%
56	Administration & Support, Waste Management and Remediation	467	6%	10,332	6%	5%
61	Educational Services	483	7%	16,787	10%	3%
62	Health Care and Social Assistance	1,214	17%	29,531	18%	4%
71	Arts, Entertainment, and Recreation	97	1%	2,644	2%	4%
72	Accommodation and Food Services	674	9%	14,925	9%	5%
81	Other Services (excluding Public Administration)	264	4%	5,763	3%	5%
92	Public Administration	356	5%	10,476	6%	3%
	Total	**7,300**	**100%**	**167,365**	**100%**	**4%**

Sources: US Census LEHD OnTheMap, 2015; and EPS.

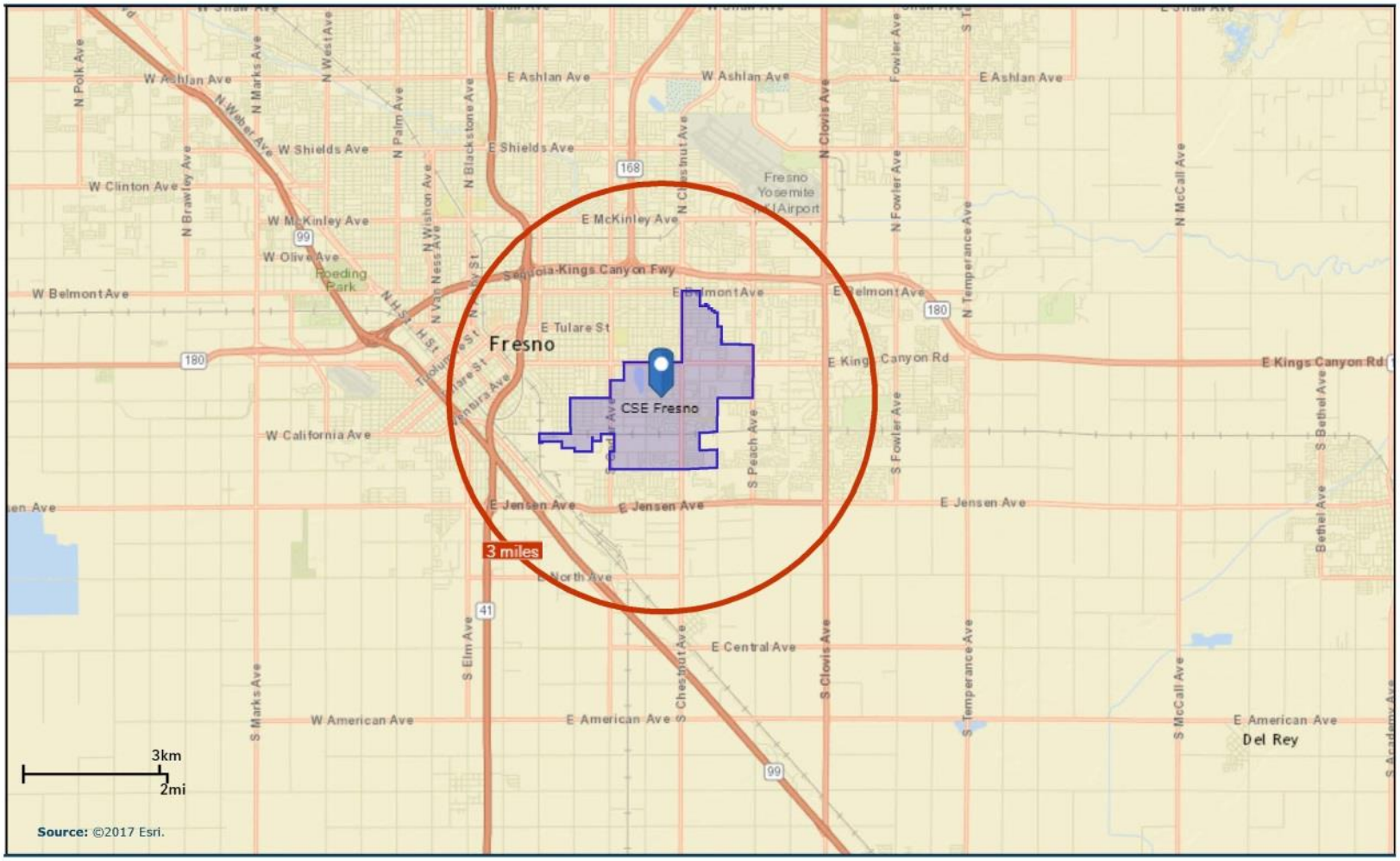
Table 8: Commute Patterns

Item	CSESP				Three-Mile Radius from CSESP Center				City of Fresno			
	2005		2015		2005		2015		2005		2015	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Employed Residents												
Working In Area	263	3.4%	467	5.6%	9,873	24.3%	10,932	24.2%	101,122	61.9%	104,556	56.8%
Working Outside Area	7,374	96.6%	7,863	94.4%	30,765	75.7%	34,203	75.8%	62,221	38.1%	79,535	43.2%
Total	**7,637**	**100.0%**	**8,330**	**100.0%**	**40,638**	**100.0%**	**45,135**	**100.0%**	**163,343**	**100.0%**	**184,091**	**100.0%**
Workers												
Living In Area	263	5.8%	467	7.5%	9,873	16.4%	10,932	15.9%	101,122	53.2%	104,556	49.5%
Living Outside Area	4,234	94.2%	5,792	92.5%	50,224	83.6%	58,005	84.1%	89,122	46.8%	106,615	50.5%
Total	**4,497**	**100.0%**	**6,259**	**100.0%**	**60,097**	**100.0%**	**68,937**	**100.0%**	**190,244**	**100.0%**	**211,171**	**100.0%**

journey

Sources: US Census LEHD OnTheMap, 2015; and EPS.

Map 1: CSESP 3-Mile Radius



Commercial Real Estate Performance Indicators

This section provides an overview of commercial real estate indicators to provide a baseline understanding of real estate market performance in terms of inventory, absorption, vacancies, and lease rates. Specifically, this section evaluates market performance indicators for retail, office and industrial uses within the CSESP. By relating the socioeconomic and demographic characteristics to the performance of commercial real estate market, this information will provide additional context to support the development of viable land use, economic development and diversification strategies.

Retail Market

As shown in **Table 9**, the CSESP area offers slightly more than 1.3 million square feet of retail uses, roughly 4.0 percent of the citywide retail offerings. Inventory throughout the City has been flat over the last 10 years, with little to no new retail construction. Over the last 5 years, retail vacancies in the CSESP have increased substantially, rising to more than 7 percent in 2017 from less than 3 percent in 2012. See **Figure 7**. This level of vacancy falls within acceptable and expected ranges for the retail market, but the increase in vacancies may signal that the retail market is weakening in the CSESP area. A review of historical lease rates in the Plan Area lends support to this conclusion – average lease rates have recently softened substantially.

Table 9: Retail Performance Indicators

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Difference (2008-2017)	Average Annual % Change (2008-2017)
Inventory (Sq. Ft.)												
CSESP	1,227,910	1,230,358	1,313,358	1,313,358	1,313,358	1,312,354	1,312,354	1,312,354	1,312,354	1,312,354	84,444	0.7%
City of Fresno	31,648,994	31,964,357	32,136,930	32,188,937	32,189,617	32,266,743	32,598,542	32,735,928	32,855,638	32,928,845	1,279,851	0.4%
CSESP as a % of the City	**3.9%**	**3.8%**	**4.1%**	**4.1%**	**4.1%**	**4.1%**	**4.0%**	**4.0%**	**4.0%**	**4.0%**	--	--
Inventory (Buildings)												
CSESP	80	81	82	82	82	82	82	82	82	82	2	0.3%
City of Fresno	3,004	3,028	3,033	3,036	3,037	3,045	3,044	3,049	3,057	3,055	51	0.2%
CSESP as a % of the City	**2.7%**	**2.7%**	**2.7%**	**2.7%**	**2.7%**	**2.7%**	**2.7%**	**2.7%**	**2.7%**	**2.7%**	--	--
Vacancy Rate (Percent)												
CSESP	2.9%	4.5%	3.8%	3.5%	2.4%	3.5%	5.5%	5.2%	7.8%	7.5%	4.5%	--
City of Fresno	4.5%	7.7%	8.9%	8.8%	8.5%	8.7%	8.2%	6.8%	6.9%	7.1%	2.6%	--
Net Absorption [2]												
CSESP	15,603	67,868	3,819	3,460	13,851	10,918	(51,708)	(22,036)	(6,912)	(11)	--	--
City of Fresno	18,221	(766,160)	54,508	(384,803)	251,038	(58,119)	519,832	471,772	567,801	(260,717)	--	--
Lease Rate NNN/Sq. Ft./Yr.												
CSESP	$13.21	$10.76	$9.61	$15.37	$16.44	$13.75	$11.51	$15.42	$16.55	$13.64	$0.43	0.4%
City of Fresno	$15.99	$17.84	$14.61	$12.46	$12.20	$12.59	$12.73	$13.15	$12.94	$13.64	-$2.35	(1.8%)

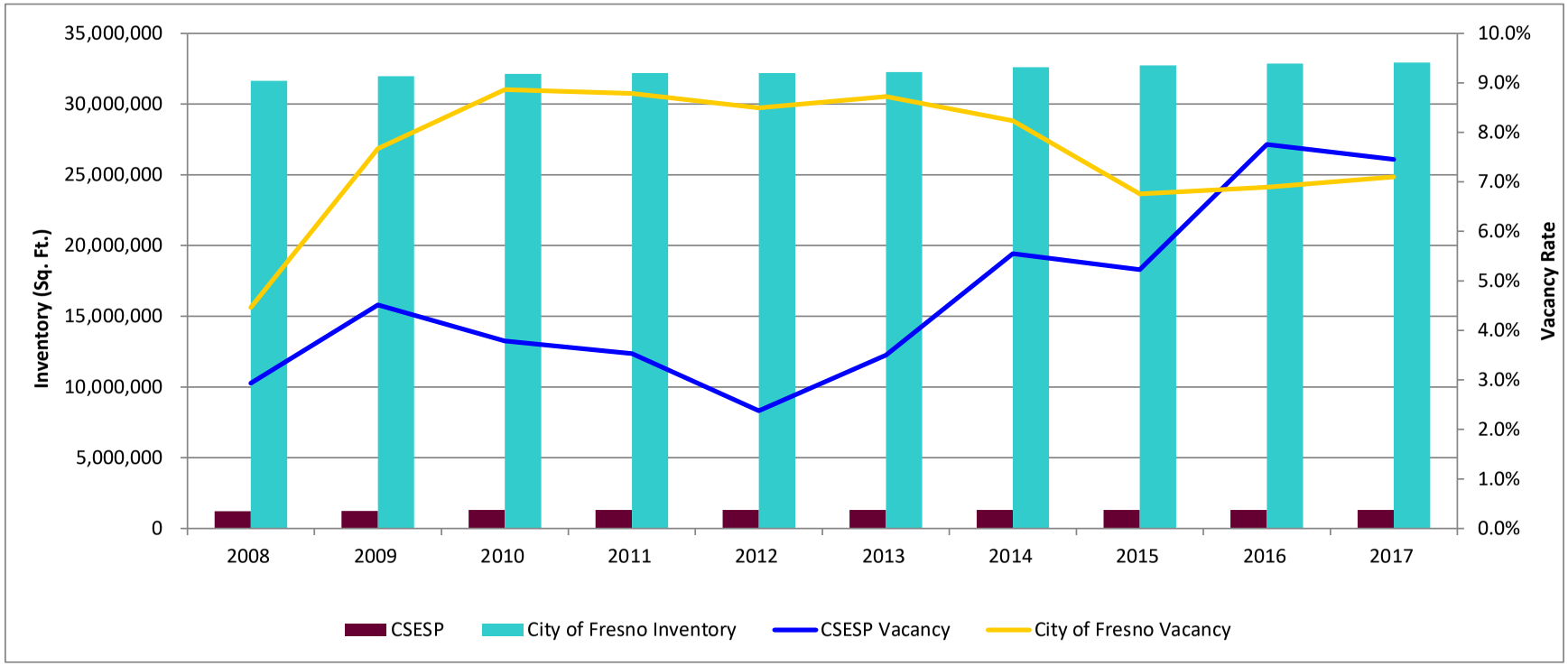
retail trends

Sources: CoStar data retrieved October 5, 2017; and EPS.

[1] Unless otherwise noted, data reflects Q2 of each year.

[2] Net absorption is for the entire calendar year; 2017 is through Q3.

Figure 7: Summary of Retail Performance Indicators



Retail Sales by Category

Table 10 below shows the distribution of retail sales by category for the CSESP area and the City. Note that sales reported are limited to specific retail operations and exclude businesses operating in buildings and storefronts traditionally categorized as retail land uses such as banks and other personal or professional services whose primary business function is not retail sales.

Based on the subset of retail uses identified, Plan Area retail sales comprise approximately 4.0 percent of City totals, with estimated retail sales per square foot of retail inventory roughly equivalent to the City as a whole. Food and beverage stores appear disproportionately represented in the CSESP, comprising more than 47.1 percent of total retail sales. These findings are supported by employment figures, anecdotal evidence, and windshield surveys – several major food and beverage providers are present in the CSESP area and are major area employers (e.g., Vallarta Supermarkets, Winco Foods, etc.) in the Plan Area. The presence of Walmart and Home Depot in the Plan area contribute to a higher concentration of retail sales in the Building Materials and Garden Equipment and General Merchandise sectors, respectively.

While these concentrations suggest the potential underrepresentation of other retail sectors, it is not immediately clear that major retail needs of Plan Area residents are indeed unmet. Current offerings such as Walmart meet a variety of retail needs, which when combined with the offerings of adjacent neighborhoods and other areas of the City, may be adequate to meet the CSESP area resident needs. Future outreach to CSESP area residents should seek to identify resident perceptions of major retail gaps and needs that are inadequately met by retail in the CSESP.

Table 10: Retail in 2016: City of Fresno and CSESP

	CSESP					Fresno		
Item	No. Establish-ments	Sales (in $000)	% of Total Sales	% of Total City Sales	% of City Establish-ments	No. Establish-ments	Sales (in $000)	% of Total Sales
Gasoline Stations	3	$10,326	2.1%	2.2%	2.0%	153	$472,207	4.1%
Home Furnishings & Appliance Stores	4	$7,248	1.5%	1.2%	1.0%	390	$594,051	5.2%
Building Materials & Garden Equipment	4	$73,894	15.4%	8.3%	1.6%	257	$895,500	7.9%
Motor Vehicles and Parts Dealers	7	$8,685	1.8%	0.3%	1.5%	481	$2,902,639	25.5%
General Merchandise	11	$89,948	18.7%	6.4%	7.8%	141	$1,412,715	12.4%
Clothing & Clothing Accessories	13	$7,038	1.5%	1.3%	2.9%	445	$560,020	4.9%
Other Retail	28	$34,624	7.2%	1.9%	2.9%	965	$1,796,015	15.8%
Food & Beverage Stores	30	$226,620	47.1%	13.6%	5.4%	557	$1,665,993	14.6%
Food Services & Drinking Places	37	$22,261	4.6%	2.0%	2.8%	1,315	$1,087,031	9.5%
Total	**137**	**$480,644**	**100.0%**	**4.2%**	**2.9%**	**4,704**	**$11,386,171**	**100.0%**

Sources: InfoUSA; and EPS.

Office Market

With 830,000 square feet of office space, the CSESP area office uses comprise roughly 3.4 percent of all office space offered citywide. Inventories have remained stable over the last decade. Vacancy rates are extremely low in the CSESP – less than 1 percent compared to 11 percent citywide. See **Table 11** and **Figure 8**. It is critical to note, however, that the IRS tax processing center occupies over 500,000 square feet in the CSESP – over 50 percent of the office space offered in the market. The IRS signed a 10 year lease in 2012, the end of which is coincident with the planned closure of the center after the 2021 tax season. This closure will have major implications for the CSESP office market – it will be difficult to identify a single major user with space requirements matching the current IRS campus. Attracting new uses will be hampered by constrained access to the site and incompatible land use adjacencies.

Industrial Market

As shown in **Table 12** the CSESP offers approximately 766,000 square feet of industrial and flexible/research and development (R&D) uses. Representing only 1.2 percent of the overall citywide market, vacancy rates are extremely low, suggesting the potential to attract similar uses. See **Figure 9**. Expanding the market area to include proximate areas highlights the role industrial uses play in the local economy. Expanding the analysis to include proximate neighborhoods (a 3-mile radius from the center of the Plan Area) captures more than 22 million square feet of industrial uses, or close to 40 percent of all industrial uses in the City. Vacancy rates for this area as well as the City remain within stable ranges, with increasing absorption and lease rates over the last several years.

