RESOLUTION NO. 2023-284

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE ADOPTING AMENDMENTS TO THE CITY OF ELK GROVE GENERAL PLAN TO INCORPORATE THE KAMMERER ROAD URBAN DESIGN STUDY, THE LIVABLE EMPLOYMENT AREA COMMUNITY PLAN, AND OTHER ADMINISTRATIVE REVISIONS; AND AMENDING THE TRANSPORTATION ANALYSIS GUIDELINES

File NO: SP0005/SPG0007

WHEREAS, California Government Code Section 65300 requires cities to adopt a comprehensive, long-term general plan for the physical development of the city; and

WHEREAS, on February 27, 2019, the City Council of the City of Elk Grove (City) adopted a comprehensive update to the General Plan; and

WHEREAS, in 2019, the City Council directed staff to prepare an Urban Design Study for the Kammerer Road corridor (the Study); and

WHEREAS, the Study outlines a concept for re-envisioning land uses and circulation improvements along the Kammerer Road and Promenade Parkway corridors; and

WHEREAS, subsequent implementation efforts are necessary in order to incorporate the Study into the General Plan, Southeast Policy Area Strategic Plan, Lent Ranch Special Planning Area, Elk Grove Municipal Code, and other applicable plans and studies; and

WHEREAS, the City Council reviewed the Study on February 10, 2021, and directed staff to undertake the necessary revisions and work efforts necessary to adopt the Study into the General Plan; and

WHEREAS, staff has prepared the Livable Employment Area (LEA) Community Plan as a new Community Plan in the General Plan, which will implement the Study; and

WHEREAS, additional amendments to the General Plan have been identified for internal consistency of the General Plan or to update and correct information provided in the General Plan; and

WHEREAS, the City has prepared a new traffic model for the City, based upon the latest regional travel demand model, and this new model requires an update to the City's Vehicle Miles Traveled thresholds; and

WHEREAS, the Project consists of the LEA Community Plan, the additional amendments to the General Plan, the updated traffic model, and updates to the Transportation Analysis Guidelines as presented to the Planning Commission and City Council; and

WHEREAS, in August 2022, the City Council reviewed the Grant Line Road Precise Roadway Plan Study and directed the recommendations of that Study to be incorporated into the General Plan; and

WHEREAS, the Planning Commission held duly-noticed public hearings on September 7, 2023; September 21, 2023; October 19, 2023; and November 16, 2023, as required by law, to consider all the information presented by staff and public testimony presented in writing and at the meeting and voted 5-0 to recommend approval of the Project to the City Council; and

WHEREAS, the City Council held a duly-noticed public hearing on December 13, 2023, as required by law to consider all of the information presented by staff and public testimony presented in writing and at the meeting; and

WHEREAS, the City Council adopted Resolution No. 2023-283, certifying a Subsequent Environmental Impact Report for the Project, adopting Findings of Fact and a Statement of Overriding Considerations and a Mitigation Monitoring and Reporting Program for the Project.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby adopts the amendments to the General Plan described in Exhibit A and incorporated herein by this reference, based upon the following finding:

General Plan Amendment

Finding: The proposed General Plan amendments are of substantial benefit to the City and the amendment is internally consistent with the General Plan.

Evidence: The creation of the new Livable Employment Area (LEA) Community Plan provides for the development of a mixed-use, dynamic, walkable, urban neighborhood within Elk Grove. The implementing goals and policies call for the development of the area around four, mixed-use pedestrian-friendly centers and development of a street grid that includes dedicated pedestrian and bicycle infrastructure. The planned density/intensity of development would be higher than in other areas of the City, with minimum densities beginning at 10 units per acre and extending to as high as 100 units per acre. This new Community Plan responds to the changing characteristics of employment, where more work is accomplished through telework, and where employees and their employers are seeking these types of neighborhoods.

To facilitate the LEA Community Plan, revisions are necessary and have been made to the Southeast Policy Area Community Plan, the Land Use Plan, and the Transportation Analysis Guidelines, maintaining the internal consistency of the General Plan.

Additional revisions are included in the General Plan Amendments, including updates to the Transportation Plan that recognize the recent transition of transit services from the City to Sacramento Regional Transit (SacRT). In recognition of the

changes to the Land Use Plan, a new traffic model has been developed for the City (EGSIM20). The new traffic model is branched from the latest regional travel demand model (SACSIM19). Utilizing the new model, the Vehicle Miles Traveled thresholds have also been updated, again maintaining internal consistency across the General Plan.

Finally, the revisions to the Rural Area Community Plan incorporate the community vision for improvements to Grant Line Road, which retain the overall rural character of the neighborhood while promoting efficient transportation system operation, which aligns with the mobility goals and policies of the City.

AND, BE IT FURTHER RESOLVED that the City Council of the City of Elk Grove hereby adopts the amended version of the Transportation Analysis Guidelines as provided in Exhibit B and incorporated herein by this reference, based upon the following finding:

General Plan Consistency

Finding: The proposed amendments to the Transportation Analysis Guidelines are consistent with the General Plan.

Evidence: The proposed amendments to the Transportation Analysis Guidelines implement the provisions of General Plan Policy MOB-1-1 (as amended) relative to analyzing potential impacts of vehicle miles traveled. The Transportation Analysis Guidelines also establish procedures for considering potential mitigation for vehicle miles traveled impact for subsequent projects. Further, the proposed guidelines establish procedures for determining roadway performance as provided in Policy MOB-1-3 and the consideration of other modes as provided in Policy MOB-1-2.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 13th day of December 2023

BOBBIE SINGH-ALLEN, MAYOR of the
CITY OF ELK GROVE

ATTEST:

JASON LINDGREN, CITY CLERK

APPROVED AS TO FORM:

JONATHAN P. HOBBS,
CITY ATTORNEY

Proposed General Plan Revisions
Kammerer UDS Implementation – Draft Dated November 16, 2023

Proposed changes are shown in ~~strikeout~~ (for deleted text) and underline (for added text).

Changes to Chapter 2 (Vision)

Chapter 2 (Vision) shall be amended as follows:

Chapter 2 Vision

The Community Vision for Elk Grove, expressed through a Vision Statement and a series of Supporting Principles, is a declaration of the kind of community that Elk Grove wants to become in the future and sets the course for this General Plan. The Community Vision draws upon findings derived from research into existing conditions, demographics, and trends in Elk Grove, and was crafted based on input provided by the community during a visioning process. The City conducted community engagement events between August and December of 2015 to identify key values and issues, with subsequent outreach activities that allowed for refinement of the Community Vision. City staff and officials contributed their feedback at joint City Council/Planning Commission study sessions. Representatives from organizations with an interest in the community shared their visions through focused interviews. Members of the public offered input at mobile workshops conducted at community events held throughout the City and at an all-day visioning workshop.

COMMUNITY VISION

The Community Vision establishes the basis for General Plan goals and policies. The Vision Statement describes the values and aspirations for Elk Grove in the future. It identifies key characteristics necessary for sustaining what is important to the community and for Elk Grove to achieve its potential. The Vision Statement is supported by nine Supporting Principles, statements that together contribute to the larger Community Vision and provide more specific guidance for General Plan goals and policies.

VISION STATEMENT

The City of Elk Grove is… A great place to make a home, a great place to work, and a great place to play. Our community is diverse, healthy, safe, and family-oriented, with thriving schools and plentiful parks, shops, and places to work. Agriculture, rural homes, and urban life flourish together. Our natural resources, including water and open spaces, are protected and offer a variety of recreational opportunities. Community members travel easily by automobile, by bicycle, on foot, or using transit. The City is proactive in making daily life healthy and sustainable—considering the needs of future generations while protecting what is valued today. Well-maintained infrastructure and the right mix of services and amenities draw new and dynamic businesses and development to Elk Grove. Development is guided to ensure responsible growth and opportunities for a diversity of individuals who call Elk Grove home

SUPPORTING PRINCIPLES

Regional Goals & Influence – Our Regional Neighbors Know Us & Our Contributions

Elk Grove occupies a prominent place in the regional dialogue. The City's identity and brand are clear in the minds of its neighbors, and our unique sense of place makes our City an appealing destination to live, work and visit. Our contributions to the region continue to strengthen that identity and include recreational opportunities, higher education, job centers, and quality neighborhoods. City officials engage with other cities, Sacramento County, and other partners to plan and build for an ever more dynamic region. The City's employment potential within the regional economy is fulfilled.

New businesses have emerged, providing new employment centers that support technology and build from our agricultural roots. Both housing and jobs are available in the community, providing flexible opportunities for many lifestyles <u>including the opportunity to live-work-and play, within the distance that can be walked in twenty-minutes</u>.

Infill Development & Outward Expansion – Development Fills in the Gaps & Expansion Occurs with Purpose

Unfinished, undeveloped gaps found throughout the City become opportunities to develop economically successful compact and walkable additions that provide added value to our community as well as new job opportunities and lifestyle improvements while reducing dependence on single occupancy vehicles. Existing small businesses are protected even as we invite in new businesses and different economic opportunities. New development plans are grounded by community needs and market demand, and are carried out efficiently and holistically. New housing built in a variety of shapes and sizes to meet the needs and desires of our diverse community also fills in these gaps.

Infill development is consistently executed with programs that address impacts and encourage innovative urban design and building solutions. A creative growth management strategy allows expansion to occur when economic need, community vision, and regional goals align. There is a strong system in place to guarantee that as the community accommodates new neighbors and new jobs, it continues to maintain and improve facilities and services, such as schools, roads, and parks. Our development review process works to ensure that new development is compatible with surrounding neighborhoods and to preserve the character of our community.

Economic Vitality – Our Economy is Diverse & Balanced & Enhances Quality of Life

Major employment centers make their home in Elk Grove, and where appropriate are seamlessly connected to emerging neighborhoods and expanded transit options providing employment opportunities and stimulating ancillary businesses as well. We continue to invite businesses that are competitive in the region and set the stage to attract these businesses by providing resources and amenities they need. Old and new businesses together improve our lives by providing new jobs as well as convenient places to access amenities and entertainment. Elk Grove has a diverse economy that builds from our heritage, but also invites in new and changing industries. Higher education and technical training are available to our community members as they pursue diverse job opportunities in these new industries. The City is leading the way in innovative technology infrastructure, technical education opportunities, sports activities and entertainment, and a safe and crime-free environment. Employment centers are set in exciting and vibrant neighborhoods and districts with great quality-of-life amenities including pedestrian friendly design and a mix of uses to attract and retain the best and the brightest in their respective disciplines. ~~These~~ All these features combined attract business and offer a better quality of life for individuals and families of all incomes, ages, abilities, and backgrounds.

Growth and development in the City are built with our historic resources and identity in mind. These businesses bolster the community by providing jobs, services, goods, and recreational opportunities for residents.

Community Identity – City Core, Heritage & Well-Known Neighborhoods

The City includes a civic core that offers central gathering spaces which all community members may enjoy and feel welcome in. The City and community organizations partner to foster a thriving and safe civic core. Successful projects and annual events enhance vitality and camaraderie in this place.

Old Town Elk Grove continues to protect and showcase our heritage for the enjoyment of residents and visitors alike. This unique district is a source of pride and identity for Elk Grove residents.

All of our neighborhoods are built around our top-notch parks and schools. Preservation and change in our neighborhoods are guided by values of diversity, neighborly spirit, and small-town character.

Rural Areas – Protecting Our Farming Heritage & Rural Life

We celebrate the Rural Area and its heritage, and balance that heritage with other needs, services, and lifestyles desired in Elk Grove. The Rural Area is valued in our community for its aesthetic and cultural significance, as well as the economic and educational opportunities that agriculture provides. Our commitment to maintaining the Rural Area is clear and codified in core planning documents through programs that preserve the aesthetics and style of our rural heritage. Agricultural producers and other land uses remain good neighbors, each with desired services and infrastructure needs fully met.

Open Space & Resource Management – Outdoor Recreation Is Right Outside Our Door
Our parks and trails are high quality and highly valued, providing regional destinations for outdoor recreation and active living. We continue to enhance and maintain our recreational open spaces so that they are safe, connected, and accessible to all. Our trails connect easily to other trails and parks in the region, and community gardens are a source of local food and local involvement. Homes in the Livable Employment Area are for the most part within an 1/8 mile of pocket parks or playgrounds, and ¼ mile from civic greens or parks.

Multimodal & Active Transportation – Moving Around Anywhere, Any Way
Our residents, workers, and visitors need to move about efficiently, and have a variety of ways to do so. Connected transportation networks, regional coordination, and public and active transportation options are priorities for our community. Connected and mobile community members have the ability to travel within the City and to other places in the region by a variety of methods, with seamless transitions between modes and regions. Our community has roadways in place that allow for efficient movement and safe travel spaces for all modes of travel. New roadways follow the principles of "Complete Streets". The infrastructure and facilities for pedestrians, bicyclists, and transit users are clean, safe, and well maintained, and walkways and bike lanes are continuous and complete with convenient connections to local and regional transit. Amenities such as bus shelters make riding transit comfortable and convenient in our community. We are committed to extending transit service with good frequency and route coverage to future expansion areas of the City.

Sustainable & Healthy Community – Clean, Green Practices & Healthy Living
Sustainable practices are at the forefront of environmental concerns in Elk Grove. Organizations, businesses, and residents desire a city that is adaptive to and resilient against climate change, is a leader in conservation, and embraces innovations in green technologies. The City layout and land uses promote healthy living, with healthy grocery options and destinations nearby that people can get to by walking and biking. The City's residents and businesses recognize the importance of responsible resource use, and they work together to conserve and use water and energy to their full potential. The City follows good, innovative design principles for urban spaces and infrastructure to enhance sustainability and resiliency.

Coordinated Services, Technology, & Infrastructure – Services for the Needs of All Residents
Safety and services are important to all members of our community, and services for youth, seniors, and disadvantaged families are readily available. Entertainment and social centers create a thriving and diverse economy and give residents a place to shop, play, and relax. The City ensures that important services in our community, including social, housing, transportation, health, and education, are available and efficiently obtainable for community members who choose or need them to thrive.

Changes to Chapter 3 (Planning Framework)

Chapter 3 (Planning Framework) shall be amended as follows:

Chapter 3 Planning Framework

INTRODUCTION

Three fundamental components of this General Plan describe how the Community Vision will be realized in the Planning Area: the Land Use Plan, the Transportation Plan, and the Resource Conservation Plan. Together, these plans establish a physical framework for General Plan goals and policies. These components describe how land may be developed, how people and goods will get around, and how important natural resources will be protected in the future as Elk Grove becomes the community described in the Community Vision. They are presented together in this chapter along with background information describing how each plan was prepared in order to provide structure for goals and policies in subsequent chapters that support achieving the plans.

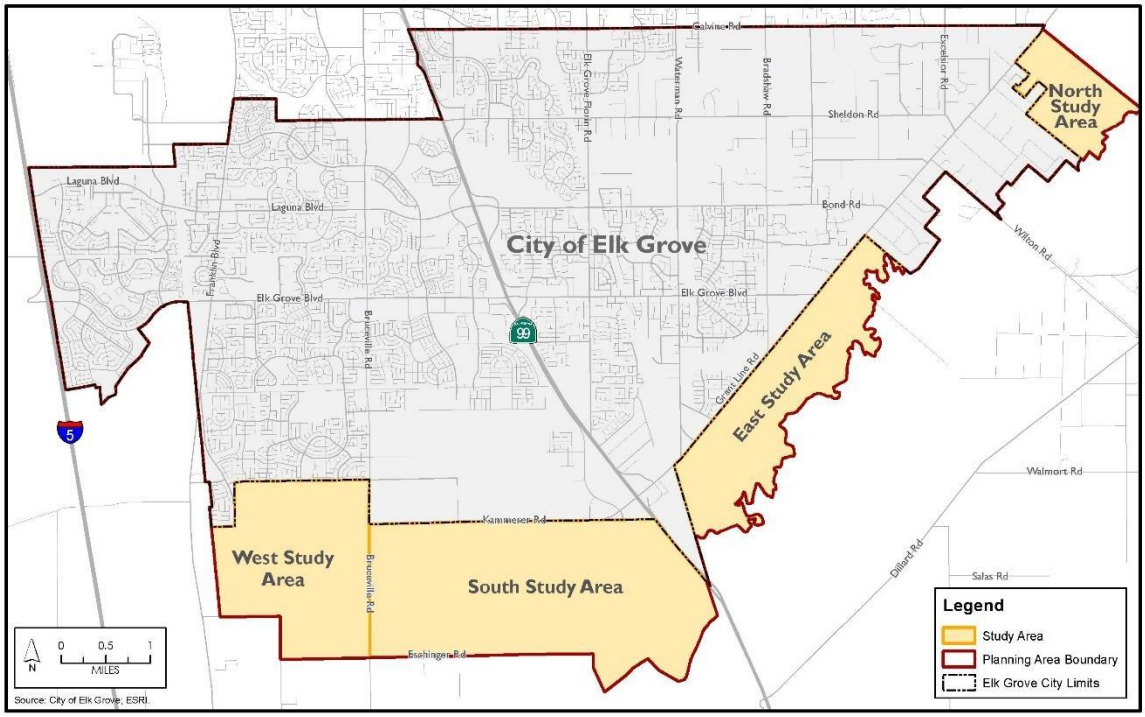
CITY LIMITS AND STUDY AREAS

As noted in Chapter 1: Introduction, the General Plan addresses all lands located in the Planning Area, which comprise both the City limits and an area located beyond the City that relates to its future planning goals. Within the Planning Area, four areas have been identified for potential expansion of the City limits, as shown in Figure 3-1. These areas are referred to as Study Areas, as described below.

- The North Study Area is an approximately 646-acre area adjacent to both the northeastern corner of the City limits and to Grant Line Road near the Sheldon area. The eastern boundary generally follows the 100-year floodplain boundaries.
- The East Study Area is an approximately 1,772-acre area southeast of Grant Line Road, running along the City boundary between existing 5-acre developments along Equestrian Drive and the railroad tracks to the southwest.
- The South Study Area is an approximately 3,675-acre area south of the City limit, with the north boundary at Kammerer Road the southern edge of the Livable Employment Area; the south boundary at Eschinger Road, and the southeast corner dipping south and following the Cosumnes River back northeast to the east boundary at State Route 99; and the west boundary following Bruceville Road.
- The West Study Area is an approximately 1,914-acre area south of the City limit with a north boundary at Bilby Road; an east boundary along Bruceville Road; a south boundary at Eschinger Road, then north along Ed Rau Road and back west along Core Road; and a west boundary at the Union Pacific Railroad tracks.

It is the City's desire that these Study Areas provide options for future development when there is a demonstrated community benefit or need. While the Study Areas include much land currently (2017) classified as Farmland of Statewide or Local Importance, the City recognizes that there are limited opportunities for planned, orderly, efficient development of the City other than in these areas.

Figure 3-1: General Plan Study Areas



Development in the Study Areas may provide opportunities for achieving the Community Vision that may not otherwise be accomplished through development exclusively within the City's existing limits. A growth strategy that balances economic need, community vision, and regional goals will guide potential expansion and development of the Study Areas, as identified in Chapter 4: Urban and Rural Development.

Change is a constant process observed over a specified time frame. Over the next several decades, Elk Grove expects a certain continuing level of change resulting from forces such as population growth, changing demographics, the need to replace aging buildings and improve existing homes, and an ever-evolving economy. Physical changes are guided by development that almost exclusively occurs through private forces based on market demand.

Varying levels of future change will occur throughout Elk Grove. There will be areas of the City where existing character and function will be largely preserved (such as single-family neighborhoods and rural areas). There will be older commercial corridors where reinvestment can benefit and enhance the community, including but not limited to: Elk Grove-Florin Road between Bond Road and Elk Grove High School, and Elk Grove Boulevard between SR-99 and Old Town. Certain locations will be transformed by new development projects that provide jobs and/or housing for community members and new residents. This chapter describes these envisioned changes, the planned distribution and development density or intensity of future uses, and how land use goals will be achieved throughout the Planning Area and within each land use designation.

Land use is often considered the heart of the General Plan. The Land Use Diagram accounts for future changes by categorizing and mapping where housing, shopping areas, services, jobs, and open spaces are located today and where they are planned for the future. It considers existing land uses and anticipates where future development is expected to occur, based on market trends as well as input from the public and local decision-makers.

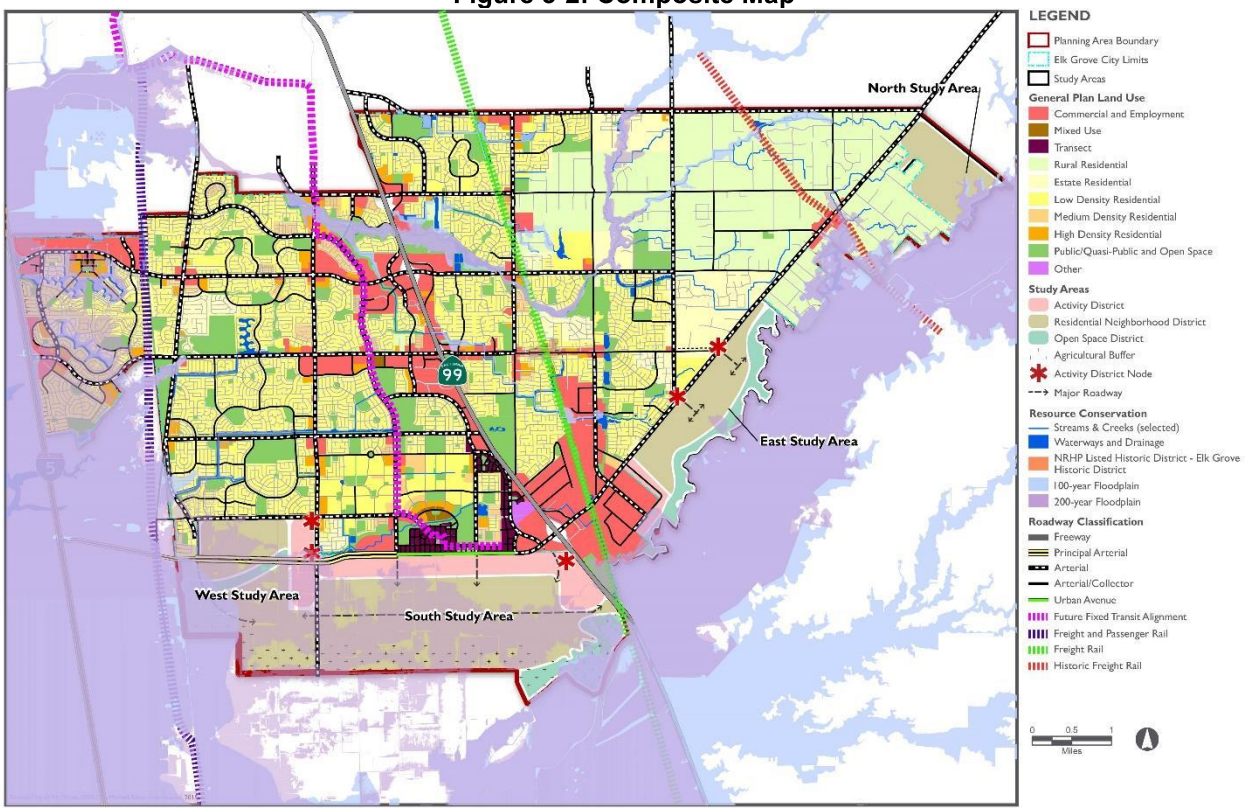
If land use is the heart of the General Plan, the transportation network is its circulatory system. The Transportation Network Diagram accounts for future roadways, pathways, and trails that meet the needs of all users, including motorists, pedestrians, bicyclists, public transportation users, individuals with

disabilities, and seniors. The transportation system is a key public facility in Elk Grove that provides access to and mobility within the community and contributes to the design and character of the area. The design, location, and capacity of transportation infrastructure are based on intended priorities and levels of use as dictated by surrounding land uses and local and regional economic drivers.

Open space and conservation of natural resources are critical to the health and happiness of the City. The Resource Conservation Diagram identifies areas the City will endeavor to preserve and protect, including parks, waterways, ecological preserves, and places of historic significance. It also identifies areas within the 100-year and 200- year floodplains.

The **Composite General Plan Map** represents a composite of the Land Use Diagram, Transportation Network Diagram, and the Resource Conservation Diagram, illustrating their key components at a high level, as depicted in **Figure 3-2**. The Composite General Plan Map has been designed to achieve the Community Vision, while optimizing the performance of future land uses with respect to key objectives, including achieving a desirable jobs/housing ratio, reducing vehicle miles traveled (VMT) and greenhouse gas emissions, improving energy efficiency, and enhancing overall quality of life through a range of land uses and amenities.

Figure 3-2: Composite Map



THE LAND USE PLAN

The Land Use Plan establishes ~~19~~ 24 different land use designations within ~~five~~ six broad categories and identifies the density and/or intensity (as defined on pages 3-9 and 3-10) of development that may occur within each designation. The Land Use Diagram, presented later as Figure 3-4, illustrates in spatial form the general location and distribution of these land uses and intensities within the existing City. Land Use Programs for each Study Area, presented in Chapter 4: Urban and Rural Development, guide how areas outside the existing City may develop or be conserved in the future. Together, these strategies describe the future community form and character that Elk Grove residents, businesses, and decision-makers wish to achieve and a means to get there.

KEY CONSIDERATIONS

A number of key considerations form the basis for the Land Use Plan, as described below.

Employment Growth and Jobs/Housing Balance

A healthy and sustainable economy is a critical component of the City's overall health and is often a prerequisite to achieving community goals including infrastructure improvements, adequate services, safety, and maintenance. Numerous factors determine the City's economic health, including the number and diversity of businesses, the number of jobs in relation to the resident workforce, resident income and wages, resident and business spending patterns, and levels of employment.

A jobs/housing ratio is a calculation of jobs per housing units available in a given area; a perfect balance is expressed as 1:1, or 1.0. A low jobs/housing ratio (less than 1.0) describes a housing-rich community with fewer available jobs for residents, while a high ratio (more than 1.0) describes a jobs-rich area with more jobs available for residents. In a community with a low jobs/housing ratio, working-age residents are more likely to need to commute to work, which, depending on their mode of travel, can contribute to regional congestion and air pollution and can increase individual time lost, stress, and travel costs. Establishing a better balance between jobs and housing can enhance quality of life and improve environmental conditions.

The Land Use Plan provides opportunities for a higher future jobs/housing ratio in Elk Grove than exists today. Elk Grove is located near Sacramento, which, as the State capital, is a large employment center. The City has relatively lower housing prices and generally offers more amenities than locations closer to the capital. These factors make the City an attractive housing location for many families, which, among other factors, contributes to a lower jobs/housing ratio (0.84) in Elk Grove compared to locations more proximate to the region's existing employment centers.

However, because Elk Grove is located at the edge of the Sacramento region, adding new jobs in Elk Grove without commensurate housing may be problematic. If the jobs added are not matched to the skill set of employees, workers will continue to commute to jobs in Elk Grove from locations such as Natomas, Rancho Cordova, Folsom, and elsewhere in the region, contributing to longer commute times and higher VMT. To support reductions in both of these indicators and to improve resident quality of life, the Land Use Plan has been designed to support opportunities that would result in a jobs/housing ratio of approximately 1.2 at buildout. This ratio is considerably higher than existing conditions, but still below SACOG's planned regional average of 1.4, indicating that Elk Grove will increase its employment base while also continuing to serve an important role as a residential community for employees throughout the region.

The Land Use Plan is also designed to support the creation of a Major Employment Center according to SACOG's definition in the MTP/SCS. SACOG defines a Major Employment Center as an area (a) that supports concentrations of at least 10,000 "base" jobs (i.e., including manufacturing, office, medical, educational, and service employment, and excluding sectors like retail and restaurant uses), at an average density of eight or more jobs per acre; and (b) where 80 percent or more of the uses within the center are employment, not residential. While Elk Grove has both a substantial workforce and a concentration of jobs today (2017), there is a mismatch between the skills, experience, and aspirations of the local workforce and the employment opportunities that are locally available (see Chapter 12 for more information). The Land Use Plan has been designed to accommodate numerous locations that, when built out, would meet these criteria.

Rural Area Preservation

Rural areas, cropland, and irrigated pasture make up roughly one-third of Elk Grove's current land area. Much of this area, known as the Rural Area (or the Sheldon Area), has been identified by the community as an area with unique characteristics. The rural lifestyle of this area is typified by homes on lots generally 2 acres in size or larger. The Rural Area lacks the infrastructure typically found in an urban or suburban community, such as sidewalks, curbs and gutters, and widened, improved roads. The Rural Area is not part of the public sewer system; rather, parcels use individual or small combined septic systems. Most residents

maintain their own wells for water. Another defining feature of the Rural Area is dedication to its agricultural roots, as small farms and livestock are allowed throughout the area.

Since incorporation, the City has established and affirmed a policy to retain the built and natural character of the Rural Area and to limit infrastructure. The Rural Area has enjoyed a level of self-determination, and protecting rural character is viewed as a fundamental local priority. Questions arise on a routine basis regarding why Elk Grove has sought outward expansion that is potentially inconsistent with regional plans and priorities, and the answers are related, in part, to preservation of the Rural Area. The growth strategy underlying the Land Use Plan maintains and codifies the City's long-standing commitment to maintain the heritage and character of the Rural Area. Many of the key preservation concepts are detailed in the Sheldon/Rural Area Community Plan presented in Chapter 9*: Community and Area Plans*.

Transit-Supportive Land Uses
Two key principles underlying the General Plan are providing for forms of urban development that are accessible by public transit and promoting development that supports levels of transit ridership that make quality public transit service in Elk Grove financially feasible. Land use and transit are closely linked and, if carefully planned and designed, can be mutually beneficial. Urban development that includes a diverse mix of active uses (e.g., residential, retail, services) and is dense enough to place high numbers of people near transit stops supports efficient transit service. Transit service that runs frequently and provides convenient routes throughout a community also encourages more people to use transit for their daily transportation needs, making more locations attractive and feasible for development.

With this principle in mind, the Land Use Plan establishes land uses and corresponding development densities in appropriate locations of the City that will support efficient and high-quality transit service, giving residents and workers a broader range of transportation options. Transit routes, stations, and pickup locations will be selected to meet circulation needs, corridor functionality, and appropriateness within the neighborhood. In this way, the Land Use Plan supports the Transportation Plan as well as the goals and policies in Chapter 6: Mobility. These transit-supportive land uses will also help achieve other community goals related to air quality and greenhouse gas emissions, which are discussed in Chapter 7: Community and Resource Protection.

MEASURING AND CHARACTERIZING LAND USE

Density and intensity are two closely related concepts used to describe and measure the mass of buildings or other structures that occupy a given land area. For example, an urban downtown is a high-density form of development, while a typical single-family residential neighborhood represents a low-density form. Similarly, development intensity refers to the degree or scale of development on a site. High intensity development is characterized by larger, more concentrated, and potentially multiple-story buildings on a site, preferably with parking accommodated in garages, whereas low-intensity development is characterized by smaller-scale building footprints with surface parking that may leave more open areas on a lot.

The density of residential land use is generally measured in terms of the number of dwelling units per gross acre (du/ac) of land (see definition of gross in Chapter 11); except that the Transect-Based Land Use Designations shall be based on net acre. The intensity of nonresidential (i.e., commercial or industrial) land use, as well as that of mixed land use areas, is generally measured in terms of floor area ratio (FAR), which describes the number of square feet of building on a site relative to the site's land area. FAR calculates the gross floor area of a building divided by the total net area of the site, expressed as a ratio. FAR generally excludes roof-top utility and surface or structured parking; see EGMC Title 23 for specifics on how to calculate FAR. The higher the FAR, the more intense the building may be on a site. For example, a site with 10,000 square feet of net land area would have a different FAR depending on the size of the building placed on the site, as shown in **Figure 3-3**.

Density and building intensity are among the most important factors in shaping the character of the built environment. Higher-intensity built environments have a distinctly different "feel" and character than neighborhoods with a lower intensity of buildings and more open space. However, other factors such as design (e.g., architecture, site planning, landscaping) are also influential in defining the look, feel, and

appeal of any built environment, whether low or high intensity. Density, intensity, and design of development must be carefully considered when seeking to create or preserve the character of a community in both newly developed areas and through changes to existing neighborhoods.