Table 11: Office Performance Indicators

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Difference (2008-2017)	Average Annual % Change (2008-2017)
Inventory (Sq. Ft.)												
CSESP	831,436	831,436	831,436	831,436	831,436	831,436	831,436	831,436	831,436	831,436	0	0.0%
City of Fresno	23,108,928	23,559,870	23,751,281	23,844,006	23,912,306	23,926,395	24,035,397	24,069,476	24,111,815	24,187,810	1,078,882	0.5%
CSESP as a % of the City	**3.6%**	**3.5%**	**3.5%**	**3.5%**	**3.5%**	**3.5%**	**3.5%**	**3.5%**	**3.4%**	**3.4%**	--	--
Inventory (Buildings)												
CSESP	11	11	11	11	11	11	11	11	11	11	0	0.0%
City of Fresno	1,715	1,731	1,742	1,746	1,747	1,749	1,751	1,754	1,759	1,767	52	0.3%
CSESP as a % of the City	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	**0.6%**	--	--
Vacancy Rate (Percent)												
CSESP	0.8%	0.8%	0.7%	0.7%	0.4%	0.0%	0.1%	0.1%	0.1%	0.5%	(0.3%)	--
City of Fresno	11.1%	11.5%	13.4%	14.0%	13.4%	13.4%	12.5%	12.3%	11.5%	11.2%	0.1%	--
Net Absorption [2]												
CSESP	480	(600)	1,200	(100)	5,947	0	(1,200)	0	1,200	(2,500)	--	--
City of Fresno	266,784	10,140	(356,941)	(9,506)	196,513	183,443	239,136	108,398	169,667	133,906	--	--
Lease Base Rate/Sq. Ft./Mo.												
CSESP [3]	$12.00	$12.00	$12.00	$12.00	$12.00	-	-	-	-	-	--	--
City of Fresno	$18.48	$17.67	$17.72	$16.75	$16.18	$16.51	$16.27	$16.44	$16.47	$16.79	-$1.69	(1.1%)

office trends

Sources: CoStar data retrieved October 5, 2017; and EPS.

[1] Unless otherwise noted, data reflects Q2 of each year.

[2] Net absorption is for the entire calendar year; 2017 is through Q3.

[3] Lease rate data for the CSESP are not available from CoStar for years 2013 through 2017.

Figure 8: Office Performance Indicators

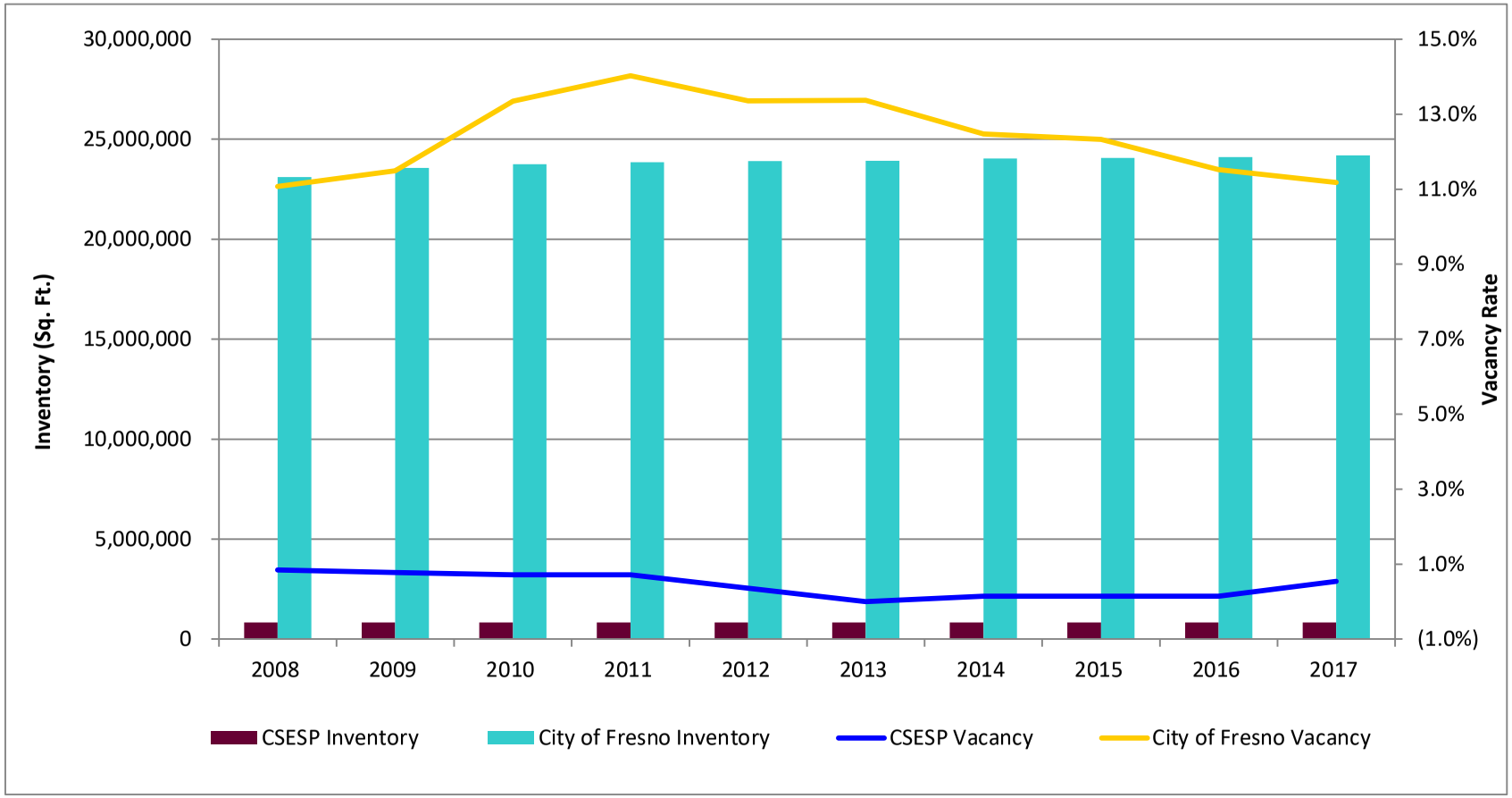


Table 12: Industrial Performance Indicators

Item [1]	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Difference (2008-2017)	Average Annual % Change (2008-2017)
Inventory (Sq. Ft.)												
CSESP	766,244	766,244	766,244	766,244	766,244	766,244	766,244	766,244	766,244	766,244	0	0.0%
CSESP + adjoining areas [2]	23,885,558	23,885,558	23,885,558	23,752,464	23,000,284	22,923,276	22,923,276	22,841,916	22,784,142	22,821,438	(1,064,120)	(0.5%)
City of Fresno	59,674,261	59,804,081	59,436,603	59,301,015	58,589,493	58,814,780	58,836,065	59,682,322	59,798,404	59,955,402	281,141	0.1%
CSESP + adjoining as a % of the City	**40.0%**	**39.9%**	**40.2%**	**40.1%**	**39.3%**	**39.0%**	**39.0%**	**38.3%**	**38.1%**	**38.1%**	--	--
Inventory (Buildings)												
CSESP	23	23	23	23	23	23	23	23	23	23	0	0.0%
CSESP + adjoining areas [2]	880	880	880	878	878	877	877	881	880	881	1	0.0%
City of Fresno	2,370	2,382	2,383	2,382	2,387	2,390	2,392	2,404	2,413	2,420	50	0.2%
CSESP + adjoining as a % of the City	**37.1%**	**36.9%**	**36.9%**	**36.9%**	**36.8%**	**36.7%**	**36.7%**	**36.6%**	**36.5%**	**36.4%**	--	--
Vacancy Rate (Percent)												
CSESP	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	1.4%	--
CSESP + adjoining areas [2]	8.3%	11.9%	11.2%	12.2%	8.4%	7.1%	6.4%	5.4%	4.2%	3.6%	(4.6%)	--
City of Fresno	7.3%	9.2%	10.1%	10.4%	8.6%	7.4%	5.9%	4.8%	4.3%	3.8%	(3.5%)	--
Net Absorption [3]												
CSESP	0	(8,520)	8,520	0	0	0	0	0	0	(10,490)	--	--
CSESP + adjoining areas [2]	173,770	(855,169)	164,022	(361,231)	169,329	235,868	147,003	169,068	212,684	161,292	--	--
City of Fresno	530,416	(1,024,605)	(846,368)	(347,615)	415,865	893,931	908,532	1,435,313	428,936	454,520	--	--
Lease Rate NNN/Sq. Ft./Yr. [4]												
CSESP + adjoining areas [2]	$3.74	$3.32	$3.33	$3.36	$3.47	$3.47	$3.25	$3.32	$4.42	$4.56	$0.82	2.2%
City of Fresno	$4.66	$3.85	$3.77	$3.89	$4.01	$4.14	$3.95	$4.33	$4.90	$5.07	$0.41	0.9%

industrial trends

Sources: CoStar data retrieved November 13, 2017; and EPS.

[1] Unless otherwise noted, data reflects Q4 of each year.

[2] Comprises a three-mile radius from the center of CSESP.

[3] Net absorption is for the entire calendar year; 2017 is through Q3.

[4] CoStar does not have any lease rate information for the CSESP area.

Figure 9: Industrial Performance Indicators

Circulation Networks and Streetscape

Prepared by Sargent Town Planning and Stantec

Introduction

This section describes the existing transportation network within the Central Southeast Area of the City of Fresno. It identifies areas of deficiency within the existing network due to poor level of service (LOS), connectivity and safety and provides opportunities for improvements.

Circulation network and streetscape information was obtained from a variety of sources. The City of Fresno provided information on existing Level of Service and planned improvements. Commuter mode share data was obtained from the US Census Bureau's American Community Survey (2013). Transit routes and ridership were provided by Fresno Area Express (FAX). Collision data was obtained from the Transportation Injury Mapping System (TIMS).

Existing Street Network

Southeast Fresno's existing circulation has been laid out over historically agricultural land and is primarily delineated by major collectors and neighborhood streets. Existing roadways within the CSESP area range from local roads with a single lane in each direction to arterials with up to two through lanes in each direction. Street types include arterials, collectors, neighborhood streets, frontage roads, drive lanes and alleys. All roadways operate acceptably under the City of Fresno traffic impact thresholds. The City's threshold for most of the project area is LOS E; however, the threshold for Kings Canyon is LOS F. The following streets are the closest to existing thresholds, operating at LOS D:

East-West Streets	Peak Hour
• Butler Avenue – West of Maple Avenue and East of Chestnut Avenue	AM/PM
• Lane Avenue – Willow Ave to Peach Avenue	AM
• Ventura Street/Kings Canyon Road	PM

North-South Streets	Peak Hour
• Cedar Avenue – North of Butler Avenue	PM
• Chestnut Avenue – North of Kings Canyon Road	AM/PM
• Peach Avenue – Butler Avenue to Huntington Avenue	AM
• Maple Avenue	PM
• Willow Avenue – North of Tulare Avenue; Between Lane Avenue and Kings Canyon Road	PM
• Winery Avenue – Between Lane Avenue and Butler Avenue	AM/PM

There are currently no plans for road widening capacity improvements within the CSESP area.

While a majority of the streets form a connective grid, there are a number of breaks in the network, notably on California Ave. between Cedar and Chestnut, and on Willow Ave. between

Butler and Lane Ave. Such breaks are noticeably more common within neighborhoods, particularly those with more suburban development patterns while older, more historic neighborhoods tend to have a fine-grain network that is better connected. Streetscapes vary amongst the street types and while all support auto traffic, there are many key routes lacking landscaping, lighting, appropriate crossings, sidewalks and bike lanes. Having such gaps in the network creates challenges for mobility throughout the Plan Area, particularly for those who are not able to drive including the young and the elderly.

According to the 2013 American Community Survey, the commute to and from work is accomplished for 76% by vehicle alone, 18% carpool, 2% use public transportation, 1% bike and 3% walk. Potential improvements include identifying and (re)connecting key centers of activity, infilling missing sidewalks and bike lanes, providing landscaping and shade, utilizing traffic calming strategies where necessary and setting guidelines ensuring that streets are designed and built to accommodate all residents of the City.

Existing Street Types

As illustrated in the Existing Street Network map on page 5, the Plan Area is interconnected by seven key street types. Arterials and Collectors depicted in dark and light blue, respectively, are the key routes traversing the southeast area and connecting the Neighborhood streets (thick white lines) and the Alleys, Lanes and Frontage Roads (thin white lines). Most existing streets are primarily designed to move a maximum number of vehicles and are often lacking character, connectivity and comfortable environments for pedestrians and cyclists. Despite the challenges, there are opportunities for creating a more interconnected street network between and for each street type and for designing more walkable, pedestrian-friendly streets that support appropriate multi-modal transportation options.

Arterials

Among the prominent arterial streets within the Plan Area is the west-east Ventura St./Kings Canyon Rd. and the north-south Chestnut Ave. These arterials are high-volume streets with 2 travel lanes in each direction, a center median or turning lane and an intermittent Class II bike lane. Frontages range from suburban shopping centers and highway commercial to neighborhood edges.

Kings Canyon Rd. is an example of a high volume Commercial Corridor within the Plan Area

Collectors

Primary collectors within the Plan Area include medium to high volume streets such as Butler, Maple and Orange Avenues. These serve as key connectors to the Downtown area to the west, HWY 99 to the south, HWY 180 to the north and neighboring communities to the east. These streets have limited retail and are typically two travel lanes in each direction at times with a center median or turning lane, occasional frontage roads and limited bicycle and pedestrian facilities.

E. Butler Avenue is a collector street type with an adjacent frontage road

Typical Neighborhood Streets

Neighborhood streets within the Plan Area tend to either be part of a connected or a suburban 'cul-de-sac' development pattern. Most of these low to medium volume streets have one travel lane in each direction with parallel parking and planters on either side of the sidewalk where present. Older, interconnected neighborhood streets tend to provide greater character and a more comfortable environment.

S. Whitney Ave – an example of a typical neighborhood street

Low-volume Neighborhood Streets

Found throughout the Plan Area and other parts of Fresno, these low-volume neighborhood streets are part of an older interconnected neighborhood fabric that is more rural in nature. These streets typically do not have curbs, planters, sidewalks or marked travel lanes. The traffic volume is typically low enough where explicit pedestrian or bicycle facilities may not be necessary.

Grant Ave. is an example of a low-volume neighborhood street

Frontage Roads

Adjacent to larger streets such as Chestnut Ave., these roads serve as low-volume neighborhood access roads. While they provide a buffer from higher volume and higher speed traffic, they expand the right-of-way significantly with imperceptible change in character and limited points of access to the neighborhoods.

Example of a typical frontage road along Chestnut Avenue

Drive Lanes

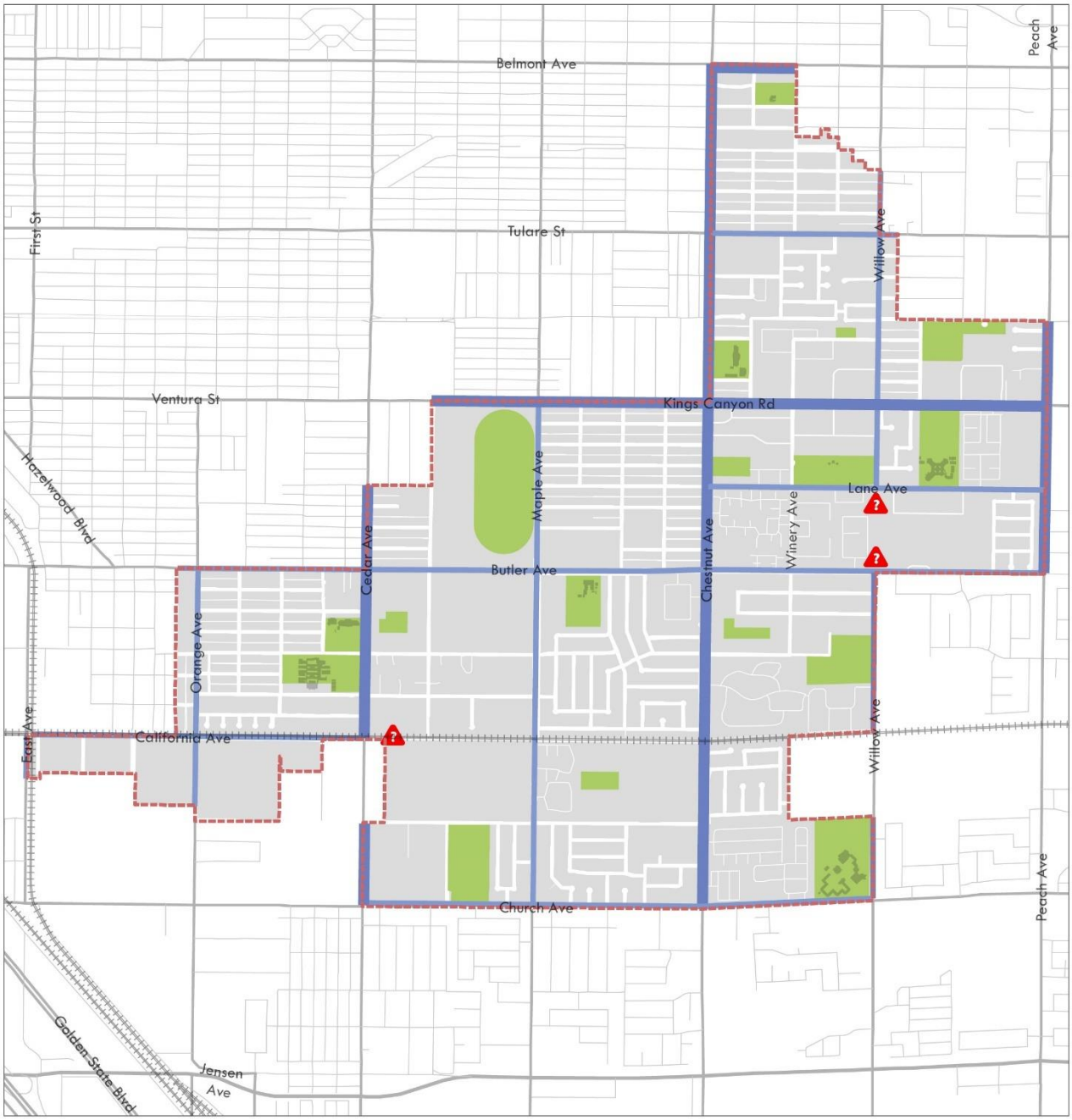
Drive Lanes are commonly found in the large suburban shopping centers, often serving solely as vehicular access roads between arterials or collectors and the shopping center parking areas. These private lanes typically do not provide pedestrian or bicycle facilities and have limited character and connectivity to the surrounding area.

Example of a Drive Lane in large suburban shopping centers

Alleys and Residential Lanes

Found mid-block throughout many of the connective neighborhoods, these alleys have traditionally served as access lanes to utilities, services and rear of lots. Whiles some alleys are still functional, many of them have been in disuse or neglected and due to safety concerns, neighborhood blocks have restricted access to the alleys.

Example of a residential alley



Existing Street Network

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Arterials
- Collectors
- Neighborhood Streets
- Alleys, Frontage Roads and Lanes
- Break in network

N 0 0.125 0.25 0.5 Miles

The Intersections map on the next page depicts the existing control for intersections within the CSESP area. The major signalized corridors include:

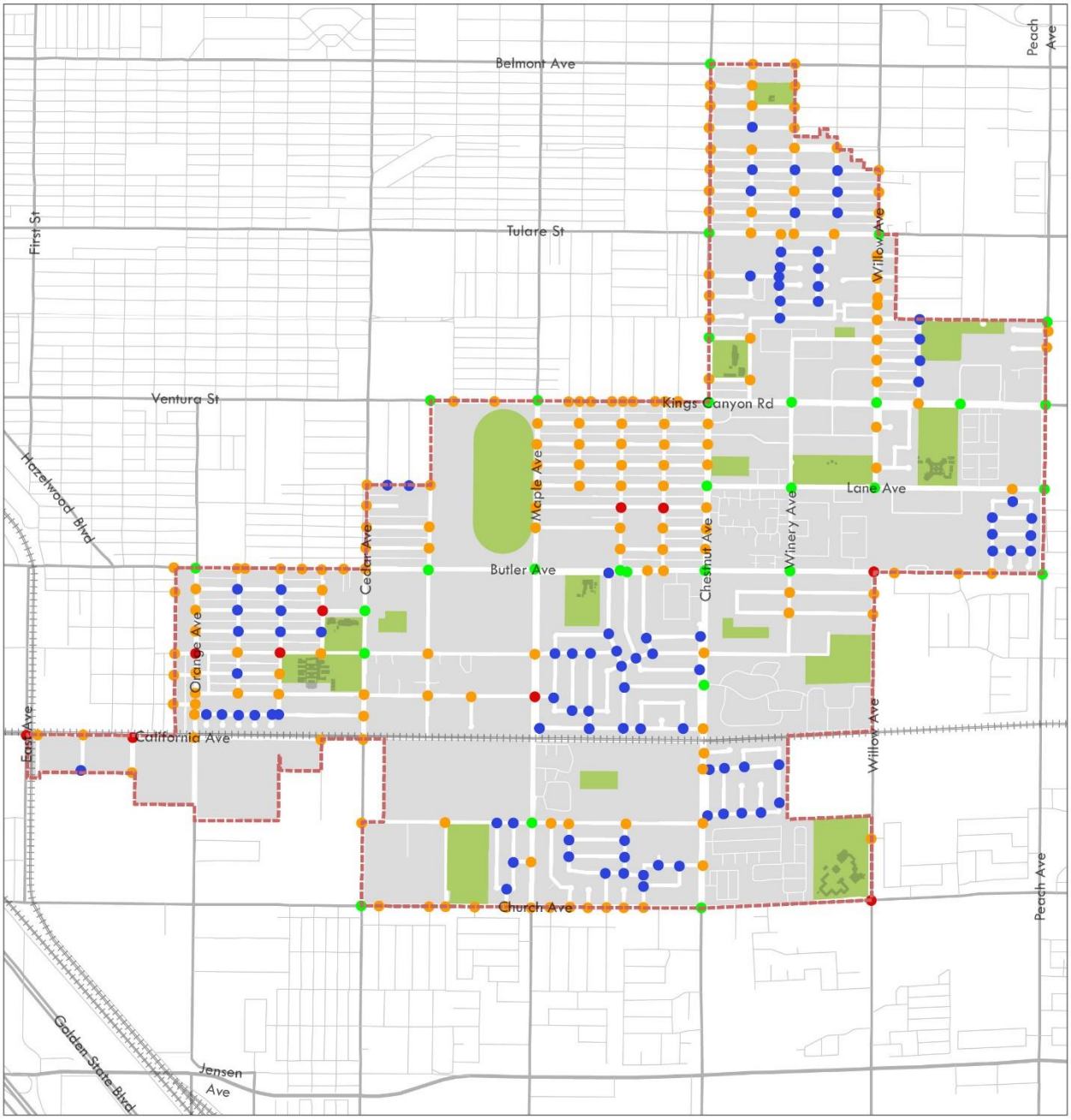
- Kings Canyon Road
- Lane Avenue – East of Chestnut Avenue
- Butler Avenue
- Cedar Avenue
- Chestnut Avenue
- Peach Avenue

The General Plan EIR did not analyze intersection level of service. However, it can be inferred that the intersections adjacent to street segments that currently operate at the City's LOS D threshold also operate at LOS D or worse. The City maintains a priority list of intersections that qualify for installation of traffic signals and traffic signal phasing modifications – indications of intersections with operational deficiencies, with pedestrian safety issues, or are located near a school to provide for pedestrian crossing. These intersections include:

- Cedar Avenue and Woodward Avenue
- Butler Avenue and Eighth Street
- Butler Avenue and Willow Avenue
- Butler Avenue and Cedar Avenue

Hamilton Ave. and Sierra Vista Ave. is a low-volume, uncontrolled residential neighborhood intersection

Example of a large, signalized intersection at Kings Canyon Rd. and Maple Ave.



Intersections

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Uncontrolled Intersection
- Minor Approach Stop Intersection
- Multi-Way Stop Intersection
- Singalized Intersection

N 0 0.125 0.25 0.5 Miles

Existing Bicycle Network

The City of Fresno has recently adopted an Active Transportation Plan (ATP, 2017) that envisions a complete, safe and comfortable network of trails, sidewalks and bikeways that serves all residents of Fresno. Current bicycling facilities are broken down into three classifications, which are identified below. There are 491 miles of bikeways in the City with approximately 1400 proposed miles.

- Class I: Bicycle or multi-use (bicycle-pedestrian) path that is completely separated from vehicle traffic and typically a 10- to 12-foot wide concrete/asphalt-concrete paved surface with two-foot wide shoulders.
- Class II: Designated on-street bicycle lane that is identified with painted pavement striping and signing and is typically at least five feet in width.
- Class III: On-street bicycle route that is designated by signs and markings and utilizes the paved surface shared with a low volume of motorized vehicles.

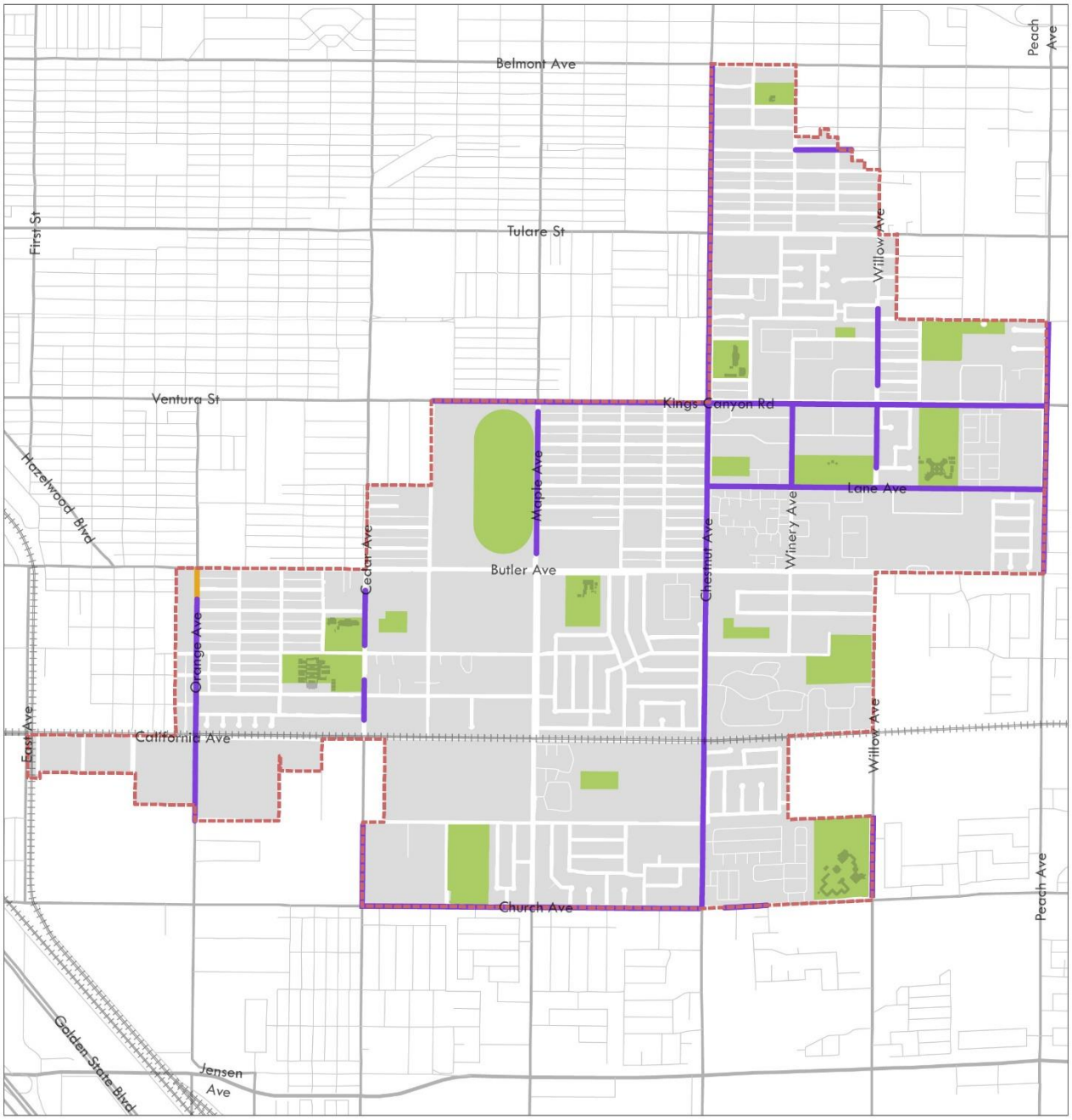
There are few streets within the study area that include separate bike facilities (see map on the next page). Most are Class II facilities. Class II bike lanes are present on: Kings Canyon Rd. (First St. to East of Chestnut Ave.), Church Ave., Cedar Ave. (Church to Woodward Ave. and Hamilton Ave. to south of Butler Ave.), Willow Ave. (Lane Ave. to Kings Canyon Rd.), Orange Ave. (south of Butler Ave.) and Chestnut Ave. with an ongoing project for Butler Ave. (Hazelwood Ave. to Peach Ave).

The CSESP area has some of the highest concentrated areas for bicycle and vehicle collisions in Fresno (e.g. along Kings Canyon Rd. between Cedar Ave. and Armstrong Ave.; ATP, 2017). The Plan Area has a number of opportunities for addressing safety concerns and expanding the network, including the addition of bike lanes along key streets such as Chestnut, Maple and Butler Avenues and improving connections to and around schools and parks. The challenges associated with adding bike lanes on streets in the CSESP area are the competing street uses, including on-street parking and turn lanes. Streets should be examined on a case-by-case basis, with input from the public regarding priorities.

Additionally, the railroad right-of-way along California Avenue, east of Cedar Avenue presents an opportunity for a Class I bike path that should be investigated regarding its feasibility as a regional bike path. Some strategies for improving on-street bikeway travel include traffic calming strategies such as lane width reductions and bulb-outs, buffered or separated bike lanes and completing missing parts of the existing network.

Example of a Class I bike path adjacent to the Plan Area

Example of a Class II bike lane along Chestnut Avenue



Existing Bicycle Facilities

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Class II Bike Lane
- Class III Bike Route

N 0 0.125 0.25 0.5 Miles

Existing Pedestrian Network

In addition to the bicycle network improvement goals as outlined in the ATP, the City of Fresno has also documented existing pedestrian network conditions and has envisioned a number of recommendations to better connect the residents of Fresno. There are currently 2016 miles of existing sidewalks throughout the City of Fresno and 1984 proposed miles to fill in the missing connections in underserved neighborhoods with a focus on pedestrian safety enhancements.

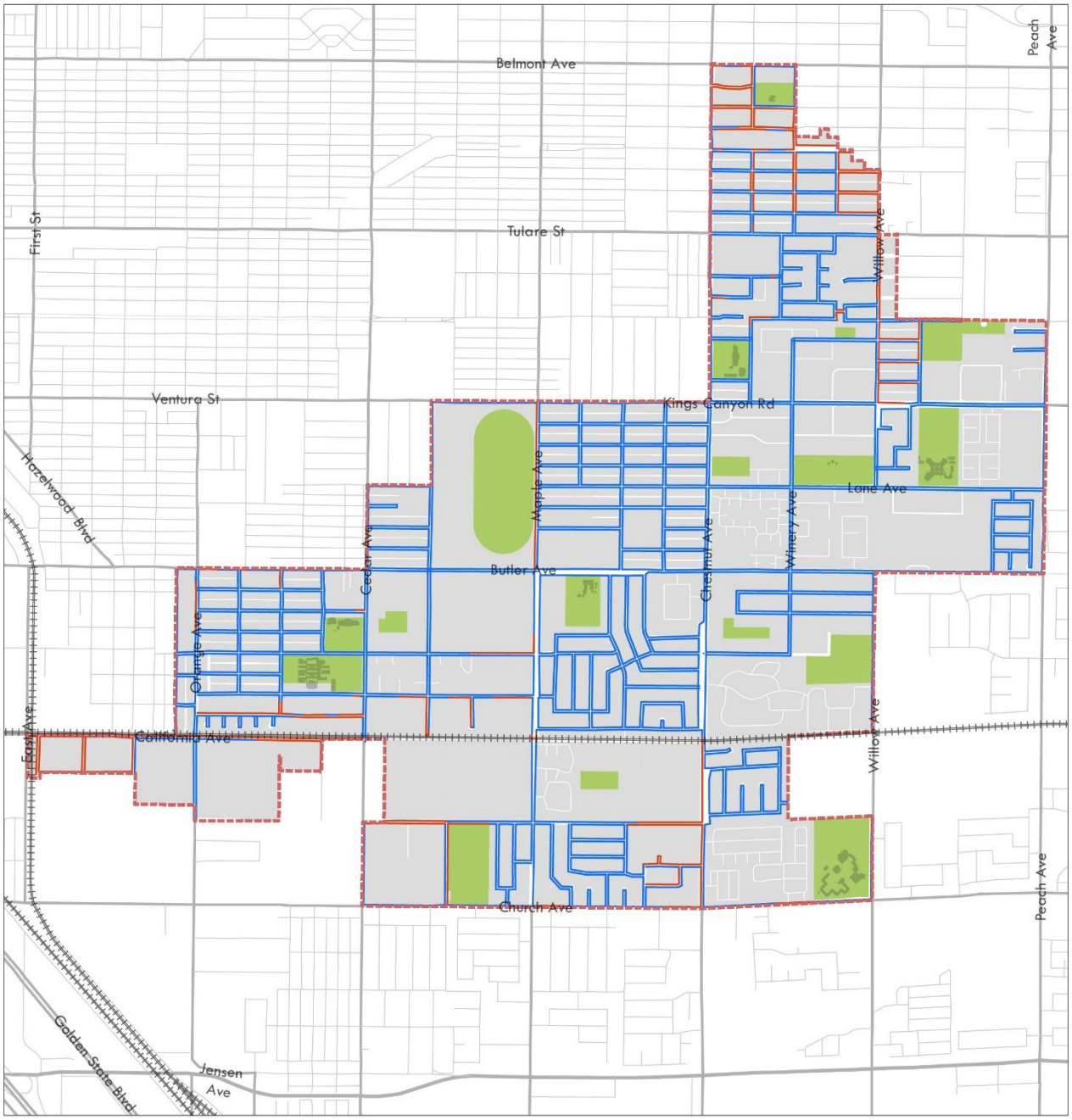
Not unlike the existing bicycle network, the pedestrian network is also lacking connectivity and safety in the Plan Area, ultimately affecting comfort and desire for pedestrian activity. Kings Canyon Rd (Cedar Ave to Peach Ave) is a high-activity commercial corridor that has been identified for having one of the greatest concentrations of pedestrian and vehicle incidents in the City. The Pedestrian Network map on the next page depicts areas of missing sidewalk within the CSESP study area. Most of the missing sidewalks exist in the neighborhoods near the northern and southern limits of the study area. There are several major corridors with missing pedestrian facilities including Willow Avenue (north of Kings Canyon Road), Chestnut Avenue (south of California Avenue) and Maple Avenue (Butler Avenue to Kings Canyon Road).