LAND USE DESIGNATIONS

This section describes the City's land use designations and the accompanying development characteristics for each. Development characteristics that are permitted under each land use designation include residential density and building intensity (as applicable). The land use designations are grouped into ~~five~~ six categories as follows and outlined below:

- Commercial and Employment Land Use Designations
- Mixed Use Land Use Designations
- Transect-Based Land Use Designations
- Public/Quasi-Public and Open Space Land Use Designations
- Residential Land ~~Uses~~ Use Designations
- Other Land ~~Uses~~ Use Designations

…

Mixed Use Land Use Designations

Village Center Mixed Use (VCMU) Development Characteristics	
Residential Density:	Minimum: 12.1 du/ac Maximum: ~~40.0~~ 80.0 du/ac
Building Intensity:	Maximum FAR of 2.0

Village Center Mixed Use (VCMU)
Village Center Mixed uses are generally characterized by pedestrian-oriented development, including integrated public plazas, with mixes of uses that focus on ground-floor commercial retail or office uses and allow residential or office uses above. Vertical integration should be prioritized along public transportation corridors and in activity nodes. Single-use buildings may also be appropriate when integrated into the overall site through horizontal mixes of uses, including public plazas, emphasizing pedestrian-oriented design. The predominant use is intended to be office, professional, or retail use in any combination, and may be supported by residential uses.

Village Centers are generally located along transit corridors with access from at least one major roadway. Secondary access may be allowed from minor or local roadways

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Transect-Based Land Use Designations

General Neighborhood Residential (T3-R) Development Characteristics	
Residential Density:	Minimum: 10.0 du/ac Maximum: 20.0 du/ac
Building Intensity:	Maximum FAR of 1.0

General Neighborhood Residential (T3-R)
General Neighborhood uses are generally characterized by small-lot single-family residential development (attached or detached), duplexes, townhomes, and small apartment buildings, but may also include small live-work spaces, home-offices or workspaces, and bed and breakfast inns. Limited amounts of local serving retail and small office structures, particularly at intersections are also permitted. Buildings are typically not taller than 3 stories and are surface parked (on the side or rear of the lot), though additional height may be allowed through zoning provisions.

Neighborhood Center Low (T3) Development Characteristics	
Residential Density:	Minimum: 14.0 du/ac Maximum: 30.0 du/ac
Building Intensity:	Maximum FAR of 2.0

Neighborhood Center Low (T3)
Neighborhood Center Low includes similar uses and densities as T3-R, however, a mix of uses is permitted throughout, with no preference provided for residential uses. Buildings are typically not taller than 3 stories and are surface parked (on the side or rear of the lot), though additional height may be allowed through zoning provisions.

Neighborhood Center Medium (T4) Development Characteristics	
Residential Density:	Minimum: 20.0 du/ac Maximum: 40.0 du/ac
Building Intensity:	Maximum FAR of 5.0

Neighborhood Center Medium (T4)
Neighborhood Center Medium uses are generally characterized by a diverse mix of uses residential and commercial uses at higher intensities than T3. Residential building types generally include townhomes and urban apartment buildings, as well as live-work spaces. Retail, hotel, and office uses are permitted. Buildings are typically not taller than 5 stories (though additional height may be allowed through zoning provisions) and may have a mix of garage and or surface parking in the rear of the lot or the middle of the block, screened from view.

Neighborhood Center High (T5) Development Characteristics	
Residential Density:	Minimum: 30.0 du/ac Maximum: 100.0 du/ac
Building Intensity:	Maximum FAR of 7.0

Neighborhood Center High (T5)
Neighborhood Center High includes a diverse mix of uses at higher intensities than T4. Many individual buildings may have a mix of uses. Residential building types generally include apartment buildings as well as live-work spaces. Retail and Office uses as are hotels. Buildings are typically not taller than 7 stories (though additional height may be allowed through zoning provisions) and will have parking in garages that are screened from view or below ground. Development within the T5 designation is oriented around and accessible by transit services.

…

LAND USE CONSISTENCY MATRIX

Table 3-1 illustrates the base zoning districts, which implement the land use designations shown on the Land Use Diagram (Figure 3-4) and described above.

Table 3-1:
Consistency Matrix

LAND USE DESIGNATION	CONSISTENT ZONING DISTRICT(S)[1]
COMMERCIAL AND EMPLOYMENT LAND USE DESIGNATIONS	
Community Commercial (CC)	LC, Limited Commercial GC, General Commercial
Regional Commercial (RC)	AC, Auto Commercial SC, Shopping Center
Employment Center (EC)	BP, Business and Professional Office MP, Industrial-Office Park
Light Industrial/Flex (LI/FX)	LI/FX, Light Industrial/Flex
Light Industrial (LI)	MP, Industrial-Office Park LI, Light Industrial
Heavy Industrial (HI)	HI, Heavy Industrial
MIXED USE LAND USE DESIGNATIONS	

Mixed Use Village Center (VCMU)	VCMU, Village Center Mixed Use
Residential Mixed Use (RMU)	RMU, Residential Mixed Use
TRANSECT-BASED LAND USE DESIGNATIONS	
General Neighborhood Residential (T3-R)	T3-R: General Neighborhood Residential
Neighborhood Center Low (T3)	T3: Neighborhood Center Low
Neighborhood Center Medium (T4)	T4: Neighborhood Center Medium
Neighborhood Center High (T5)	T5: Neighborhood Center High
PUBLIC/QUASI-PUBLIC AND OPEN SPACE LAND USE DESIGNATION	
Parks and Open Space (P/OS)	O, Open Space Land Use PR, Park and Recreation C-O, Commercial Recreation
Resource Management and Conservation (RMC)	O, Open Space Land Use
Public Services (PS)	PS, Public Services Any zoning
RESIDENTIAL LAND USE DESIGNATIONS	
Rural Residential (RR)[2]	AR-10, Agricultural Residential AR-5, Agricultural Residential AR-2, Agricultural Residential
Estate Residential (ER)	AR-1, Agricultural Residential RD-1, Very Low Density Residential RD-2, Very Low Density Residential RD-3, Very Low Density Residential RD-4, Low Density Residential
Low Density Residential (LDR)	RD-4, Low Density Residential[3] RD-5, Low Density Residential RD-6, Low Density Residential RD-7, Low Density Residential
Medium Density Residential (MDR)	RD-8, Medium Density Residential RD-10, Medium Density Residential RD-12, Medium Density Residential RD-15, Medium Density Residential RM-1, Mobile Home
High Density Residential (HDR)	RD-18, Medium-High Density Residential RD-20, High Density Residential RD-25, High Density Residential RD-30, High Density Residential RD-40, High Density Residential
OTHER LAND USE DESIGNATIONS	
Agriculture (AG)	AR-10, Agricultural Residential AG-20, Agriculture AG-80, Agriculture
Study Areas (SA)	AR-5, Agricultural Residential AR-10, Agricultural Residential AG-20, Agriculture AG-80, Agriculture
Tribal Trust Lands (TTL)	Exempt from local regulations

Notes:

1. Special Purpose Zoning Districts including SP (Specific Plan) and SPA (Special Planning Area), may be considered consistent with any of the land use designations.

2. *Lots smaller than 2 gross acres and/or zoned AR-1 within the Rural Area Community Plan that existed as legal lots as of November 19, 2003 are considered consistent with the Rural Residential General Plan designation.*
3. *Subdivisions approved prior to August 2006 and zoned RD-4 that do not meet the minimum density requirements of the Low Density Residential designation may still be consistent with the designation, provided the lot sizes within the subdivision comply with the lot size range provided herein.*

LAND USE DIAGRAM

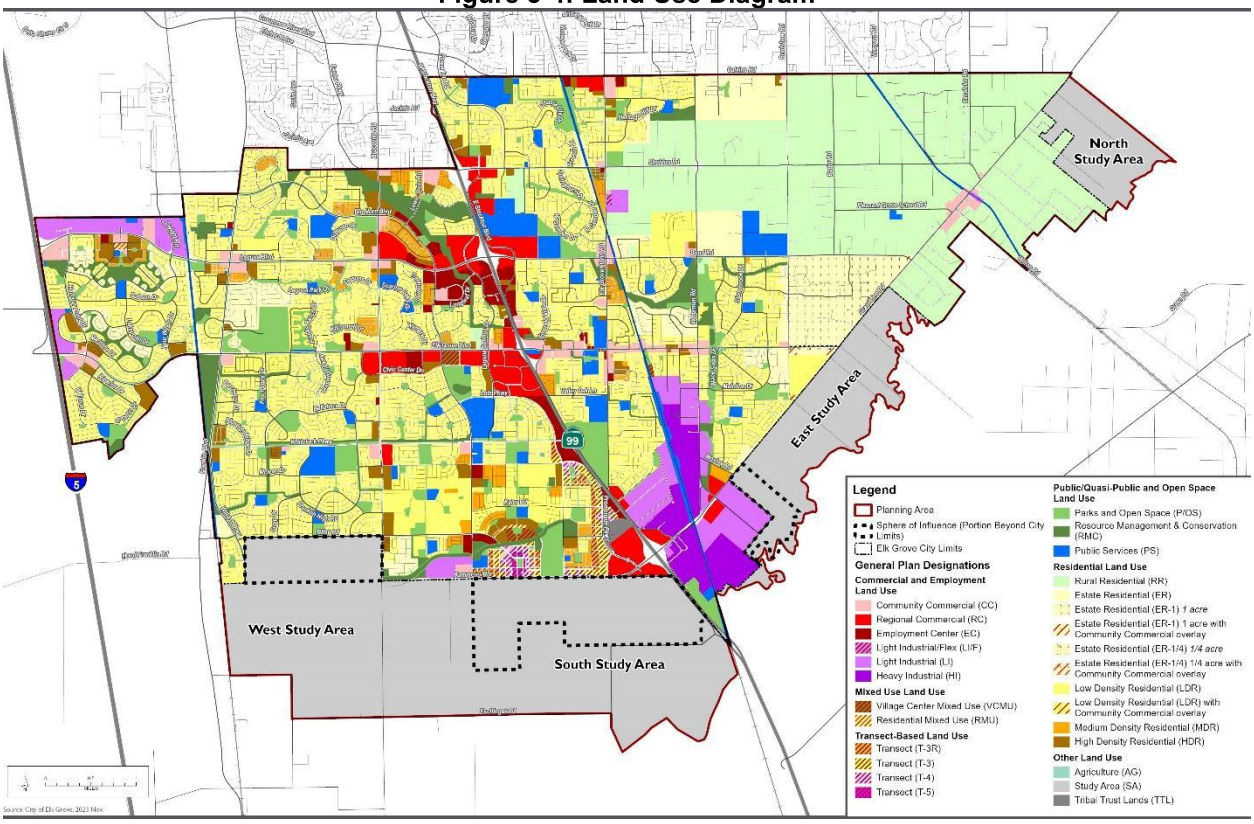
The Land Use Diagram (**Figure 3-4**) illustrates the future development pattern in Elk Grove by applying the 19 Land Use Designations described above to the Planning Area in the context of the street network, the existing City limits, and the Study Areas.

DEVELOPMENT CAPACITY

Table 3-2 identifies the development capacity associated with the planned distribution of land uses described in the Land Use Plan. As the density and intensity standards for each land use designation are implemented by future development projects and land use decisions, the activities occurring on properties will (consistent with the General Plan) transition from one activity to another, and land uses and intensities will shift to align with the intent of this Plan.

The General Plan does not directly specify a maximum population for Elk Grove. The maximum possible number of residential units is determined by the different maximum densities allowed for each land use designation and the amount of land area within that designation. However, this maximum number of units is unlikely to be reached because every lot in Elk Grove would need to be developed to its maximum potential. Because much of the Planning Area is built out and existing buildings are generally in good condition, these changes will primarily occur on underutilized or vacant properties in the City and the Study Areas. Forecasting assumptions using reasonable inferences to determine the realistic expected development that could occur in Elk Grove after development or redevelopment of all properties that are expected to be developed, or redeveloped, are reflected in the development capacity

Figure 3-4: Land Use Diagram



LAND USE POLICY AREAS

The City has also established a number of Land Use Policy Areas to reflect existing and pending major development project approvals or to reflect the need for more detailed land use planning at a future date. These Policy Areas, illustrated in **Figure 3-5**, typically specify the types of land uses to be permitted as well as desired circulation and infrastructure improvements. The City currently contains six Policy Areas. The objectives as well as goals and policies for specific Land Use Policy Areas are located in Chapter 4: *Urban and Rural Development.*

COMMUNITY AND SPECIFIC PLANS

The City uses a variety of tools to implement the General Plan. Two particular tools are community plans and specific plans. Community plans and specific plans are designed to implement the goals and policies of the General Plan for a defined geographic area of the City by providing greater specificity, covering some or all of the following topics: land use and infrastructure needs, economic development approach, design and development standards, and development phasing and implementation. Community plans differ from specific plans in that they are part of the General Plan (see Chapter 9: Community and Area Plans) and contain policy direction for a defined area, while specific plans are separately adopted documents (not a component of the General Plan) that implement General Plan policies.

Table 3-2:
General Plan Development Capacity

	Acres	Dwelling Units	Population[1]	Employment (Jobs)	Jobs/Housing Ratio
Existing Development Total[2]	31,449	53,829	171,059	45,463	0.84
General Plan Total	34,956	~~102,865~~103,428	~~332,254~~334,078	~~127,463~~121,885	~~1.24~~1.18
City Limits	29,946	~~72,262~~76,693	~~233,406~~247,724	~~81,784~~72,518	
Study Areas Subtotal	8,008	~~30,603~~26,735	~~98,848~~86,354	~~45,679~~48,367	
North Study Area	*646*	*323*	*1,043*	*0*	
East Study Area	*1,772*	*4,806*	*15,523*	*9,183*	
South Study Area	*3,675*	*~~16,250~~11,245*	*~~52,488~~36,321*	*~~30,367~~33,564*	
West Study Area	*1,915*	*~~9,224~~10,361*	*~~29,794~~33,466*	*~~6,129~~5,620*	

~~Table~~ Notes: Number may not sum due to rounding
1. Based on 3.23 persons per household, average.
2. Existing development represents 2017 population and dwelling unit information and derived from 2013 jobs data (the most current year available at the time of writing the General Plan).

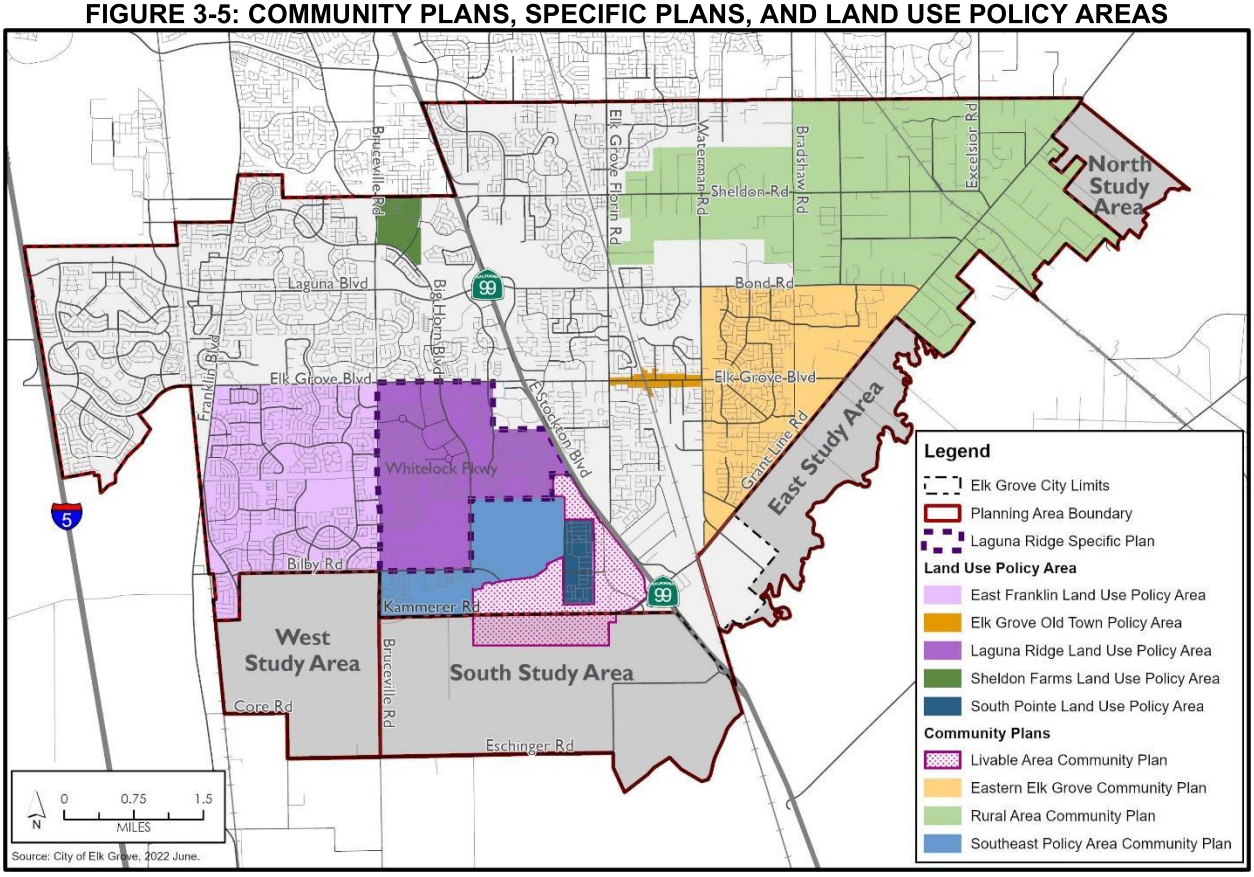
In conjunction with the General Plan, the City maintains community plans that correspond to certain Land Use Policy Areas. A community plan addresses a particular sub-area or community within the overall planning area and refines the policies of the General Plan as they apply to these smaller geographic areas. A community plan must contain specific development policies adopted for the identified area and measures to implement those policies, so that the policies which apply to each parcel of land can be determined. Community plans are adopted as part of the General Plan and are implemented by local ordinances such as the City's zoning and subdivision regulations.

The Southeast Policy Area Community Plan, the Livable Employment Area Community Plan, Sheldon/Rural Area Community Plan, and Eastern Elk Grove Community Plan are components of the General Plan, presented in Chapter 9: Community and Area Plans. Community plans for other Land Use Policy Areas will be created and maintained as resources allow.

The City of Elk Grove has one adopted specific plan, the Laguna Ridge Specific Plan. The primary focus of this plan has been to highlight community characteristics unique to Laguna Ridge and to customize the planning process and land use regulations and requirements that apply to this area of the City. The Laguna Ridge Specific Plan relies on existing development standards in the Zoning Code.

Locations of each of these plans and policy areas in Elk Grove are illustrated in **Figure 3-5**.

FIGURE 3-5: COMMUNITY PLANS, SPECIFIC PLANS, AND LAND USE POLICY AREAS



STUDY AREAS

As discussed above, the General Plan addresses four areas located beyond the City known as Study Areas. These areas have been identified for potential expansion of the City limits. The City has developed specific objectives and development requirements to achieve those objectives for each area, which are contained in Chapter 4: Urban and Rural Development.

STATE MANDATES

Affordable Housing

The Land Use Plan and the Housing Element of the City's General Plan are closely linked. The Land Use Plan is required under State law to show the location and distribution of sufficient land, with appropriate use designations, to provide for construction of the number of housing units that the City must accommodate according to the Regional Housing Needs Allocation (RHNA). The housing inventory sites that can accommodate future housing growth in Elk Grove are shown in Chapter 4: *Urban and Rural Development* (see Figure 4-9) and have been incorporated into the land use designations appropriate to accommodate the densities necessary to facilitate the construction of affordable housing.

Military Facilities
The State of California (Government Code Section 65302(2)) requires that each local jurisdiction's general plan consider the potential impact of new growth on military readiness activities carried out on military facilities located in the vicinity of that jurisdiction.

While there are no military bases, installations, or operating facilities located within the Planning Area or within a reasonable distance of the City, there is a military recruitment center located at 9163 E. Stockton Boulevard. This center serves as a physical training facility for enlisted personnel living in the area. No impacts to military operations have been identified as a result of continued development of the City. The recruitment center is located within a retail shopping center and the surrounding area is substantially developed. This General Plan does not propose any major land use or circulation changes in the area that would impact these operations.

Additional military operations that may occur within the Planning Area are generally limited to general equipment and personnel movement and overflight of aircraft to or from Travis Air Force Base, Beale Air Force Base, or Mather Field. Additional Coast Guard air operations occur at McClellan Field.

Disadvantaged Communities
A city is required in its general plan to identify and describe any disadvantaged unincorporated communities that exist within a city's sphere of influence (SOI).1 If any such communities are identified, the City must analyze the water, wastewater, stormwater drainage, and structural fire protection needs for each of these communities and identify financial funding alternatives for the extension of services to any identified communities. No such communities are located within the Planning Area.2.

THE TRANSPORTATION PLAN
The Transportation Plan addresses the many ways in which people and goods move from place to place in Elk Grove and the surrounding region. It identifies and describes the overall transportation system and network, including roadways, freight and passenger rail lines, public transit (including light rail and buses), and infrastructure and facilities for bicycles and pedestrians.

The Transportation Plan, along with the accompanying Transportation Network Diagram, presents an integrated and balanced approach to meeting the current and future circulation needs of users of all modes of transportation, including drivers of private vehicles, public transit passengers, and those using active forms of transportation such as walking and biking. It lays out a series of transportation network designations—the roadway network, the transit network, and the active transportation network (bike, pedestrian, and equestrian facilities)—and is closely linked to the physical layout of land uses established in the Land Use Plan. Along with related policies in Chapter 6: Mobility, the Transportation Plan provides for a range of mobility options in Elk Grove and helps to meet other General Plan goals and objectives, such as improving air quality and reducing greenhouse gas emissions.

KEY CONSIDERATIONS
A number of key considerations form the basis for the Transportation Plan, including the following:

Activity Centers
Areas focused on intensive pedestrian activity, such as Old Town, the Civic Center (District56), ~~and~~ the future SEPA Village Center, the urban centers of the Livable Employment Area, and activity centers in the Study Areas require specific design treatment and planning considerations. A greater focus on pedestrian and bicycle infrastructure in these areas will allow for safe, comfortable, and convenient active transportation choices by designing roads, pathways, and facilities with these users in mind. Essential to walking and biking is a complete and connected system of sidewalks, crosswalks, off-street multiuse paths, painted bike lanes and signposted bike routes, along with amenities that enhance pedestrian comfort, convenience, and visibility and are incorporated into street and pathway design. The Transportation Plan prioritizes pedestrian, bicycle, or transit mobility within specific pedestrian-oriented areas and directs updates to street standards to implement enhanced infrastructure serving such modes of travel.

~~Fixed~~ Transit

~~Fixed transit includes public transportation services that run along an established route at high frequencies, with enhanced stops/stations, signal preemption, and, where possible, a dedicated right-of-way. It may include trains or bus rapid transit that function on an established and generally unchanging schedule or timetable, or the extension of RT Light Rail from Sacramento into Elk Grove. Fixed transit routes typically consist of express fixed routes, such as commuter lines with fewer stops, or as feeder or circulator routes, which transport passengers from a neighborhood or employment area to stops along a connecting bus or rail line.~~

Transit services include a range of alternative vehicle-mobility, including bus and rail. Traditional public transit in Elk Grove ~~are run by the City through its e-tran public service~~ is operated by Sacramento Regional Transit (SacRT) and includes both local and commuter bus service and on-demand microtransit. The service runs through the City's commercial core and along major arterials, serving locations such as the Laguna Gateway Shopping Center, the Elk Grove Marketplace, ~~and~~ the Elk Grove Auto Mall, District56, Sky River Casino, Laguna Town Hall, as well as the transfer center at Cosumnes River College just outside of the City. Historically, the transit service's functionality and efficiency have been limited due to various fiscal constraints and overall system design. The dominant boarding and alighting location for local service is Cosumnes River College, indicating that more than half of all local trips are to places outside of Elk Grove. Differences between weekday and weekend service, low local route frequencies, and inadequate schedules and recovery times are also cited as major contributing factors to ridership. ~~A Comprehensive Operational Analysis (COA) adopted by the City in April 2017 implements service changes that are designed to address several of these ridership attraction issues while further recognizing the present financial conditions that limit higher frequencies and enhanced service capabilities. The new system that began operations in October 2017 incorporates design features that better coordinate local and commuter routes and schedules in order to address efficiency issues and ridership attraction. Services will continue to be monitored and adjusted to improve the overall efficiency and attract greater ridership, and funding opportunities will be sought to implement future high frequency services that are sustainable. E-tran's~~ The commuter service, to and from downtown Sacramento and Rancho Cordova, ~~tends to be~~ has historically been well utilized, but would benefit from reduced time on arterial streets, expansion of peak period times, and improvements to park-and-ride lots; however, changing commute patterns due to increased telework have impacted ridership demand, which may be a potential constraint on the commuter service in the years ahead.

High-frequency transit services, which do not currently exist in the City, are ones that run along an established route at high frequencies, with enhanced stops/stations, signal preemption, and, where possible, a dedicated right-of-way. It may include light rail or bus rapid transit. High-frequency transit routes may consist of express routes, such as commuter lines with fewer stops, or as feeder or circulator routes, which transport passengers from a neighborhood or employment area to stops along a connecting bus or rail line.

Amtrak also provides ~~fixed route~~ heavy passenger inter-city rail service through ~~the eastern part of~~ Elk Grove. As of 2017 there was no ~~with no~~ train stop~~s~~ in the City. However, the ~~Opportunities exist for additional fixed route passenger rail services through the~~ San Joaquin Joint Powers Authority, operators of the Amtrak San Joaquin and Altamont Corridor Express (ACE) services, is planning an expansion from Stockton to Sacramento with a stop in Elk Grove. Services are anticipated post-2024 and would provide heavy and regional rail service in Elk Grove~~and other interregional services. However, the ultimate determination of service connections to Elk Grove would be based on funding availability and coordination with the passenger rail service providers, including the San Joaquin Joint Powers Authority~~.

The Transportation Plan has been designed to support ongoing local bus and commuter service, as well as the potential for future ~~fixed~~ high-frequency transit service and heavy/regional rail. Roadway cross sections for certain arterials include lanes and rights-of-way reserved for ~~fixed~~ high-frequency transit use. The Land Use Plan also anticipates future ~~fixed~~ high-frequency ~~rail~~ transit service by promoting development of mixed-use, transit-supportive development projects in areas along planned ~~fixed~~ high-frequency transit alignments that are designated Village Center Mixed Use, ~~and~~ Residential Mixed Use, and Transect.

Goods Movement
The movement of freight is a crucial aspect of the regional transportation and economy. Goods movement takes place in Elk Grove in several forms: large trucks traveling through on freeways connecting west to ports, or inland to deliver goods or access major commercial and industrial facilities in the city; and trains running along the two Union Pacific Railroad lines passing through the City. Freight movement supports a strong economy and delivers products needed by both residents and businesses. It also has environmental and health impacts on nearby communities. Trucks can produce additional noise, wear and tear on roadways, and air pollution, and may carry loads that contain hazardous materials.

The City recognizes the essential role of goods movement as well as its potential impacts. The General Plan attempts to balance these with the need to increase economic growth and prosperity, reduce environmental impacts in communities most affected by goods movement, and provide safe, reliable, efficient, and well-maintained freight movement facilities.

Accessibility
Providing access for individuals is a key aspect of any transportation system. The system must provide both mobility, a path to get from one place to another, as well as infrastructure that allows individuals to reach their destinations safely and efficiently. Consequently, transportation planning must account for the connectivity of the grid; the ways in which the rights-of-way accommodate the needs of motorists, pedestrians, bicyclists, public transportation users, individuals with disabilities, and seniors; and getting users onto and off of the rights-of-way. Examples of infrastructure that can provide accessibility include ADA-compliant sidewalks and crossings, appropriate signaling that accommodates all users, wide and protected bike and pedestrian pathways, and bike and pedestrian amenities such as street trees, benches, and wayfinding signage. Chapter 6: *Mobility* includes goals and policies regarding accessibility for all users of Elk Grove's transportation system.

Efficiency and Mobility
California's Senate Bill 743 (2013) established that a project's effect on automobile delay does not constitute a significant environmental impact under the California Environmental Quality Act (CEQA). The State has been studying various alternative metrics to replace this analysis and has settled on the concept of VMT, which is a measurement tool used to identify environmental impacts (e.g., air quality, noise, greenhouse gas emissions) associated with automobile travel and to determine if mitigation measures are required under CEQA. While VMT does not reflect potential congestion or how mitigation measures for VMT would relieve congestion associated with development, it does produce a much stronger evaluation of the distance traveled and how many more cars will be on the road as a result of the development, and provides information to assess air emissions impacts that would directly result.

The City is not limited to using CEQA to evaluate the effects of land development projects on congestion and to identify remedies for congested conditions. Managing and remedying congestion using efficiency metrics remains a consideration for the City in the land development approval process.

As described in Chapter 6: Mobility, this General Plan identifies performance standards for the circulation system that evaluate both efficiency and mobility. The Transportation Plan accommodates both the range of travel modes and the roadway widths and functions needed to achieve the City's desired levels of performance for both efficiency and mobility, including a new VMT standard designed to comply with CEQA.

TRANSPORTATION NETWORK
The City is required by the Complete Streets Act to plan for a balanced, multimodal transportation network that meets the needs of all users, including motorists, pedestrians, bicyclists, public transportation users, individuals with disabilities, and seniors. The transportation system is a public facility in Elk Grove that provides access to and mobility within the community and contributes to the design and character of the area.

The Transportation Network Diagram presented in **Figure 3-6** represents the recommended circulation system for Elk Grove. The City has established roadway classifications, which are based on intended

priorities and levels of use by all types of users. The classifications relate to nearby land uses and circulation within the Planning Area and throughout the larger region. Roadway classifications are discussed in Chapter 6: *Mobility*.

The Transportation Network Diagram also identifies active transportation components that provide for access and safety of pedestrians and bicyclists and for ~~fixed~~ high-frequency transit. More detailed policies and plans for active users are located in the Bicycle, Pedestrian, and Trails Master Plan. Future ~~fixed~~ high-frequency transit sites are an ongoing point of discussion and planning for Elk Grove and the larger region.

The roadway classifications identified in **Figure 3-7** are based on intended priorities and levels of use by pedestrians, bicyclists, transit vehicles, delivery vehicles, and automobiles in relation to nearby land uses and circulation within the Planning Area and to the larger region. The roadway classifications, in combination with the classification descriptions, are tools the City uses to accomplish land use and transportation goals and policies as well as related policies throughout the General Plan. Specific roadway dimensions for each classification are provided in the City's Roadway Improvement Standards.