There are a number of missing sidewalk segments throughout the Plan Area due to insufficient right-of-way from previously annexed county islands, unfavorable topographic conditions or utility conflicts. These segments include several major corridors with missing pedestrian facilities including Willow Ave. (north of Kings Canyon Rd), Chestnut Ave. (south of California Ave.) and Maple Ave. (Butler Ave. to Kings Canyon Rd.). These areas should also be studied to determine the existing constraints and costs to develop a capital program for these facilities. Neighborhoods in the north part of the Plan Area that are missing sidewalks may prefer to not have sidewalks or were developed without them per the applicable standards at the time.

Some strategies for improving the network include filling in sidewalk gaps and/or widening the sidewalks with landscaping and shade for a more comfortable pedestrian experience, providing traffic calming and/or installing bulb-outs to narrow the pedestrian crossing distance. Increasing controlled pedestrian crossing points along the BRT route may also be helpful in crossing such long and wide corridors.

Example of missing and incomplete sidewalk segments along Barton Avenue

Low-volume residential streets such as Laurel Ave. without sidewalks can be found throughout the Plan Area



Pedestrian Network

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Existing Sidewalks
- Missing Sidewalks

N 0 0.125 0.25 0.5 Miles

Existing Transit Routes

City of Fresno's Public Transportation Department currently offers 16 fixed-route bus lines, consisting of a fleet of over 100 alternatively-fueled buses. The Fresno Area Express (FAX) system provided over 10.6 million fixed-route passenger trips in 2016 and is the largest of its kind in the San Joaquin Valley. The Plan Area is currently serviced by FAX and is the primary method of public transportation within Southeast Fresno and the adjacent communities. There are six FAX lines servicing the Plan Area at an average 30-minute weekday service frequency (see map on the next page).

- Route 22 – 30-minute frequency weekday service to and from northwest Fresno.
- Route 26 - 30-minute frequency weekday service to and from north Fresno.
- Route 28 – 20-minute frequency weekday service to and from central Fresno
- Route 33 - 30-minute frequency weekday service to and from southwest Fresno.
- Route 38 – 15 to 30-minute frequency weekday service to and from northeast Fresno.
- Route 41 - 30-minute frequency weekday service to and from west Fresno.

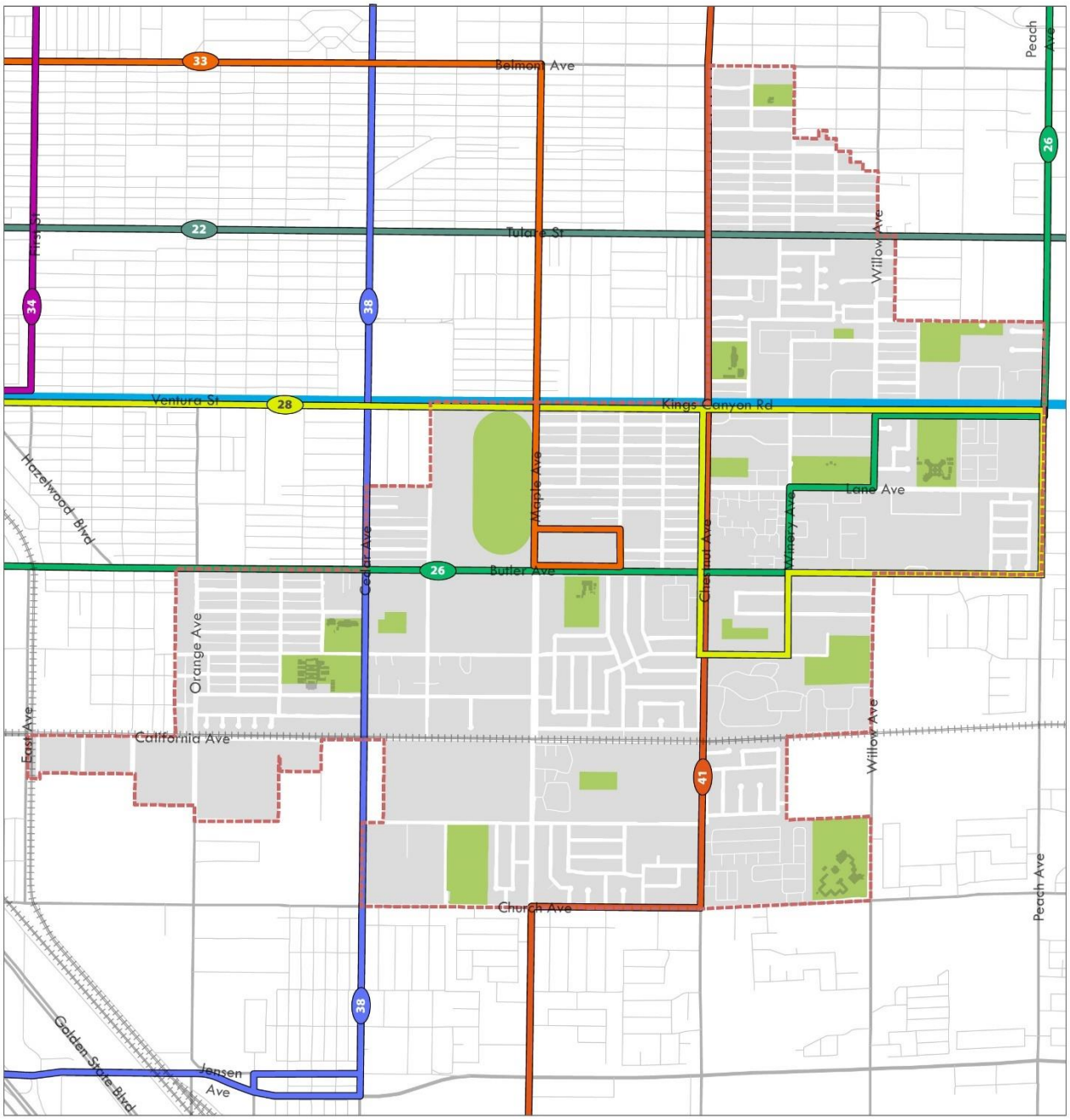
The CSESP area had a combined ridership of 1.08 million in fiscal year (FY) 2015. Ridership has decreased over subsequent years with 1.02 million in FY 2016 and 0.93 million in FY 2017, for an overall decrease of 14% from 2015 to 2017. FAX is currently evaluating their routes for adjustments to bus frequency. A ridership survey will take place in January 2018 that will be the basis of this decision-making.

Additionally, the recently implemented Fresno Area Express Q is the City's Bus Rapid Transit system that services the Plan Area along Kings Canyon Rd. with four stops in each direction. FAX Q runs on a 10-minute frequency at peak time at ½ mile intervals. The BRT route has traffic signal priority and is designed to move through traffic more efficiently by not having to transition in and out of traffic.

The existing transit system provides future opportunities for prioritizing key neighborhood centers by focusing on areas of highest activity and ensuring proper neighborhood and amenity connections. By strategically locating future connections and development around key intersections, transit hubs and areas of commercial or civic activity, the circulation network can provide easier access to and from the transit services.

BRT Station, recently installed on Kings Canyon Rd.

Fresno Area Express (FAX) offers 16 fixed-route bus lines throughout the city.



Existing Transit Routes

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- BusRapitTransit
- FAX Line 22
- FAX Line 26
- FAX Line 28
- FAX Line 34
- FAX Line 38
- FAX Line 41

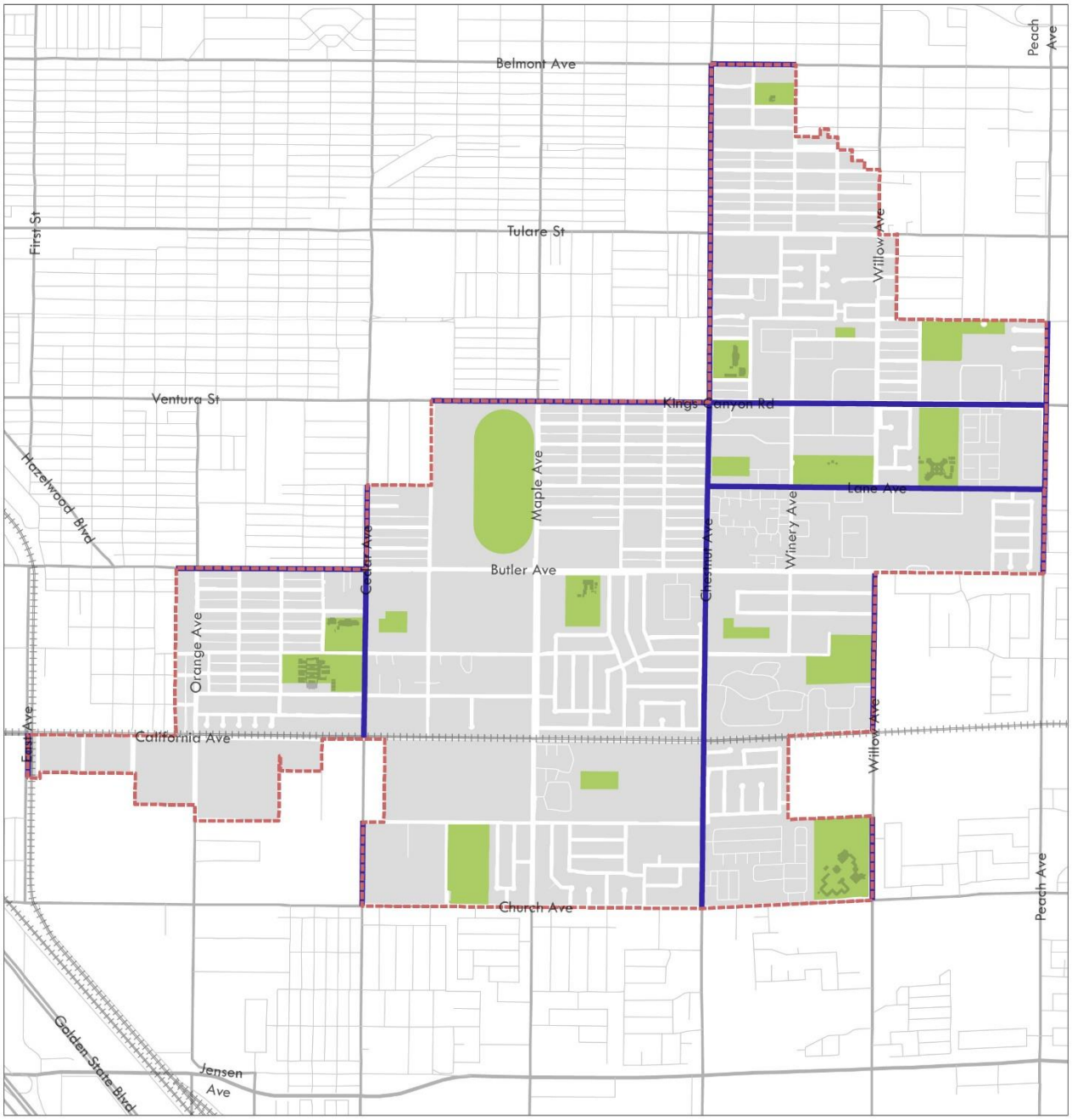
N 0 0.125 0.25 0.5 Miles

Existing Truck Routes

As depicted in the Existing Truck Routes map on the next page, the CSESP study area has a robust truck route system. Kings Canyon Road, Chestnut Avenue, and Cedar Avenue are the major truck routes. Should impacts of commercial vehicles be considered detrimental to the quality of life in particular areas of the CSESP, the community may want to examine alterations to the truck route map in order to more clearly delineate neighborhood and commercial areas.

Majority of collectors such as this residential portion of Maple Ave. are designated as truck routes

Narrower and lower-volume streets such as Willow Ave. are also designated as truck routes



Existing Truck Routes

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Open Space
- Existing Truck Routes

N 0 0.125 0.25 0.5 Miles

Safety

According to the Transportation Injury Mapping System, during the years of 2014-2016 the CSECP Area had a total of 102 collisions, including 4 fatal, 13 involving pedestrians and 11 involving bicycles.

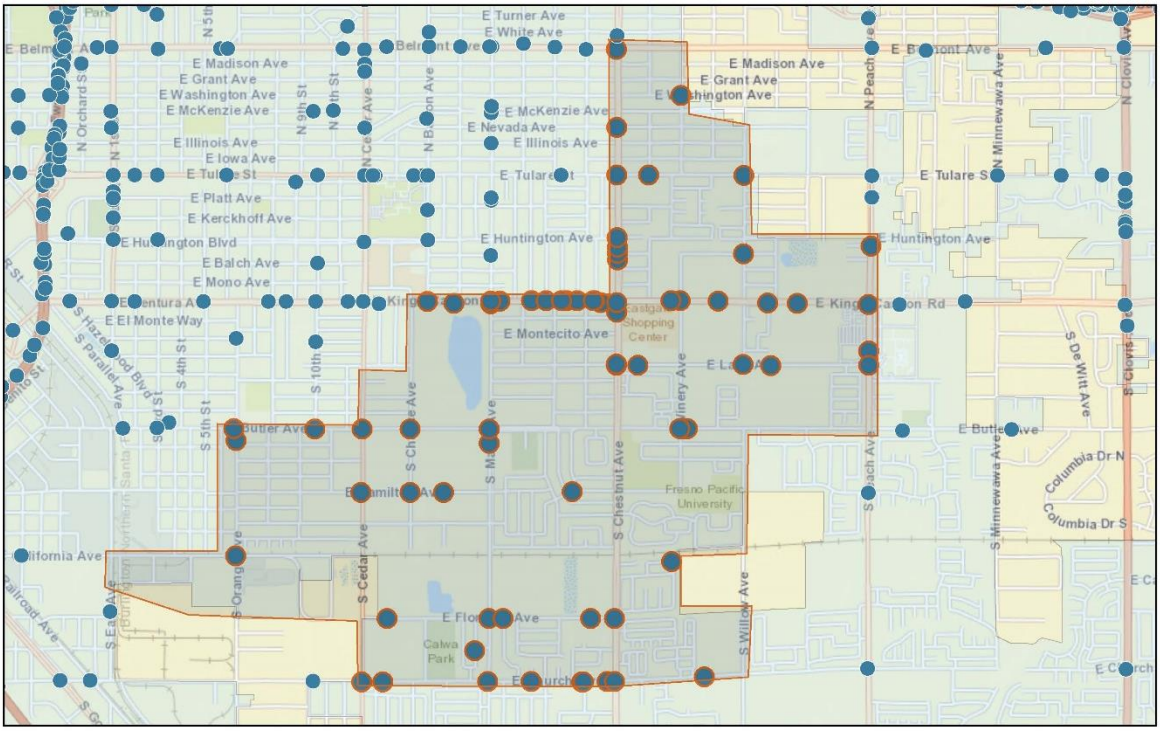
The Statewide Integrated Traffic Records System (SWITRS) GIS Map below illustrates all of the collisions within this area from 2014 to 2016. There are more concentrated areas of collisions on:

- Kings Canyon Road, west of Chestnut Avenue
- Church Street, west of Chestnut Avenue
- Chestnut Avenue, north of Kings Canyon Road

The Collision Locations map on the next page illustrates the location of the fatal collisions and those involving bicycles and pedestrians. The ¾ mile section of King's Canyon Road from Chance Avenue to Chestnut Avenue has the highest concentration of collisions, totaling 2 fatal vehicular collisions, 2 pedestrian collisions (1 fatal) and 5 bicycle collisions. Improvements along this corridor as addressed in the bicycle and pedestrian networks sections should be a focus to improve safety in this area.

Additionally, the intersections of Cedar Avenue at Butler Avenue had 3 pedestrian collisions and Chestnut Avenue at Balch Avenue had 2 pedestrian collisions, one of which was fatal. These intersections should be examined for pedestrian safety improvements.

SWITRS GIS Map: Fresno, Fresno 01/01/2014 - 12/31/2016



December 22, 2017

SWITRS Collisions

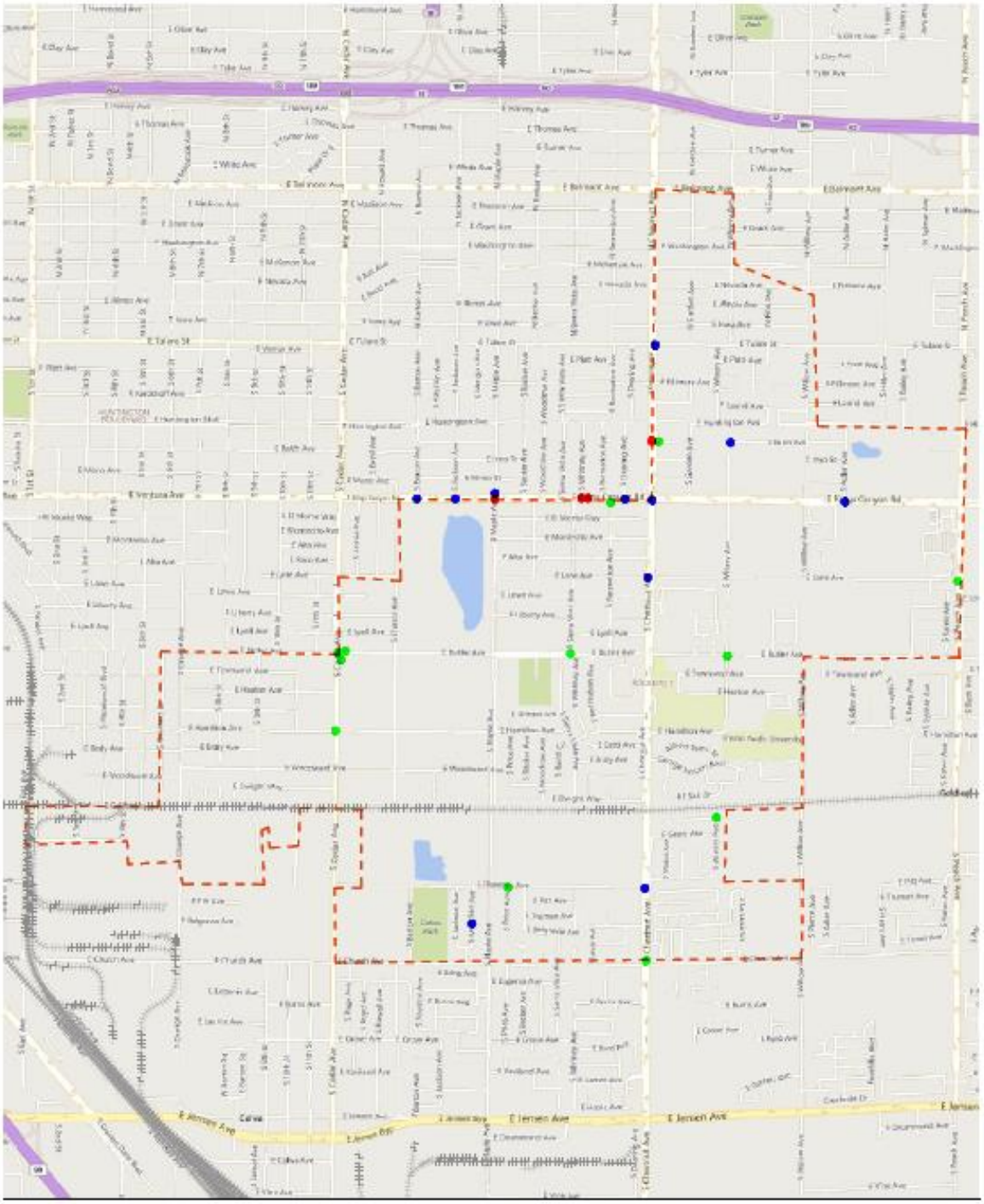
- Collisions
- Collisions - Selected

1:36,112

0 0.3 0.6 1.2 mi

0 0.35 0.7 1.4 km

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand),



Collision Locations 2014 - 2016

Central Southeast Fresno Specific Plan

Legend

- Central Southeast Plan Boundary
- Fatal Collisions
- Bicycle Collisions
- Pedestrian Collisions

Utilities

Prepared by Stantec

Introduction

This section addresses the existing conditions related to utilities and service systems. The topics of water, wastewater, drainage/flood control, solid/hazardous waste are discussed in detail in this section. Primary information for the utilities and services systems was obtained from various sources. Wastewater information was obtained from the 2015 Wastewater Collection System Master Plan prepared by Carollo. Water facility and supply information was obtained from the 2013 City of Fresno Metropolitan Water Resources Management Plan EIR prepared by West Yost Associates. Storm drainage information was obtained from the 2016 District (Fresno Metropolitan Flood Control District) Services Plan Master Update.

Water

The City of Fresno delivers drinking water to approximately 500,000 residential, commercial, and industrial customers over a 114 square mile area of the city including many county Islands. The City's water supply is made up of approximately 85% groundwater and 15% surface sources.

The City lies within the Kings Sub-basin, which is part of the larger San Joaquin Valley Groundwater Basin, and extracts a majority of water to meet its demands from this underground aquifer. Historically, the groundwater levels in the Fresno area have declined by an average of 1.5 feet per year since 1990. In the past 80 years, the water level has decreased from 30 feet below ground surface to more than 128 feet below ground surface. Groundwater used by the City is replenished by three different methods:

- Natural recharge (approx. 25%) - rainfall, irrigation, canal and stream flows that seep into the soil and replenish the aquifer
- Subsurface inflow (approx. 25%) - movement of groundwater from external sources such as the Sierra Nevada
- Intentional recharge (approx. 50%) - the City's primary recharge facility is Leaky Acres, located just northwest of Fresno-Yosemite International Airport. Other recharge facilities include Fresno Metropolitan Flood Control District (FMFCD) storm drainage basins and the Alluvial Groundwater Recharge System (AGRS) owned and operated by the City of Clovis. The City expects for up to 75% of its groundwater replenishment to come from intentional recharge at buildout.

Historically, the City has pumped 140% of the groundwater it has replenished. Projects such as the Northeast Surface Water Treatment Facility (NESWTF) have reduced this pumping demand.

The City projects that pumping demand will be approximately 85% of replenishment, during normal years at buildout.

The 2010 City of Fresno water consumption estimates by land use are:

- Single Family (74,403 AFY)
- Multi-Family (21,087 AFY)
- Commercial/ Institutional/Government (20,754 AFY)
- Industrial (6,660 AFY)
- Landscape (9,286 AFY)
- Other –Miscellaneous (157 AFY)

The objective of City's water plan update is to provide a sustainable and reliable water supply to meet the demands of the existing and future growth. This will be achieved by:

- Maximizing surface water use
- Replenishing groundwater with surplus surface water, when available
- Increasing water conservation activities
- Using tertiary-treated recycled water

No water distribution system improvements have been identified for the CSESP area.

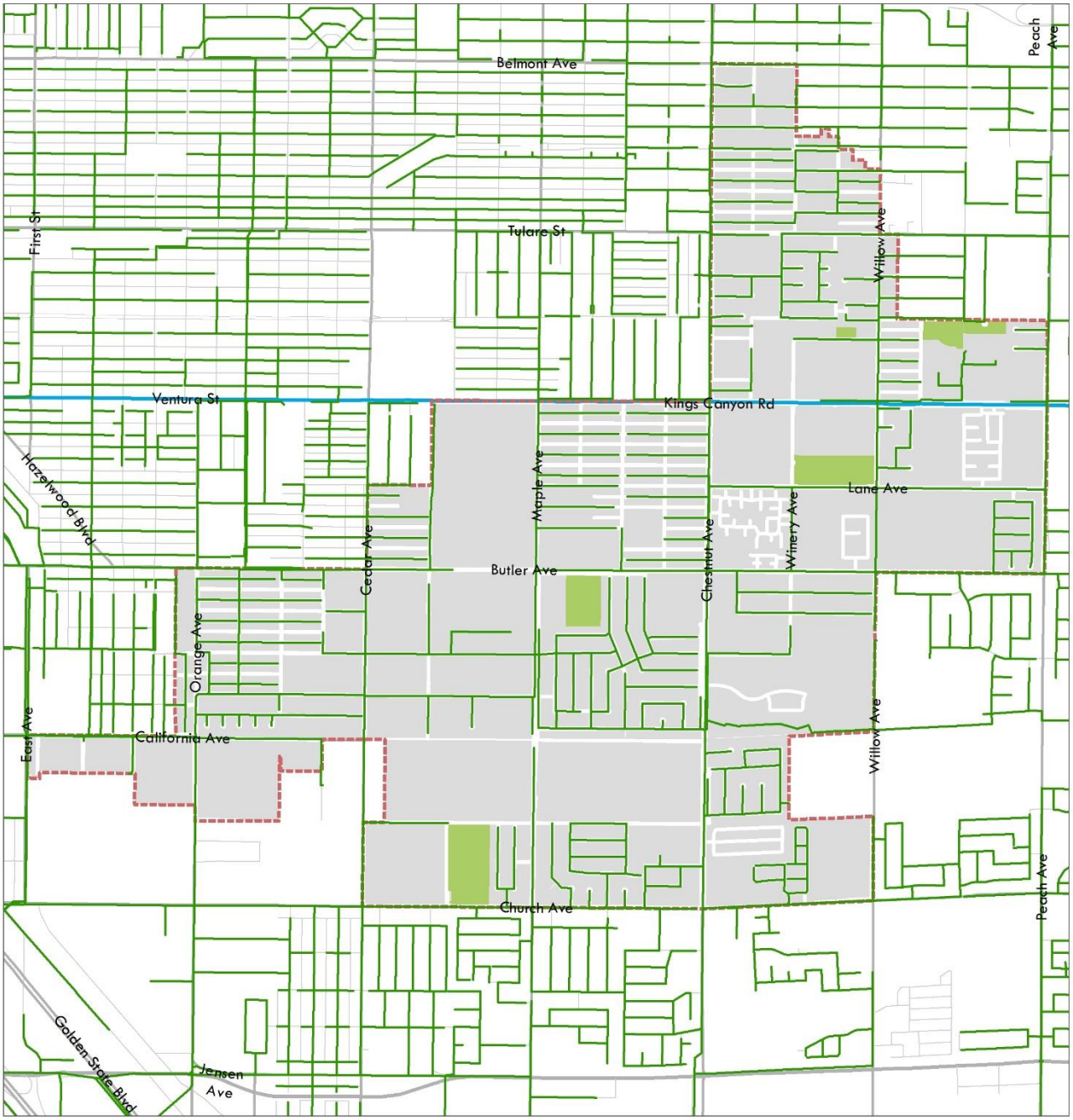
Sewer

The City of Fresno maintains over 1,500 miles of sewer pipes and other sanitary collection system infrastructure like manholes and lift stations. Sewer infrastructure in the Plan Area is illustrated in the map on page 3. The City's 2015 Wastewater Collection System Master Plan Update identified areas in poor condition and/or with current or projected future flow deficiencies, based on City design criteria. The primary impact identified within the CSESP area was the Orange Avenue trunk sewer main. The Orange Avenue trunk is a main sewer artery that conveys flows from the City of Clovis, California State University Fresno (CSUF), and a large area of the central section of the City. The needed capacity improvements consist of replacing approximately 6,050 feet of 36-inch diameter pipeline with a new 42-inch diameter sewer on the following street segments within the CSESP area (see maps on pages 4-6):

- Eighth Street: Tulare Ave. to Woodward Ave.
- Woodward Avenue: Eighth St. to Orange Ave.
- Orange Avenue: Woodward Ave. to California Ave.

The master plan also confirmed that the Gallo Winery facility at Clovis and Olive Avenue has a direct storm drain connection to the sewer system. The study recommended that this direct connection be removed to eliminate capacity impacts currently present in the downstream pipelines, including one within the CSESP area on McKenzie Avenue east of Chestnut Avenue. If the storm drain connection cannot be removed, further analysis will be required to determine capacity improvements for downstream pipelines.

No major sewer pipeline structural deficiencies were identified within the CSESP area.



Infrastructure- Wastewater

Central Southeast Fresno Specific Plan

Legend

- Wastewater Lift Stations
- Wastewater Pipes
- Central Southeast Plan Boundary
- BusRapitTransit
- Parks

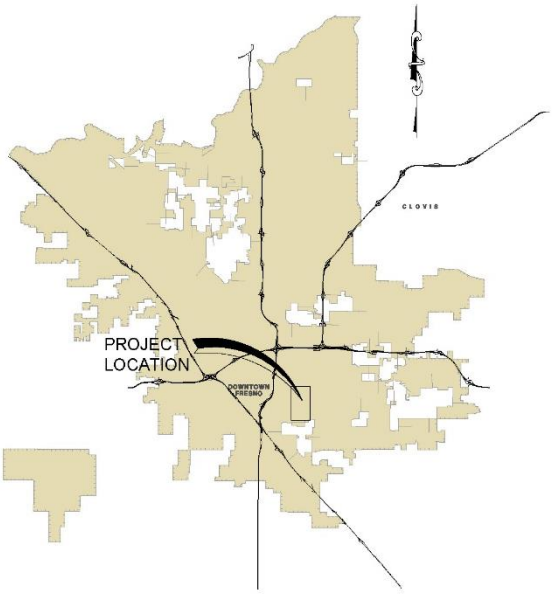
N 0 0.125 0.25 0.5 Miles

Sewer Improvements on Orange Avenue: Tulare Ave to Woodward Ave

City of Fresno
Wastewater Collection System Master Plan Update
CAPITAL IMPROVEMENT PLAN
PROJECT SHEET

Project:	**C-5A**
Sewer Plat No.	**2759, 2859**
Implementation Phase	**Phase 4 (2031-2035)**
Project Purpose:	Replacement of Existing Sewer Facilities
Project Location:	Eighth Street between Ventura Street and Woodward Avenue

Approximate Project Quantities:
Proposed Diameter: 42"



Project Vicinity Map
Not to Scale

Project Location Map
1" = 1,000'

Project Conditions:
2-Lane Streets
Residential Setting

Project Benefit:
Existing Customers: 83%
Future Development: 17%

Estimated Project Costs:

Estimated Construction Cost:	$2,638,000.00
Estimated Contingencies Cost:	$659,000.00
Estimated Management and Engineering Cost:	$528,000.00
Total Estimated Project Cost:	$3,825,000.00

ENR CCI = 9,835 (20 City Average, July 2014)

Legend:

- Project Sewer
- Street
- 42" Proposed Pipe Diameter
- 36" Existing Pipe Diameter

Drawing: P:\213-0242\Site\Exhibits\Project Jobs\213242_(C-5A)ECA-4-REP
Plot by: dmagill Jul 11, 2014 - 3:57pm

Sewer Improvements on Woodward Ave: Eighth St to Orange Ave

City of Fresno
Wastewater Collection System Master Plan Update
CAPITAL IMPROVEMENT PLAN
PROJECT SHEET

Project:	**C-5B**
Sewer Plat No.	**2759, 2859**
Implementation Phase	**Phase 4 (2031-2035)**
Project Purpose:	Replacement of Existing Sewer Facilities
Project Location:	Woodward Avenue between Eighth and Orange Avenues

Approximate Project Quantities:
Proposed Diameter: 42"

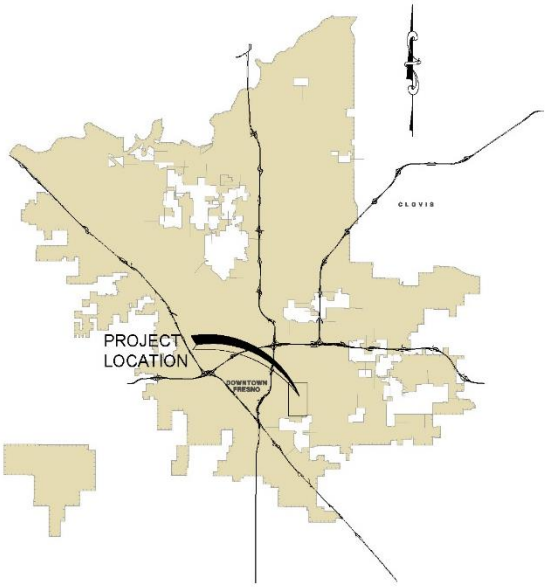
Project Conditions:
2-Lane Streets
Residential Setting

Project Benefit:
Existing Customers: 83%
Future Development: 17%

Estimated Project Costs:

Estimated Construction Cost:	$506,000.00
Estimated Contingencies Cost:	$126,000.00
Estimated Management and Engineering Cost:	$101,000.00
Total Estimated Project Cost:	$733,000.00

ENR CCI = 9,835 (20 City Average, July 2014)



Project Vicinity Map
Not to Scale

Project Location Map
1" = 1,000'

Legend:

- Project Sewer
- Street
- 42" Proposed Pipe Diameter
- 36" Existing Pipe Diameter

Drawing: P:\213-0242\Site\Exhibits\Project Jobs\213242_(C-5B)ECA-4-REP
Plot by: dmagill Jul 11, 2014 - 3:58pm

Sewer Improvements on Eighth Street: Woodward Ave to California Ave

City of Fresno
Wastewater Collection System Master Plan Update
CAPITAL IMPROVEMENT PLAN
PROJECT SHEET

Project:	**C-5C**
Sewer Plat No.	**2759, 2859**
Implementation Phase	**Phase 4 (2031-2035)**
Project Purpose:	Replacement of Existing Sewer Facilities
Project Location:	Orange Avenue between Woodward and California Avenues

Approximate Project Quantities:
Proposed Diameter: 42"