FIGURE 3-6: TRANSPORTATION NETWORK DIAGRAM

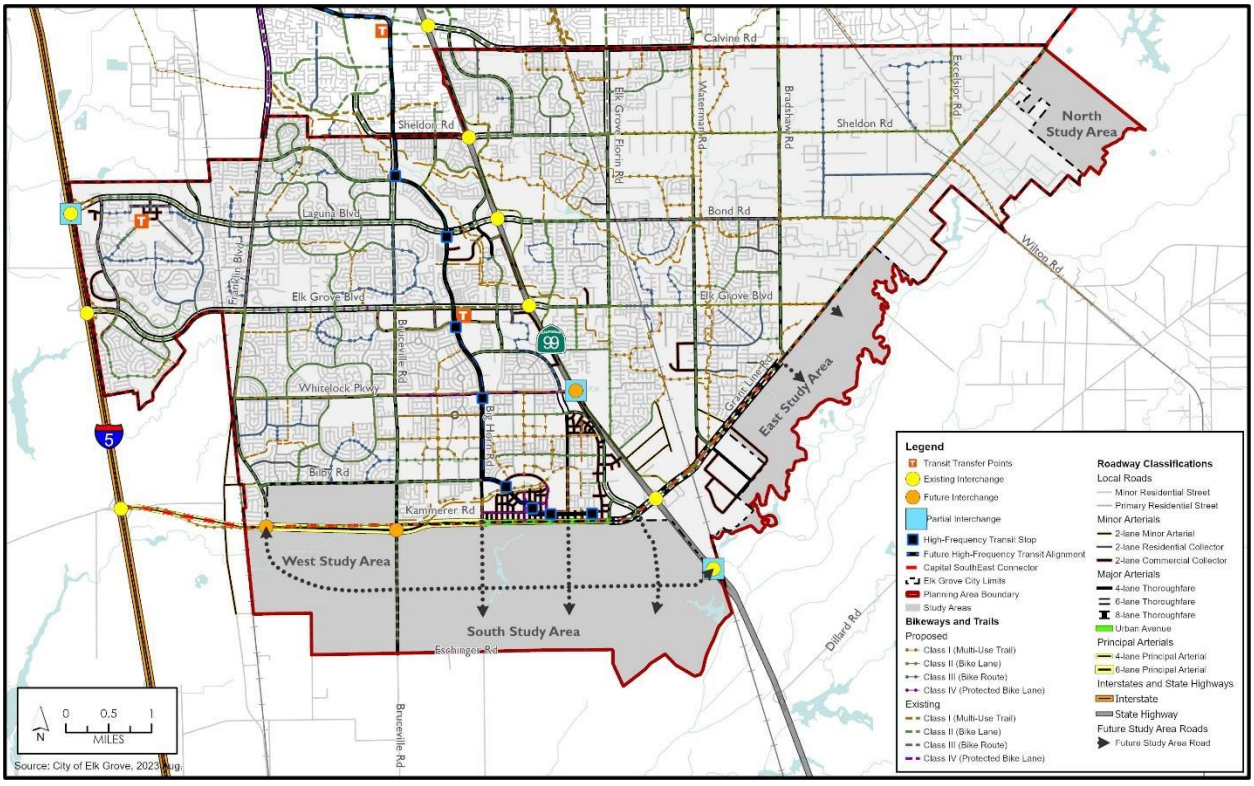
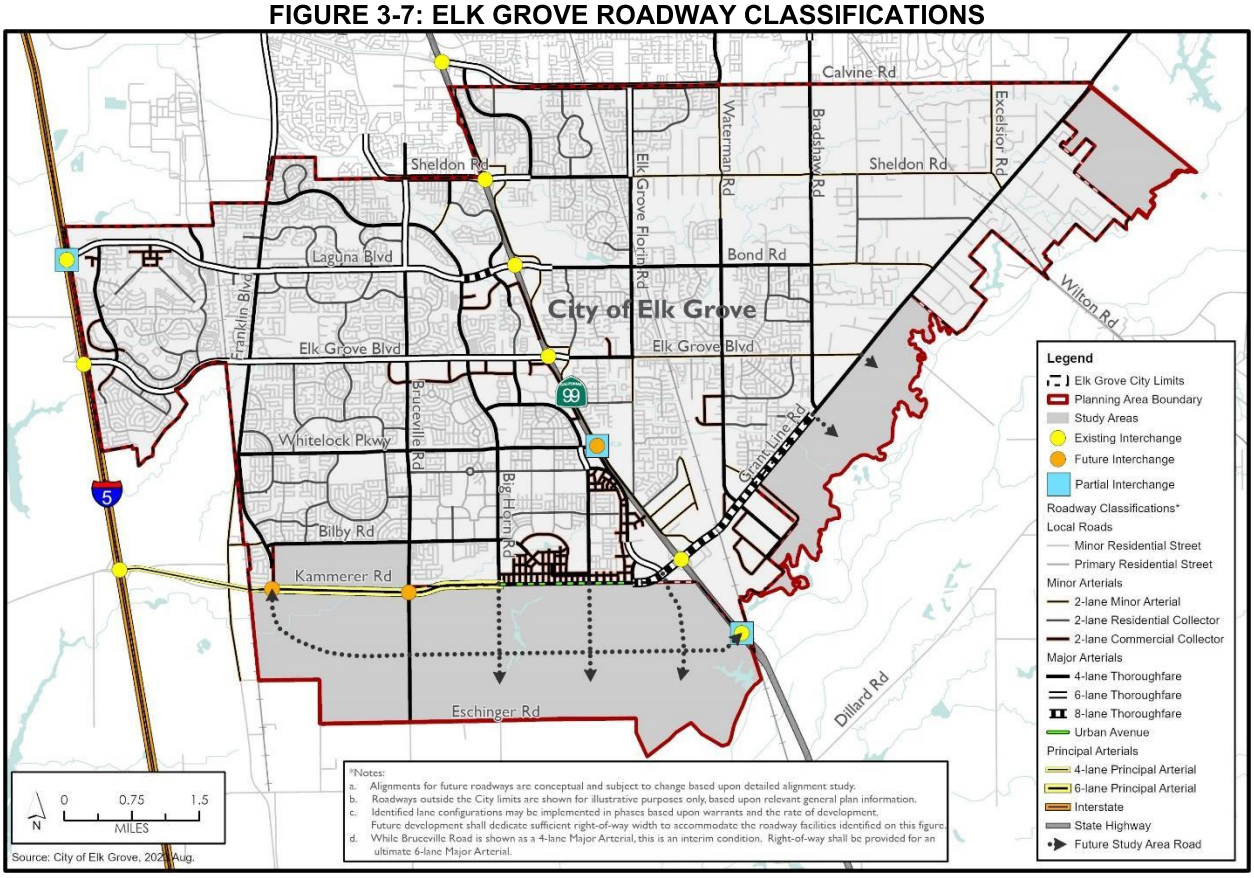


FIGURE 3-7: ELK GROVE ROADWAY CLASSIFICATIONS



Interstates and State Highways
State highways provide mostly uninterrupted travel by car, bus, or trucks, and are designed for high speeds over long distances. They have fully controlled access through on- and off-ramps, typically with separation between opposing traffic flows. Driveways and alternative modes of transportation such as walking or bicycling are forbidden, and intersections may only occur as freeway interchanges. There are two State highways that cross through the Planning Area: Interstate 5 and California 99.

Principal Arterials
Principal arterials provide limited access on high-speed roads with a limited number of driveways and intersections. Principal arterials also allow bicycles, and pedestrians may be permitted in limited locations. Principal arterials are generally designed for longer trips at the county or regional level.

Major Arterials
Major arterials provide controlled access for all transportation modes to enter and leave the urban area. In addition, significant intra-area travel, such as between residential areas and commercial or business areas, should be served by this system. Major arterials can include sidewalks for pedestrian connections, linking land uses to transit. They may have street parking or bike lanes. Major arterials range in size from 4 to 8 lanes and include the following sub-types.

- **Thoroughfare** – Throughfares are the primary form of major arterials and consist of a divided roadway with pedestrian sidewalks in landscape corridors and on-street bicycle facilities.
- **Urban Avenue -** Urban Avenues are often referred to as Multi-way Boulevards. They consist of four-vehicular lanes and a median divide. A slip lane frontage assembly in each direction provides an attractive street for commercial and residential activity. The low traffic speed/volume environment is safe for a bike lane which is buffered by a parking lane and tree lined sidewalks that create a safe ambience for pedestrians and cyclists alike. This type of frontage road provides high

value. It also has a 16' lane to turn into the frontage road- which gives access to local streets- reducing traffic on the Urban Avenue itself.

Minor Arterial/Collectors
Minor arterial/collectors are two-lane roadways providing access to all transportation modes, with a focus on local access. Pedestrian connections link land uses to local destinations and transit. The right-of-way associated with minor arterial/collectors may feature medians, parking lanes, and bike lanes. Arterial/collectors in the Rural Area are subject to the separate Rural Roads Improvement Standards, and may have separate pedestrian and multiuse pathways, but no sidewalks, and may have reduced speed requirements. This listing ~~also~~ includes the following sub-types.~~Primary and Secondary Residential Streets.~~

- **Minor Arterial** – Minor Arterials are extensions of the Major Arterials but are 2 lane facilities. Examples include Elk Grove Boulevard through Old Town and many of the arterials in the Rural Area.
- **Commercial Collector** – Commercial Collectors are 2 lane facilities found in commercial areas.
- **Residential Collector** – Residential Collectors are found in residential neighborhoods and connect the neighborhood with Major Arterials.

Local Roads
Local roads provide direct access to most properties and provide access to the higher roadway classifications described above. They are generally designed to discourage through traffic. Local roads are typically two-lanes and are designed for low vehicle speeds. In the urban area of the City they include pedestrian sidewalks. In the Rural Area there are no sidewalks. This listing includes the following sub-types.

- **Primary Residential Street** – Primary Residential Streets have wider street widths and often include detached landscape corridors along the street shoulder. This street type allows for residents to take access from the street.
- **Minor Residential Street** – Minor Residential Streets are the predominant street within residential neighborhoods. They provide direct access to homes.

State Mandates

Complete Streets
The Complete Streets Act (California Government Code Sections 65040.2 and 65302) requires that the General Plan include a plan for a multimodal network that meets the needs of all users in a safe and convenient manner. The City must identify how the transportation network will accommodate the needs of all users of streets, roads, and highways for safe and convenient travel. Because no two communities or streetscapes are alike, complete streets must be tailored to the area in context.
As previously mentioned, there is a significant Rural Area in Elk Grove. While the design of complete streets in the Rural Area differs from that in urban or suburban settings, a number of tools are available to improve multimodal access in the area. The Transportation Plan recognizes the different role and context of rural roadways while also accommodating complete streets considerations. Some examples of techniques used to design complete streets in the Rural Area include roadway design options that incorporate wide shoulders, offering options for various modes without designating formal facilities for these purposes, and providing connections to regional trails near rural areas.

Correlation with the Land Use Plan

There is a strong connection and interdependence between land use patterns and transportation systems. Roads, transit infrastructure and routes, and other components of transportation systems are major factors in shaping land development. Conversely, each land use and its spatial layout has a major impact on people's transportation choices and patterns. A dispersed pattern of low-density development creates and reinforces a dependence on automobiles as the primary mode of transportation, while medium- or higher-density development characterized by a mix of residential and commercial land uses in close proximity tends to encourage other modes of travel, such as public transit, walking, and bicycling. For these reasons, it is important to coordinate land use planning and transportation planning. California Government Code

Section 65302 specifically calls for local governments to integrate planning for transportation/circulation and land use in their general plans.

The Transportation Plan is coordinated with the Land Use Plan, and Chapter 6: *Mobility* includes policies that recognize driving as a significant mode of transportation while also promoting other modes of travel such as transit, walking, and biking. As noted above, the General Plan's land use policies encourage transit supportive land uses in appropriate areas of the City. Together, the transportation policies and land use policies aim to maximize transportation choices for residents and workers in Elk Grove, as well as to preserve the character and identity of the community.

THE RESOURCE CONSERVATION PLAN

The Resource Conservation Plan identifies current and future natural, undeveloped areas of the City, as well as public open spaces (passive and active recreation areas). In addition to the urbanized areas described and addressed in the Land Use Plan and the Transportation Plan, Elk Grove encompasses a mix of agricultural land uses and natural community types. Agricultural land uses include cropland, irrigated pasture, vineyards, and orchards. Several natural communities are also present, such as annual grasslands, mixed riparian scrub, mixed riparian woodland, valley oak riparian woodland, and blue oak woodland. Aquatic resources such as open water, streams, seasonal wetlands, and freshwater marshes are located throughout the Planning Area. The General Plan addresses policies related directly to habitat conservation in Chapter 7: *Community and Resource Protection* and policies related to agricultural land in Chapter 4: Urban and Rural Development.

Parks, recreation, and open space are important components of the quality of life for residents of Elk Grove. Parks and recreation services in Elk Grove are provided by the Cosumnes Community Services District (CCSD). The City and CCSD work collaboratively to plan for, fund, design, and construct new park facilities. In addition, the City designs, funds, and operates the Civic Center and Old Town Plaza.

A vital component of the Community Vision is retention, conservation, and management of open space in the Planning Area. Although many areas within the current City limits and the Study Areas are envisioned to be developed with urban uses, the City recognizes that there are also many important agricultural and open space resources located throughout the Planning Area. The Resource Conservation Plan identifies specific natural open spaces, water resources, parks, trails, and agricultural lands that the City has prioritized to protect and conserve. The City is committed to preserving valuable natural resources, balancing conservation with development and growth demands on land in the area. The Resource Conservation Diagram identifies these key resources. The Resource Conservation Plan also ensures that the City's vision for open space, as well as other habitat and conservation needs in the Planning Area, is articulated to the County of Sacramento, the Sacramento Local Agency Formation Commission (LAFCo), and other agencies and stakeholders in the area outside the City limits.

KEY CONSIDERATIONS

Habitat Conservation

Although no natural open spaces are located within the City, its urban parks and waterways provide habitat. There are also several notable open spaces in adjacent jurisdictions, such as the Stone Lakes National Wildlife Refuge and the Cosumnes River Preserve. Access to nearby open spaces for recreation and enjoyment of nature is important to Elk Grove residents. Habitat conservation for ecological diversity is also a valuable resource and a priority of the region and the State. The City recognizes that future development in Elk Grove could have impacts on these resources, since an increase in the local population would result in higher and more intensive use of nearby existing habitats of importance. Several plant and animal species present in the Planning Area are listed as threatened or endangered at the State and/or national level, including Swainson's hawk and the valley elderberry longhorn beetle.

Habitat conservation and agricultural protection is also covered on the regional level in great detail by the adopted South Sacramento Habitat Conservation Plan (SSHCP), a regional approach to addressing issues related to urban development, habitat conservation, and agricultural protection in southern Sacramento County and within the jurisdictions of Sacramento County, the City of Galt, and the City of Rancho Cordova.

The SSHCP consolidates environmental efforts to protect and enhance wetlands (primarily vernal pools) and upland habitats to provide ecologically viable conservation areas. It also minimizes regulatory hurdles and streamline the permitting process for development projects. While the SSHCP does not apply to areas within the existing City limits, the North, East, and portions of the West Study Area may utilize it to streamline their permitting and mitigation. Nothing in the SSHCP compels projects to utilize the SSHCP as the mitigation program.

Agricultural Preservation
Active agricultural uses are present on lands located east and south of the City and include both row crops and agricultural processing activities. The City wishes to ensure that agricultural practices south of the Study Areas may continue without conflict with new residential and commercial development built as identified in the Land Use Plan. To limit potential conflicts, the City will require land use densities and designs that make use of 'feathering' and 'buffering' concepts. Feathering of densities ensures that lower-density uses, such as Estate Residential, are located closest to agricultural uses, and uses with increasing densities are located in closer proximity to the more built-up areas of the City. Chapter 4: Urban and Rural Development includes land use diagrams that apply feathering and buffering concepts in the South, West, and East Study Areas.

Floodplain Management
Flooding affects a large part of the Planning Area. The areas most susceptible to flooding are located in the eastern portion of Elk Grove. In the Sheldon area, local flooding is widespread but generally minor; the flat land causes floodwaters to spread out, reducing threats to life. Along the eastern and southern edges of the Planning Area, the Cosumnes River represents a major flood hazard. Flood risk in Elk Grove is assessed using the 100-year floodplain and the 200-year floodplain. These floodplain zones are defined by the Federal Emergency Management Agency (FEMA). A 100-year floodplain zone estimates inundation areas based on a flood that has a 1 percent chance of occurring in any given year. A 200-year floodplain zone estimates inundation areas based on a flood that has a one-half percent chance of occurring in any given year. California State law and subsequent regional plans require assessment and specific requirements for new development in the 200-floodplain for all jurisdictions in the Delta region.

The Resource Conservation Diagram (**Figure 3-8**) identifies areas located in the 100- year and 200-year floodplains. Additional flood risk information as well as related goals and policies are found in Chapter 7: Community and Resource Protection.

Other Natural Hazards
In accordance with State law, Elk Grove tracks and evaluates the risk to the community of other potential hazards, including earthquake fault zones and liquefaction, unstable soils, fire, watershed quality and replenishment, and dam inundation. Risks associated with these hazards and policies for mitigation are discussed in Chapter 8: Services, Health, and Safety.

RESOURCE DESIGNATIONS

The General Plan identifies the following categories of important open space and natural resources within the City. These categories address the four categories of open space required by the California Government Code. The following summarizes the key components of each category and how they are addressed in the General Plan. The location of these resources, as described below, are identified on Figure 3-8.

Recreation
This category identifies places that support recreation, including both public parks and public trails. Parks and recreation services in Elk Grove are provided by the CCSD, an independent special district agency that is not affiliated with the City. As of 2018, the CCSD owns and maintains over 90 parks, more than a dozen miles of off-street trails, several aquatic complexes, and numerous community and recreation centers.
Parks are categorized by scale and uses. Park categories include neighborhood, community, regional, sports complexes and golf facilities, special use (including indoor spaces and specialized sport spaces), greenbelts and trails, and open space and natural areas. Additional parks are planned within the Study Areas, as described in Chapter 4: Urban and Rural Development. The City and the CCSD have a joint goal of providing a minimum of 5 acres of park land per 1,000 residents. Currently (2017), there are

approximately 5.36 acres of parkland per 1,000 residents, providing a basis for the City/CCSD parkland standard.

The City has several existing and planned separated bike and pedestrian pathways that offer connections to other recreation resources in the City and to nearby major resources such as Stone Lakes National Wildlife Refuge, the Sacramento Regional County Sanitation District Bufferlands, and the Cosumnes River Ecological Reserve.

Historic, Cultural, and Scenic Resources
This category identifies places that support cultural preservation and enrichment. Agricultural landscapes and large or clustered adult trees are typical scenic resources found in Elk Grove. Notable historic, cultural, and scenic sites include listed historic buildings sprinkled across the City, the potential Winemaker Historic District, the Old Town neighborhood, and the Sheldon Rural area. These latter two areas are addressed in community plans that include specific goals and policies to protect and preserve the resources therein (see Chapter 9: *Community and Area Plans*.)

Natural Resource Preservation
This category includes areas that provide habitat for protected animal or plant species. Elk Grove has several conservation easements to protect habitat for threatened species, including Swainson's hawk. Waterways are often critical habitat areas, and several streams, creeks, and flood channels run through the City.

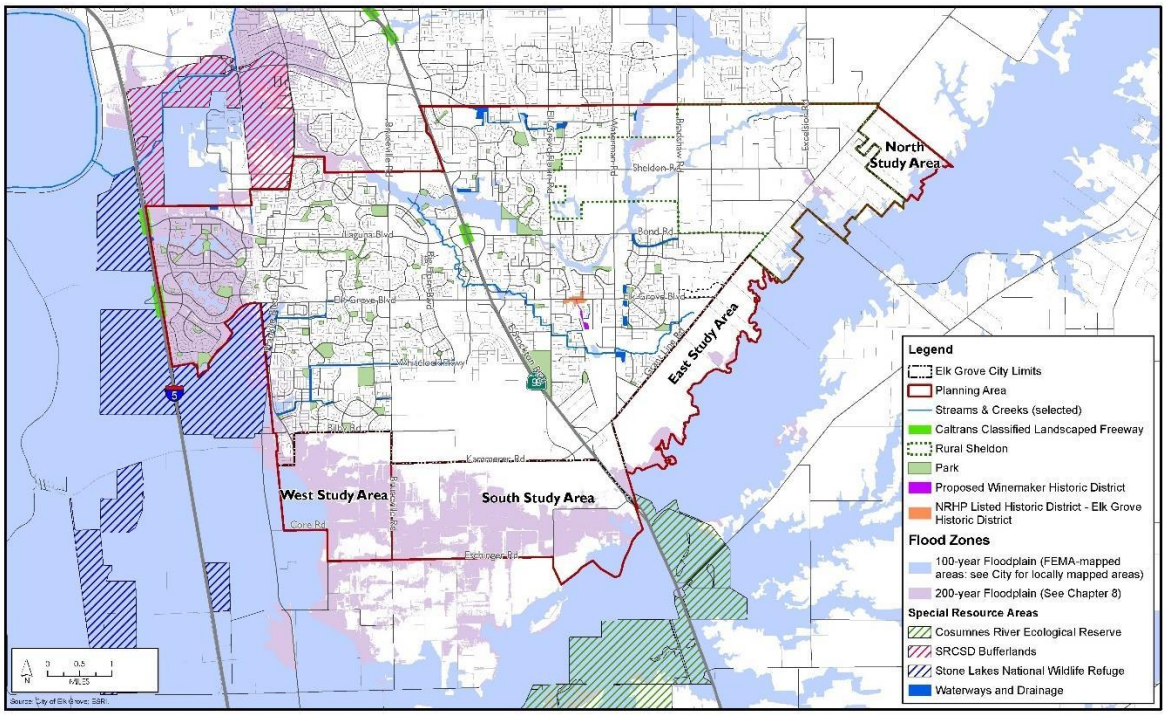
Natural Resource Management
Additional natural resources of importance in the Planning Area include water recharge basins and flood channels located throughout the City, and agricultural lands that will remain in production until developed according to the Land Use Plan.

RESOURCE CONSERVATION DIAGRAM

Portions of the Planning Area that are designated for conservation are identified on the Resource Conservation Diagram (**Figure 3-8**). These areas have been identified in coordination with areas that are defined for existing and future urban development in the Land Use Plan.

Parks and recreational spaces are distributed in and among developed areas to provide green space and facilitate contact with nature in urban and suburban living environments, and to offer opportunities for recreation and active living in close proximity to residential areas. Environmentally sensitive areas (terrestrial and aquatic), lands with high value as natural habitat for plant and animal species, and lands that create safety buffers for hazards around urbanized areas (e.g., floodplains) are assigned resource designations so that they are protected from urban encroachment.

FIGURE 3-8: RESOURCE CONSERVATION DIAGRAM



Changes to Chapter 4 (Urban and Rural Development)

Chapter 4 (Urban and Rural Development) shall be amended as follows:

Chapter 4 Urban and Rural Development

OVERVIEW

The City of Elk Grove is often characterized by both urban and rural land uses. Both sides of SR 99 are surrounded by urban development, and the original location of Elk Grove (Old Town) is on the eastern side of SR 99 oriented around the Union Pacific railroad tracks (the Fresno Subdivision Line). In the future, urban and higher-density residential and commercial uses will continue to be concentrated in these areas as strategic infill. Elk Grove also includes areas that are, and are envisioned to remain, low-density suburban or rural in character, and future development in these locations will be limited. This chapter presents policies to strategically focus high-quality new growth in existing and expanding urban areas, while preserving and enhancing neighborhoods and existing character.

The chapter also establishes a pathway for strategic expansion, allowing growth beyond the current City limits in the Study Areas in a manner that aligns with broader economic and sustainability goals. These policies outline a path for the City to annex new areas that will result in a coordinated development pattern with enhanced connectivity, employment centers, and new housing options, while minimizing conflicts with surrounding land uses.

In coordinating future development of the City and the adjacent Study Areas, priority will be given to the goals of ensuring quality housing, enhancing connectivity across neighborhoods and to the wider region, and achieving economic prosperity and high-quality community design.

The Urban and Rural Development chapter contains goals and policies addressing three topics listed below, which are each assigned a one- or two-letter acronym. Within each topic, the following goals and policies further the Community Vision and Supporting Principles.

Land Use (LU)
• GOAL LU-1: A Coordinated Development Pattern
• GOAL LU-2: A Focus on Infill
• GOAL LU-3: Expansion with Purpose
• GOAL LU-4: Thriving Activity Centers
• GOAL LU-5: Consistent, High-Quality Urban Design
• GOAL LU-6: Context-Appropriate Development of Land Use Policy Areas
• GOAL LU-7: An Established, Protected, and Supported Rural Area

Housing (H)
• GOAL H-1: Adequate Sites to Accommodate the City's Housing Needs
• GOAL H-2: ~~Adequate Housing Stock to Meet the Needs of Lower-Income Households and Special Needs Groups~~ Adequate housing stock to meet the needs of extremely low-, very low-, low-, and moderate-income households and special-needs groups
• GOAL H-3: Development Regulations that Remove Constraints to the Maintenance, Improvement, and Development of Housing
• GOAL H-4: ~~Conserved and Improved Affordable Housing Conditions~~ Maintenance and improvement of affordable housing conditions
• GOAL H-5: Housing Opportunities for All Persons, Regardless of Race, Religion, Sex, Marital Status, Ancestry, National Origin, Color, Familial Status, or Disability
• GOAL H-6: Preserved Assisted (Subsidized) Housing Developments for Lower-Income Households

Agriculture (AG)
• GOAL AG-1: Integrated and Sustained Agriculture
• GOAL AG-2: Urban Agriculture That Is Environmentally Sustainable and a Healthy Food Source

RELATIONSHIP TO OTHER CHAPTERS

The *Urban and Rural Development* chapter closely relates to the *Planning Framework, Community and Resource Protection*, and *Community and Area Plans* chapters.

- The *Planning Framework* chapter identifies desired future uses for all lands in the Planning Area and helps to shape future urban and rural development.
- The *Community and Resource Protection* chapter identifies community resources located throughout both urban and rural areas of Elk Grove—cultural, social, and natural—and identifies policies to protect those resources.
- The *Community and Area Plans* chapter outlines the community and area plans that will guide development in both infill areas and outward expansion areas in more detail.

SUPPORTING PRINCIPLES

The *Urban and Rural Development* chapter addresses the following three Supporting Principles:

Development Fills in the Gaps & Expansion Occurs with Purpose. This principle envisions that undeveloped and/or underutilized lands throughout the City will be developed as infill with quality establishments. It envisions that new infill developments will include community-serving businesses and a variety of housing types. This chapter establishes infill as the preferred form of development and identifies areas that are appropriate for infill projects. At the same time, the principle recognizes the opportunity for carefully planned and purposeful expansion through new development outside the existing City limits and annexation of those areas into the City's jurisdiction. This type of expansion and annexation can help Elk Grove achieve its goals related to providing new housing and jobs and promoting economic development.

City Core, Heritage & Well-Known Neighborhoods. This principle recognizes that the City has a thriving civic core and a well-preserved Old Town that provide gathering spaces for the entire community. It also calls for preservation of the quality of Elk Grove's neighborhoods. This chapter establishes the Civic Core, Old Town, and other strategic urban locations as activity centers and promotes a mix of uses, greater density, and transit access to these centers. New mixed-use land use designations and zoning districts will invite a wider variety of uses that serve neighborhoods and are safe and accessible for walking and bicycling. In addition, this chapter sets forth Land Use Policy Areas to provide more detailed direction for new development in established neighborhoods as well as community design standards for public spaces in these neighborhoods.

Protecting Our Farming Heritage & Rural Life. This principle celebrates the City's rural heritage and calls for preservation of the character of rural areas of Elk Grove. This chapter includes policies to protect and enhance existing rural neighborhoods and creates programs that support agricultural production and agritourism.

URBAN AND RURAL DEVELOPMENT: CONCEPTS AND POLICY FRAMEWORK

FOCUSED GROWTH

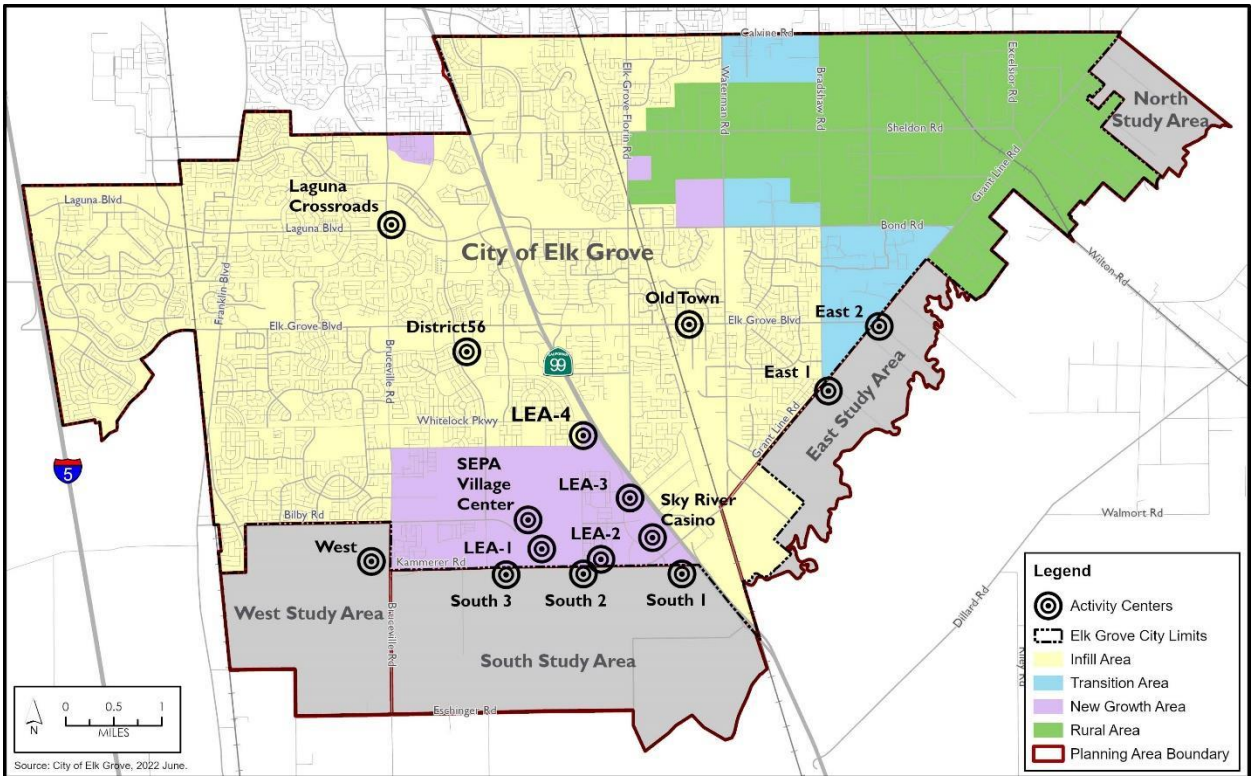
Elk Grove has historically functioned as a bedroom community, consisting primarily of low-density, single-family residential development and neighborhood-serving commercial uses. In recent decades, Elk Grove has expanded its focus, encompassing new growth in its more urban areas. During that time, the City has experienced growth that is both urban and suburban in nature, including a range of densities and styles of housing as well as commercial, office, and industrial uses. Most of the newer development has been concentrated west of SR 99. In the future, the City envisions continued development in specific growth areas to create several activity centers, with concentrations of commercial and civic uses and higher-density housing on or near the main corridors, that are comfortable to get to and around for pedestrians and

bicyclists. These activity centers will include the Civic Center, Old Town, the Village Center of the Southeast Policy Area (SEPA), the Livable Employment Area, Laguna Crossroads shopping center, ~~Lent Ranch,~~ and others that may emerge as the City evolves (e.g., in the Study Areas). These activity centers, sometimes called nodes, are intended to serve as central locations for community gathering and social activities, as well as access to services and entertainment, and to function as engines of economic growth and job creation.

In addition, properties that are vacant or underutilized and surrounded by existing development are considered potential infill sites. Infill is anticipated primarily in areas adjacent to or near major transportation corridors including SR 99, existing and future transit corridors, the Civic Center, and in undeveloped pockets of the City. Smaller infill development projects may also be appropriate throughout much of the City, with the exception of the Rural Area.

The locations of primary activity centers, as well as those areas of the City where infill development of vacant or underutilized properties is appropriate, are identified in Figure 4-1.

FIGURE 4-1: POTENTIAL ACTIVITY AND INFILL AREAS IN ELK GROVE



EXPANSION WITH PURPOSE

With limited opportunities to accommodate growth within the existing City limits, the City embraces greenfield development as a strategy to accommodate additional growth and development that benefits the community. Greenfield development can allow for new commercial and industrial growth that creates jobs and for new affordable housing to meet the region's deficiency, while maintaining the density and character of development that has come to define the community. New growth is anticipated in certain areas both within and beyond the current City limits, as illustrated in **Figure 4-1.** Areas identified for new growth in the City are vacant or contain agricultural uses~~,~~ and have been approved for new development. These areas include ~~the Sterling Meadows project, the Lent Ranch area, and~~ SEPA and the portion of the Livable Employment Area within the (2021) City limits. Additionally, the four Study Areas are identified as new growth areas that may accommodate future development beyond the current City limits. It is the City's intent

that these Study Areas offer options for future development when there is a demonstrated community benefit or need.

The goals and policies presented in this chapter offer opportunities for new industries and job creation in the City and beyond into the Study Areas. The Study Areas are described through three Land Use Districts that guide future development—the Activity District, the Residential Neighborhood District, and the Open Space/Conservation District—each with specific development criteria regarding location, density, design, and use that connects back to the General Plan Land Use Categories.