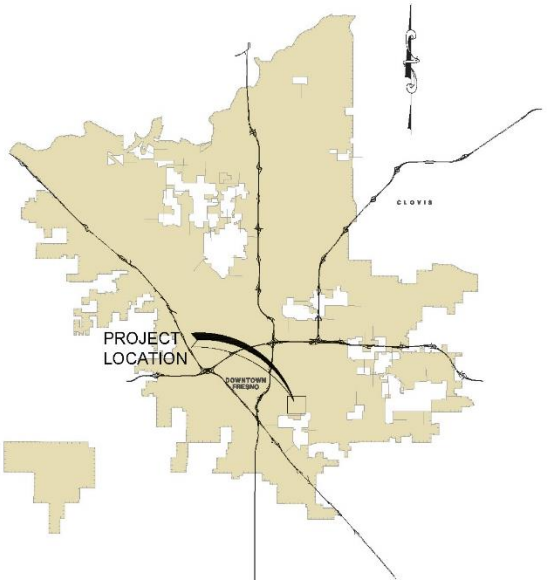
Project Conditions:
2-Lane Streets
Residential Setting

Project Benefit:
Existing Customers: 83%
Future Development: 17%

Estimated Project Costs:

Estimated Construction Cost:	$537,000.00
Estimated Contingencies Cost:	$134,000.00
Estimated Management and Engineering Cost:	$107,000.00
Total Estimated Project Cost:	$778,000.00

ENR CCI = 9,835 (20 City Average, July 2014)



Project Vicinity Map
Not to Scale

Project Location Map
1" = 1,000'

Legend:

	Project Sewer
	Street
42"	**Proposed Pipe Diameter**
36"	**Existing Pipe Diameter**

Drawing: P:\213-0242\Site\Exhibits\Project Jobs\213242_(C-5C)ECA-4-PEP
Plot by: dmagill Jul 11, 2014 - 3:59pm

Storm Drain

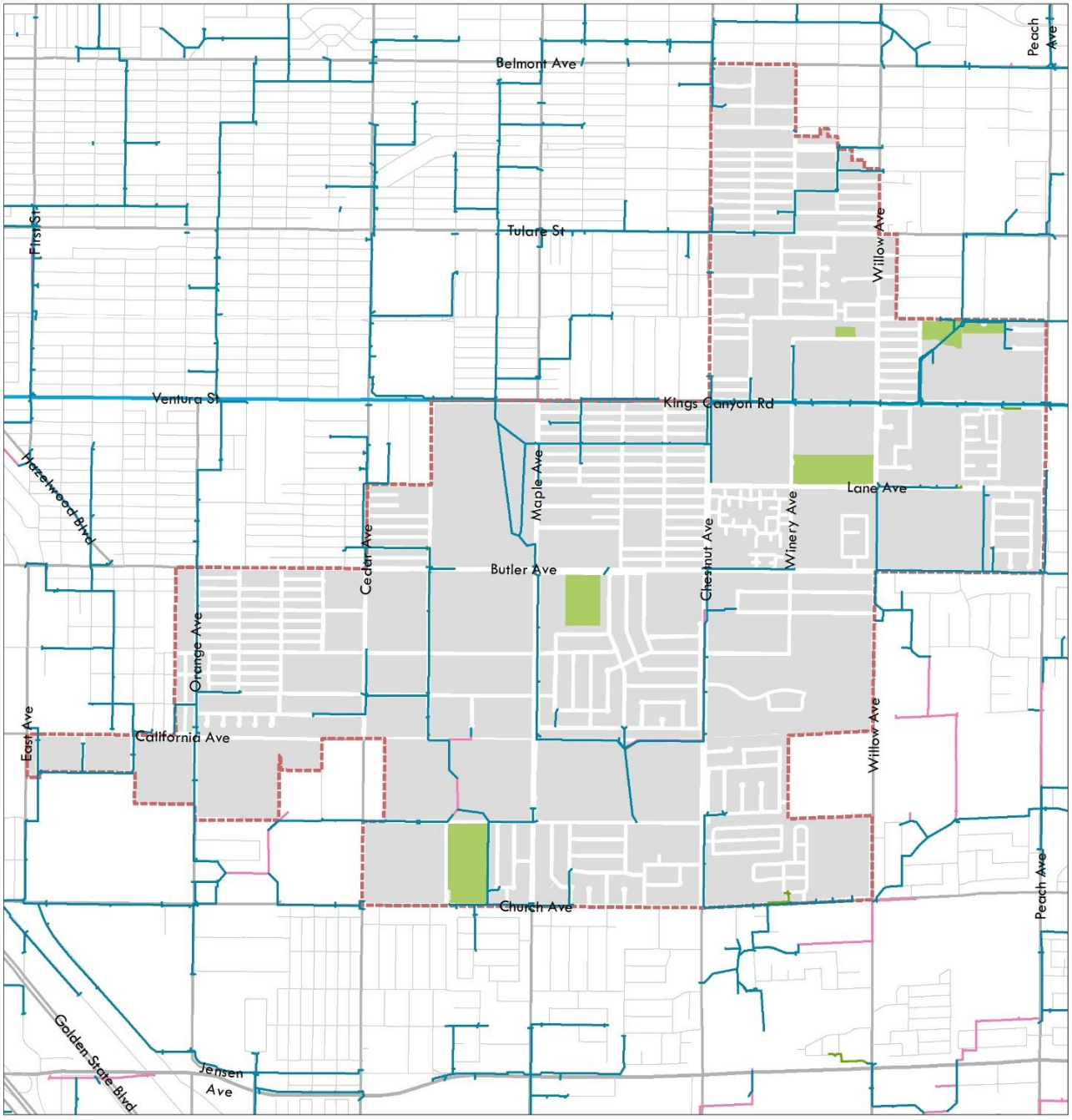
Storm drainage facilities within the Fresno-Clovis Metropolitan area are planned, implemented, operated and maintained by the Fresno Metropolitan Flood Control District (FMFCD). The storm drainage facilities are documented in the Storm Drainage Master Plan (SDMP), which is developed and updated by FMFCD. The stormwater system is shown in the map on the next page. The master plan drainage system for the Planning Area consists of over 130 individual drainage areas or urban watersheds. Drainage area boundaries are determined by geographic and topographic features and the economics of providing storm drainage service to the watershed. The storm drainage facilities within a drainage area consist of storm drain inlets, pipeline, retention basins, urban detention (water quality) basins, and storm water pump stations.

Surface grading improvements such as streets, curbs, gutters, and valley gutters are part of the City of Fresno infrastructure, but the general grading of these features is governed by the SDMP to provide a coherent implementation of drainage within the Planning Area. Storm drain inlets are located at low points in the topography as determined by the SDMP. Pipeline alignments and sizes are also shown on the SDMP. Pipeline alignments are subject to change as development proposals are put forward by development projects. Retention basins and urban detention basins locations and geometry are part of the SDMP as well. Basins are sited in the topographic low point of the drainage area. All of the storm drainage pipelines are directed to the retention and urban detention basins. Retention basins store and percolate storm water from the drainage area. Urban detention basins provide quiescent (still) conditions for the removal or settling out of suspended solids prior to discharge of the storm water to the San Joaquin River.

Funding for storm drainage facilities occurs through the collection of drainage fees assessed on parcels as they develop, through grant funding from the State of California and the Federal Government, through low interest infrastructure improvement bonds, and in the past, through assessment districts. Drainage fees fund the majority of the construction of master plan facilities in newly developing areas. Grants, infrastructure loans, and assessment districts fund the majority of construction in previously developed drainage areas.

The only location within the CSESP area identified for storm drain improvements is

- California Avenue – Between Cedar and Maple and the detention basin to the south (see map on page 9)



Infrastructure- Stormwater

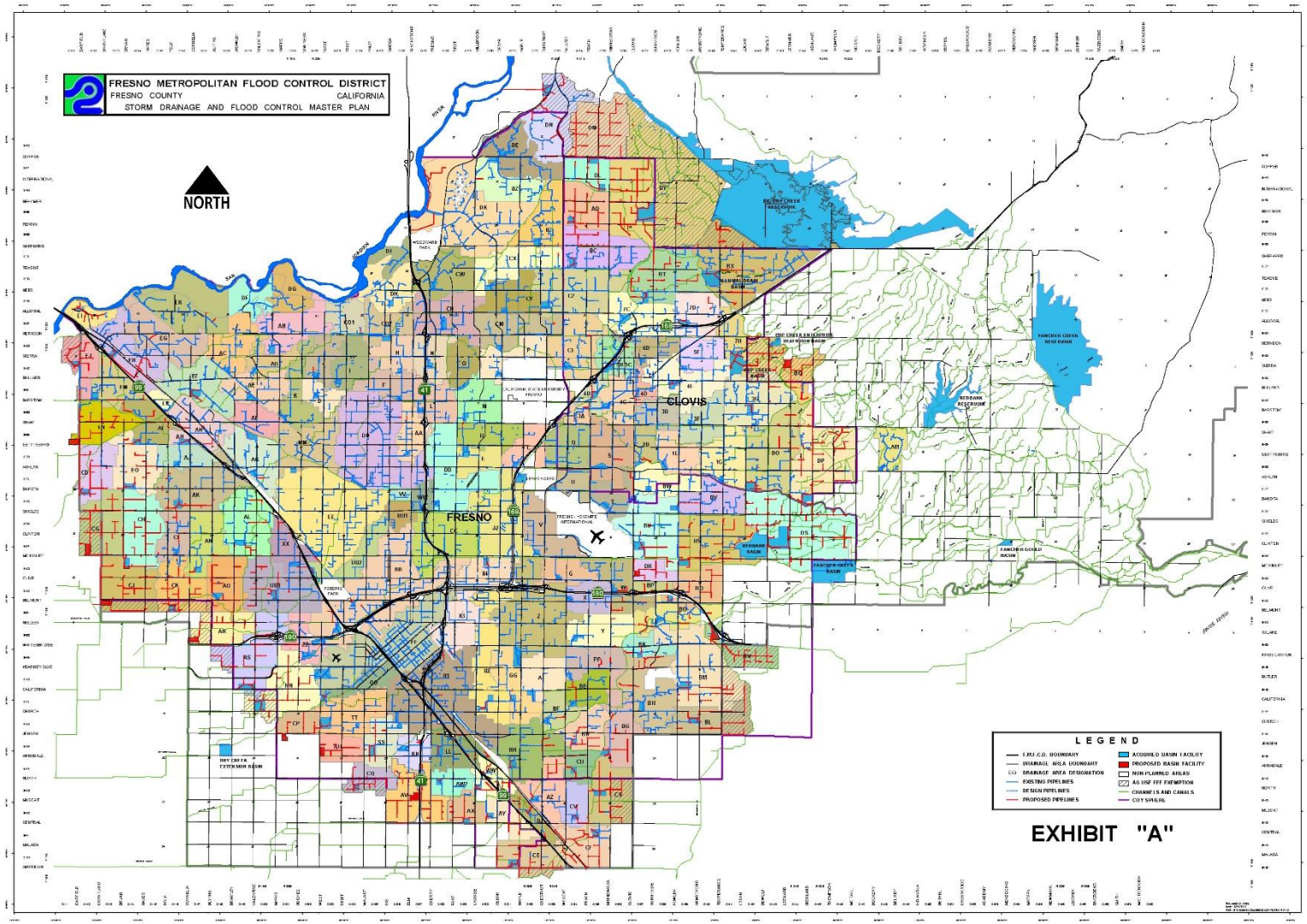
Central Southeast Fresno Specific Plan

Legend

- Stormwater Existing Pipes
- Stormwater Future Pipes
- Stormwater Design Pipes
- Central Southeast Plan Boundary
- BusRapitTransit
- Parks

N 0 0.125 0.25 0.5 Miles

Storm Drain Improvements on California Avenue between Cedar and Maple



Gas/Electrical – PG&E

The Planning Area is located within the Greater Fresno Area service territory. This service area interconnects to the bulk PG&E transmission system by 12 transmission circuits. They include nine 230 kV lines, three 500/230 kv electrical banks, and one 70 kV line. This transmission system connects to the Gates substation in the south. The Greater Fresno area generates approximately 3,987 Megawatts (MW) of electricity through thermo, hydro, solar, and biomass facilities. The largest electrical generating facility is the Helms Pumped Storage Plant that pumps water up and down between two reservoirs located at different elevations. This facility produces and stores up to 1,212 MW of electricity that represents approximately 30 percent of the electricity produced in the Greater Fresno area.

Based on electrical demand factors that were provided by PG&E, the residential demand is approximately 2,610 kWh per person per year and the nonresidential demand is approximately 7,503 kWh per employee per year.

PG&E's natural gas system encompasses approximately 70,000 square miles in Northern and Central California. Approximately 90 percent of the natural gas supply for PG&E is from out-of-state imports. The primary pipeline that extends through California includes Lines 400 and 401 consisting of 725 miles of 36-inch and 42-inch pipelines. These pipelines extend from the TransCanada's system that originates in Canada and extends through Malin, Oregon. In addition, there is Line 300 that consists of 1,004 miles of 34-inch pipeline that extends from four interstate pipelines through Topock, Arizona. The natural gas system includes various storage facilities and compressor stations along the transmission lines.

Based on natural gas demand factors that were provided by PG&E, residential demand is approximately 138 therms per person per year and the non-residential demand is approximately 403 therms per employee per year.

Environment & Cultural

Prepared by First Carbon Solutions and City of Fresno

Introduction

This portion of the existing conditions report provides an overview of the environmental conditions in the Central Southeast Area Specific Plan (CSESP) project area. It discusses the regulatory framework and existing conditions related to cultural resources, air quality, GHG emissions, hazards & hazardous materials, and noise in Fresno to inform and support the CSESP process.

The primary purpose of the environmental analysis is to inform residents, stakeholders, and city staff on the issues that will be addressed in the CSESP and the associated Environmental Impact Report (EIR). It is designed to serve as background information and to support the development of the CSESP and EIR policies that will be investigated in more depth in the subsequent phases of the study process.

Cultural Resources

Cultural resources are buildings, objects, features, structures, or locations with historic or cultural value. Cultural resources typically include buildings or structures that are associated with an event or person that have contributed to the shaping or development of the city; objects, such as Native American artifacts discovered at a particular location or area of the city; or an archaeological, geological, or paleontological artifact, such as fossils. Specifically, cultural resources can be categorized in one of the following groups:

- Historic Resources: Historic resources are associated with the recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State's history and are generally less than 200 years old.
- Archaeological Resources: Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are generally associated with indigenous cultures.
- Paleontological Resources: Paleontology is the study of plant and animal fossils.
- Burial Sites: Burial sites are formal or informal locations where human remains, usually associated with indigenous cultures, are interred.

Protection of cultural resources is important in maintaining the historic character of Fresno. The 2014 Fresno General Plan addresses cultural resources primarily in the Historic and Cultural Resources Element (Chapter 8) with policies and programs designed to preserve and protect these important features of the community. In addition, the City government strives to preserve the unique historic character of Fresno through the City's Historic Preservation Commission and Local Register of Historic Resources (Fresno Municipal Code, Chapter 12, Article 16).

NRHP and CRHR Historic Resources and Historical Landmarks

A total of 31 sites in Fresno and the immediate surrounding area are listed in the National Register of Historic Places. These sites include local landmarks such as the Old Fresno Water Tower (1894), the Thomas R. Meux Home (1889) and the streamline modern Tower Theatre (1939). All of the National Register sites are also listed in the California Register of Historical Resources. An additional 4 State Historic Landmarks including Fresno Junior College (1895) are located within the City of Fresno. Only one site, California State Historical Landmark Temporary Detention Camps for Japanese American-Fresno Assembly Center is located within the plan area. This California Historical Landmark is located on the Fresno Fairgrounds. No other sites are located within the boundaries of the CSESP, however potentially eligible structures or properties may exist within the CSESP boundaries.

Fresno Historic Districts and Local Register of Historic Resources

The City of Fresno currently has 4 official historic districts consisting of Chandler Field/Fresno Municipal Airport, Huntington Boulevard, The Porter Tract, and Wilson Island. At least 12 additional districts have been proposed or are under consideration within the downtown or Tower District area. No current or proposed historic districts are located within the CSESP.

The City also maintains a Local Register of Historic Resources that includes buildings, structures, objects, sites and districts that have sufficient integrity and are significant in Fresno's history. As of January 2018, there were 272 individual properties on the Local Register, including the Fresno Buddhist Temple (1920), the Fresno City Hall Annex (1939) and the Helm Building (1914). In addition, the City also has a list of 13 "Heritage Properties." This category is used for properties that may not qualify for inclusion in the National Register of Historic Places or Local Register of Historic Resources, but that still are deserving of recognition and protection. None of these sites are located within the boundaries of the CSESP, however potentially eligible structures or properties may exist within the CSESP boundaries.

Considerations for the CSESP

From the extent of existing policies and practices to ensure the protection of historic and cultural resources, it is clear the City of Fresno places a high value on historic character and resources. Existing policies and regulations for historic resources have largely focused on designated Local and National Register properties and districts; however noteworthy structures, and potential historic districts, may exist within the CSESPas well. Examples include the Fresno County Fairgrounds, Fresno Pacific University and industrial facilities located in the southwest of the CSESP. Historic themes applicable to the CSESP area include railroad development, early residential development, ethnic communities, Late-19th and Early 20th Century Commercial Development (1872–1945), Late- 19th and Early 20th Century Civic and Institutional Development (1872–1930), Industrial, Depression Era Civic and Institutional Development, Mid-20th Century

Civic and Institutional Development (1945–1970), and Mid-20th Century Commercial Development (1945–1970). Pursuant to General Plan Policy HCR-2-a**,** the city should continue to work to identify and evaluate potential historic resources and districts within the CSESP and prepare nomination forms for Fresno's Local Register of Historic Resources and California and National Registers, as appropriate.