NEIGHBORHOODS AND COMMUNITY CHARACTER

Elk Grove comprises several unique and defined neighborhoods with both urban and rural character. These neighborhoods feature parks, recreation centers, and high-quality schools that are valuable resources for the community. As the City matures and changes, established residential neighborhoods and amenities are intended to be preserved, with their land uses generally remaining consistent and their existing community character enhanced.

Notably, there is a large rural community in the eastern portion of the City, known as the Rural Area (see Figure 4-1). The Rural Area reflects Elk Grove's rural and agricultural heritage and culture and contributes to community values and diversity by offering residents a rural lifestyle characterized by ranch-style homes on large lots (2 acres or greater) with open space or farmland nearby. The Rural Area lacks the infrastructure typically found in an urban or suburban community, such as sidewalks, curbs and gutters, street lighting, or public water and sewer.

The areas identified in Figure 4-1 as Transition Areas are places characterized by a transition from the more urban areas to the Rural Area on the east side of the City. These areas may be designated as Estate Residential or Open Space to transition from the large lots in the Rural Area to the smaller Low-Density Residential lots. The primary purpose of Transition Areas is to buffer the Rural Area from higher-density development in the immediate vicinity.

LAND USE POLICY AREAS

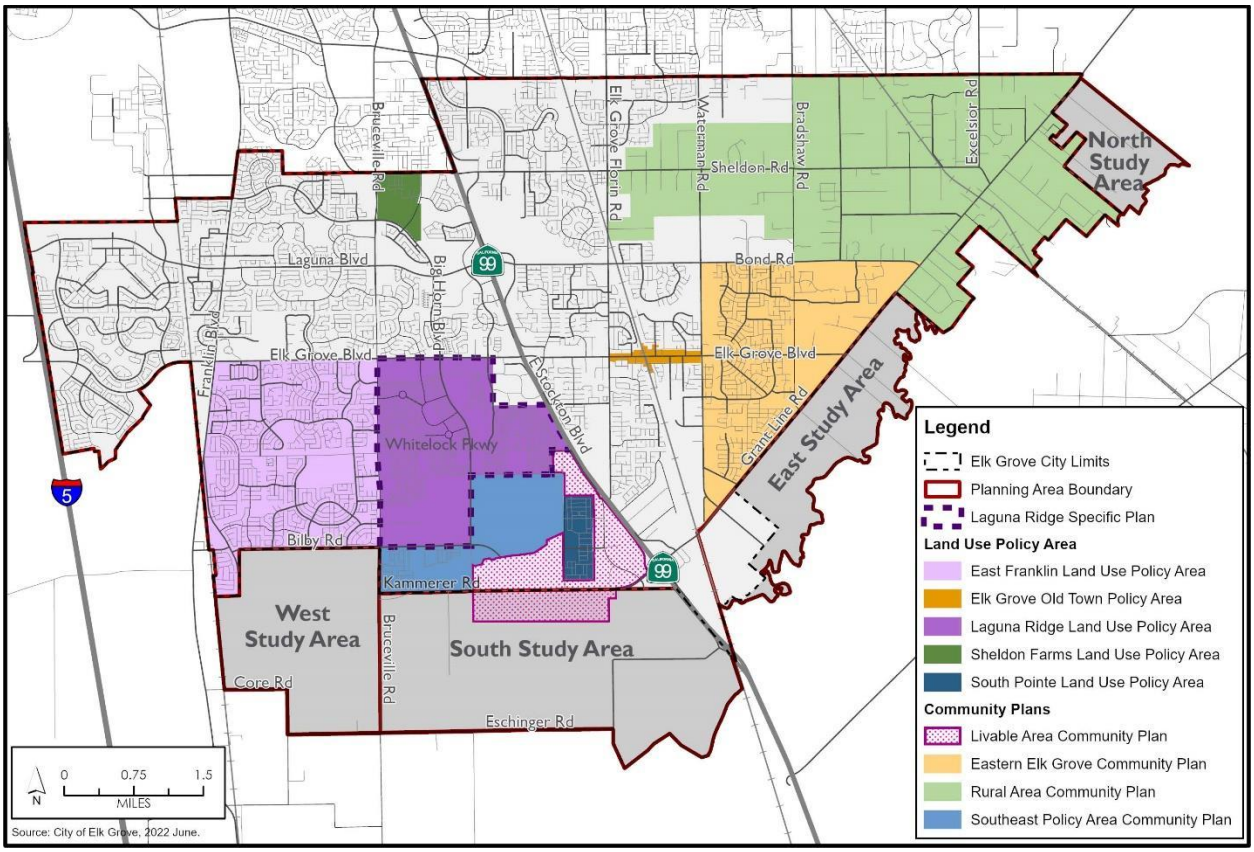
Further development guidance is provided for certain areas of the City through the establishment of Land Use Policy Areas. These Land Use Policy Areas are shown in Figure 4-2, and specific policies for each are contained in this chapter. The Land Use Policy Areas include:

- East Franklin Land Use Policy Area: This area encompasses 2,740 acres of land that includes parks, schools, shopping centers, and more than 10,000 homes. It is the successor to the East Franklin Specific Plan, which was adopted by Sacramento County in April 2000, just prior to City incorporation. The area has been developing since the early 2000s and is an established community with few remaining infill sites. Any new development should reflect the existing residential character and enhance its active transportation connectivity and neighborhood services and amenities.
- Laguna Ridge Land Use Policy Area: The Laguna Ridge area is addressed in detail in the Laguna Ridge Specific Plan. The General Plan designates land use categories for the Laguna Ridge area and requires that the Specific Plan be used to implement the General Plan policies for the area. The Laguna Ridge Specific Plan area is included in the General Plan as a Policy Area to ensure that the Specific Plan serves to implement the policy direction of the General Plan for Laguna Ridge.
- ~~Lent Ranch Land Use Policy Area: Located at the northwest corner of Kammerer Road and SR 99, the Lent Ranch Policy Area provides approximately 295 acres for regional retail, office, high-density residential, and entertainment uses. Development of the site is regulated by the Lent Ranch Marketplace Special Planning Area (SPA).~~
- Old Town Land Use Policy Area: This area encompasses a federally recognized Historic District and is the historic "center" of town. Infill development in Old Town should enhance the historic character and preserve it for current and future residents. To the extent feasible, infill should rehabilitate existing structures with minimal disruption to the lifestyle of residents. The development

of an activity center with regional shopping and entertainment opportunities is part of the City's vision for this area. Site development is regulated by the Old Town SPA.

- South Pointe Land Use Policy Area: The South Pointe area is an approximately ~~200~~180-acre site located between the SEPA Community Plan and the ~~Lent Ranch Policy Area~~Livable Employment Area Community Plan, ~~just~~ north of Kammerer Road and east of ~~(future)~~ Lotz Parkway. Residential development was approved on the site as part of the Sterling Meadows Subdivision in 2008. ~~Bilby Road, which runs through a portion of the area, is planned as the corridor for a new transit service. Portions of the site are appropriate for high-density commercial, and office uses, consistent with an Employment Center as defined in the *Economy and the Region* chapter (see Chapter 5), should existing approvals expire before construction.~~
- Sheldon Farms Land Use Policy Area: Sheldon Farms is an approximately 146-acre area made up of two sites, one of which ~~was~~is, as of ~~2018~~2021, ~~vacant~~ being developed~~and the other rural residential~~. The sites are planned to contain a mixed-use village, a range of residential densities, and open space uses. Development of this area will support expanded and future transit services. Development should include street-level retail, access to transit, and should be designed to enhance walkability.

FIGURE 4-2: COMMUNITY PLAN AND LAND USE POLICY AREAS



COMMUNITY PLANS, SPECIFIC PLANS, AND SPECIAL PLANNING AREAS~~, AND COMMUNITY PLANS~~

~~The City has specific plans and SPAs, identified in the Zoning Code, that implement guidance for each Land Use Policy Area. A specific plan is a document designed to implement the goals and policies of the General Plan for a defined geographic area of the City by providing greater specificity for land use and infrastructure needs, design and development standards, and development phasing and implementation. The City of Elk Grove has one adopted specific plan, the Laguna Ridge Specific Plan. The primary focus of this plan has been to highlight the characteristics that are unique to Laguna Ridge and to customize the~~

~~planning process and land use regulations and requirements that apply to this area of the City. The Laguna Ridge Specific Plan relies on the existing development standards in the Zoning Code.~~

~~SPAs are a zoning too used to regulate property in areas throughout the City that have unique environmental, historic, architectural, or other features which require special conditions not provided through the application of standard zoning regulations. They may be used to protect certain resources in the City from incompatible land uses and to preserve and enhance areas with unique social, architectural, or environmental characteristics that require special considerations and are not adequately addressed by zoning districts. SPAs may establish development standards for minimum lot area, building setbacks, lot width and depth, and building height that differ slightly from Citywide development standards. Development is encouraged to incorporate a variety of housing designs and densities for these areas, such as mixed-use commercial/residential and garden homes. However, all new development shall maintain minimum densities based on the General Plan designation(s) for the area. The SPAs may allow for a greater variety of design treatments and densities.~~

~~Some areas of the City require more detailed policy guidance, which is contained in a community or area plan, as detailed in the Community and Area Plans chapter (see Chapter 9). Community plans differ from specific plans in that the former are part of a city's general plan and contain development policies for a defined area, while the latter are separately adopted documents (not a component of the general plan) with a focus on the implementation of general plan policies. In Elk Grove, community plans include:~~

- ~~SEPA Community Plan~~
- ~~Elk Grove Rural Area Community Plan~~
- ~~East Elk Grove Community Plan~~

Some areas of the City require more detailed policy guidance than the broader policies of the General Plan require. To address this, the City has a variety of tools from which to draw upon. The first is a community or area plan, which is part of this general plan and contains development policies exclusively for that defined area in Elk Grove. The City's community plans include:

- Livable Employment Area Community Plan
- Southeast Policy Area (SEPA) Community Plan
- Elk Grove Rural Area Community Plan
- East Elk Grove Community Plan

The next tool is a specific plan, which is a document designed to implement the goals and policies of the General Plan for a defined geographic area of the City by providing greater specificity for land use and infrastructure needs, design and development standards, and development phasing and implementation. Specific plans differ from community plans in terms of the level of detail and relationship to the General Plan. Where community plans are part of the General Plan (and, therefore, focus more on policy), a specific plan is an implementation tool of the General Plan and is subject to specific State and local content requirements, including a phasing and financing strategy. Specific Plans also incorporate details on infrastructure requirements and, as such, are a good one-stop-shop for summarizing how development will occur within a given area. The City prefers that a specific plan rely on the development standards provided in the Citywide Zoning Code, rather than including deviations or creating new zones. Elk Grove has two adopted specific plans, the Laguna Ridge Specific Plan and the Southeast Industrial Area Specific Plan.

SPAs are a zoning tool used to regulate property in areas throughout the City that have unique environmental, historic, architectural, or other features which require special regulations not provided through the application of standard zoning regulations. They may be used to protect certain resources in the City from incompatible land uses and to preserve and enhance areas with unique social, architectural, or environmental characteristics that require special considerations and are not adequately addressed by zoning districts. SPAs may establish development standards for minimum lot area, building setbacks, lot width and depth, and building height that differ slightly from Citywide development standards. Development is encouraged to incorporate a variety of housing designs and densities for these areas, such as mixed-use commercial/residential and garden homes. However, all new development shall maintain minimum

densities based on the General Plan designation(s) for the area. The SPAs may allow for a greater variety of design treatments and densities. A listing of the SPAs in the City may be found in the Zoning Code.

COMMUNITY DESIGN

Elk Grove desires high-quality public spaces. In addition to preserving the existing character of the community through Land Use Policy Areas and Community Plans, this chapter includes general policies to enhance public spaces, including both the public right-of-way and the built elements that define streets as public spaces. Attractive community design is promoted through streetscape design and integrated architectural style requirements, pedestrian amenities, and placemaking components such as public art and community gateways, the details of which are often determined through specific design guidelines and zoning requirements.

JOB CREATION

Because Elk Grove has historically functioned as a bedroom community, many residents work elsewhere, and the City has a lower number of jobs as compared to residents. Additional commercial, office, and retail uses would increase the jobs/ housing ratio by boosting the number of jobs available in the City. This in turn would reduce commute times for some residents who could choose to work locally.

The range and distribution of land uses influence a city's economic conditions, including the number and types of jobs and the potential for economic development. The City desires to foster economic opportunity through carefully planned and coordinated urban and rural development. Land use policies and regulations in urban areas to encourage activity nodes and employment centers can create employment opportunities in various sectors, including professional services, healthcare, and technology. Similarly, land use policies in rural areas can foster agricultural production and agritourism-related jobs. The Economy and the Region chapter (see Chapter 5) of this General Plan includes further direction, goals, and policies to enhance economic development in Elk Grove.

JOBS AND HOUSING NEEDS

An appropriate balance between jobs and housing can enhance the quality of life and improve environmental conditions. However, because the City is located at the edge of the Sacramento region, adding new jobs in Elk Grove without also adding new housing could be problematic as it could cause new commute patterns where employees who live elsewhere in the region are attracted towards Elk Grove for employment opportunities. Further, if the jobs added within the City are not matched to the skill set of employees who reside in the City, workers will continue to commute to jobs outside Elk Grove despite these job gains. Additional housing in Elk Grove will allow greater flexibility for workers who choose to live closer to their places of employment. Conditions that support a variety of housing types for all income levels will allow Elk Grove to continue to serve an important role as a residential community.

ACCESSIBLE SERVICES AND AMENITIES

There is an important link between the diversity of land uses, job creation, and the accessibility of goods, services, entertainment, and amenities. In the past, residents of Elk Grove may have had to travel to other areas of the county to meet their daily needs for shopping, services, and entertainment. The City's Land Use Plan and policies now promote the development of activity centers, a greater mix of land uses, and easy access by pedestrians and bicyclists to these centers. The intended results are to facilitate easier access for residents to quality amenities and services and to limit the number and length of car trips.

PRESERVING AGRICULTURE

The City is committed to retaining the community's farming heritage, and preserving the Rural Area is a fundamental part of the City's housing and economic development strategy. The City recognizes that preserving large lots and rural infrastructure is an important strategy to balance new infill development within the existing City limits. In addition to supporting residents' desire for a rural lifestyle, the City supports related economic activities such as farmers markets, harvest events, and farm-to-fork dining.

GOALS AND POLICIES: LAND USE GOAL

LU-1: A COORDINATED DEVELOPMENT PATTERN

The City recognizes the value of using its authority to regulate land use in Elk Grove, the location and configuration of new development, and the design of public and private buildings and facilities to create an attractive, vibrant community that fulfills the goals expressed in the General Plan. The Planning Framework chapter (see Chapter 3) includes the Land Use Diagram (see Figure 3-4), which illustrates the planned uses for lands in Elk Grove and the Study Areas outside the City limits. The following policies provide further direction for new development in the City. To reinforce Elk Grove's commitment to fostering more complete urban spaces and employment centers while preserving traditional neighborhoods and rural areas, the following policies promote the City's economic well-being by setting aside lands for uses that will generate employment. The policies also promote the creation of safe, livable, and complete neighborhoods where daily activities may be accomplished within a short walking distance.

Policies: Development Pattern

Also consult Chapter 7: Community and Resource Protection for Air Pollutant Emissions Requirements policies related to buffering for sensitive land uses and odor-producing uses; Chapter 8: Services, Health and Safety for policies related to siting and land uses in areas subject to hazards; *Chapter 9 Community and Area Plans* for policies related to sub-areas of the City; and *Chapter 5: Economy and the Region* for Local Employment Opportunities policies.

Policy LU-1-1: Reference the land use designation descriptions and Table 3-1 Consistency Matrix, as identified in the *Planning Framework* chapter (see Chapter 3), in the assignment of zoning categories and in the review of proposed projects.

Policy LU-1-2: Foster development patterns that will achieve a complete community in Elk Grove, particularly with respect to increasing jobs and economic development and increasing the City's jobs-to-employed resident ratio while recognizing the importance of housing and a resident workforce.

Policy LU-1-3: Multifamily housing development should be located according to the general criteria as identified in Policy H-1-3 (see page 4-45).

Policy LU-1-4: Land uses in the vicinity of areas designated as Heavy Industry should include transitions in intensity, buffers, or other methods to reduce potential impacts on residential uses. Buffers may include land designated for other uses, such as light industry, commercial, or open spaces.

Policy LU-1-5: To support intensification of identified growth areas, restrict new development on properties in rural and transitional areas.

Policy LU-1-6: Support the development of neighborhood-serving commercial uses adjacent to residential areas that provide quality, convenient, and community-serving retail choices in a manner that does not impact neighborhood character.

Policy LU-1-7: Encourage disclosure of potential land use compatibility issues including but not limited to noise, dust, and odors, in order to provide potential purchasers with complete information to make informed decisions about purchasing property.

Policies: Employment Land Uses

Policy LU-1-8: Seek to designate sufficient land in all employment-generating categories to provide opportunities for Elk Grove's working population and jobs in categories matching resident's employment level.

Policy LU-1-9: Encourage employee-intensive commercial and industrial uses to locate within walking distance of ~~fixed~~ high-frequency transit stops. Encourage regional public transit providers to provide or increase coordinated services to areas with high concentrations of residents, workers, or visitors.

Policy LU-1-10: The City discourage changes in the land use map that reduce or eliminate properties designated for employment uses, while at the same time encourage the development of employment uses within mixed-use areas.

GOAL LU-2: A FOCUS ON INFILL

Properties that are vacant or in some way underutilized and surrounded by development on multiple sides are considered potential infill sites by the City, as generally illustrated in Figure 4-1. The City supports the development of these infill sites into economically viable projects that contribute to the community's overall fabric. These sites can contribute space for offices, manufacturing, or light industrial employment, satisfy the retail and service needs of the surrounding neighborhood, and/or provide for the housing needs of the community.

Policies: Infill Development

Policy LU-2-1: Promote a greater concentration of high-density residential, office commercial or mixed-use sites and the population along identified transit corridors and existing commercial corridors, in activity centers, and at other appropriate locations.

Policy LU-2-2: Support new development within the existing City limits by investing in public infrastructure.

Policy LU-2-3: Prioritize and incentivize development in infill areas identified in Figure 4-1.

Policy LU-2-4: Require new infill development projects to be compatible with the character of surrounding areas and neighborhoods, support increased transit use, promote pedestrian and bicycle mobility, and increase housing diversity.

GOAL LU-3: EXPANSION WITH PURPOSE

As described in the Planning Framework, four Study Areas have been identified for potential expansion of the City limits, as illustrated in Figure 4-3. It is the City's desire that these Study Areas provide an option for future development when there is a demonstrated community benefit or need. While the Study Areas include classified as Farmland of Statewide or Local Importance as of 2018, the City recognizes that there are limited opportunities for planned, orderly, and efficient future development other than in these areas. Development in the Study Areas may offer opportunities to achieve the City's Community Vision that may not otherwise be accomplished through development within the existing City limits.

The City will review all sphere of influence amendment applications, annexation applications, prezoning requests, specific plans or area plans, subdivision maps, and development agreements relative to both general siting criteria that apply to all Study Areas and the applicable Land Use Program for each Study Area. Proposed projects deemed to be consistent with the general siting criteria and applicable Land Use Program may be considered consistent with the General Plan and may not require a General Plan Amendment. Where the City identifies an inconsistency, a General Plan Amendment will be necessary prior to or in conjunction with approval of any subsequent development application(s).

Future development of the Study Areas will require the creation of new and expanded infrastructure. The City intends for new development to ensure availability of adequate infrastructure as part of all phases of development consistent with the General Plan, which may require both on-site and off-site improvements. Further, it is the City's expectation that the costs associated with development, maintenance, and operation of this infrastructure and related City services be sufficiently funded by the proposed development and not create a burden on existing residents and businesses.

Policies: Study Area Organizing Principles

Policy LU-3-1: Ensure that future development in the Study Areas is consistent with the City's Vision and Supporting Principles by implementing the Study Area organizing principles provided herein.

Study Area Organizing Principles

The City envisions that future development within the Study Areas will occur within a broader organizing framework of land use principles (referred to as organizing principles). Development shall occur within one or more of the following three districts, which are described in more detail on the following pages.

1. Activity District, which focuses on higher densities and intensities of retail, services, employment, and residential uses.
2. Residential Neighborhood District, where residential development, with neighborhood-serving retail and parks and schools, occurs.
3. Open Space/Conservation District, which includes large urban parks, open spaces, and agriculture-related uses.

Figure 4-4, *Conceptual Illustration of General Siting Criteria*, illustrates how these districts and other community components (including parks and roadways) shall generally be organized. This graphic is included primarily for illustrative purposes and does not reflect any specific development proposal. As future land planning and development entitlements occur, these districts, as they are found in each Study Area, will be refined into the specific land use designations of this General Plan. Development in each district shall comply with the general standards below, as well as with specific Land Use Programs unique to each Study Area.

Policies: Activity District General Components

The Activity District includes higher densities and intensities of retail, services, employment, and residential uses. Activity Districts should be linked and supported by an interconnected network of streets and open spaces, with residential uses located within walking distance, facilitating options such as transit, biking, and walking for access to services and to the Residential Neighborhood District areas. **Figure 4-4** illustrates how various land uses and public spaces (e.g., streets) are intended to work together to implement this concept. This graphic is included primarily for illustrative purposes and does not reflect any specific development proposal. Each Activity District will have one or more activity nodes, which represent the center of commercial or employment uses, typically located at a major intersection or near a transit stop.

Policy LU-3-2: Employment land uses in Activity Districts should meet the following guidelines:

- Regional Commercial and Employment Center uses should be located along major arterial roadways and generally within one-quarter mile of major intersections and/or planned or existing transit stops.
- Community Commercial uses larger than 15 acres should be located along collector and arterial roadways, and adjacent to Mixed Use, Medium Density Residential, or High Density Residential uses.
- Regional Commercial and Community Commercial uses should be sited within walking distance (generally one-half mile) of planned or existing transit stops.
- Uses that may generate very high service populations (employees and/or customers) should be located within one-quarter mile of planned or existing transit stops.
- Heavy Industrial and Light Industrial uses should be buffered from Residential uses by Public Service, Open Space, or Commercial uses.

Policy LU-3-3: ~~Mixed-use~~ Transect-based land uses in Activity Districts ~~should~~ shall implement ~~meet~~ ~~the following guidelines:~~ the provisions of the *Livable Employment Area Community Plan* as provided in Chapter 9 and the provisions of the corresponding zoning designations.

- ~~Publicly accessible community gathering spaces such as central plazas should be included.~~
- ~~Vertical (multistory) mixed-use projects should include retail or service uses on the first floor fronting the street, where economically feasible.~~

- ~~Mixed-use projects should be located within one-quarter mile of major intersections and planned or existing transit stops.~~
- Parking should be located internally on the site, as opposed to fronting on public roads where feasible; structured parking is encouraged where feasible.

Policy LU-3-4: Residential land uses in Activity Districts should meet the following guidelines:

- High Density Residential uses shall be located within one-quarter mile of major intersections and planned or existing transit stops.
- Housing should be buffered via building designs or other features from uses that produce loud noises that frequently exceed 65 decibels.

Policy LU-3-5: Public and Quasi-Public land uses in Activity Districts should meet the following guidelines:

- Acreages for parks shall meet or exceed the minimums required by City and/or Cosumnes Community Services District standard(s).
- Acreages for Public Services land uses shall meet or exceed the minimums required by any applicable standards, including land to support future school sites.
- Proposed development projects should maximize efficiency of service delivery. New development should be located adjacent to existing development and should be connected or linked to uses with similar service and utility needs.
- Schools, community centers, and park and recreation sites shall be connected to nearby residential neighborhoods through separated pedestrian and bicycle pathways.
- Consistent with the Park Design Principles adopted by the Cosumnes Community Services District and the City, local and neighborhood parks shall be located within residential areas and not along arterial roads. Community parks may be located on arterials.

Policies: Residential Neighborhood District General Components

The Residential Neighborhood District includes a range of densities and housing types, as well as lower-density mixed-use and neighborhood-serving commercial, service, and retail uses. It also includes schools and parks. The district should be linked and supported by an interconnected network of streets and open spaces, facilitating options such as transit, biking, and walking for access to services within the district and to Activity Districts.

Policy LU-3-6: Employment and Mixed Use land uses in Residential Neighborhood Districts should meet the following guidelines:

- Serve the neighborhood by providing for services, goods, or entertainment desired by the district's residential population.
- Be located within one-half mile of major intersections and planned or existing transit stops.
- Fit with the surrounding neighborhood character.

Policy LU-3-7: Residential land uses in Residential Neighborhood Districts should meet the following guidelines:

- Rural Residential uses should be buffered from higher-intensity uses with Open Space, Community Commercial, or Estate or Low Density Residential uses.
- Low Density Residential uses should not be located adjacent to Heavy Industrial land uses.
- Medium and High-Density Residential uses should be located within one-half mile of planned or existing transit stops, planned or existing commercial uses, and planned or existing Parks or Open Space areas.
- Agriculture uses should be buffered from higher-intensity uses that may result in conflict, including residential uses in the Estate Residential land use designation and those uses of higher density. Buffering should occur within new development areas and shall include interim buffers for phased development such that the physical and economic integrity of agricultural lands is maintained.

Policy LU-3-8: Public and Quasi-Public land uses in Residential Neighborhood Districts should meet the following guidelines:

- Acreages for parks shall meet or exceed the minimums required by City and/or Cosumnes Community Services District standard(s).
- Acreages for Public Services land uses shall meet or exceed the minimums required by any applicable standards, including land to support future school sites.
- Proposed development projects should maximize efficiency of service delivery. New development should be located proximate to existing development and should be connected or linked to uses with similar service and utility needs.
- Schools, community centers, and park and recreation sites shall be connected to nearby residential neighborhoods through separated pedestrian and bicycle pathways.

Policies: Open Space/Conservation District General Components

The Open Space/Conservation District includes large urban parks, open spaces, agriculture-related uses, and natural resources such as rivers or streams and related floodplains. Only agriculture-related uses, public buildings, and public infrastructure, including parks and open space, should be located in this district. The district should be linked by a robust network of access trails and paths for biking and walking to Residential Neighborhood Districts and Activity Districts, unless such infrastructure would disrupt the rural character or resource conservation efforts.

- **Policy LU-3-9**: Public, Open Space, and Conservation land uses in Open Space/Conservation Districts should meet the following guidelines: Provide a buffer between residential, commercial, and industrial uses.
- In areas designed to promote open space or recreational uses over conservation uses, provide nonvehicular access points within one-half mile of all residential uses.
- Be publicly accessible and, where feasible, be integrated with surrounding land uses.
- Maximize connectivity for both humans and animal life by connecting to an integrated network of passive and active open space corridors and uses.
- Contain all areas located in the 100-year or 200-year floodplain, unless this would result in “islanding” of higher-density land uses. Areas located in the 100-year or 200-year floodplain shall be retained for agriculture if it is the existing use, continues to be economically viable, and would not result in islanding of higher-density land uses. Policy

LU-3-10: Public and Quasi-Public land uses in Open Space/ Conservation Districts should meet the following guidelines

- Acreages for parks shall meet or exceed the minimums required by City and/or Cosumnes Community Services District standard(s).
- Acreages for Public Services land uses shall meet or exceed the minimums required by any applicable standards, including land to support future school sites.
- Proposed development projects should maximize efficiency of service delivery. New development should be located adjacent to existing development and should be connected or linked to uses with similar service and utility needs.
- Schools, community centers, and park and recreation sites shall be connected to nearby residential neighborhoods through separated pedestrian and bicycle pathways, unless such infrastructure would disrupt rural character or resource conservation efforts.

Policies: Study Area Land Use Programs

Policy LU-3-11: Ensure that future development in the Study Areas is consistent with the City’s Vision and Supporting Principles by implementing the Study Area Land Use Programs, as follows:

Study Area Land Use Programs

The Land Use Programs guide the appropriate balance between land development and conservation in each Study Area, using the organizing principles as a basis. The Land Use Programs will be used to guide the approval and development of individual projects in a manner that promotes long-term achievement of

the Community Vision and Supporting Principles. The Land Use Program for each Study Area consists of the following:

1. General development objectives, describing the vision for the individual Study Area.
2. Conceptual land use character graphics that illustrate the appropriate siting of the various Land Use Districts.
3. Land Use Program standards, which describe the future land use designations that will implement the Land Use Districts and the desired land use range (based on the gross acreage of the individual Study Area).

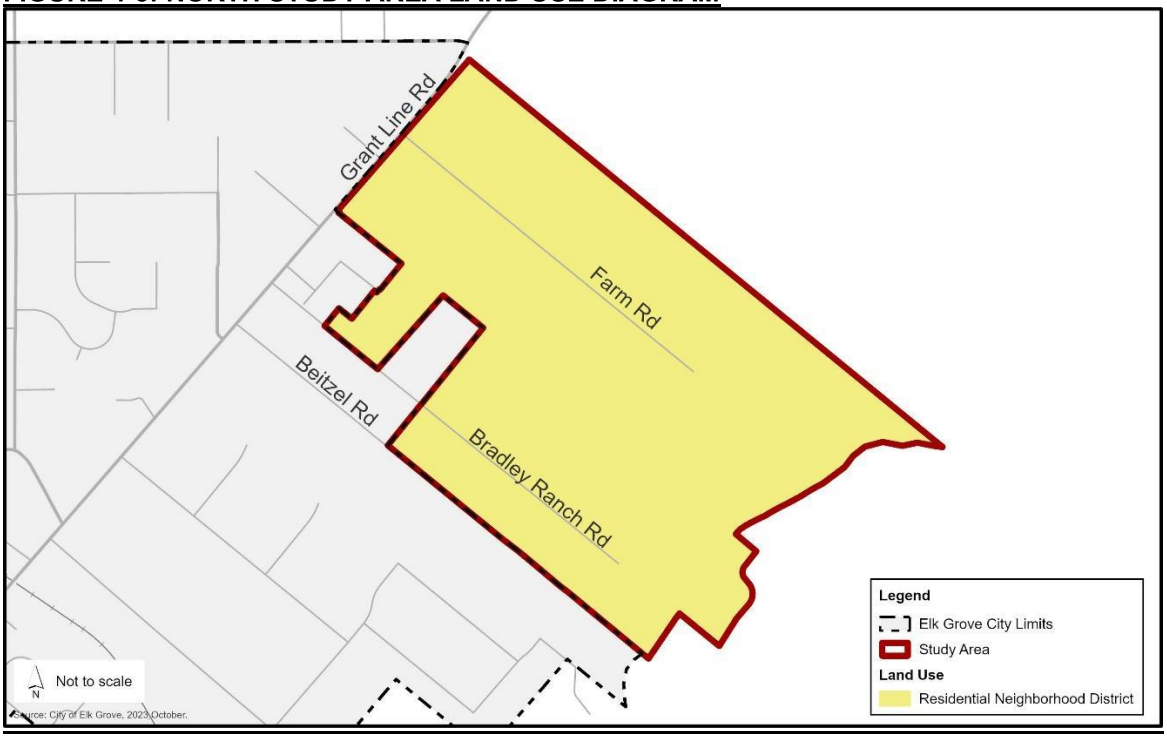
Policies: North Study Area Development Pattern

The North Study Area and the location of Land Use Districts within it are shown in Figure 4-5. The planning objective for the North Study Area is to create a rural residential neighborhood consistent with, and as an extension of, the Elk Grove Rural Area Community Plan. Only Rural Residential development and agriculture-related uses will be allowed in the Study Area.

The Capital SouthEast Connector is located along the northwestern boundary of the North Study Area (Grant Line Road). See the Mobility chapter (Chapter 6) for policies related to the transportation network.

Policy LU-3-12: Ensure that land use plans submitted for properties in the North Study Area are consistent with the following Land Use Diagram (Figure 4-5) and program standards (Table 4-1).