While the area addressed by the the CSESP is largely comprised of residential track housing, large sections of undeveloped land are also present, and the possibility of finding prehistoric artifacts left by the Northern Valley Yokuts people when developing or redeveloping properties exists. The Native American Heritage Commission (NAHC) has characterized the City of Fresno as being "very sensitive" for potential impacts to Native American sacred sites and prehistoric deposits, particularly near waterways. Current and past waterways and their surrounding regions are considered especially sensitive for cultural resources, as indigenous people utilized these areas as permanent villages, temporary camps, and task specific sites. As such, it is recommended that requirements in the current General Plan for the protection of archaeological resources during the permitting process for proposed development projects be reiterated in the specific plan, with a focus on potentially sensitive areas within theCSESP.

As of July 1, 2015, a new category of resources has been established under CEQA called "tribal cultural resources" (TCRs) that considers tribal cultural values in addition to scientific and archaeological values when determining impacts and mitigation. As this law went into effect after the adoption of the City's 2014 General Plan, the City may wish to incorporate policy pertaining to AB-52 compliance into the CSESP.

Air Quality

Air quality refers to the degree to which the air in our community is pollution-free. Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features. Atmospheric conditions such as wind speed, wind direction, and air temperature inversions interact with the physical features of the landscape to determine the movement and dispersal of air pollutant emissions and, consequently, their effect on air quality.

Air quality is influenced by the quantity of pollutants emitted into the air and by the concentration of pollutants in the air around us. Motor vehicles are the primary source of air pollution in Fresno and San Joaquin Valley (Valley) as a whole. Industrial activities such as electronics manufacturing, auto repair, dry cleaning, and other businesses that use chemicals or solvents also contribute to pollution levels. Additionally, particulate matter emitted into the air as a result of construction, grading activities, the use of wood-burning stoves and fireplaces, and smoke from wildfires locally, regionally and from hundreds of miles away can compound air quality issues. Also, most air entering the valley travels through the Bay Area, where it picks up pollutants.

Air pollutants are regulated to protect human health and for secondary effects such as visibility and building soiling. The Clean Air Act of 1970 tasks the United States Environmental Protection Agency (EPA) with setting air quality standards. The State of California also sets air quality standards that are in some cases more stringent than federal standards and address additional

pollutants. The Air Resource Board (ARB) is the State agency responsible for setting air quality standards for California.

One of the most important reasons for air quality standards is the protection of those members of the population who are most sensitive to the adverse health effects of air pollution, termed "sensitive receptors." The term sensitive receptors refer to specific population groups, as well as the land uses where individuals would reside for long periods. Commonly identified sensitive population groups are children, the elderly, the acutely ill, and the chronically ill. Commonly identified sensitive land uses would include facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Residential dwellings, schools, parks, playgrounds, childcare centers, convalescent homes, and hospitals are examples of sensitive land uses.

The City of Fresno adopted the Fresno General Plan and Master Environmental Impact Report (MEIR) on December 18, 2014.[1] The Fresno General Plan addresses air quality in the Resource conservation and Resilience Element, Air Quality and Greenhouse Gas Emissions chapter with policies and programs designed to minimize air quality emissions to the extent feasible. The MEIR has an Air Quality section, a greenhouse Gas section, an appendix for Criteria Pollutant Modeling. Project impacts and mitigation measures are components of the Air Quality section.

San Joaquin Valley Air Basin

Topography

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants and can channel air from upwind areas that transports pollutants to downwind areas. Fresno is located within the San Joaquin Valley Air Basin (SJVAB or Air Basin). The San Joaquin Valley Air Pollution Control District covers the entirety of the Air Basin. The Air Basin is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Meteorology and Climate

The SJVAB has an inland Mediterranean climate that is strongly influenced by the presence of mountain ranges. The mountain ranges to the west and south induce winter storms from the Pacific Ocean to release precipitation on the western slopes producing a partial rain shadow over the valley. In addition, the mountain ranges block the free circulation of air to the east, trapping stable air in the valley for extended periods during the cooler half of the year.

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[1] Fresno General Plan and Master Environmental Impact Report. City of Fresno. Adopted December 18, 2014. Website: https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/consolidatedGP.pdf.

Winter in the SJVAB is characterized as mild and fairly humid, while the summer is typically hot, dry, and cloudless. The climate is a result of the topography and the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer months, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below to the surface as a result of the northwesterly flow produces a band of cold water off the California coast. In winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms.

The annual temperature, humidity, precipitation, and wind patterns reflect the topography of the SJVAB and the strength and location of the semi-permanent, subtropical high-pressure cell. Summer temperatures that often exceed 100 degrees Fahrenheit (°F) and clear sky conditions are favorable to ozone formation. Most of the precipitation in the valley occurs as rainfall during winter storms. The winds and unstable atmospheric conditions associated with the passage of winter storms result in periods of low air pollution and excellent visibility. However, between winter storms, high pressure and light winds lead to the creation of low-level temperature inversions and stable atmospheric conditions resulting in high carbon monoxide (CO) concentrations and particulate matter (PM) accumulation. The orientation of the wind flow pattern in the SJVAB is parallel to the valley and mountain ranges. Summer wind conditions promote the transport of ozone and precursors from the San Francisco Bay Area through the Carquinez Strait, a gap in the Coast Ranges, and low mountain passes such as Altamont Pass and Pacheco Pass.

The climate is semi-arid, with an annual normal precipitation of approximately 14 inches. Temperatures in the Fresno region range from a normal minimum of 38°F in January, to a normal maximum of 98°F in July. The wind is predominantly from the west-northwest at 9 miles per hour.

Air Pollutants of Concern

A substance in the air that can cause harm to humans and the environment is known as an air pollutant. Pollutants can be in the form of solid particles, liquid droplets, or gases. In addition, they may be natural or man-made. Air pollutants of concern include:

- Ozone
- Carbon monoxide
- Nitrogen dioxide
- Sulfur dioxide
- Particulate Matter (PM_{10} and $PM_{2.5}$) and visibility reducing particles
- Sulfates
- Lead
- Vinyl chloride
- Hydrogen sulfide
- Volatile Organic Compounds (VOC)
- Diesel Particulate Matter (DPM)

Toxic Air Contaminants

In addition to the criteria pollutants, toxic air contaminants (TACs), also known as hazardous air pollutants, are another group of pollutants of concern. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. In general, for those TACs that may cause cancer, regulatory agencies have set thresholds below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

The Fresno General Plan MEIR includes Table 5.3-5 which provides advisory recommendations on siting new sensitive land uses near freeways, high traffic roads, distribution centers, rail yards, refineries, chrome platers, dry cleaners, and gasoline dispensing facilities, as well as Table 5.3-11 which may include high emitting toxic air contaminant stationary sources facilities located in the Plan Area

Odors

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. The SJVAPCD has determined the common land use types that are known to produce odors in the Air Basin. These include wastewater treatment facilities, sanitary landfills, transfer stations, compositing facilities, petroleum refineries, asphalt batch plants, chemical manufacturing, fiberglass manufacturing, painting/coating operations (e.g. auto body shops), food processing facilities, feed lots/dairies, and rendering plants. Screening distance for these odor generators is usually one mile, with wastewater treatment facilities and petroleum refineries having a greater screening distance of 2 miles.

According to the SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), analysis of potential odor impacts should be conducted for the following two situations:

Generators: projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, and

Receivers: residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

Existing Air Quality Conditions

Existing Ambient Air Quality

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. The most recent published monitoring data (2014-2016) is from the Fresno-Garland monitoring station (located approximately 2.6 miles north of the CSESP boundary). The data shows that during the past few years, the project area has exceeded the standards for ozone (state and national), PM_{10} (state), and $PM_{2.5}$ (national). No recent monitoring data for Fresno County or the SJVAB was available for sulfur dioxide (SO_2). Generally, no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

The health impacts of the various air pollutants of concern can be presented in a number of ways. The clearest in comparison is to the state and federal ozone standards. If concentrations are below the standard, it is safe to say that no health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount the standard is exceeded. The EPA developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air.

Based on the AQI scale for the 8-hour ozone standard, Fresno experienced 154 days in the last 3 years that would be categorized as unhealthy (AQI 200), unhealthful for sensitive groups (AQI 150) or moderate (AQI 100) as measured at the Fresno-Garland monitoring station. The highest reading was 98 parts per billion (ppb) in 2015, more than the 85-ppb cutoff point for unhealthy for existing sensitive groups (AQI 150).

The other nonattainment pollutant of concern is $PM_{2.5}$. An AQI of 100 or lower is considered moderate and would be triggered by a 24-hour average concentration of 35.4 micrograms per cubic meter ($\mu g/m^3$), which is exceeds the federal $PM_{2.5}$ standard. The Fresno-Garland monitoring station nearest the project exceeded the standard on 70 days in the 3-year period spanning from 2014 to 2016.

People with respiratory or heart disease, the elderly and children are the groups most at risk. Unusually sensitive people should consider reducing prolonged or heavy exertion. Unusually sensitive people should consider reducing prolonged or heavy exertion. The AQI of 150 is classified as unhealthful for sensitive groups with a $PM_{2.5}$ concentration of 55.4 µg/m3. At this concentration, there is increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and in the elderly. People with respiratory or heart disease, the elderly, and children should limit prolonged exertion. The highest concentration recorded in Fresno was 94.6 µg/m3 in 2014. At this concentration, increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly and increased respiratory effects in general population would occur. People with respiratory or heart disease, the elderly, and children should avoid prolonged exertion; everyone else should limit prolonged exertion when the AQI exceeds this level.

Local CO Hotspots

Congested intersections have the potential to create elevated concentration of CO, referred to as "CO hotspots." The significance criteria for CO hotspots are based on the California Ambient Air Quality Standards for CO, which is 9.0 ppm (8-hr average) and 20.0 ppm (1-hr average). The Air Basin is in attainment of the state and federal standards, and this air quality monitoring station does not provide CO emission data.

Existing Sources of TACs

Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant impacts at the local level. The ARB Land Use Handbook recommends new sensitive land uses as follows:

- Avoid siting new sensitive land uses within 500 feet for a freeway, urban road with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
- Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard.

Existing TAC sources within the City of Fresno include stationary sources permitted by SJVAPCD, roadways with more than 10,000 annual average daily traffic, and highways or freeways. SJVAPCD does not provide a screening level tool for existing stationary sources currently. There is no freeway or railroad located within 1,000 feet of the Specific Plan boundary.

Considerations for the Specific Plan

Air quality is a cumulative issue that crosses jurisdictional boundaries and requires regional collaboration and well as local initiatives. The Specific Plan should consider a range of strategies for improved air quality that includes regional collaboration and local actions such as steps to reduce traffic congestion and expand tree canopy.

When current traffic volume data is available, air quality modeling will be conducted to identify the presence or absence of CO hotspots and areas of elevated exposure to TACs in Fresno Specific Plan area and the Sphere of Influence. As needed, FCS will recommend strategies and actions to reduce associated impacts that can be incorporated into the Specific Plan.

GHG Emissions

A balance of naturally occurring gases dispersed in the atmosphere determines the earth's climate by trapping infrared radiation (heat) in a phenomenon known as the greenhouse effect. Scientists have concluded that human activities are increasing the concentration of greenhouse gases (GHG) in the atmosphere, causing a rise in global average surface temperature and consequent global climate change. Pursuant to the US Environmental Protection Agency (EPA) the GHG pollutants of primary concern include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydroflurocarbons, perfluorocarbons, and sulfur hexafluoride.

City of Fresno Greenhouse Gas Reduction Plan

The City of Fresno adopted the Fresno General Plan and Master Environmental Impact Report (MEIR) on December 18, 2014.2 The MEIR includes a Greenhouse Gas Reduction Plan (GHG Plan) that provides the City's primary strategy for reducing greenhouse gas emissions from projected levels that would occur if no measures were implemented, referred to as the Business As Usual (BAU) scenario. The intent of the GHG Plan is to achieve compliance with state GHG reduction mandates by focusing on feasible actions the City can take to minimize the adverse impacts of growth and development on climate change. The GHG Plan does not reinvent the wheel; rather, it builds on the General Plan policies and implementation measures. Where needed, the GHG Plan provides more details to clarify and focus action and to ensure implementation.[3]

The GHG Plan shows that the City will achieve a reduction of 26.8 percent from BAU by 2020 through compliance with regulations only, which exceeds the 21.7 percent required to show consistency with AB 32 targets. The local measures contained in the GHG Plan are expected to achieve an additional 3.0 percent reduction from BAU for a total reduction of 29.8 percent from BAU by 2020.

The GHG Plan includes criteria that would allow projects to qualify for permit streamlining provisions and incentives and would receive a less than significant finding for GHG impacts. For example, projects that meet the Fresno Green Checklist point totals receive the following incentives:

- 25 percent fee reductions of many planning fees (Site Plans, CUPs, EAs etc.)
- 20 percent minor deviation from development standards, if needed (25% if public art is incorporated into the project)
- Expedited processing through the "Green Team"
- Eligibility for a Fresno Green award and use of the Fresno Green brand for the project.

Considerations for the Specific Plan

The Specific Plan should establish a policy to support the Fresno GHG Reduction Plan, which would inform and update the Priorities List for Implementation. The Specific Plan should monitor and evaluate the efficacy of current General Plan policies and the GHG Reduction Plan, with the focus on developing more effective implementation mechanisms. The first update should be completed to address changes in State law and the new 2030 statewide emissions target.

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[2] Fresno General Plan and Master environmental Impact Report. City of Fresno. Adopted December 18, 2014. Website: https://www.fresno.gov/darm/wp-content/uploads/ sites/10/2016/11/consolidatedGP.pdf

[3] Fresno General Plan. City of Fresno. Adopted December 18, 2014. Website: https://www.fresno.gov/darm/wp-content/uploads/ sites/10/2016/11/consolidatedGP.pdf.

Hazards & Hazardous Materials

Hazardous materials generally refer to substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (household cleaners, industrial solvents, paint, pesticides, etc.) and in the manufacturing of products (electronics, newspapers, plastic products, etc.). Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials have a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

Hazardous materials and wastes can pose a significant actual or potential hazard to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Many federal, state, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste are in place to prevent these unwanted consequences. These regulatory programs are designed to reduce the danger that hazardous substances may pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters.

Hazardous Materials Sites

Standard Environmental Records Sources Review—Project Area Findings

FirstCarbon Solutions used the electronic database search company Envirosite Corporation to efficiently perform a records search of reasonably ascertainable environmental databases, including the standard state and federal sources, in accordance with ASTM standard of practice. A copy of the Government Records Report search by Envirosite is provided in Appendix A (Envirosite 2017). A standard records search was conducted for the Project site using a standard 1-mile search radius, as measured from the Project site parcels associated with the Fresno Central Southeast Area Plan Area.

A search of the databases, using zip codes within the jurisdictional boundaries of the City of Fresno, found over 400 listings in the CSESP plan area. Review of the listings document retention of records of hazardous materials, underground storage tanks, business plan and hazardous waste generators, not necessarily indication of a release at the site. However after review, five sites of significance were identified. These sites are listed on Table HAZ-1.

Standard Environmental Records Sources Review—Off-site Findings

A total of ten sites of significance were identified within the 1-mile search radius of the Fresno Central Southeast Area Plan Area. Five of these sites are located outside the Specific Plan

boundary, but within the 1-mile radius vicinity (shown in Table HAZ-2 and the map on the follow page).

The five sites were found to have a low, medium, or high potential for environmental impact to properties within the Fresno Central Southeast Area Plan Specific Plan boundary, based on the nature of the listing, the specific contaminants of concern, and current regulatory status with the relevant resource agency.