FIGURE 4-5: NORTH STUDY AREA LAND USE DIAGRAM



No changes to Table 4-1

Policies: East Study Area Development Pattern

The East Study Area and the location of Land Use Districts within it are shown in Figure 4-6. The planning objective for the East Study Area is to create a mix of employment activities in the southwest area that transition to residential neighborhoods towards the northeast. Employment uses will function as an

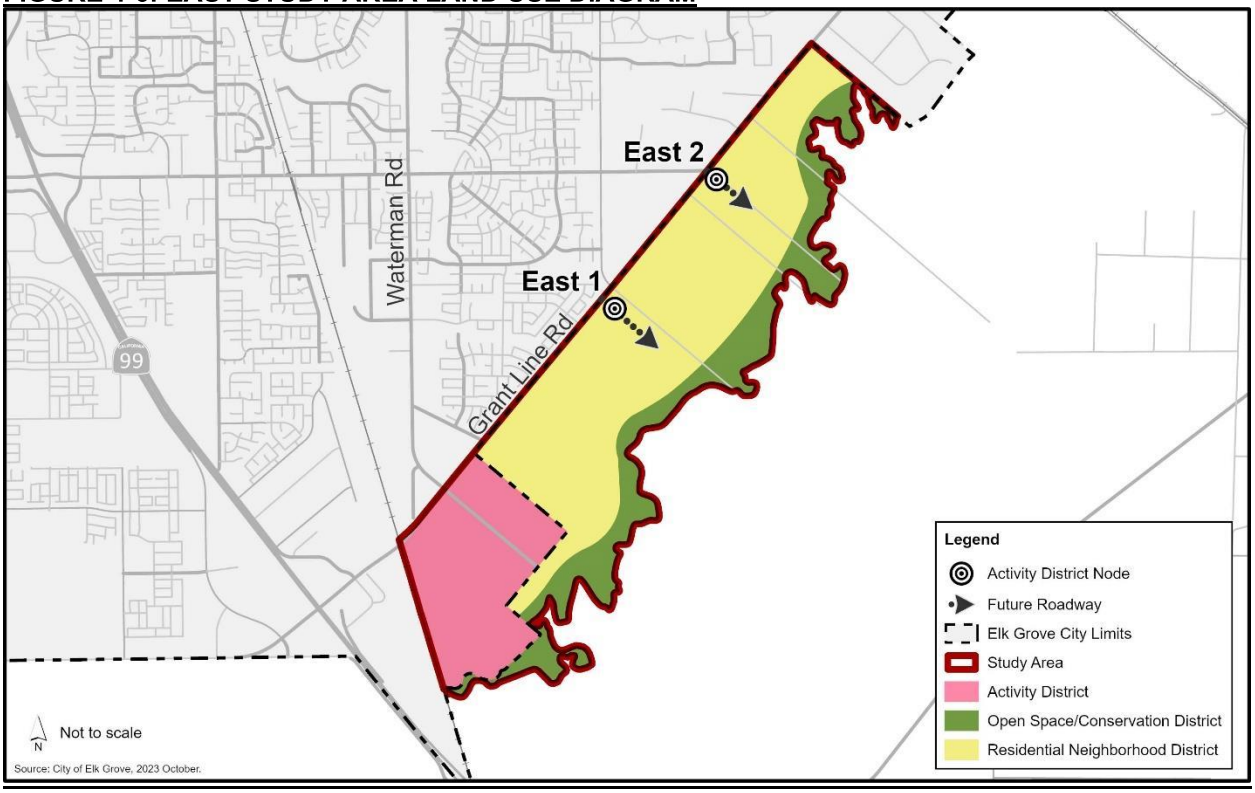
extension adjoining industrial development to the north/northwest. The employment uses envisioned for the East Study Area will focus on industrial, office, and regional retail uses and include a regional recreation and sports center.

In the central and northeastern portions of the East Study Area, uses will transition to residential neighborhoods that are compatible with existing neighborhoods to the north of Grant Line Road, as well as with the rural and agricultural areas located to the northeast and southeast. Opportunities for community-oriented commercial uses exist at major intersections along Grant Line Road at Bradshaw Road and Elk Grove Boulevard.

The Capital SouthEast Connector is located along the northwestern boundary of the East Study Area (Grant Line Road). See the Mobility chapter (Chapter 6) for policies related to the transportation network.

Policy LU-3-13: Ensure that the land use plans submitted for properties in the East Study Area are consistent with the following Land Use Diagram (Figure 4-6) and program standards (Table 4-2).

FIGURE 4-6: EAST STUDY AREA LAND USE DIAGRAM



No changes to Table 4-2

Policies: South Study Area Development Pattern

The South Study Area and the location of Land Use Districts within it are shown in Figure 4-7. The planning objective for the South Study Area is to serve as a second phase of the Livable Employment Area ~~create a new major employment activity center~~ that builds off of development to the north~~SEPA's business parks and meets SACOG's MTP/SCS standards for a Major Employment Center, comprising high-intensity office, industrial flex space, and light industrial uses~~. The balance of the activity center ~~should include a range of Village Center Mixed Use, Medium Density Residential, and High Density Residential neighborhoods with strong transit access~~ shall focus on industrial and other regional uses. ~~Along with higher-density uses, there~~ There must also be easily accessible open space areas, parks, recreational sites, and public services

available to residents and workers. The Open Space/Conservation District will maintain agricultural lands for the long term and serve as a buffer to the Cosumnes River. The Residential Neighborhood District will allow for a range of residential neighborhoods. Development proximate to the existing Eschinger Road will serve as a buffer to the agricultural land south of the Study Area. From a circulation perspective, parallel access to Kammerer Road will be via a new arterial located approximately halfway between Kammerer Road and Eschinger Road (an extension of Willard Parkway from the west). Eschinger Road will maintain its rural character and not serve as an arterial into the Study Area.

Policy LU-3-14: Ensure that land use plans submitted for properties in the South Study Area are consistent with the following Land Use Diagram (Figure 4-7) and program standards (Table 4-3).

FIGURE 4-7: SOUTH STUDY AREA LAND USE DIAGRAM

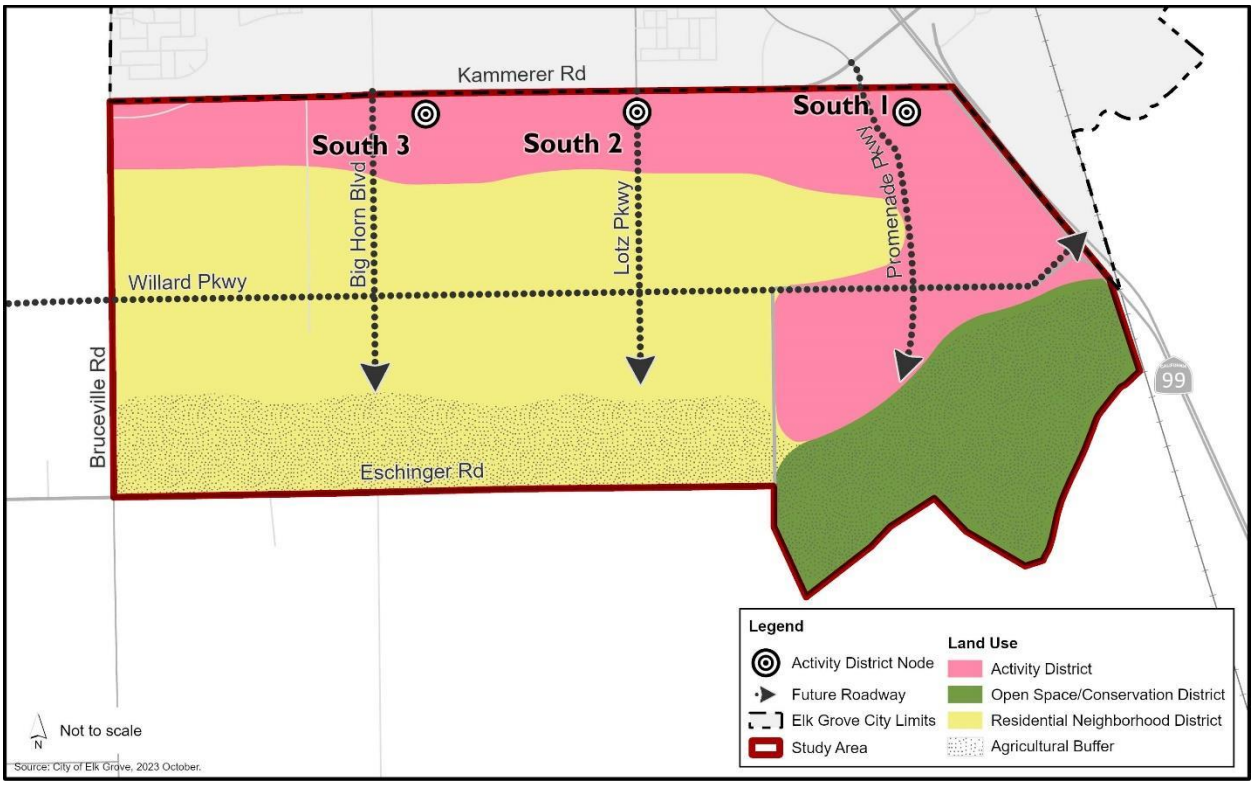


Table 4-3:
South Study Area Land Use District Program Standards

Land Use District	Designations Allowed In District	Desired Land Use Range (Gross Acreage Basis)[1, 2]	
Activity District	Community Commercial (CC)	~~3%-8%~~ 1.5%-2%	~~110-295~~ 50-75 acres
	Regional Commercial (RC)		
	~~Employment Center (EC)~~	~~5%-10%~~	~~180-370acres~~
	~~Light Industrial/Flex (LI/FX)~~	~~3%-8%~~	~~110-295 acres~~
	~~Light Industrial (LI)~~		
	~~Heavy Industrial (HI)~~		
	~~Residential Mixed Use (RMU)~~	~~1%-5%~~	~~35-185 acres~~
	~~Village Mixed Use (VCMU)~~		
	Employment Center (EC)	8%-11%	300-400 acres
	Light Industrial/Flex (LI/FX)		
	Light Industrial (LI)		

	Heavy Industrial (HI)		
	General Neighborhood Residential (T3-R)	1.5%-2%	50-70 acres
	Neighborhood Center Low (T3)	1.5%-2%	60-75 acres
	Neighborhood Center Medium (T4)	1%-1.5%	30-50 acres
	Neighborhood Center High (T5)		
	High Density Residential (HDR)	1%-3% or as needed to meet RHNA	~~35-110~~ 20-50 acres
	~~Public Services (PS)~~	~~1%-3% or as needed to support land uses~~	~~35-110 acres~~
	Parks and Open Space (P/OS)	3%-6%	120-200 acres
Residential Neighborhood District	Community Commercial (CC)	~~1%-5%~~ 1%-2%	~~35-185~~ 35-75 acres
	Rural Residential (RR)	~~45%-50%~~ 30%-38%	~~1,650-1,840~~ 1,100-1,400 acres
	Estate Residential (ER)		
	Low Density Residential (LDR)		
	Medium Density Residential (MDR)	6%-8%	225-300 acres
	High Density Residential (HDR)	1.5%-3%, or as needed to meet RHNA	40-100 acres
	~~Medium Density Residential (MDR)~~	~~8%-13% or as needed to meet RHNA~~	~~295-480 acres~~
	~~High Density Residential (HDR)~~		
	~~Residential Mixed Use (RMU)~~		
	Parks and Open Space (P/OS)	5%-10% or as needed to support land uses	185-370 acres
	Public Services (PS)	~~1%-3%~~ 4%-6% or as needed to support land uses	~~35-110~~ 140-200 acres
	Resource Management and Conservation (RMC)	As needed to meet drainage requirements	TBD
Open Space/Conservation District	~~Resource Management and Conservation (RMC)~~	~~3%-8% or as needed to meet resource conservation standards and/or to provide floodplain buffer~~	~~110-295 acres~~
	~~Public Services (PS)~~	~~1%-3% or as needed to support land uses~~	~~35-110 acres~~
	Resource Management and Conservation (RMC)	8%-11%, or as needed to meet resource conservation standards and/or to provide floodplain buffer	300-400 acres
	Public Services (PS)		

Note:
1. Land use designations shall occur within the percentage range as listed. For those land uses with a percent range listed "as needed" or "or as needed," if an amount more than the stated range is required in order to achieve the necessary amount of parks or other public services needed to serve the development, or increased higher density housing to comply with the City's RHNA, the other land use percentages shall be adjusted, as determined by the City Council, in order to achieve the development pattern for this study area.

2. Acreage range provided is based upon the gross acreage of the study area and the percent range listed. Where a discrepancy occurs between the two, the percentage shall control.

Policies: West Study Area Development Pattern

The West Study Area and the location of Land Use Districts within it are shown in Figure 4-8. The planning objective for the West Study Area is to create ~~a~~ diverse, walkable residential neighborhood<u>s</u> featuring parks, public services, and lower-intensity employment opportunities. The Study Area will include a range of residential densities, including <u>High Density Residential,</u> Medium Density Residential, Low Density Residential, and Estate Residential housing. Development options rely on completing the extension of Kammerer Road to meet Interstate 5. <u>Willard Parkway shall extend south into the Study Area before turning east into the South Study Area.</u> Development proximate to the existing Eschinger Road and Core Road will serve as a buffer to the agricultural land south of the Study Area. Resource conservation land will also be located along waterways (e.g., Shed C channel) to protect water resources and guard against flood hazards.

Policy LU-3-15: Ensure that land use plans submitted for properties in the West Study Area are consistent with the following Land Use Diagram (Figure 4-8) and program standards (Table 4-4)

FIGURE 4-8: WEST STUDY AREA LAND USE DIAGRAM

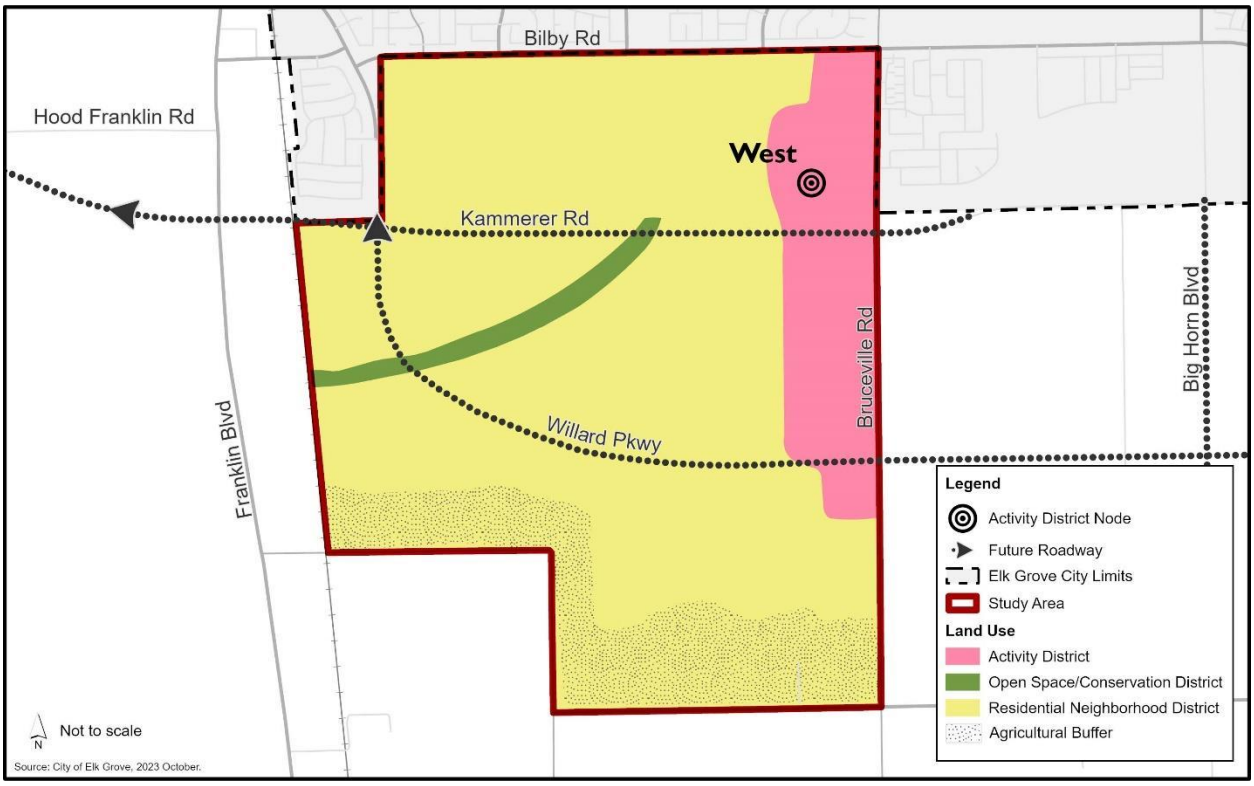


Table 4-4:
West Study Area Land Use District Program Standards

Land Use District	Designations Allowed In District	Desired Land Use Range (Gross Acreage Basis)[1, 2]	
Activity District	Community Commercial (CC)	1%-3%	20-60 acres
	Employment Center (EC)	~~3%-8%~~ 3%-5%	~~58-155~~ 60-100 acres
	High Density Residential (HDR)	~~1%-3%~~ 5%-8% or as needed to meet RHNA	~~20-60~~ 110-150 acres
	~~Public Services (PS)~~	~~1%-3% or as needed to support land uses~~	~~20-60 acres~~
Residential Neighborhood District	Community Commercial (CC)	1%-3%	20-60 acres
	Rural Residential (RR)	~~50%-55%~~ 50%-60%	~~950-1,050~~ 950-1,150 acres
	Estate Residential (ER)		
	Low Density Residential (LDR)		
	~~Medium Density Residential (MDR)~~	~~15%-20%~~	~~285-385 acres~~
	~~High Density Residential (HDR)~~		
	Medium Density Residential (MDR)	8%-10%	150-190 acres
	High Density Residential (HDR)	3%-5% or as needed to meet RHNA	60-100 acres
	Park and Open Space (P/OS)	~~5%-10%~~ 8%-15% or as needed to support land uses	~~95-190~~ 150-290 acres
	Public Services (PS)	~~1%-5%~~ 5%-8%or as needed to support land uses	~~20-95~~ 100-150 acres
Open Space/Conservation District	~~Resource Management and Conservation (RMC)~~	~~3%-8% or as needed to meet resource conservation standards and/or to provide floodplain buffer~~	~~60-115 acres~~
	~~Public Services (PS)~~	~~1%-3% or as needed to support land uses~~	~~20-60 acres~~
	Resource Management and Conservation (RMC)	2%-8% or as needed to support land uses	40-150 acres
	Public Services (PS)		

Note:
1. Land use designations shall occur within the percentage range as listed. For those land uses with a percent range listed "as needed" or "or as needed," if an amount more than the stated range is required in order to achieve the necessary amount of parks or other public services needed to serve the development, or increased higher density housing to comply with the City's RHNA, the other land use percentages shall be adjusted, as determined by the City Council, in order to achieve the development pattern for this study area.

2. Acreage range provided is based upon the gross acreage of the study area and the percent range listed. Where a discrepancy occurs between the two, the percentage shall control.

Policies: City Expansion Policy

LU-3-16: Support applications (both public and private projects which are in conformance with the General Plan) to the Sacramento LAFCo to expand the City's Sphere of Influence and corporate boundaries that implement this General Plan. Expansion of the City limits shall occur only within the identified Study Areas, as shown in Figure 4-3, when in conformance with the policies contained herein.

Policy LU-3-17: Seek to have the area outside of the City's Sphere of Influence but within the Planning Area designated as an Area of Concern, consistent with Sacramento LAFCo policy.

Policy LU-3-18: Work with Sacramento County to establish agreement(s) regarding Sphere of Influence amendments, a master tax sharing agreement applicable to future annexations, and potentially a master agreement relative to the fair share of regional housing needs.

Policy LU-3-19: Work with the Cosumnes Community Services District (and other affected agencies and independent districts, as necessary) to promote expansion of its Sphere of Influence and territory by LAFCo so that its services may continue to be provided to the residents of Elk Grove as annexations occur.

Policy LU-3-20: Prezone all properties subject to an annexation application prior to the initiation of an annexation application with LAFCo. The prezoning shall be consistent with the General Plan.

Policy LU-3-21: Accept annexation proposals when located within the City's Sphere of Influence and contiguous with the existing City limits at the time of application, providing a contiguous development pattern.

Policy LU-3-22: Identify a mitigation program for critical habitat for special status species known to occur within the Study Areas. A proposed project determined to have a significant impact to habitat for special status species shall implement all feasible mitigation measures established in the program, including but not limited to land dedication (which may be located either inside or outside the corresponding Study Area) or fee payment, or both.

Policy LU-3-23: Annex additional land into the City, as appropriate, where the proposed project implements the Community Vision and regional growth objectives.

Policy LU-3-24: Ensure that annexation proposals provide a demonstrated community benefit, such as incentives through the project that include transportation, utility, park, and other public improvements or that address mobility or service needs, or impact fees that support such improvements. The City may establish zoning incentives, density bonuses, or other land use tools where higher development potential may be allowed based on contributions toward desired community benefits. Policies: Annexation Criteria and Submittal Requirements

Policy LU-3-25: Allow expansion when economic need, the Community Vision, and regional goals align.

Policy LU-3-26: Require annexation proposals to demonstrate compliance with all of the following criteria:

- **Criteria 1**. The annexation proposal is consistent with the applicable Land Use Program and Study Area organizing principles.
- **Criteria 2**. The annexation proposal is consistent with the City's multimodal transportation goals, including integration of alternative transportation facilities as applicable.
- **Criteria 3**. The annexation proposal provides for the planned, orderly, efficient development of the City within near-term time frames, recognizing opportunities or limitations to achieving substantially the same project within the existing City consistent with the General Plan. Options to achieve this criteria include, but are not limited to, a market demand/feasibility analysis.
- **Criteria 4**. The annexation proposal is consistent with and furthers the Community Vision, as shown by demonstrating one or more of the following:
    - How the proposal furthers regional goals
    - How the proposal facilitates development of a regional attractor (e.g., Major Employment Center) or use that implements one or more of the General Plan Supporting Principles.
    - How the proposal furthers General Plan goals or objectives. - How the proposal provides key infrastructure or facilities needed to maintain or improve community service levels.

- **Criteria 5**. The annexation proposal does not reduce safety, utility, and infrastructure service levels within the City limits to less than the acceptable service standards or work level standards adopted by the City or the applicable service agency.
- **Criteria 6.** The annexation proposal identifies the source of future water supply for areas proposed for new development, in compliance with the Sustainable Groundwater Management Act.

Policy LU-3-27: Require that the following items be submitted with all annexation applications:

- Land Plan. A land plan addressing land use, circulation, infrastructure, public facilities, and public services for the subject property, and interfaces with planned facilities and services for the balance of the subject Study Area or the adjacent Study Area(s) or the existing City. Sufficient detail shall be provided to determine consistency with the applicable Land Use Program and allow for prezoning of properties.
- Infrastructure Plan. An infrastructure plan identifying the backbone infrastructure necessary to serve the subject property, and interfaces with planned facilities and services for the balance of the subject Study Area or the adjacent Study Area(s) or the existing City. A process for phasing of infrastructure shall be identified (if improvements are to be phased), and connections to existing and planned infrastructure beyond the limits of the subject property and/or Study Area may be required.
- Financing Plan and Fiscal Analysis. A financing plan and fiscal analysis indicating anticipated funding for the infrastructure identified in the infrastructure plan. The fiscal analysis shall evaluate the impact of development and the associated construction and maintenance of infrastructure on the City's general fund.
- Service Level Analysis. An analysis of service levels for safety, utility, and infrastructure facilities at buildout of the proposed land plan. The analysis will compare service levels at buildout of the proposed land plan with adopted City or agency service standards or established work level standards.
- Performance Standards. An analysis of the projected vehicle miles traveled (VMT) and greenhouse gas emissions for the proposed development.
- Market Study. A market study demonstrating demand for the uses identified in the land plan. The market study should consider the local and regional market as well as the availability and feasibility of sites located within the City limits that may support similar development.
- Supporting Principles. A list and discussion of which General Plan Supporting Principle(s) are implemented by the proposal and why. Particular attention should be given to meeting economic need, the Community Vision, and regional goals.

Policy LU-3-28: Except as otherwise determined by the City Council, require that applications for annexation be provided as specific plans. The format, content, and structure of each specific plan shall be consistent with State law and local regulations, to the satisfaction of the City. In considering if a specific plan will not be required, the City shall give consideration to the size of the project, the proposed mix of uses, and other factors as it deems relevant.

Policy LU-3-29: While the City encourages property owners within each Study Area to work together proactively and with the City to address common planning issues, each development/annexation proposal is not required to individually plan its entire Study Area.

Policies: Infrastructure Financing Policy

LU-3-30: When reviewing subsequent land use entitlements (e.g., tentative map, conditional use permit) that deviate from the land plan approved as part of an annexation process, the City may require an updated fiscal analysis if the proposed development materially varies from the development contemplated in the fiscal analysis prepared for the annexation, and/ or a substantial change in market or other financial conditions has occurred.

Policy LU-3-31: Only allow projects in growth areas that are proposed in tandem with infrastructure improvements that minimize potential burden from the new project to existing ratepayers.

Policy LU-3-32: Establish funding mechanisms for the expansion of public services and infrastructure to ensure new development is carrying its cost burden.

Policies: Service Levels

Policy LU-3-33: Ensure infrastructure and facilities are planned and designed to meet projected future demands.

Policy LU-3-34: Ensure backbone infrastructure and facility improvements are installed concurrent with projected development demands to meet adopted City or agency service standards or adopted work level standards.

GOAL LU-4: THRIVING ACTIVITY CENTERS

The City envisions continued development in specific areas to create multiple activity centers that could include some combination of civic, commercial, and recreational uses which will provide a central gathering space for community members. Activity center locations will include the Civic Center, Old Town, the Village Center of SEPA, the centers of the Livable Employment Area, ~~Lent Ranch,~~ Laguna Crossroads shopping center, the Activity Centers in the Study Areas, and others that may emerge as the City evolves. These activity centers are intended to provide central locations for community gathering and social activities, facilitate access to services and entertainment, and function as engines of economic growth and job creation. To reinforce and enhance the civic core, the City will improve pedestrian- and bicycle-oriented connectivity and support pedestrian-friendly commercial and other supporting uses in the area.

Each activity center will provide for a vertical or horizontal mix of land uses and be transit accessible. The exact locations and boundaries, as well as detail density and intensity, mix of land uses, and specific design and access requirements, are reflected in zoning requirements, design guidelines, and/or district development plans that will be developed for each area.

Policies: Activity Centers

Policy LU-4-1: Establish activity centers as community gathering places characterized by the following design element related actions:

- Devote portions of street frontage to commercial, cultural, and recreation uses to meet the needs of residents in nearby neighborhoods.
- Ensure development includes spaces available to the public for community events and gatherings.
- Prioritize pedestrian and bicycle access.
- Ensure local and regional transit connections are provided throughout each activity center.
- Provide a mechanism to ensure development occurs in line with a cohesive design theme established for each activity center.
- Incorporate public art in central locations.

GOAL LU-5: CONSISTENT, HIGH-QUALITY URBAN DESIGN

“Urban design” generally refers to the design of public and private buildings and spaces. Good urban design is essential in creating attractive, appealing, and livable districts and neighborhoods. The City recognizes that the public’s interest is served by ensuring that new development in Elk Grove is of a high level of design and quality.

Policies: Street-front Visual Character

Also consult Chapter 8: Services, Health and Safety for Utility Undergrounding policies which affect the visual character of right-of-way.

Policy LU-5-1: Ensure that new development reflects the City's desire to create a high-quality, attractive, functional, and efficient built environment.

Policy LU-5-2: Provide and implement regulations that encourage high-quality signage, ensure that businesses and organizations can effectively communicate through sign displays, promote wayfinding, achieve visually vibrant streetscapes, and control excessive visual clutter.

Policy LU-5-3: Reduce the unsightly appearance of overhead and aboveground utilities by requiring the undergrounding of appropriate services within the urban areas of the City.
Standard LU-5-3.a: New utility facilities should be located underground to the extent possible. Facilities to be placed underground should include electrical transformers (where consistent with the guidelines of the electrical utility), water backflow preventers, and similar items.

Standard LU-5-3.b: Require that existing overhead utility facilities be undergrounded as a condition of project approval. This shall include electrical service lines under 69kV. Electrical service lines of 69kV and higher are encouraged to be undergrounded.

Policy LU-5-4: Require high standards of architectural and site design, and apply strong design controls for all development projects, both public and private, for the enhancement and development of community character and for the proper transition between areas with different types of land uses. Design standards shall address new construction and the reuse and remodeling of existing buildings.
Standard LU-5-4.a: Nonglare glass shall be used in all nonresidential buildings to minimize and reduce impacts from glare. Buildings that are allowed to use semi-reflective glass must be oriented so that the reflection of sunlight is minimized. This requirement shall be included in subsequent development applications.

Policy LU-5-5: Improve the visual appearance of business areas and districts by applying high standards for architectural design, landscaping, and signs for new development and the reuse or remodeling of existing buildings.

Policy LU-5-6: When resources are available, seek to enliven the public right-of-way with attractive landscaping, public art, lighting, civic landmarks, sidewalk cafés, gateways, water features, interpretive/wayfinding signage, farmers markets, festivals, outdoor entertainment, pocket parks, street furniture, plazas, squares, or other amenities in spaces for public use.

Policy LU-5-7: Encourage incorporation of publicly accessible spaces, such as plazas or squares, into new commercial and mixed-use developments.

Policy LU-5-8: Require developers to provide pedestrian amenities, such as trees, lighting, recycling and refuse containers, seating, awnings, and/or art, in pedestrian areas along project frontages. Where appropriate, install pedestrian amenities in public rights-of-way.

Policy LU-5-9: Emphasize placemaking design principles in new development projects.

Standard LU-5-9.a: Prioritize the pedestrian by implementing the following measures:

- Minimize parking areas and curb cuts along commercial street frontages.
- Encourage a vertical and horizontal mix of land uses.
- Provide urban plazas and gathering spaces in commercial and multifamily development.
- Provide pedestrian amenities such as lighting, landscaping, and benches.

Standard LU-5-9.b: Encourage public art in all new large-scale development projects equal to or greater than 100,000 square feet.

Policy LU-5-10: Consider ways for the City to formally recognize examples of outstanding private development projects or practices, such as establishing an annual award program for architecture, site design, historical preservation, and/or landscaping treatment.

Policy LU-5-11: Design neighborhoods and buildings in a manner that is likely to prevent crime and provides security and safety for people and property when feasible.

Policies: Low Impact Development

Policy LU-5-12: Integrate sustainable stormwater management techniques in site design to reduce stormwater runoff and control erosion, during and after construction.

Standard LU-5-13.a: Where feasible, require on-site natural systems such as vegetated bioswales, green roofs, and rain gardens in the treatment of stormwater to encourage infiltration, detention, retention, groundwater recharge, and/or water reuse on-site.

GOAL LU-6: CONTEXT-APPROPRIATE DEVELOPMENT OF LAND USE POLICY AREAS

Land Use Policy Area: Old Town

Policy LU-6-1: Maintain and improve the aesthetic quality and architectural diversity of the Old Town historical district.

~~Land Use Policy Area: Lent Ranch~~

~~Policy LU-6-2: Support development of Lent Ranch to achieve a thriving activity center with distinct urban character.~~

~~Policy LU-6-3: Implement the Lent Ranch SPA with developments that meet the land use requirements and conform to the vision of the eight-district concept established therein.~~

Land Use Policy Area: Laguna Ridge

Policy LU-6-~~4~~2: Land uses in the Laguna Ridge Policy Area shall conform to the general layout of land uses shown in the Land Use Diagram in the Planning Framework (see Chapter 3).

Policy LU-6-~~5~~3: Development in the Laguna Ridge Policy Area shall take place under the guidance of a Specific Plan which includes land use designations, development standards, infrastructure standards, infrastructure plans, a financing plan, and design guidelines and implementation.

Policy LU-6-~~6~~4: The Laguna Ridge Specific Plan and any related implementation plans (including, but not limited to, capital facilities plans and public facilities financing plans) shall be consistent with this General Plan and shall be used to implement the land use and other policies of this General Plan.

Land Use Policy Area: Sheldon Farms

Policy LU-6-~~7~~5: Ensure that street fronts provide a positive pedestrian experience through street-level retail, appropriate setbacks, open window architecture, and pedestrian amenities.

Policy LU-6-~~8~~6: Support the development of transit-friendly land uses and densities in the Land Use Policy Area, consistent with the City-preferred alignment and station locations for fixed route transit.

Land Use Policy Area: South Pointe

Policy LU-6-~~9~~7: ~~Support potential changes to the South Pointe Policy Area that incorporate retail, office, and light industrial/flex land uses along Kammerer Road.~~Land uses in the South Pointe Policy Area shall conform to the land uses shown in the Land Use Diagram in the Planning Framework (see Chapter 3) and shall include a range of residential uses with parks and other public facilities.

~~**Policy LU-6-10**: Prioritize land development of the type and scale in the South Pointe Policy Area to allow for and support a fixed rail or bus rapid transit service with regional connectivity.~~

GOAL LU-7: AN ESTABLISHED, PROTECTED, AND SUPPORTED RURAL AREA

A defining feature of the Rural Area is the community's dedication to preserving the agricultural and rural lifestyle of the area as an important part of Elk Grove's heritage. Small farms and the keeping of livestock are allowed throughout the Rural Area. Residents of this area have generally indicated that they value preserving the rural feel of their community, as well as the existing type and character of infrastructure. The community recognizes that retaining its farming heritage is an important economic strategy. In addition to attracting residents who desire this lifestyle, certain economic activities are encouraged in the Rural Area, including farmers markets, harvest events, and farm-to-fork dining.

Detailed standards for development, roadway design, utilities, and land uses and zoning densities in the Rural Area are provided in the Sheldon/Rural Area Community Plan (see Chapter 9: Community and Area Plans).

Policies: Rural Area Preservation

Also consult Chapter 9: Community and Area Plans for policies specific to the ~~Sheldon/~~Rural Area

Policy LU-7-1: Development in the Rural Area shall take place under the guidance of a Sheldon/Rural Area Community Plan that includes land use designations, development standards, infrastructure standards, infrastructure plans, a financing plan, and design guidelines and implementation.

…

No changes to the Housing or Agricultural sections of this chapter

Changes to Chapter 5 (Economy and the Region)

Chapter 5 (Economy and the Region) shall be amended as follows:

Chapter 5 ECONOMY AND THE REGION

OVERVIEW

A healthy and sustainable economy is a critical component of Elk Grove's overall well-being and enables City government to achieve and sustain community goals, such as enhanced resident employment options, reduced commute times, and an overall higher quality of life through the generation of wealth in the community. A healthy economy also provides the City with needed revenue for infrastructure improvements, core City services, safety, and maintenance. A range of factors determine the economic health of a city, including the number and diversity of businesses, the number and diversity of jobs in relation to the resident workforce, levels of employment, resident income and wages, and resident and business spending patterns.

Elk Grove has a complex local economy; it is currently a bedroom community, but is also the second largest City in the Sacramento region. The City contains a highly educated multicultural resident population that primarily works in government, healthcare, education, and tech industries. The City is home for commuters who travel to other cities to work but has a significant and growing business base of its own that employs a mix of residents and imported daily workers.

In addition, there is a strong relationship between Elk Grove's local economy and that of the greater Sacramento and San Joaquin Valley regions, and the eastern portions of the Bay Area and Silicon Valley. The City's economy and its residents rely on the flow of jobs, goods, and capital from these surrounding areas. The success of these larger regions in attracting and retaining a diversity of companies and jobs affects Elk Grove in a multitude of ways, particularly given the relationship between many City residents and employment opportunities in other jurisdictions. How the City is positioned in the Sacramento region is especially important both politically and economically. The City benefits from coordination on regional economic development efforts with outside organizations and public agencies, such as Sacramento County, the City of Sacramento, the Sacramento Metropolitan Chamber of Commerce, the Sacramento Area Council of Governments, the Greater Sacramento Economic Council, and the San Joaquin Valley Partnership.

The City seeks to maintain and enhance many of the economic patterns present in the community today, while at the same time becoming a more self-sufficient and self-sustaining economy by:

- growing and diversifying its business and employment base;
- building up its emerging employment centers;
- supporting residents' commutes to employment centers outside the City, while also supporting opportunities to provide local employment options that reduce commute burdens;
- increasing residents' overall quality of life through better lifestyle amenities;
- establishing effective rural-urban connections that preserve both land use types;
- preserving Elk Grove's unique identity and heritage; and
- contributing to regional economic development and transportation goals.

The Economy and the Region chapter contains goals and policies addressing the following two topics, which are each assigned a two-letter acronym. Within each topic, the following goals further the Community Vision and Supporting Principles.

Economic Development (ED)

- **GOAL ED-1**: A Diverse and Balanced Mix of Land Uses
- **GOAL ED-2**: More Residents Employed Locally
- **GOAL ED-3**: Successful Local Businesses

Regional Coordination (RC)

- **GOAL RC-1**: A New Regional Employment Center
- **GOAL RC-2**: Strong Interagency Coordination on Economic Development Efforts
- **GOAL RC-3**: Regional Mobility and Infrastructure to Support the Local Economy

RELATIONSHIP TO OTHER CHAPTERS

The Economy and the Region chapter most closely relates to the Urban and Rural Development, Mobility, and Community and Resource Protection chapters, as follows.

- The Urban and Rural Development chapter (Chapter 4) presents policies related to land uses and development intensities allowed in various locations, which have major impacts on the number and types of businesses and jobs that exist or can exist in the City.
- The Mobility chapter (Chapter 6) lays out the City's policies for an efficient, multimodal transportation system. It is essential to have strong and well functioning transportation connections within the City and region, and between Elk Grove and other cities in the state and beyond, to ensure the efficient movement of people and goods on which a healthy economy depends. Providing a range of transportation modes for people to commute to work or school can support a thriving job market. Reducing traffic congestion also improves quality of life, which in turn contributes to a prosperous region.
- The Community and Resource Protection chapter (Chapter 7) includes policies to ensure the conservation and protection of natural and cultural resources, as well as other community assets that contribute to the quality of life in Elk Grove. The viability and strength of the local and regional economy depend on maintaining a clean, healthy environment and a vibrant community where people want to live and work. In turn, a robust economy ensures that the City and the community have the necessary resources to properly care for and protect the environment and other important resources.

SUPPORTING PRINCIPLES

The Economy and the Region chapter carries out the following Supporting Principles:

Our Economy Is Diverse & Balanced & Enhances Quality of Life. This principle calls for a strong, diverse, and balanced local economy that supports existing and prospective businesses, from large to small, and attendant job growth, revenue generation, and capital investment. The policies in this chapter aim to strengthen the economy in Elk Grove through a number of measures. These include increasing economic diversity by offering a broad range of companies, jobs, goods, and services in the City. In addition, the City seeks to attract new businesses in targeted industries including government, healthcare, corporate office, higher education, light and advanced manufacturing, and other types of industries (e.g., retail, entertainment, hospitality) that enhance resident quality of life.

Our Regional Neighbors Know Us & Our Contributions. This principle speaks to Elk Grove's place and function within the larger Sacramento region, and relationship to nearby regions such as San Joaquin Valley, the San Francisco Bay Area, and Silicon Valley. Since the economy in Elk Grove is strongly influenced by regional factors and trends, the policies in this chapter aim to enhance the City's prominence in the regional economy in a variety of ways. These include establishing a major regional employment center in Elk Grove pursuant to the regional transportation and land use strategy (discussed in further detail on pages 5-8 and 5-9); improving coordination between the City and regional agencies and organizations on economic development matters; and strengthening Elk Grove's linkages to the regional transportation network to support local economic development.

GOALS AND POLICIES: ECONOMIC DEVELOPMENT
THE LOCAL ECONOMY

Historical Economic Conditions
Elk Grove's economy was predominantly agricultural from the time of its founding in 1850 and continued that way for nearly a century. However, starting in the 1950s, job growth in Sacramento and elsewhere spurred a steady increase of residents to Elk Grove who commuted to Sacramento or other predominantly northern destinations for work—a trend that continues today. During the 1990s, Elk Grove's population grew by more than 70 percent, while corresponding job growth during that period was primarily happening in other parts of Sacramento County and the region. Sacramento County's General Plan vision for the unincorporated Laguna and Elk Grove Community Plan Areas was primarily that those communities would continue to function as suburbs of Sacramento.

The City of Elk Grove was incorporated on July 1, 2000, establishing control over land use and development services. In 2003, the City completed its first comprehensive General Plan, establishing a long-term vision for the community, including a desire to both preserve a rural lifestyle in portions of east Elk Grove and boost economic development and local employment. In 2011, the City established an Economic Development Department to facilitate economic growth in the community and ensure the success of its businesses.

Recent Jobs and Housing Trends
According to the City's 2016 Employment Dynamics Report, at the end of 2013 the City had 44,806 jobs at 8,710 business establishments. Between 2000 (the year the City incorporated) and 2013, the City added 6,603 businesses (net of known losses), an 8.7 percent average annual increase. Over the same period, the City added 29,601 jobs (net of known losses), an 11.5 percent average annual increase. Only 11 percent of job growth and 5 percent of business growth was due to annexation. At the end of 2013, Elk Grove's 25 largest employers employed 34.4 percent of the City's total employment base, 65 percent of businesses employed less than 150 people, and 37 percent of businesses and 11 percent of jobs were home-based.
Elk Grove was impacted by the national housing and banking crisis known as the Great Recession in the late 2000s, similar to other communities in California and throughout the country. From an employment standpoint, however, Elk Grove was impacted only modestly.

By the early 2010s, the local economy began to recover from the recession. Elk Grove added 11,499 jobs and 2,705 businesses between 2009 and 2013.1 The largest employers are a mix of public and private entities, including educational institutions, healthcare institutions, major retailers, and technology companies.

Elk Grove's jobs/housing ratio was approximately 0.86:1 in 2013. A potential implication of this indicator is that a high proportion of residents commute elsewhere for work, based either on limited employment opportunities available in the City or a mismatch in the types of jobs or wages available and the skills of the workforce.

Figure 5-1 shows the change in the jobs/housing ratio in Elk Grove between 2000 and 2013. As the graph illustrates, there has been a general upward trend in the jobs/housing ratio since the mid-2000s (i.e., a greater number of jobs relative to the number of housing units in the City). The increase in the jobs/housing ratio has been most significant in the years following the recession—rising from 0.71 to 0.86, an increase of 21 percent, between 2010 and 2013. This demonstrates that not only is the absolute number of jobs in Elk Grove growing, but also that the balance between jobs and housing is improving despite significant housing unit growth over the same time period. This potentially indicates that a greater number of residents have the option to work in Elk Grove as opposed to commuting elsewhere in the region.

The Future Economy
Elk Grove is a fast-growing community, known for its family-friendly features, competitive living costs, affordable housing options and top-notch public schools, parks, and recreation programs. Elk Grove is a multicultural community, with many prosperous households, and is a community of choice for many

millennials. Elk Grove is also an affordable and business-friendly location for companies to grow in or relocate to within an emerging major metropolitan region with excellent access and proximity to the Bay Area and to neighboring states. The City intends to build on and market these strengths, and implement strategies to grow, diversify, and balance the economy with increased employment, entertainment, recreation, and housing opportunities.

Strategies to achieve the vision for economic vitality require a focus on the following objectives, as identified in the goals and policies included in this chapter:

- Establishing land use policies, regulations, programs, and incentives that encourage desired development at appropriate locations.
- Attracting new businesses in targeted industries, in accessible employment centers throughout the City.
- Retaining and expanding existing businesses.
- Developing an entrepreneurial and startup culture and ecosystem in which small businesses can launch and thrive.
- Developing needed and enhanced lifestyle amenities (retail, restaurants, entertainment, recreation, and civic facilities).
- Developing increased hospitality and visitation assets to foster increased business and personal travel to the City.
- Attracting companies that more closely align with resident skills and work choices.
- Maintaining low resident unemployment by increasing available local jobs that align with resident skills, wages, and work choices; connecting resident workers with regional workforce services and local employers; and assisting Elk Grove companies with their hiring needs.
- Increasing the City's jobs/housing ratio while providing a greater diversity of housing options.
- Building critical public and private infrastructure and utilities to serve employment centers.
- Coordinating effectively with neighboring jurisdictions, regional agencies, and service providers on economic development matters.

GOAL ED-1: A DIVERSE AND BALANCED MIX OF LAND USES

The City of Elk Grove is a developing community with the opportunity to expand its existing commercial and employment base. As described in Chapter 3: Planning Framework, flexible land use designations allow the City to accommodate shifts in market trends over time, which will facilitate new investment and complementary land uses to meet local and regional shopping needs, provide a broader range of job opportunities to improve the jobs/housing ratio, and grow the City's tax base. The City's vision is for Elk Grove to be a community in which people can live, work, shop, and play.

Policies: Business Diversity

Policy ED-1-1: Allow for a variety of sizes and types of commercial development in order to attract a diverse range of job opportunities and types.

Policy ED-1-2: Promote programs and services that support a diverse local economy.

Policies: Business Attraction and Expansion

The reader should also consult *Chapter 3: Planning Framework* and *Chapter 4: Urban and Rural Development* for additional policies related to infill and expansion areas that accommodate a variety of business types.

Policy ED-1-3: Encourage the full and efficient use of vacant and underutilized parcels in appropriately designated areas to support the development and expansion of targeted commercial uses.

Policy ED-1-4: Use public/private partnerships as a means to revitalize existing employment and/or retail spaces, and to catalyze development of vacant sites.

Policy ED-1-5: Support existing and prospective businesses that contribute to meeting Elk Grove's strategic economic goals and facilitate their relocation and expansion as appropriate.

GOAL ED-2: MORE RESIDENTS EMPLOYED LOCALLY

The City will seek to increase the number of jobs in Elk Grove to improve the jobs/ housing ratio, and increase the number of Elk Grove residents employed by Elk Grove businesses to reduce commute times.

The reader should also consult *Chapter 4: Urban and Rural Development* for Development Patterns policies related to allowances for minor changes in residential configurations and densities under certain conditions.

Policies: Local Employment Opportunities

Policy ED-2-1: Continue to improve Elk Grove's jobs/housing ratio by expanding local employment opportunities, with an emphasis on attracting jobs in sectors and industries that are well matched for the skills of the local workforce.

Policy ED-2-2: Maximize the use of nonresidential land for employment-generating and revenue-generating uses.

Policy ED-2-3: Support efforts to provide residents with training opportunities, in particular helping residents acquire new skills needed for employment opportunities in coordination with targeted industries.

Policy ED-2-4: Provide for a range of housing options that match the anticipated preferences and income levels of potential workers associated with planned employment-generating projects.

Policy ED-2-5: Support the creation and retention of jobs that provide sustainable wages and benefits.

GOAL ED-3: SUCCESSFUL LOCAL BUSINESSES

As part of its overall economic development strategy, the City will make special efforts to encourage local businesses that reflect, strengthen, and reinforce a balanced and diverse economy in Elk Grove.

Policies: Businesses Reflecting Local Values

Policy ED-3-1: Promote a thriving locally owned business sector in a diversity of industries, particularly in the civic core, Old Town, and the retail portion of the Rural Area.

Policy ED-3-2: Support existing and prospective small and homebased businesses and enable them to launch and grow into larger thriving, successful companies and employers.

GOALS AND POLICIES: REGIONAL COORDINATION

ELK GROVE AND THE REGIONAL ECONOMY

Elk Grove is part of the Sacramento Metropolitan Region, which includes six counties (Sacramento, El Dorado, Placer, Sutter, Yolo, and Yuba); the cities in these counties share economic conditions and a common labor market. The region is served by the agency known as the Sacramento Area Council of Governments (SACOG). SACOG provides transportation planning and funding for the region and serves as a forum for the study and resolution of regional issues. In addition to preparing the region's long-range transportation plan, the Metropolitan Transportation Plan/ Sustainable Communities Strategy (MTP/SCS), SACOG allocates the distribution of affordable housing in the region and assists in planning for transit, bicycle networks, clean air, and airport land uses.

It is part of Elk Grove's vision to play a unique and active role in the region. In terms of the economy, that goal consists of two parts. First, Elk Grove seeks to better establish itself in the regional market as an activity and employment center by attracting additional high-quality jobs, enhanced amenities, visitation, and additional tax revenue to the City. Second, Elk Grove seeks to support the economic growth, circulation, and sustainability goals established for the region. To achieve the former, the City will encourage the growth of businesses in targeted industries and at targeted locations by providing a regulatory framework, business support, and infrastructure to attract these new businesses. To achieve the latter, in addition to local activities, the City will work to meet the goals set by regional plans.

~~A major aspect of SACOG's 2016 MTP/SCS is planning for Major Employment Centers in the region. Major Employment Centers are defined by SACOG as areas: (a) that support concentrations of at least 10,000 "base" jobs (i.e., including manufacturing, office, medical, educational, and service employment, and excluding sectors like retail and restaurant uses) at average densities of eight or more jobs per acre; and (b) where 80 percent or more of the uses within the center are employment, not residential. SACOG has identified existing Major Employment Centers in the region. Elk Grove recognizes the benefits of having a Major Employment Center identified in the City for inclusion in future updates to the MTP/SCS, including the ability to bring new jobs, employ residents, and provide new services and amenities for the community. The City's economic, land use, and transportation policies are intended to enable the growth of a Major Employment Center in the south-central portion of the Planning Area, as shown in **Figure 5-2**.~~

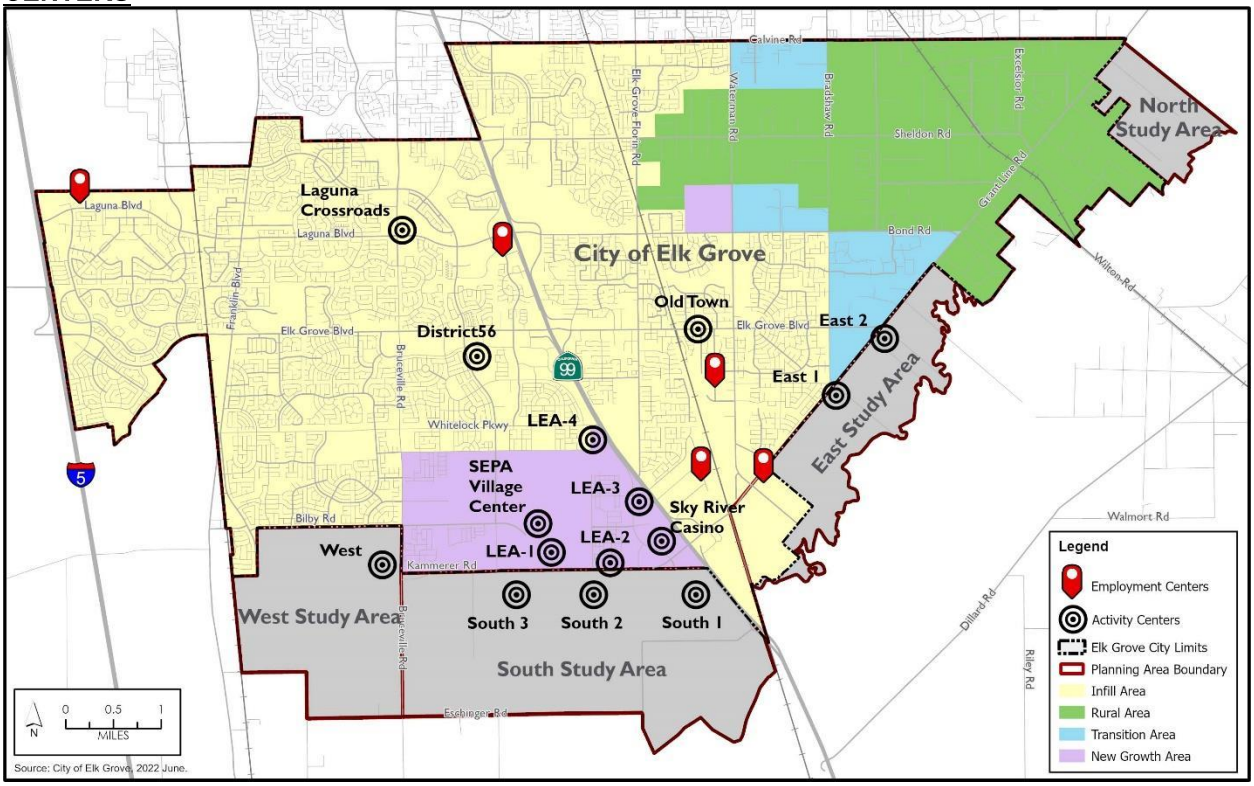
~~In addition, the City wishes to develop additional concentrations of employment at various strategic locations, including but not limited to SEPA, the Laguna Springs Corporate Center, and the Laguna West Commercial Area. While these areas will not all meet the specific parameters of a Major Employment Center, as established by SACOG, all are an important component of the City's economic strategy. Policies that support these areas refer to 'employment centers,' which can be differentiated from the Major Employment Center shown in Figure 5-2.~~

The development of activity and employment centers in the City provides opportunities to employ residents locally, improving opportunities for work-life balance and reducing vehicle miles traveled. It also provides opportunities to diversify the City's employment and tax base, improving community sustainability.

Several activity and employment centers exist in the City and there are multiple opportunities for creating new centers in the future. **Figure 5-2** illustrates the locations of these existing and planned centers. The development of these will occur over time and as market conditions provide.

Elk Grove also recognizes that jobs in the retail, restaurant, hospitality, and related sectors are, and will continue to be, important to Elk Grove. The City's economic strategy includes actions to continue to foster these types of employment uses in the community.

FIGURE 5-2: ~~DESIRED FUTURE MTP/SCS EMPLOYMENT CENTERS~~ EXISTING AND PLANNED CENTERS



GOAL RC-1: A ~~REGIONAL EMPLOYMENT~~ CENTER WITHIN THE REGION

Elk Grove aims to become a center within the larger region, providing opportunities for employment, recreation, education, retail, industry, and residential development. This objective aligns with regional goals for economic development, sustainability and resiliency, and quality of life. ~~recognizes that in addition to facilitating and supporting businesses as well as encouraging development of a Major Employment Centers and other employment centers locally, the City will need to work with regional entities to meet the goals identified in regional plans. This goal includes achieving a Major Employment Center designation in the City in a future MTP/SCS~~.

Policies: Employment Centers

The reader should also consult Chapter 4: Urban and Rural Development for additional policies establishing the type of land uses and growth allowed within ~~the Major Employment Center and other employment~~ centers as well as Chapter 9: *Community Plans* for a description of the Livable Employment Area.

Policy RC-1-1: Establish and maintain a sufficient area for business and job locations, including office and industrial~~to achieve Major Employment Center status in the Sacramento region's Metropolitan Transportation Plan/Sustainable Communities Strategy~~.

Policy RC-1-2: Continue efforts to attract larger employers in target industries.

Policy RC-1-3: Continue to invest in public infrastructure to attract target industries to Elk Grove, such as improved broadband capacity and reliability, road and protected bike lane construction and maintenance, safe and adequate pedestrian facilities including crosswalks, and shaded sidewalks, public transit, new and upgraded public utilities, great public spaces including urban plazas and parks, and adequate community services.

Policy RC-1-4: Encourage the facilitation and attraction of companies in emerging industries, both known or to be identified, in both private and public sectors. Many emerging technology companies prefer to be located in exciting, vibrant communities with great quality-of-life amenities that are able to attract and retain the best and the brightest in their respective disciplines.

> Standard RC-1-4a: Create a public realm allowing venture capitalists, technology entrepreneurs, creative engineers, and designers to mix and network.
>
> Standard RC-1-4b: Create places that will inspire architects, artists, engineers, and others employing design thinking to mix with one another as well as technology professionals to inspire and be inspired. This will require great placemaking and a vital public realm.

Policy RC-1-5: ~~In addition to establishing a primary Major Employment Center (see Policy RC-1-1), consider~~ Consider options to develop ~~additional employment~~ activity centers in portions of the City with enough available undeveloped land and potential sufficient transit access to support such a center. The reconstruction of Kammerer Road as a Throughfare and Urban Avenue provides an opportunity for the City to advance this initiative by targeting the centers toward the type of employment centers that will appeal to companies and employees participating in the knowledge economy of 21st century.

GOAL RC-2: STRONG INTERAGENCY COORDINATION ON ECONOMIC DEVELOPMENT EFFORTS

Encouraging new businesses to locate in Elk Grove will require coordination with regional partners and a focus on providing the infrastructure needed to support employment centers, including both base jobs and targeted industries.

Policies: Interagency Coordination

Policy RC-2-1: Coordinate with adjacent cities, counties, and the Sacramento Area Council of Governments on local land use and transportation planning efforts.

Policy RC-2-2: Coordinate with regional planning agencies working on land use and environmental issues~~,~~ and cooperate in the implementation of programs consistent with General Plan policy.

Policy RC-2-3: Support efforts to coordinate education and job training programs among the Elk Grove Unified School District, Los Rios Community College District (Cosumnes River College), other community college districts and local colleges and universities, employment training and service agencies, and employers.

Policy RC-2-4: Improve interagency coordination during the development review process for major commercial developments, to provide faster, more streamlined, cost-effective, and predictable review and approval processes, thereby making it easier for businesses to locate or expand in Elk Grove.

Policy RC-2-5: Coordinate with regional economic development agencies on economic development and related issues~~,~~ and cooperate in the implementation of coordinated programs consistent with General Plan policy and City-adopted economic development strategies.

GOAL RC-3: REGIONAL MOBILITY AND INFRASTRUCTURE TO SUPPORT THE LOCAL ECONOMY

Transportation infrastructure and transportation choices are a major determinant for regional and local economic success. The City will work to ensure that the transportation network and related infrastructure serve the economic needs of the local community and region. These facilities are further addressed in *Chapter 6: Mobility*.

Policies: Regional Mobility

The reader should also consult *Chapter 6: Mobility* for additional policies related to regional mobility.

Policy RC-3-1: Integrate economic development and land use planning in Elk Grove with planning for regional transportation systems.

Policy RC-3-2: Ensure that decisions regarding transportation between regions result in benefits to the Elk Grove community, including decisions regarding regional roadways, airport, port, and passenger and freight rail services.

Policy RC-3-3: Coordinate and participate with the City of Sacramento, Sacramento Area Council of Governments, Sacramento County, the Capital SouthEast Connector Joint Powers Authority, Caltrans, and other regional and local agencies on roadway improvements that are shared by the jurisdictions in order to improve operations, including joint transportation planning efforts, roadway construction, and funding.

Policy RC-3-4: Advocate for fixed-route transit service in Elk Grove as part of a coordinated regional network designed and routed to serve Major Employment Centers, employment, residential, and shopping centers, and colleges and universities.

Policy RC-3-5: Identify and advocate for future, as yet unknown or fully developed, transportation technologies that would be of benefit to Elk Grove and surrounding regions.

Changes to Chapter 6 (Mobility)

MOB-1 in Chapter 6 (Mobility) shall be amended as follows:

GOAL MOB-1: A CONNECTED TRANSPORTATION NETWORK THAT PROVIDES FOR THE SAFE AND EFFICIENT MOVEMENT OF PEOPLE AND GOODS ACROSS ALL MODES WHILE ACCOUNTING FOR ENVIRONMENTAL EFFECTS

Since the City's incorporation, and for decades before as an unincorporated community in the county, development in Elk Grove (and much of California in general) embraced more highways, expanded intersections, widened roads, and intricate, indirect residential street patterns. Elk Grove's land use and transportation pattern emphasized the automobile as the primary mode of transportation in terms of behavior, accommodation, and facility development.

Through this General Plan, the City desires to provide roadways that allow efficient movement and safe travel spaces for all modes of travel, while limiting the social, environmental, and fiscal impacts that can result from extensive road systems, vehicles on the road, and vehicle miles traveled (VMT). At the same time, the City wishes to allow new development consistent with the General Plan to proceed without undue confusion or extensive delays.

The City will use VMT as a measure of transportation effectiveness in development review to provide a local process for compliance with both State targets and procedures and with expectations when projects exceed thresholds of significance. VMT reductions can be achieved through a diverse land use mix that includes both employment and service uses, allowing residents to meet daily needs within a short distance from their homes. This reduces trip lengths and improves access to alternative transportation modes (e.g., walking, bicycle, transit). The City will use RPT to ensure that roadways have the capacity to accommodate vehicles and to safely convey bicyclists and pedestrians.

Policies: Vehicle Miles Traveled Limits

Policy MOB-1-1: Achieve State-mandated reductions in VMT by requiring land use and transportation projects to comply with the following metrics and limits. These metrics and limits shall be used as thresholds of significance in evaluating projects subject to CEQA.

Projects that do not achieve the daily VMT limits outlined below shall be subject to all feasible mitigation measures necessary to reduce the VMT for, or induced by, the project to the applicable limits. If the VMT for or induced by the project cannot be reduced consistent with the performance metrics outlined below, the City may consider approval of the project, subject to a statement of overriding considerations and mitigation of transportation impacts to the extent feasible, provided some other stated form of public objective including specific economic, legal, social, technological or other considerations is achieved by the project.

(a) **New Development** – Any new land use plans, amendments to such plans, and other discretionary development proposals (referred to as "development projects") are required to demonstrate a 15 percent reduction in VMT from existing (2015) conditions. To demonstrate this reduction, conformance with the following land use and cumulative VMT limits is required:

> (i) **Land Use** – Development projects shall demonstrate that the VMT produced by the project at buildout is equal to or less than the VMT limit of the project's General Plan land use designation, as shown in Table 6-1, which incorporates the 15 percent reduction from 2015 conditions.

Table 6-1:
Vehicle Miles Traveled Limits by Land Use Designation

LAND USE DESIGNATION	VMT LIMIT (DAILY PER SERVICE POPULATION)
COMMERCIAL AND EMPLOYMENT LAND USE DESIGNATIONS	
Community Commercial (CC)	~~41.6~~ 26.7
Regional Commercial (RC)	~~44.3~~ 26.9
Employment Center (EC)	~~47.1~~ 20.2
Light Industrial/Flex (LI/FX)	~~24.5~~ 15.5
Light Industrial (LI)	~~24.5~~ 22.4
Heavy Industrial (HI)	~~39.5~~ 26.5
MIXED USE LAND USE DESIGNATIONS	
Mixed Use Village Center (VCMU)	~~41.6~~ 19.4
Residential Mixed Use (RMU)	~~21.2~~ 20.6
TRANSECT-BASED LAND USE DESIGNATIONS	
General Neighborhood Residential (T3-R)	20.7
Neighborhood Center Low (T3)	21.1
Neighborhood Center Medium (T4)	20.2
Neighborhood Center High (T5)	15.7
PUBLIC/QUASI-PUBLIC AND OPEN SPACE LAND USE DESIGNATION	
Parks and Open Space (P/OS)[a]	~~0.0~~n/a[1]
Resource Management and Conservation (RMC)[a]	~~0.0~~n/a[1]
Public Services (PS)	~~53.1~~ n/a[1]
RESIDENTIAL LAND USE DESIGNATIONS	
Rural Residential (RR)	~~34.7~~ 25.2
Estate Residential (ER)	~~49.2~~ 20.6
Low Density Residential (LDR)	~~21.2~~ 19.3
Medium Density Residential (MDR)	~~20.9~~ 17.9
High Density Residential (HDR)	~~20.6~~ 17.7
OTHER LAND USE DESIGNATIONS	
Agriculture (AG)	~~34.7~~ n/a[1]
Study Areas	n/a[2]
Tribal Trust Lands	n/a[3]

Notes:
~~A~~1. These land use designations are not anticipated to produce substantial VMT, as they have no residents and few to no employees. These land use designations therefore have no limit and are exempt from analysis.
2. Lands within the Study Areas shall be analyzed based upon their ultimate land use designation, not the interim "Study Area" designation.
3. Tribal Trust Lands are exempt from VMT analysis as they are not subject to City policy.

ii) **Cumulative for Development Projects in the Existing City** – Development projects within the ~~existing (~~2017~~)~~ City limits shall demonstrate that cumulative VMT within the City including the project would be equal to or less than the established Citywide cumulative limit of ~~6,367,833~~ 8,066,247 VMT (total daily VMT).

(iii) **Cumulative for Development Projects in Study Areas** – Development projects located in Study Areas shall demonstrate that cumulative VMT within the applicable Study Area would be equal to or less than the established limit shown in Table 6-2.