Criteria

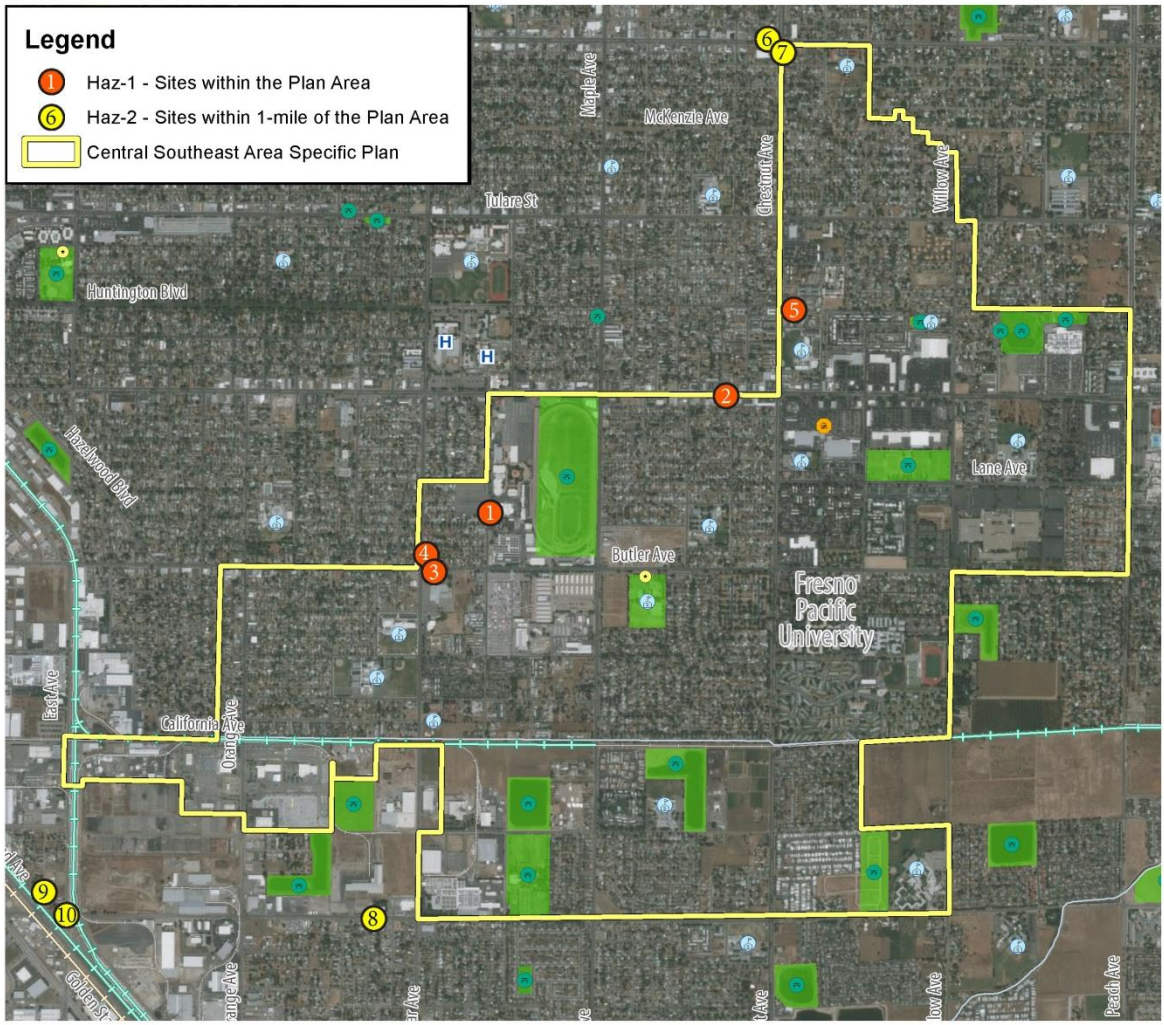
The following criteria was used to determine the sites that are considered to have a low and/or no potential impact to the Project site: (1) no reported impacts to groundwater, (2) closure approval received from the lead regulatory agency, (3) relative distance from the Project site, and/or (4) identified as being cross-gradient or downgradient with respect to the local groundwater flow direction relative to the Project site. Alternatively, sites that are considered to have a medium to high potential impact on the Project site were determined to have one or more of the following characteristics: (1) they were reported to impact groundwater; (2) they are open regulatory cases; (3) they are in proximity of the Project site; and/or (4) they were identified as being up-gradient.

Groundwater in the vicinity of the Project site would be generally expected to follow local topography and flow towards the southwest. However, actual groundwater flow direction is often locally influenced by factors such as rainfall, geologic structure, seasonal fluctuations, soil and bedrock geology, production wells, and other factors beyond the scope of this report. The actual groundwater flow direction under the Project site can be accurately determined only by installing groundwater monitoring wells, which was beyond this scope of this report.

Table 1: List of Environmentally Significant Envirosite Sites in and near the Project Area

Environmentally Significant Site	Address
1. Basic Training Center No.8/US Army Corps of Engineers/Big Fresno Fair/21st District Agricultural Association/ Fresno Dodge Inc.	1121 S Chance Ave, Fresno, CA 93702
2. Jorgenson's Battery	4740 E Kings Canyon Rd, Fresno, CA 93702
3. Butler And Cedar PCE Plume	4260 E Butler Ave, Fresno, CA 93702
4. Family Express Food & LIQUOR	4205 E Butler Ave, Fresno, CA 93702
5. Study Area "D" Alternate	S. Chestnut Avenue/E. Mono Avenue

Environmentally Significant Site	Address
6. Dry Cleaning Facility	4785 E Belmont Ave, Fresno, CA 93702
7. Team Enterprise/Commercial Property/One Hour Martinizing	4794 E Belmont Ave, Fresno, CA 93702
8. PDM Steel Service Center	4005 E Church Ave, Fresno, CA 93725
9. South Fresno PCE Groundwater Plume	2376 S Railroad Ave, Fresno, CA 93721
10. South Fresno Regional Groundwater Plumes	North of Church Avenue at South East Avenue



2,000 0 2,000 Feet

Un-mappable/Orphan Sites

Un-mapppable or orphan sites are regulated sites that have insufficient information to locate on a map. The Envirosite Government Records Report identified a total of 30 records that could potentially occur within the search radii of the Project site. Review of these sites determined that all 30 sites have a low potential to impact the Project site based on the previously presented criteria above.

Considerations for Central Southeast Specific Plan and Environmental Impact Report

The Central Southeast Specific Plan and Environmental Impact Report should consider strategies to mitigate and manage risk from existing sites within the Project area as well as off-site properties in collaboration with other locally responsible agencies.

The City already requires developers to complete a Phase I Environmental Site Assessment (ESA) to determine the presence or likely presence of a release of hazardous substances or petroleum products in, on, or at the property, based on reasonably available information about the property and the area in its vicinity. The findings and conclusions of the Phase I ESA shall become the basis for potential recommendations for follow-up investigation, if found to be warranted.

Based on the status and regulatory review, it is recommended that redevelopment activities be avoided on the sites listed in Table HAZ-1. If one or more of the sites listed in Table HAZ-1 are of interest for future development, it is recommended that further consultation be conducted to confirm the regulatory status and level of remediation required to support the intended use.

If redevelopment is desired in proximity to properties listed in Table HAZ-2, it is recommended that evaluation of these sites also be undertaken to confirm the regulatory status, the potential for impact, and the need for further soil and/or groundwater investigation.

Noise

In an urban environment, noise is a part of everyday life. Excessive noise, however, is an annoyance and at elevated levels can even disrupt sleep, cause stress and tension, or interfere with other aspects of day-to-day life. As such, the adverse effects of noise on the community need to be considered during site planning in order to protect public health and the quality of life.

The Fresno General Plan, adopted December 2014, addresses noise primarily in the Noise and Safety Element with policies and programs designed to minimize excessive noise levels throughout the City. The Fresno Municipal Code addressed noise in Chapter 10, Article 1—Noise Regulations, providing rules and regulations related to noise in the City. This report describes the regulatory framework and existing conditions related to noise sources and the overall noise environment in the Fresno Central Southeast Area Plan area.

Noise regulations are addressed through the efforts of various federal, state, and local government agencies.

Existing Conditions

Environmental Setting

The City of Fresno contains multiple rail corridors, three airports, and four state highways, many major streets traversing it, and industrial facilities. The CSESP Plan area has one active rail line traversing its southern area, roughly along California Avenue; but does not contain any airports, major highways, or industrial facilities. There are multiple arterial roadways that serve the CSESP

Plan area, connecting the majority single-family residential areas to local commercial malls and the broader Fresno job centers.

Existing Noise Conditions

The Fresno General Plan measured existing conditions at nine locations (shown in Table 8) to serve as representation of typical residential, commercial, and industrial areas, as well as arterial roadways, elevated and below-grade freeways, and railroad crossings with and without train horn soundings.

Table 2: Measured Existing Noise Levels

Category	Noise Level (dBA L_{dn})
Railroad crossing at Shields Ave.	84
Along Railroad near W. Barstow Ave.	74
SR 41 between W. Barstow & W. Shaw Ave.	76
SR 180 near N. Peach Ave.	76
E. Shaw Ave. near N. Cedar Ave.	72
N. Blackstone Ave. near E. Ashlan Ave.	70
S. Elm Ave. near E. Jensen Ave.	68
N. Valentine Ave. between W. Ashlan & W. Holland Ave.	67
S. Fruit Ave. north of Church Ave.	65

Traffic Noise

Traffic noise is the number one contributor to noise levels in the City of Fresno, according to the General Plan. The noise levels depend on three factors:

- Volume of traffic;
- Speed of traffic;
- Number of trucks in the flow of traffic.

Vehicle noise includes noises produced by the engine, exhaust, tires, and wind generated by taller vehicles. Other factors that affect the perception of traffic noise include the distance from the highway, terrain, vegetation, and natural and structural obstacles. While tire noise from automobiles is generally located at ground level, truck noise sources can be located as high as 10 to 15 feet above the roadbed because of tall exhaust stacks and higher engines.

The General Plan projects a noise increase of between one to five decibels along existing roads; the Fresno Central Southeast Area Plan area is located along many current arterial and feeder roads.

Railroad Operations Noise

There are railroad operations that occur within the Fresno Central Southeast Specific Plan area in the southern part of the Plan area, roughly along California Avenue. Per the Fresno General Plan Noise and Safety Element, where grade crossings exist, and warning horns and crossing alarms are signaled, individual single event noise levels associated with a train generally reach 105 dBA to 110 dBA at a distance of 100 feet from the track centerline. Away from grade crossings, train pass-by noise levels are lower, typically 85 dBA to 90 dBA at a distance of 100 feet.

Stationary Noise

Stationary noise sources can also have an effect on the population, and—unlike mobile, transportation-related noise sources—these sources generally have a more permanent consistent impact on people. These stationary noise sources involve a wide spectrum of uses and activities, including various industrial uses, commercial operations, school playgrounds, high school football games, HVAC units, generators, lawn maintenance equipment, and swimming pool pumps. Even with incorporation of the best available noise control technology, noise emanating from industrial uses can be substantial and exceed local noise standards. These noise sources can be continuous and may contain tonal components that may be annoying to nearby receptors.

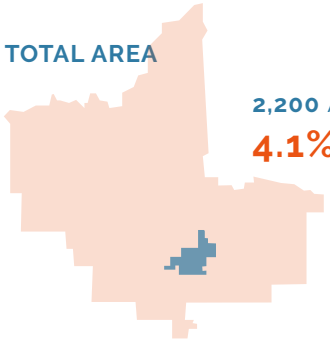
Considerations for Fresno Central Southeast Area Plan

The principal sources of noise in the Fresno Central Southeast Specific Plan area are transportation-related. When current traffic volume data, specific to the Plan area is available, updated noise contours will be produced to characterize the current and projected noise environment in the community. On the basis of that data, Specific Plan will identify any areas where noise levels could exceed standards and recommend appropriate actions.

CENTRAL SOUTHEAST FRESNO

WHERE ARE WE TODAY?

TOTAL AREA



2,200 Acres in CSE Fresno

4.1% of Fresno City

PARKS/ 1,000 RESIDENTS

1.68 Acres in CSE Fresno

1.06 Acres in Fresno City

DEMOGRAPHIC

TOTAL POPULATION

30,624 people in CSE Fresno

5.4% of Fresno City

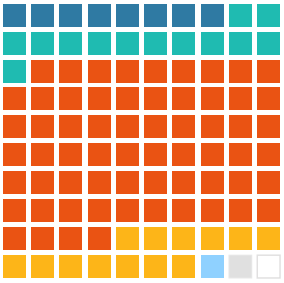
TOTAL HOUSING UNITS

9,150 in CSE Fresno

4.7% of Fresno City

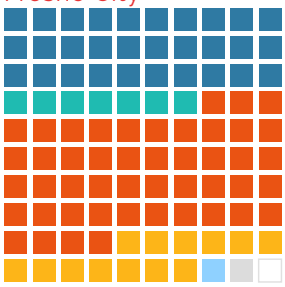
RACE / ETHNICITY

CSE Fresno



- White (8%)
- Black (13%)
- Hispanic/Latino (63%)
- Asian (13%)
- American Indian and Alaska Native (1%)
- Native Hawaiian/Pacific Islander (1%)
- Other (1%)

Fresno City



- White (30%)
- Black (7%)
- Hispanic/Latino (47%)
- Asian (13%)
- American Indian and Alaska Native (1%)
- Native Hawaiian/Pacific Islander (1%)
- Other (1%)

AGE OF POPULATION

18 & UNDER 33.8% CSE Fresno

28.1% Fresno City

65 & OVER 9.1% CSE Fresno

11.6% Fresno City

HOUSING

TOTAL OCCUPIED HOUSING

CSE Fresno

91.8% occupied — **8.2%** vacant

Fresno City

93.1% occupied — **7.9%** vacant

RENTER-OCCUPIED HOUSING

CSE Fresno

71% rent — **29%** own

Fresno City

51% rent — **49%** own

EDUCATION

NOT HIGH SCHOOL GRAD

47.82%
CSE Fresno

14.59%
Fresno City

COLLEGE DEGREE

7.57%
CSE Fresno

12.10%
Fresno City

INCOME + POVERTY

MEDIAN HOUSEHOLD INCOME

CSE Fresno
$23,562

Fresno City
$45,044

% IN POVERTY

53.3%
CSE Fresno

29.2%
Fresno City

ENVIRONMENTAL FACTORS

All census tracts in CSE Fresno are in the 75th percentile or higher of the pollution burden in the State.

OZONE RATIO

Amount of daily 8 hour maximum ozone concentration over state standard

0.29
CSE Fresno

0.33
Fresno City

0.10
California State

PARTICULATE MATTER

Annual mean PM 2.5 concentration, ug/m^3

14.60
CSE Fresno

14.14
Fresno City

9.08
California State

PESTICIDE USE

Total pounds of selected active pestcide ingredients, lb/$mile^2$

497.75
CSE Fresno

118.69
Fresno City

369.28
California State

HEALTH

HEALTH STATUS

% of adults in fair or poor health

ZIP codes 93702, 93725, 93727	28%
Fresno City	23.4%
California State	19.2%

ADULT PHYSICAL ACTIVITY

% of adults who have walked for transportation or leisure for at least 150 minutes per week

ZIP codes 93702, 93725, 93727	28.7%
Fresno City	27.8%
California State	33%

% WITHOUT HEALTH INSURANCE

CSE Fresno	24.1%
Fresno City	17.96%
California State	19.3%

CHILDREN PHYSICAL ACTIVITY

% of children who engaged in at least 60 minutes of physical activity daily in the past week, excluding physical education

ZIP codes 93702, 93725, 93727	20.3%
Fresno City	22%
California State	20.7%

OBESITY

39.1% of adults in CSE Fresno are obese

36.9% of adults in Fresno City are obese

25.8% of adults in California State are obese

FRESNO COUNTY

LIFE EXPECTANCY AT BIRTH **78.1** years

ASTHMA EMERGENCY DEPARTMENT VISITS

0 to 17 years	18+ years
134.1 per 10,000 residents	**51.2** per 10,000 residents

CALIFORNIA STATE

LIFE EXPECTANCY AT BIRTH **80.8** years

ASTHMA EMERGENCY DEPARTMENT VISITS

0 to 17 years	18+ years
77.3 per 10,000 residents	**43.4** per 10,000 residents

MENTAL HEALTH

SERIOUS PSYCHOLOGICAL DISTRESS

9.5% of adults in the three ZIP codes suffer from serious psychological distress

9.9% of adults in Fresno City suffer from serious psychological distress

8.1% of adults in California State suffer from serious psychological distress

MENTAL PROBLEMS

14.8% of adults in the three ZIP codes needed help for emotional/ mental or alcohol/drug problem in past 12 months

17.1% of adults in Fresno City needed help for emotional/ mental or alcohol/drug problem in past 12 months

17.1% of adults in Fresno City needed help for emotional/ mental or alcohol/drug problem in past 12 months

ADDITIONAL HEALTH FACTS ABOUT CSE FRESNO

ASTHMA ER VISITS

100% census tracts in CSE Fresno are in the top 75th percentile for emergency room visits for Asthma compared to the state.
(Age-adjusted rate of emergency department (ED) visits for asthma per 10,000, 2007-2009)

YEARS OF LIFE LOST

80% of the census tracts in CSE Fresno are in the top 75th percentile of years of life lost per capita compared to the State.

LOW BIRTH WEIGHT

50% of the census tracts in CSE Fresno are in the top 75th percentile of percent low birth weight compared to the State.

POLLUTION BURDEN

100% of the census tracts in CSE Fresno are in the top 75th percentile of Calenviroscreen 2.0 pollution burden percentile compared to the State.

HEALTH DISADVANTAGE INDEX

100% census tracts in CSE Fresno are in the top 75th percentile compared to the State.
(Measured under the Health Priority Index 2016 based on four factors- pollution burden, years of potential life lost, per-term birth rate, and composite mortality index)

CALENVIROSCREEN 2.0

100% census tracts in CSE Fresno are in the top 95th percentile of CalEnviroScreen Bureden compared to the State.
(CalEnviroScreen is a screening methodology that helps identify California communities that are disproportionately burdened by multiple sources of pollution.)