Table 6-2:
Study Area Total Vehicle Miles Traveled Daily Limits

STUDY AREA	VMT LIMIT (TOTAL VMT AT BUILDOUT)
North Study Area	~~37,622~~ 27,383
East Study Area	~~420,612~~ 584,786
South Study Area	~~1,311,107~~ 1,594,674
West Study Area	~~705,243~~ 773,103

(b) **Transportation Projects** – Transportation projects likely to lead to ~~a substantial or~~ measurable increase in VMT shall:

(i) **Not increase VMT per service population**. Projects must demonstrate that the VMT effect of the project does not exceed the project's baseline condition VMT.

(ii) **Be consistent with the regional projections and plans.** The project shall be specifically referenced or listed in the region's MTP/ SCS and ~~accurately~~ represented in the accompanying regional travel forecasting model. ~~Qualifying~~ Subject transportation projects that are not consistent with the MTP/SCS shall ~~also~~ instead demonstrate that the cumulative VMT effect does not increase regional VMT per service population.

…

MOB-3 in Chapter 6 (Mobility) shall be amended as follows:

GOAL MOB-3: ALL STREETS IN THE CITY ARE COMPLETE AND SENSITIVE TO CONTEXT

Complete streets are designed for safety and accessibility by all users and all modes of transportation. A well-designed complete street acknowledges that transportation may include vehicles as well as pedestrians, bicyclists, and public transit, and that streets will be traveled by a variety of individuals with a wide range of needs, destinations, and abilities.

The City is required by the Complete Streets Act to plan for a balanced, multimodal transportation network that meets the needs of all users (e.g., motorists, pedestrians, bicyclists, children, individuals with disabilities, seniors, movers of commercial goods, and users of public transportation).1 The City must identify how streets, roads, and highways will accommodate the needs of all users for safe and convenient travel in a manner that is suitable to the surrounding rural, suburban, and/or urban context. Therefore, the policies contained herein shall apply to all types of streets in the City, including both public and private streets.

The Complete Streets Act allows the City to consider different policies, standards, and implementation measures that are context sensitive. The City recognizes that the roadway system is a major component of the "feel" of the community. Therefore, the City's Complete Streets policies recognize the need for modified design standards in certain areas of Elk Grove that are consistent with the character of the neighborhood but still facilitate access by all users.

Policies: Complete Streets Design

See Chapter 9 for policies specifically related to complete streets in the Sheldon/ Rural Area Community Plan Area.

Policy MOB-3-1: Implement a balanced transportation system using a layered network approach to building complete streets that ensure the safety and mobility of all users, including pedestrians, cyclists, motorists, children, seniors, and people with disabilities.

Policy MOB-3-2: Support strategies that reduce reliance on single-occupancy private vehicles and promote the viability of alternative modes of transport.

> Standard MOB-3-2.a: Require new development to install conduits for future installation of electric vehicle charging equipment.

Policy MOB-3-3: Whenever capital improvements that alter street design are being performed within the public right-of-way, retrofit the right-of-way to enhance multimodal access to the most practical extent possible.

Policy MOB-3-4: As new roads are constructed, assess how the needs of all users can be integrated into the street design based on the local context and functional classification.

Policy MOB-3-5: Strive to balance needs for personal travel, goods movement, parking, social activities, business activities, and ease of maintenance when planning, operating, maintaining, and expanding the roadway network.

Policy MOB-3-6: Execute complete streets design in accordance with neighborhood context and consistent with specific guidance in community plans or area plans, as applicable.

Policy MOB-3-7: Develop a complete and connected network of sidewalks, crossings, paths, and bike lanes that are convenient and attractive, with a variety of routes in pedestrian-oriented areas.

Policy MOB-3-8: Provide a thorough and well-designed wayfinding signage system to help users of all modes of travel navigate the City in an efficient manner.

Policy MOB-3-9: As funds become available, provide for the operation and maintenance of facilities for bicycle and pedestrian networks proportionate to the travel percentage milestone goals for each mode of transportation in the Bicycle, Pedestrian, and Trails Master Plan.

Policy MOB 3-10: Design Kammerer Road to be an Urban Avenue, as shown in Figure 3-7, supported by an adjacent street grid.

Policies: Safety for All Users of the Mobility System

Policy MOB-3-~~10~~11: Design and plan roadways such that the safety of the most vulnerable user is considered first using best practices and industry design standards.

Policy MOB-3-~~11~~12: Consider the safety of schoolchildren as a priority over vehicular movement on all streets within the context of the surrounding area, regardless of street classifications. Efforts shall specifically include tightening corner-turning radii to reduce vehicle speeds at intersections, reducing pedestrian crossing distances, calming motorist traffic speeds near pedestrian crossings, and installing at grade pedestrian crossings to increase pedestrian visibility.

Policy MOB-3-~~12~~13: Provide for safe and convenient paths and crossings along major streets within the context of the surrounding area, taking into account the needs of the disabled, youth, and the elderly.

Policy MOB-3-~~13~~14: Continue to design streets and approve development applications in a manner that reduces high traffic flows and parking demand in residential neighborhoods.

Policies: Vehicle Parking

Policy MOB-3-~~14~~15: Regulate the provision and management of parking on private property to align with parking demand, with consideration for access to shared parking opportunities.

Policy MOB-3-~~15~~16: Utilize reduced parking requirements when and where appropriate to promote walkable neighborhoods and districts and to increase the use of transit and bicycles.

Policy MOB-3-~~16~~17: Establish parking maximums, where appropriate, to prevent undesirable amounts of motor vehicle traffic in areas where pedestrian, bike, and transit use are prioritized.

Policy MOB-3-~~17~~18: Ensure new multifamily and commercial developments provide bicycle parking and other bicycle support facilities appropriate for the users of the development.

MOB-5 in Chapter 6 (Mobility) shall be amended as follows:

GOAL MOB-5: A SAFE, CONNECTED, AND CONVENIENT TRANSIT SYSTEM

Providing transit service for residential and commercial areas and ensuring continued connections to the larger transit network in the Sacramento region are important components of mobility in Elk Grove. An array of viable and desirable transit options can greatly increase mobility for residents and employees and aid significantly in achieving VMT reduction goals.

Improved access to transit and increased transit service are particular priorities along the future ~~fixed~~ high-frequency transit alignment (see Transportation Network Diagram, Chapter 3), in the activity centers (see Figure 4-1: Potential Activity and Infill Areas in Elk Grove, Chapter 4), in higher-density residential areas, and in employment and entertainment areas. However, transit access is important in many areas of Elk Grove so that transit-dependent residents can access needed services, employment, and social connections.

Components of the transit system in the region include ~~the City's~~ Sacramento Regional Transit's (SacRT's) local and commuter bus systems and future light rail/high-frequency ~~e-tran system, Sacramento Regional Transit's light rail and bus~~ systems~~,~~ and Amtrak and ACE rail services. ~~Only the etran bus and an Amtrak thruway bus to the Sacramento Amtrak station operated in Elk Grove in 2017.~~

~~City E-Tran Service~~ Local and Commuter Bus

~~E-tran is a fixed-route bus system operated by the City of Elk Grove that~~Sacramento Regional Transit provides both local and commuter bus services in Elk Grove. Routes are coordinated with buses, light rail, and South County Transit/Link (SCT Link) to areas outside Elk Grove. ~~The City~~ SacRT also operates ~~a~~ complementary paratransit service ~~called e-van which~~that addresses federal Americans with Disabilities Act (ADA) requirements to ~~for fixed-route service and primarily~~ serve~~s~~ ADA-eligible passengers, such as disabled and elderly community members.

~~Sacramento Regional Transit~~ Light Rail/High-Frequency Transit

The City views light rail (or other high-frequency transit, such as bus rapid transit) as an important part of the overall transit plan for Elk Grove, including the use of light rail to connect workers to current and future employment centers in the City. ~~Many extensions and connections for Elk Grove are being considered by both the City and Regional Transit.~~ The planned route for light rail service is illustrated on the Transportation Network Diagram in Chapter 3. However, current funding constraints must be addressed to advance planning and construction efforts. The City will work closely with SacRT, SACOG, and other jurisdictions in the region to identify funding strategies and other resources that could advance the ~~most feasible regional transit~~ services and infrastructure.

~~Amtrak Commuter~~ Interregional/Interstate and Intercity/Interurban Rail

Amtrak is a national passenger rail service that offers both medium and long-distance service throughout the country. Amtrak operates interregional and interstate passenger train service through a station in downtown Sacramento, with regular service to Los Angeles and Seattle (via the Coast Starlight) and

Chicago (via the California Zephyr). ~~The City supports the provision of efficient connections for the Elk Grove community to the larger Amtrak system through the Sacramento Valley Station.~~
~~The City of Elk Grove is considering the potential development of a multimodal facility that may allow for a new commuter rail (Amtrak) station to provide commuter service between Sacramento and Bakersfield, as well as a convenient location to access and transfer between transit services such as local and commuter buses~~

The San Joaquin Joint Powers Authority (SJJPA) operates the Amtrak San Joaquin services, which currently runs through the City but without a rail stop; a connecting bus is available to Stockton. SJJPA also operates the Altamont Corridor Express (ACE) service from Stockton to San Jose. The SJJPA is pursuing an expansion of both systems, which would create a station in Elk Grove for both Amtrak and ACE services.

Land Use Coordination

The expansion of transit infrastructure and vehicles must be paired with supportive land use planning for compact development and a mix of uses both in the City and in the wider region. The region has established a vision for land use and transportation for all of Sacramento County called the Preferred Blueprint Scenario. The Preferred Blueprint Scenario depicts a way for the region to grow through the year 2050 in a manner generally consistent with growth principles established by SACOG. The Preferred Blueprint Scenario is part of SACOG's Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for 2035, the long-range transportation plan for the six-county region. It also serves as a framework to guide local government in growth and transportation planning through 2050.

Policies: Transit-Supportive Land Use Planning

Policy MOB-5-1: Support a pattern of land uses and development projects that are conducive to the provision of a robust transit service. Consider amendments to the land use plan, as appropriate, that increase the density and intensity of development along the City's ~~fixed~~ high-frequency transit alignment and other major transit corridors.

Policy MOB-5-2: Advocate for the City's preferred ~~fixed~~ high-frequency transit alignment for light rail (or bus rapid transit) from north of the city through ~~to~~ the ~~Southeast Policy Area~~ Livable Employment Area and ensure proposed projects are complementary to such an alignment.

Policy MOB-5-3: Consult with the Sacramento Regional Transit District when identifying and designing complete streets improvements near likely light rail alignment corridors in order to prioritize access to and use of transit to sites along that corridor.

Policy MOB-5-4: Support mixed-use and high-density development applications close to existing and planned transit stops.

Policy MOB-5-5: Promote strong corridor connections to and between activity centers that are safe and attractive for all modes.

Policy MOB-5-7: The City shall work to incorporate transit facilities into new private development and City project designs including incorporation of transit infrastructure (e.g. electricity and fiber-optic cable), alignments for transit route extensions, new station locations, bus stops, and transit patron waiting area amenities (e.g. benches and real-time traveler information screens).

…

Changes to Chapter 9 (Community and Area Plans)

The Southeast Policy Area Community Plan shall be amended as follows:

SOUTHEAST POLICY AREA COMMUNITY PLAN

In July 2012, the City Council directed staff to initiate master planning (in the form of a strategic plan) for the Southeast Policy Area (SEPA). ~~The~~ SEPA includes a high-level supportive infrastructure analysis (including traffic/transportation planning, drainage, water, and wastewater), community design guidelines and standards, and programmatic environmental review.

The SEPA Community Plan forms the overall policy basis for successive programs, regulations, and guidelines for development of the Plan Area. All subsequent actions and development approvals must be consistent with this Community Plan, as well as with the overall General Plan and subsequent regulations.

PLAN SETTING

~~The~~ SEPA is approximately ~~1,185~~ 840 acres and is surrounded by several major existing and planned roadways. Kammerer Road is planned as a four to six-lane arterial in the General Plan and has further been identified as part of the route for the Capital SouthEast Connector, forming a link between Elk Grove, south Sacramento County, Rancho Cordova, Folsom, and El Dorado County. Light rail/~~ fixed~~ high-frequency transit service is planned to extend from Cosumnes River College, along Big Horn Boulevard, through ~~the~~ SEPA.

It is also important to note ~~that~~ the ~~SEPA is bisected by~~ presence of the Shed C drainage channel. This drainage channel takes stormwater from SEPA and the ~~Lent Ranch~~ Livable Employment Area and the detention basin on the Sterling Meadows property (South Pointe Policy Area) and carries it ~~through the agricultural properties~~ to the Stone Lakes National Wildlife Refuge. The man-made Shed C drainage channel ~~primarily serves~~ has historically served agricultural purposes. A preliminary analysis of the Shed C drainage channel was conducted as part of the City's Storm Drainage Master Plan. Additional analyses and improvement studies were necessary and contemplated in the Storm Drainage Master Plan.

GUIDING PRINCIPLES

In March 2013, the City Council identified a series of Guiding Principles for the SEPA. The Guiding Principles identify the overall objectives of the Community Plan and guide the formulation of the land use plan and the policies and standards in the Community Plan and accompanying documents. With the creation and adoption of the Livable Employment Area (which abuts and was created, in part, from SEPA), these Principles and policies have been comprehensively updated.

Vision Statement

The primary objective for ~~the~~ SEPA is to ~~plan for a range of job opportunities that are supported by a balanced mix of locally oriented retail uses and residential densities. The SEPA will be a regional destination for both employment activities and entertainment~~ provide a transition in density and intensity of development from the traditional suburban residential neighborhoods to the north (e.g., Laguna Ridge) to the Livable Employment Area to the south and east. ~~The~~ SEPA will integrate with surrounding land uses through the incorporation of parks and open space, trails, and landscape buffers. A complete transportation network made up of roadways, sidewalks, trails, and transit (including future light rail and/or bus rapid transit) will allow for the safe and effective movement of people and goods within the Plan Area and connect them with other parts of the City and the region. Development will be of quality design and materials that contribute to the sense of place and identity for the area.

~~**Employment-Oriented Development**~~

~~At its core, the SEPA is an employment-oriented development—meaning it is a community intended to support and encourage the development of employment uses. It does this by:~~

- ~~Creating opportunities for a range of employment prospects without predisposing any one use.~~

- ~~Providing nearby places for employees to live at a variety of price points.~~
- ~~Providing services for employees, including daily shopping and education.~~
- ~~Offering recreational opportunities for employees in employment areas and the larger community.~~
- ~~Presenting a feasible range of choices for employees on how to get to work (e.g., car, bus, walking, biking).~~
- ~~Engaging corporate attention and applying the power of public/private partnerships. • Creating a total community—not individual, unrelated projects.~~

Guiding Principles
The following principles outline an overarching development framework for the SEPA.

I. Urban Design/Public and Private Realm Design

- Create a strong sense of identity, community, neighborhood, and development at a personal scale.
- Implement quality urban design elements throughout the Plan Area by incorporating locally and environmentally sensitive landscaping, site amenities (e.g., sidewalk furniture, pedestrian lighting, bike racks), and complementary architectural design.
- Locate land uses so that they are complementary to each other, thereby reducing the potential for interface conflicts.

II. Land Use

- Create a plan with a mix of land uses, including employment and residential opportunities supported by commercial and neighborhood-oriented uses and services such as parks, pedestrian and bike paths/trails, and recreational opportunities.
- Provide ~~flexibility in the~~ for varying and increasing intensity and density of land uses ~~to respond to changes in economic, market, and social factors while maintaining land use compatibility~~.
- ~~Employment Opportunities/Jobs Development~~
  - ~~Designate sufficient employment-oriented land uses to create job opportunities and improve the jobs/housing balance in the City.~~
  - ~~Locate employment uses throughout the Plan Area to take advantage of transportation corridors and proximity to other land uses.~~
  - ~~Locate a large block of employment uses including both office and industrial/flex space to offer opportunities for development of an office park/ campus.~~
  - ~~Provide synergistic opportunities between employment land uses and supporting retail/commercial and residential uses.~~
- Mixed Uses
  - Encourage mixed-use development (e.g., mixed-use buildings with retail uses on the ground floor and office or residential on upper floors) within a community core that includes a future transit station (e.g., light rail or bus-rapid transit) as part of a village center. ~~Centrally locate~~ Locate the community core ~~in the Plan Area~~ along the Shed C Channel between Big Horn Boulevard and Lotz Parkway and make it easily accessible for a range of uses and services.
- Residential Uses
  - Provide a diverse range of housing densities and product types from low-density estate housing to higher-density multifamily residential opportunities.
  - Encourage multifamily residential uses to be located near transit facilities and, where feasible, near commercial and employment uses.
- Public Services and Community-Oriented Uses
  - Locate educational facilities in the most effective locations for successful attendance, usefulness to the community, and utilization of existing and future public transit facilities.
  - Provide landscaped paseos and/or other off-street pedestrian and cycling amenities, increasing walkability and pedestrian connectivity throughout the Plan Area as well as into adjacent properties. Provide linkages in both east–west and north–south directions.
  - Create a plan that makes active and passive park facilities available at a level consistent with City and Cosumnes Community Services District (CCSD) policies.
  - ~~Identify the drainage infrastructure within the Plan Area as dual use facilities, incorporating both drainage functions and recreation opportunities as possible. Recreation opportunities could~~

~~include active trail amenities along the channel, enhanced landscaping, golfing, and other features as feasible.~~

III. Circulation

- Organize land uses and provide linkages to allow for a significant percentage of Plan Area employees, students, and residents to be located within close proximity of, and have easy access to, existing and future transit facilities.
- Provide the sufficient intensity of employment and residential opportunities to attract and maintain an appropriate level of public transit services.
- Create landscaped parkways and pedestrian and bicycle connections throughout the Plan Area to provide linkages between internal land uses and to surrounding areas.
- Design a circulation system that adequately supports the anticipated level of traffic in the Plan Area.

IV. Environmental Sensitivity

- Design the Plan Area in a manner which comprehensively addresses drainage and flood control for both on-site and off-site properties.
- Create a self-mitigating plan that, to the extent feasible, incorporates environmental mitigation measures into project design.
- Promote the efficient use of energy and resources.

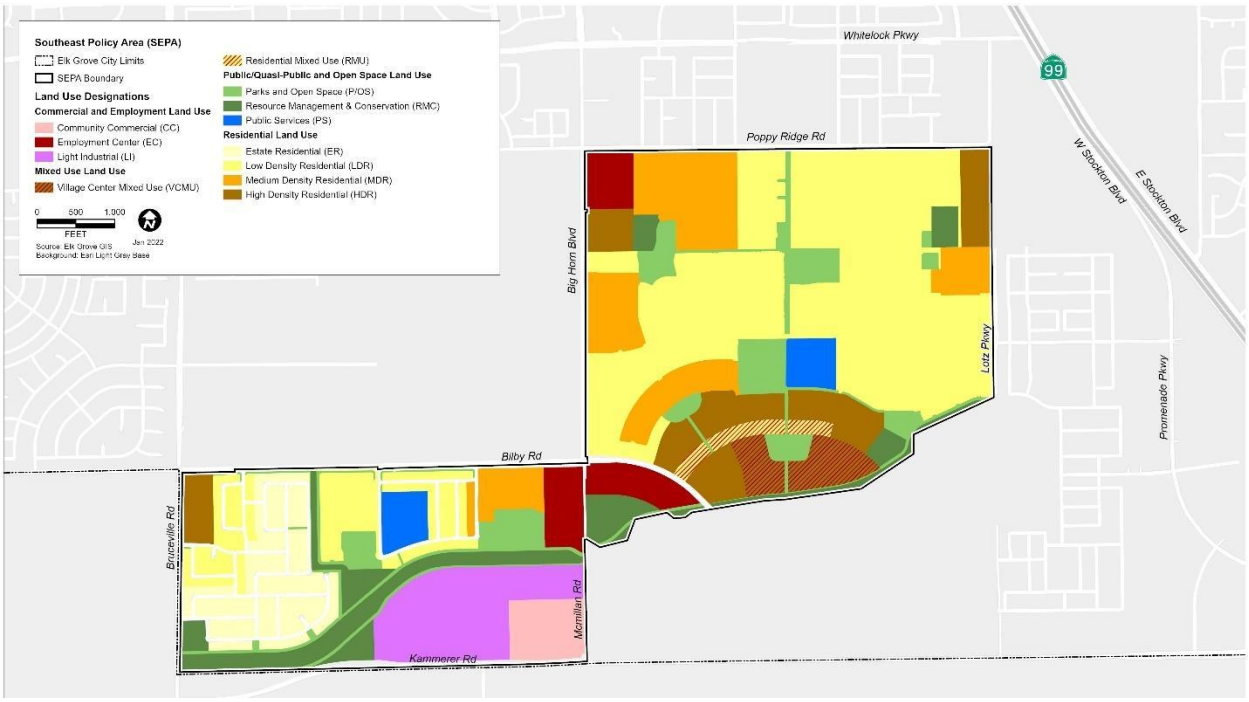
V. Contextual Compatibility

- Develop a plan that recognizes the right of existing uses (both within the Plan Area and adjacent), including agricultural/rural residences, to continue and to minimize impacts upon these uses during the transition from rural to urban/suburban uses.
- Create a plan compatible with adjacent ~~properties~~ Plan Areas. Accommodate connectivity of roadways, pedestrian and bicycle access, and recreation facilities across Plan Area boundaries.
- ~~Create a plan that complements existing and planned commercial corridors and centers within the City~~.

LAND USE PLAN

The General Plan's Land Use Diagram is one of the most important functions of the General Plan, as the map and policies will determine the City's future land uses and character. The land plan for the SEPA is equally critical. The SEPA Land Use Map (Figure SEPA-1) illustrates the planned uses for properties in the Community Plan area and is consistent with the land use categories described in Chapter 3: Planning Framework.

FIGURE SEPA-1: SOUTHEAST POLICY AREA LAND USE MAP



GOALS AND POLICIES: SOUTHEAST POLICY AREA COMMUNITY PLAN

The following goals and policies apply to ~~the~~ SEPA and are in addition to, and in support of, the Citywide policies and actions in the General Plan.

GOAL SEPA-1: AN EFFICIENT ROADWAY NETWORK

Policies: Circulation Policy SEPA-1-1: Develop an efficient roadway network across the Plan Area. Major roadways shall continue the street network established by adjacent developments. Local roads should extend the established roadway pattern to the extent feasible.

Policy SEPA-1-2: Establish protocols for the timing and phasing of roadway improvements that reflect the level of development that is occurring.

Standard SEPA-1-2.a: Backbone roads shall be constructed concurrent with projected development demands both on-site (within the Plan Area) and off-site (outside the Plan Area) to meet City standards

Standard SEPA-1-2.b: The City shall either establish a process for, or require applicants to provide, analysis to ensure adequate infrastructure is in place prior to the demands of the proposed development.

Standard SEPA-1-2.c: No tentative maps or building permits for projects not requiring tentative maps shall be approved within the Plan Area until such time as off-site infrastructure needs and thresholds have been identified.

Standard SEPA-1-2.d: All roadways, pedestrian facilities, and bike routes or bikeways shall be constructed in logical and complete segments, connecting from intersection to intersection, to provide safe and adequate access with each phase of development as conditioned with the approval of tentative maps.

Standard SEPA 1-2.e: Roadways shall consist of the full section from curb to curb, streetlights, sidewalks, and median landscaping, where applicable. Phased construction of sidewalks, temporary asphalt sidewalks, and other measures may be allowed at the discretion of the City. Roadside landscaping (and walls where required) shall be installed concurrent with adjacent development consistent with project phasing. The City may allow the design and construction of portions of arterial or thoroughfare roadways to be deferred where capacity associated with such portions is not immediately needed, provided such deferral is consistent with General Plan Standard MOB-7-1.a, as set forth in the General Plan and/ or applicable environmental document(s). If the deferral involves improvements within or adjacent to a development and the improvements are not eligible under the Elk Grove Roadway Fee Program, the City will require the developer to make an in-lieu payment pursuant to Elk Grove Municipal Code Chapter 12.03 (Street Improvements) or establish and/or participate in a finance mechanism acceptable to the City to fund the differed improvements.

Standard SEPA-1-2.f: All development shall comply with the requirements of the Landscape Planning Protocol Manual for SEPA to the satisfaction of the City.

Policy SEPA-1-3: Provide for the future extension of fixed-route transit service through the Plan Area via Big Horn Boulevard and Bilby Road.

Standard SEPA 1-3.a: Development shall dedicate (in fee title or through irrevocable offers of dedication) sufficient right-of-way along the planned alignment for track/ dedicated right-of-way, electrical infrastructure (to the extent necessary), and station platforms.

Standard SEPA 1-3.b: A transit facility shall be constructed as part of the Village Center. The facility should include areas for boarding/off-loading, and, to the extent feasible, park-and-ride, drop-off zones, and transfers between public transportation modes (e.g., ~~local~~ bus to light rail ~~fixed transit~~).

GOAL SEPA-2: THE CREATION OF AQUATIC AND UPLAND HABITAT

Policies: Conservation and Air Quality

Policy SEPA-2-1: Ensure that the ~~realignment~~ reconstruction of the Shed C drainage channel provides area for both drainage of stormwater from the Plan Area and the restoration (to the extent they currently exist) and creation of aquatic and upland habitat in conformance with requirements of the environmental agencies.

~~**GOAL SEPA-3: AN EMPLOYMENT-ORIENTED DEVELOPMENT**~~

~~**Policies: Economic Development**~~

~~**Policy SEPA-3-1:** Verify that the land plan for the SEPA has a substantive impact on the jobs/housing ratio in the City by providing acreage for the establishment of one or more business parks. Policy SEPA-3-2: Encourage and support the development of jobs-producing uses (e.g., office, industrial) within the Plan Area.~~

GOAL SEPA-4~~3~~: A WIDE RANGE OF HOUSING TYPES

Policies: Housing

Policy SEPA-4~~3~~-1: Support a wide range of housing types in the Plan Area. Residential developers are encouraged to be innovative and responsive to the changing lifestyles of future residents and trends toward transit, telecommuting, zero-emissions vehicles, and others.

Policy SEPA-4~~3~~3-2: Encourage the following housing types to incorporate affordable housing opportunities throughout the community: residential units placed above retail uses, live-work housing units, secondary dwelling units, and a mix of duplex and fourplex units within single-family residential areas.

Policy SEPA-4~~3~~3-3: Encourage residential developers to provide upscale housing through lower densities and additional amenities. Upscale housing is intended to attract move-up homebuyers who wish to move to or remain in the Elk Grove area. Homes with custom-style features would help create a more diverse and interesting neighborhood. Custom-style features could include high-quality exterior building materials, larger lot sizes, and varied setbacks. Large lots would include those that are 6,500 square feet or larger. Other features included in upscale housing are architectural variations, quality landscaping, extra vehicle storage, homeowners associations, and other attractive marketing features.

GOAL SEPA-~~5~~4: QUALITY DEVELOPMENT

Policies: Land Use

~~**Policy SEPA-54-1:** Interpret the land plan (see Figure SEPA-1) with sufficient flexibility so as to allow the rearrangement of land uses and provide a more varied mix of densities and/or lot sizes without triggering amendments to the land plan. In making this determination, the City shall ensure: (a) Consistency with the vision, Guiding Principles, and other policies of the Community Plan. (b) Consistency with the overall density and intensity of development contemplated by the land plan. (c) Consistency with the general distribution of land uses as specified in the land plan.~~

Policy SEPA-~~5~~4-~~2~~1: Ensure that development in the Plan Area is of quality architectural character and contributes to a positive image of the City.

> Standard SEPA-~~5~~4-~~2~~1.a: All development shall comply with the requirements of the Architectural Style Guide for SEPA to the satisfaction of the City.
>
> Standard SEPA-~~5~~4-~~2~~1.b: All development shall implement the public realm urban design features (e.g., project monumentation/signage, lighting, benches) specified in the SEPA SPA and the Landscape Planning Prototype Manual that visually unify the Plan Area and help establish a sense of place.

~~**Policy SEPA-5-3:** Include sufficient land in the land plan for employment-generating uses that significantly contribute to the City's employment base.~~

> ~~Standard SEPA-54-3.a: Amendments to the land plan affecting employment-generating land (e.g., office, light industrial/flex) shall:~~
> - ~~Not result in a reduction of acreage for employment-generating land from that provided at initial adoption in July 2014; and~~
> - ~~Be located on a site or sites with equal or higher development potential (e.g., along arterials, collectors, and/or transit corridors; land configuration and size allow for efficient and practical development); and~~
> - ~~Require a super-majority (4/5) vote of the City Council to approve.~~

~~**Policy SEPA-54-4:** Encourage employment areas to provide supporting retail service uses, within either a primary use building or a stand-alone building.~~

> ~~Standard SEPA-5-4.a: Office-supporting retail and service uses within employment areas shall have reduced development standards (e.g., parking) when compared to retail uses in commercial areas.~~

Policy SEPA-~~5~~4-~~5~~3: Make certain that the ~~center~~ heart of ~~the~~ SEPA consists of a community Village Center that includes a mix of uses (commercial, office, residential) and civic spaces and serves as the focal point of the Plan Area.

Policy SEPA-~~5~~4-6: Ensure that retail uses located in the Village Center Mixed Use designation are complementary to ~~the regional retail uses in adjacent projects~~ adjoining plan areas.

GOAL SEPA-~~6~~5: ACCEPTABLE NOISE LEVELS

Policies: Noise

Policy SEPA-~~6~~5-1: Except as provided herein, require that all development in the SEPA complies with the City's noise standards and policies as outlined in the General Plan and the Municipal Code.

GOAL SEPA-~~7~~6: A CONNECTED PARKS, TRAILS, AND OPEN SPACE NETWORK

Policies: Parks, Trails, and Open Space

Policy SEPA-~~7~~6-1: Develop an off-street trail network that connects employment and residential areas with parks, school, mixed-use, and commercial-service areas.

> Standard SEPA-~~7~~6-1.a: Backbone trail facilities shall be constructed concurrently with backbone infrastructure (e.g., roadway) facilities.
>
> Standard SEPA-~~7~~6-1.b: To the extent feasible, trails that cross major roadway (arterial or major collectors) shall be grade-separated. The City encourages the trail to be placed under roads and to be constructed as part of the roadway system. Specifically, the trails along Shed C shall be grade separated where they cross Big Horn Boulevard and Bilby Road.

Policy SEPA-~~7~~6-2: Require that parks are provided in the SEPA at a minimum of 5 acres of park land per 1,000 residents.

Policy SEPA-~~7~~6-3: Ensure that parks are developed as an integral part of the community.

> Standard SEPA-~~7~~6-3.a: Parks shall be ~~generally~~ located in the areas shown on the land use plan. Precise configuration of park sites shall be determined at the time of Tentative Subdivision Map approval for each residential project.
>
> Standard SEPA-~~7~~6-3.b: Parks and open space areas shall be linked by a public pedestrian and bicycle circulation system.
>
> Standard SEPA-~~7~~6-3.c: To the extent feasible, parks shall, at a minimum, ~~shall~~ be bordered on two sides by streets in order to facilitate public access and surveillance, and on three sides when feasible. The remaining one or two sides may be bordered by other land uses such as schools, open spaces, or residential uses.
>
> Standard SEPA-~~7~~6-3.d: Parks shall be designed, and features within them oriented, to minimize noise and visual impacts on adjoining development.
>
> Standard SEPA-~~7~~6-3.e: Where parks are adjacent to drainage corridors or parkways, require the park to include pedestrian connections to these facilities.
>
> Standard SEPA-~~7~~6-3.f: Ensure that parks adjacent to drainage corridors or parkways include appropriate fencing or plant buffering to separate active recreation areas in the park from the drainage corridor.
>
> Standard SEPA-~~7~~6-3.g: Require that all parklands, paseos, and other open space be dedicated to the City, as well as all drainage and publicly maintained roadside landscape corridors.

Standard SEPA-~~7~~6-3.h: Continue to implement provisions in the SEPA SPA regarding joint-use park and drainage facilities on a case-by-case basis. Ultimate designs for these facilities, if approved, shall balance active park land needs with drainage facility design requirements.

GOAL SEPA-~~8~~7: AN AREA-WIDE INFRASTRUCTURE SYSTEM

Policies: Public Facilities and Finance

Drainage

Policy SEPA-~~8~~7-1: Establish an area-wide drainage infrastructure system, consistent with the Citywide Storm Drainage Master Plan, which reflects natural ecological and hydrological systems.

Standard SEPA-~~8~~7-1.a: New development shall implement the Drainage Master Plan.

Policy SEPA-~~8~~7-2: Establish a drainage system pursuant to the needs of the adopted land plan in the Community Plan. Review and approve all phased drainage facilities prior to implementation. Phased facilities shall be reviewed to ensure consistency with the concepts in the Drainage Master Plan and successful implementation of the ultimate facilities identified in the plan.

Policy SEPA-~~8~~7-3: Ensure that adequate drainage facilities are in place and operational concurrent with each new increment of development.

Infrastructure Financing

Policy SEPA-~~8~~7-4: Support financing opportunities for public infrastructure across the Plan Area.

Policy SEPA-~~8~~7-5: Ensure the long-term financing of public infrastructure. Prior to approval of a Final Map, or issuance of building permits for projects that do not require a tentative map, require the subject property to be included in a finance district that provides ongoing maintenance funding for the following:

- Public parkways;
- Parks and open space;
- Landscape corridors;
- Trails;
- Landscaped medians;
- Environmental preserves;
- Sound walls and other barrier and property fencing;
- Entryway monuments; and
- A fair share contribution to the community center.

Valuing Public and Quasi-Public Lands

Policy SEPA-~~8~~7-6: Land necessary for the development of public infrastructure and facilities that serve the SEPA Community Plan and which are included in a development impact fee program or public facilities financing plan shall be compensated at fair market value based upon an appraisal. Water and Sewer Infrastructure

Policy SEPA-~~8~~7-7: Support the efficient and timely development of water and sewer infrastructure in the Plan Area.

GOAL SEPA-~~9~~8 SUSTAINABLE DESIGN

Policies: Sustainability

Policy SEPA-~~9~~8-1: Require development in the Plan Area to provide opportunities for implementation of sustainable design principles. Design opportunities include, but are not limited to, the following:

- Orienting homes and buildings in an east–west alignment for southern exposure to take advantage of passive or natural heating or cooling.
- Incorporating photovoltaic and other renewable energy systems into building and site design.
- Incorporating low-impact development features, such as bioswales and permeable materials for paved areas.
- Utilizing a roadway network with a clear, logical hierarchy that is organized on a modified grid. Connectivity to adjacent areas, including potential future development, is encouraged.
- Features that reduce the Urban Heat Island effect, including cool roofs, walls and pavement, locally appropriate green roofs and walls, and shading.

Goal RA-3 (Context Sensitive Mobility) in the Rural Area Community Plan shall be amended as follows:

GOAL RA-3: CONTEXT-SENSITIVE MOBILITY

Recognizing that a complete street in a rural area is different from a complete street in a more urban setting, the following policies encourage design flexibility to ensure that the rural context in the Sheldon/Rural Area remains intact when improvements to the street network are being planned and implemented.

Policies: Mobility Improvements

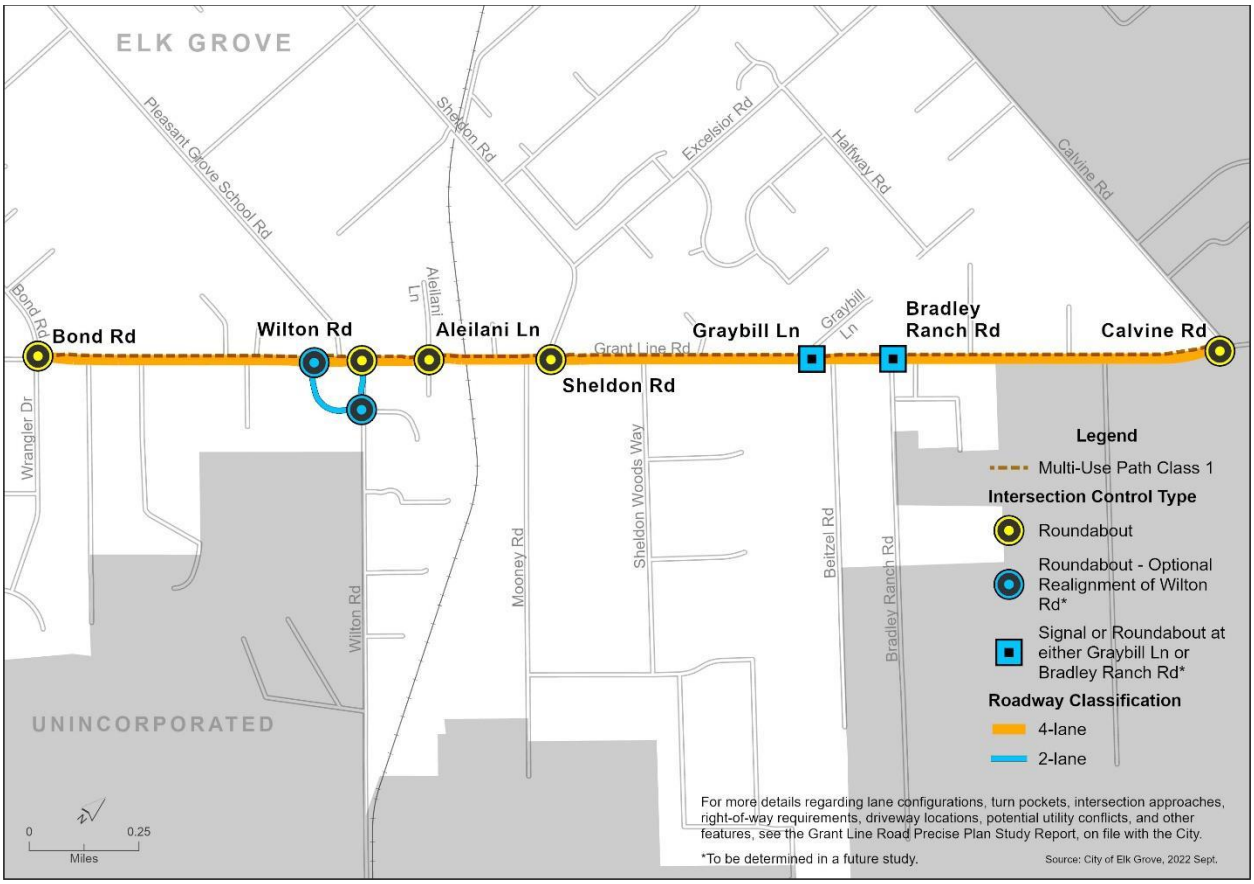
Policy RA-3-1: Make context-sensitive design improvements to roadways in the Rural Area, when warranted, consistent with the Rural Road Improvement Policy and consistent with the intent of the Complete Streets Act.

Policy RA-3-2: In planning and implementing street projects, allow flexibility in design to maintain sensitivity to local conditions and a local sense of place, including preservation of mature native trees.

Policy RA-3-3: Support improvements necessary to ensure safe, efficient, and improved access for mobility in the Rural Area consistent with the Rural Road Improvement Policy.

Policy RA-3-4: ~~When planning improvements~~ Improvements to Grant Line Road shall implement the Grant Line Road Precise Plan, as illustrated in Figure RA-2, which implements ~~coordinate local and~~ regional planning activities and projects, including the Capital SouthEast Connector. ~~Design~~These improvements ~~to be consistent with~~ support the local context including driveway accessibility, needs of larger vehicles and agricultural trailers, and the regional intent of the roadway.

FIGURE RA-2: GRANT LINE ROAD PRECISE PLAN



The introduction text to Goal EEG-1 and accompanying Table EEG-1 in the Eastern Elk Grove Community Plan shall be amended as follows:

GOAL EEG-1: DEFINED RESIDENTIAL COMMUNITIES

The EEG Community Plan comprises two residential communities: the East Elk Grove sub-area and the Triangle sub-area. East Elk Grove is governed by a set of residential unit caps, while the Triangle is governed by minimum residential lot sizes that can be used to establish a maximum development level.

The East Elk Grove sub-area has a total maximum buildout of 4,378 4,416 dwelling units with unit allocations designated to individual properties, as established under the East Elk Grove Specific Plan. The City tracks residential development in this sub-area and maintains records to ensure compliance with the maximum allowable dwelling units for each designated property. Individual property accounting will continue to be tracked by the City. Table EEG-1 summarizes the status of total dwelling units approved against the maximum allowable dwelling units in the East Elk Grove sub-area as of the date of adoption of this Community Plan. The anticipated dwelling unit capacity for the Triangle sub-area is also included.

Policies: Community Plan Land Use and Character

Policy EEG-1-1: (East Elk Grove Sub-Area):

Development within the East Elk Grove sub-area shall conform to the development capacity limits provided in Table EEG-1 and the land use map provided in Figure EEG-1. Uses shall generally transition from

commercial and industrial development along Waterman Road (west of the powerline corridor) to suburban residential development in the central area, to larger residential lots along Bradshaw Road. Residential development shall be designed with more suburban development patterns and characteristics, including curbs and gutters, sound walls along arterial roadways, sidewalks, and street lights.

TABLE EEG-1: EASTERN ELK GROVE DEVELOPMENT CAPACITY

Plan Sub-Area	Existing Residential Development (2018)	Future Residential Development	Total Residential Development
East Elk Grove	3,747	~~631~~ 669	~~4,378~~ 4,416
Triangle[1]	297	769	1,066
Total	4,044	~~1,400~~ 1,438	~~5,444~~ 5,482

Notes:
1. Based on average buildout of residential properties. Does not represent a maximum allowable residential dwelling unit capacity. The Triangle Sub-Area is subject to the minimum residential density as provided in this General Plan and the lot size requirements as provided in the Triangle Special Planning Area (zoning provisions).Buildout estimate is for information purposes only.

…

The New Livable Employment Area Community Plan shall be added to Chapter 9 as follows:

THE LIVABLE EMPLOYMENT AREA COMMUNITY PLAN

In 2019, the City Council directed staff to study how to leverage the value of a planned new thoroughfare, Kammerer Road, beyond its ability to carry vehicle traffic, but to lay the foundation for economic development in the form of a 21st century employment center. The charge was to connect transportation with land-use planning and design in recognition that the most economically, socially, and environmentally successful communities, are walkable and contain a mix of uses. There is a reason that the regions of the country leading the world in venture capital funding are walkable urban places. In the old, auto-dominated model, one drives from one business park to the next. However, in livable employment centers, everything is happening within a 1-mile radius. Technology investors have argued that it's about running into people and building relationships, because people want to work with and invest in people they know and trust.

The Kammerer Road and Promenade Parkway corridors provide an opportunity to develop a walkable, urban area for Elk Grove. Roadway facilities can be reimagined as more than traditional arterials and collectors, to a more finely grained network providing a higher density of intersections which is more typical of high-value, walkable urban communities. The reconstruction of Kammerer Road as urban avenue provides an opportunity for the City to advance these initiatives by targeting them toward the type of employment centers that will appeal to companies and employees participating in the knowledge economy of 21st century.

PLAN SETTING AND RELATIONSHIP TO OTHER PARTS OF THIS GENERAL PLAN

The Livable Employment Area encompasses approximately 1,150 Acres. It includes some areas that were previously part of the Southeast Policy Area (SEPA), as well as areas that were previously part of the South Pointe Land Use Policy Area and the Lent Ranch Marketplace Policy Area. It also overlays a portion of the South Study Area; as this area develops, future land plans will incorporate the planned land uses and circulation system.

The land plan, as shown in Figure LEA-1, is developed using the urban planning concept of the Transect. The Transect defines a series of zones that transition from sparse rural farmhouses to the dense urban core (Figure LEA-2). Each zone is fractal in that it contains a similar transition from the edge to the center of the neighborhood. For the Livable Employment Area, Transects T-3, T-4, and T-5 have been selected. An additional T-3R has been created, which leverages the density and street structure of the T-3 but focuses the uses on more residential activities. The basic uses and densities/intensities for these Transects are described in Chapter 3 (Planning Framework) and will be implemented in a new Special Planning Area document, adopted as part of the City's Municipal Code.

Utilizing the Transect, the land plan is organized around four centers. Each center is defined with higher densities/intensities of uses (typically T-4 and T-5), with the areas between centers having relatively lower intensities (T-3 and T-3R). The character of each center is defined by both the assemblage of diverse and dense land use and the features of the public realm, including plazas, parks, and other gathering spaces and access to public transit (typically light rail/high-frequency transit or, in some instances, traditional or other bus service). The location of the centers is shown in Figure LEA-3.

Figure LEA-1: Location and Land Plan for the Livable Employment Area Community Plan

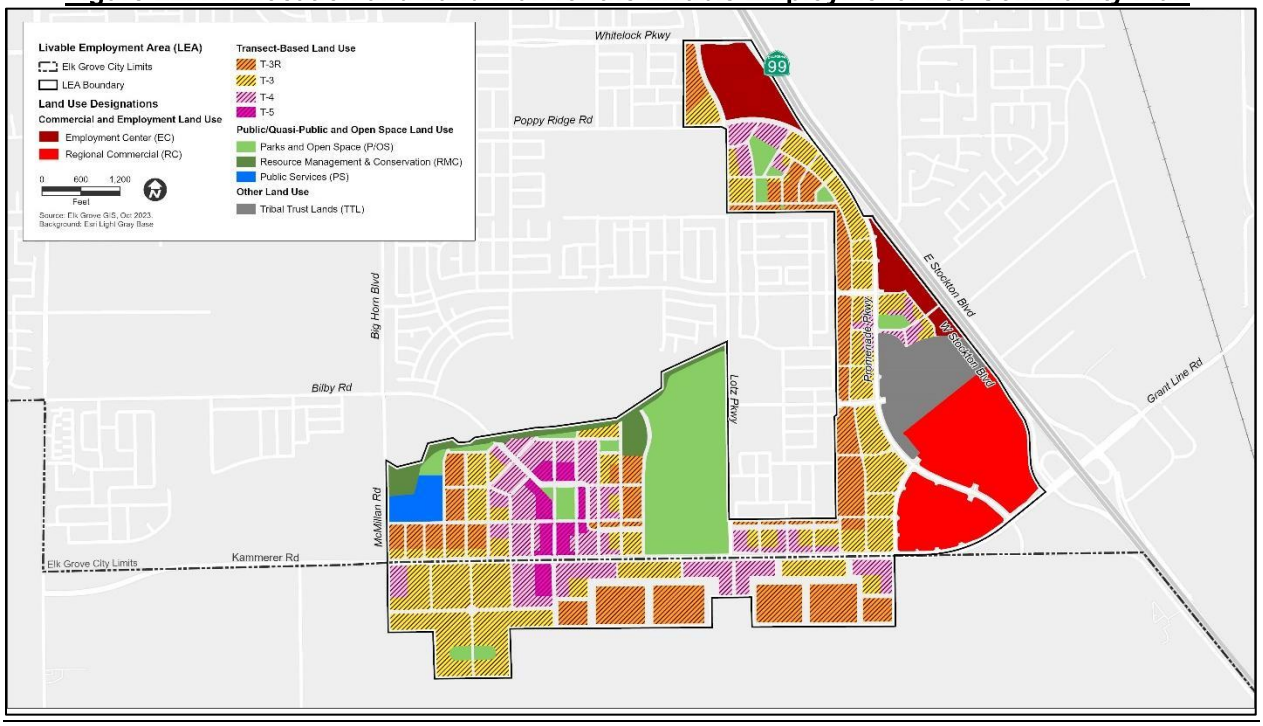


Figure LEA-2: Transect of Urbanism

Figure LEA-3: Center Locations

GUIDING PRINCIPALS

Vision Statement

The primary objective for the Livable Employment Area is to create a physical environment that supports the growth of 21st century employment opportunities. The epicenters of advanced research and application of the sciences and technologies that will survive through the 21st Century and beyond must be set in a walkable, exciting, vibrant community with great quality-of-life amenities that will attract and retain the best and the brightest in their respective disciplines.

To that end the Livable Employment Area will be a place where:

- Venture capitalists, technology entrepreneurs and creative engineers and designers can mix and network.
- Inventors and entrepreneurs can walk or bike to work, or lunch, and enjoy the cultural amenities of the immediate neighborhood, the City, or the region.
- Artists, architects and other designers mix with one another as well as technology professionals to inspire and be inspired.
- Old and young can easily access public squares, greens, and parks and trails.
- A variety of mobility options allow for ease of movement within the area to the region at large.
- Neighborhood streets (inclusive of the roadways and adjoining sidewalks and bike lanes/facilities) are valued beyond their ability to carry traffic. These elements of the public realms serve as significant urban places in and of themselves, because they are where neighbors, friends, and colleagues meet and socialize. They are supported with sidewalk cafes, lively plazas, and restful parks.

Guiding Principles

The following principles outline an overarching development framework for the Livable Employment Area

I. Urban Design/Public and Private Realm Design:

- Create neighborhoods with distinct and differentiated centers.

- Encourage mixed-use development patterns - both horizontal and vertical mixes – to bring daily necessities within an easy walk of many residents, reducing stress on transportation systems.
- Multi-modal connectivity between adjoining neighborhoods and activity centers is key to unlocking the value of mixed-use infill development, which builds value by offering convenient access to nearby jobs, housing, recreation and commercial amenities.
- Emphasize Place-making by carefully coordinating public circulation and open space networks with existing and new private development, allowing each new increment of development to add value to surrounding, connected neighborhoods and properties.
- Create new local street networks and walkable block structures within the existing large parcels.
- Ensure that new development fronts those streets with human-scale, pedestrian-oriented frontages.
- Encourage shared parking arrangements at various scales for different mixes of uses.
- Refine the design of Kammerer Road itself to increase its compatibility with each of the subareas through which it passes.

II. Land Use

- Locate the four-new centers around future transit stations (LRT or Bus) and implement principles of Transit Oriented Development (TOD) around these Station Areas. TOD is a growth strategy whose ultimate objective is to bring people and businesses close enough to transportation options so that people utilize transit from home to work, to school, to shopping, and to recreational opportunities.
- Create a range of densities (both housing and commercial) at each Station Area, which will allow new development to meet varying market conditions. The range of densities should be developed on a graduated scale from the center of a station area to its edge, known as the Transect of Urbanism. This shall be the basis for Zoning Regulations governing this area.
- The Livable Employment Area is diverse and includes a mix of places to work, live, learn, shop and play – all within a walkable area. These mixed use communities will be more resilient and engender collaboration – one of the hallmarks of the modern employment center. Diversity can exist along a cross-section of an entire Neighborhood regardless of who owns which parcel of land or even when it is developed. In other words, not every building needs to be mixed-use for the diversity of a neighborhood to emerge.

III. Circulation

- Organize neighborhoods around centers, at which future light rail/high-frequency transit stations or feeder bus stops are located.
- Develop Kammerer Road as a Urban Avenue.
- Implement a Circulation Plan that
    - Promotes higher rates of walking, bicycling, and transit than other parts of the City.
    - Incorporates safety features and design elements that recognize safety as more important than speed.
    - Includes safe spaces for all users (e.g., pedestrians, cyclists, transit, motorists).
- Connect Kammerer Road to an adjacent street grid that features an interconnected pattern of neighborhood streets and walkable blocks. Ensure that intersection density achieves at least 150 intersections per square mile.
- Create “complete streets”, which are designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders.
- Provide links to larger regional trail and bicycle networks. Include infrastructure to accommodate ride-, bike, scooter-, and carsharing.
- Create the occasional “pedestrian priority streets”, a shared street characterized by narrow widths, and absence of curbs and sidewalks. Vehicles are slowed by placing trees, planters, parking areas, and other obstacles in the street

- Designated Bike Lanes. Protected lanes for cyclists mean safer roads for people on bikes and people in cars and on foot which consequently motivates residents and workers to cycle more often.

IV. Environmental Sensitivity
Seek to achieve carbon neutrality in development through efficiency and moderation in the use of materials, and energy. Utilize a conscious approach to energy and ecological conservation in the design of the built environment.

- Development within the Plan Area should incorporate the latest in blue/green infrastructure. Examples include stormwater management that captures and treats rainwater before releasing to a storm drain system. This would include integrating storm water management into the design of streets and parking areas and even green roofs, where practicable.
- Implement the latest CalGreen Building Code requirements and any higher efficiency provisions of the City's Climate Action Plan. Support solutions that provide renewable energy solutions at the district or Plan Area level.
- Streets should include native or adapted street trees as part of the infrastructure. Not only do these provide shade, thereby reducing the urban heat island effect, but they also help with the re-absorption of water into the ground for recharge while absorbing sediments and other pollutants.
- Emphasize the importance of natural daylighting in new construction, which not only provides many aesthetic and health benefits, but can lead to substantial energy savings.

V. Contextual Compatibility

- Develop a plan that recognizes the right of existing uses (both within the Plan Area and adjacent), including agricultural/rural residences, to continue in the near-term and to minimize impacts upon these uses until they are ready to convert to urban uses.
- Provide for connectivity of roadways, pedestrian and bicycle access, and recreation facilities between the Plan Area and adjoining development.

LAND USE PLAN
The General Plan's Land Use Diagram is one of the most important functions of the General Plan, as the map and policies will determine the City's future land uses and character. The land plan for the Livable Employment Area is equally critical. The Livable Employment Area Land Use Map (Figure LEA-1) illustrates the planned uses for properties in the Community Plan area and is consistent with the land use categories described in Chapter 3: *Planning Framework*.

GOALS AND POLICIES: LIVABLE EMPLOYMENT AREA COMMUNITY PLAN

The following goals and policies apply to the Livable Employment Area Community Plan and are in addition to, and in support of, the Citywide policies and actions in the General Plan.

LEA-1: THE DEVELOPMENT OF FOUR MIXED-USE PEDESTRIAN-FRIENDLY CENTERS

Policies: Circulation

Policy LEA -1-1: Identify a route close to Kammerer Road for an extension of the fixed route transit from Sacramento with at and at least two additional station locations.

Policy LEA- 1-2: Identify at least two additional locations along or near Promenade Parkway for significant bus stops/transfer locations that define the locations of Centers 3 and 4.

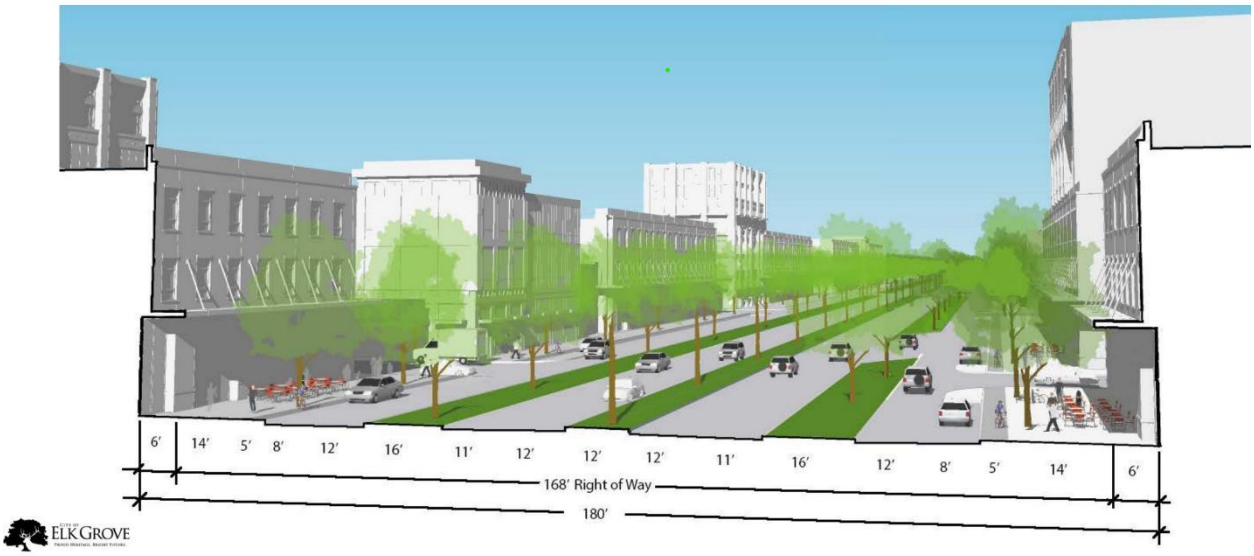
Policy LEA-1-3: Within the Livable Employment Area construct Kammerer Road as a "urban avenue"/"multi-way boulevard". See Figure LEA-4.

Standard LEA-1-3.a: The multi-way boulevard shall consist of two vehicular lanes in each direction (total of four lanes) and a 12' median. Adjacent to and on each side of this roadway, construct a one-way slip lane to provide an attractive and pedestrian streetscape for residences and commercial activity.

Standard LEA 1-3.b: Design these slip lanes to have a low traffic speed/volume making them safe for a bike lane which should be buffered by a parking lane and tree lined sidewalks.

Standard LEA 1-3.c: Separating the slip lane from the main thoroughfare shall be a 16' median allowing space for through traffic to merge into the slip lane, which in turn will provide access to local streets.

Figure LEA-4: Kammerer Road Urban Avenue/Multi-way Boulevard



Policy LEA-1-4: The Livable Employment Area shall be developed with a grid of streets.

Standard LEA 1-4.a: New development shall be designed as part of the street grid and have an intersection density of no less than 150 vehicular intersections per square mile.

Standard LEA 1-4.b: Within each block, service roads, such as alleys, lanes, and driveways, as well as pedestrian and bicycle only passages should be provided. The combined number of vehicular street and non-vehicular (pedestrian passages) intersections should exceed 300 intersections per square mile.

Standard LEA 1-4.c: Establish and implement provisions for the phasing of the street grid system, including the use of Irrevocable Offers of Dedication to the City. Only allow for phased implementation where the ultimate right of way is secured as part of the first phase development and long-term implementation and construction is assured.

Policy LEA 1-5: Require that the street network be designed to define blocks whose perimeters (measured as the sum of all sides) should generally not exceed: 3,000 feet in T3 Zones; 2,500 feet in T4 Zones; and 2,000 feet in T5 Zones.

Policy LEA 1-6: Future development should be designed such that new streets intersect at other streets forming the street grid. Streets in new developments should connect to existing streets in existing development where at all possible.

Policy LEA 1-8: Require that large lot developments, such as shopping centers, be designed to allow transformation to the street grid standards in Policies LEA 1-3, and 1-4, over time. Drive aisles in shopping centers are to form part of the street grid and should be designed to meet the standards of city streets (with appropriate sidewalks and streetscape) so that parking fields can be converted to blocks with the drive aisles as streets

Policy LEA 1-9: Cul-de-sacs and other non-through streets (such as loop roads) should be minimized and used to accommodate specific site conditions only (e.g., abutting drainage facilities).

Policy LEA 1-10: Require that all new thoroughfares are designed under a "Complete Streets" policy consisting, generally, of vehicular lanes and Public Frontages (the latter of which will vary from street to street). Consider Class 2 or Class 3 bicycle lanes on all streets. The Public Frontage is an ensemble that is tailored to specific street types and includes sidewalks, curbs, planters, bicycle facilities, and street trees.

Policy LEA 1-11: Require that streets are designed in context with the urban form and desired design speed of the Transect Zones through which they pass. Streets may include vehicular lanes in a variety of widths for parked and for moving vehicles, including bicycles.

> Standard LEA-1-11.a: Vehicular lane width should generally not exceed 10' in T-3 and T-4 zones, and 11' in T-5 zones, except for the through lanes of Kammerer Road.

Policy 1-12: A bicycle network consisting of Bicycle Trails, Bicycle Routes and Bicycle Lanes should also be provided.

Policy 1-13: Within the Transect Zones (T3 through T5), pedestrian comfort is a primary consideration of Street Design. Design conflict between vehicular and pedestrian movement generally shall be decided in favor of the pedestrian.

LEA-2: LIVEABLE EMPLOYMENT AREA DEVELOPMENT

Policies: Structure and Organization

Policy LEA 2-1: Implement the recommended organization and structure of neighborhood areas and mixed-use centers in relation to Kammerer Road and Promenade Parkway and the existing and proposed street network development patterns as shown in Figures LEA-1, LEA-2, LEA-3, and LEA-4.

Policy LEA-2-2: Within the Livable Employment Area, established new zoning regulations that implement the Transect concept through a new Special Planning Area. The Special Planning Area shall be formatted as Form-Based Code, calibrated to the applicable transect zones to ensure that building form and placement, as well as the design of streets and public spaces support evolution of walkable, thriving, public realm.

Policy LEA 2-3: Identify the locations and characteristics of the four centers, including application of the Transect, proposed land use and circulation patterns, public space, and building forms.

What is a Form-Based Code?

A Form-Based Code is a type of development regulation that prioritizes the form of buildings, rather than the use within them. This contrasts with traditional zoning regulations, which tend to be more use-based.

Form-based codes address the relationship between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks.

Policy LEA 2-4

- Center 1 is to be the most urban of all the centers, a high concentration of retail centers and offices as well as higher density residential development. Buildings will range from two to seven stories, though additional height may be allowed.

- Center 2 is to be considered the gateway to the Plan Area and contains the terminus station of the future light rail line. Development shall be transit-supportive, urban in style while providing a transition to the existing single-family neighborhood to the north.
- Center 3 is to take advantage of the adjacent Sky River Casino and embrace surrounding development.
- Center 4 has important streets connecting in it, including to State Route 99. This center will also have adjacent expansion opportunities.

Policy LEA-2-5: Residential development shall occur through building configurations and lot types that implement the intended urban form and character in terms of density/intensity, architectural design, and diversity of product (e.g., missing middle products including bungalows, townhomes, duplexes, fourplexes, cottage courts, courtyard buildings; mid-rise residential; vertically-integrated mixed use) so as to result in a full spectrum of housing affordability options.

LEA-3: PARKING IS "RIGHT-SIZED" FOR FUTURE REQUIREMENTS

Policies: Parking

Policy LEA 3-1: Utilize Transportation Demand Management solutions (TDMs) to reduce the requirements for parking particularly at employment centers including incentives for car-pooling, parking cash-out strategies, subsidized transit passes for employees and incorporating changing rooms with showers for employees who bike or who walk long distances to work.

Policy LEA 3-2: Minimize (or eliminate) off-street parking requirements. Parking maximums should be explored in future discussions as trends and paradigms evolve. Couple this with residential parking permits to ensure that on-street parking in residential areas is preserved for use by the residents. Consider phased reductions in parking requirements as densities increase over time.

Policy LEA 3-3: Where off-street parking requirements exist, consider creation of a fee in lieu system allowing developers to pay into a parking fund that will provide for the construction of centralized parking for common use.

Policy LEA 3-4: Un-bundle off-street parking from the land uses it was built to serve, so that any excess parking can be leased on the open market.

Policy LEA 3-5: Utilize fair-market managed on-street parking at parking meters where parking is in demand. Set the price (utilizing computer-controlled meters) so that one out of every nine spaces is always available.

Policy LEA 3-6: In lower intensity areas, such as T-3 and T-4 zones, where surface parking may be the norm, screen such lots from primary street frontages with buildings, and from secondary street frontages with screening devices such as fences, walls or hedges when buildings are not feasible along those edges.

Policy LEA 3-7: In higher intensity areas, such as higher density T4 zones and T5 zones, parking should, ultimately, be placed in garages. Such garages should be screened and out of view from primary streets and be lined with active uses to enhance the pedestrian experience. Garages may also be joint-use facilities, shared with transit services.

LEA-4: A HEALTHY AND SAFE COMMUNITY

Policies: Pedestrian and Bicycle Oriented Design

Policy LEA 4-1: Pedestrian comfort is prioritized throughout the area, though appropriately sized, tree-shaded sidewalks

Policy LEA 4-2: Design standards emphasize the continuity of public frontages with buildings or landscape edges while discouraging surface parking lots and/or blank walls.

Policy LEA 4-3: The frequency of vehicular intersections is at least 150 / square mile allowing multiple opportunities for pedestrians to cross streets.

Policy LEA 4-4: Mid-block pedestrian crossings are provided where blocks are unusually long

Policy LEA 4-5: Intersections are designed to reduce the distance pedestrians have to cross through the use of curb-extensions and reduced curb-return radii.

Policy LEA 4-6: Crime Prevention through Environmental Design (CPTED) principles, which emphasize "eyes on the street" are utilized in the design of the public realm

Policy LEA 4-7: Schools sites should be provided, sized, and designed to support walking to school as the norm.

Policy LEA 4-7: Create a bicycle plan which provides Class I or IV bike facilities on the heaviest trafficked streets, Class II routes on lesser trafficked but through streets, and Class III routes on more intimate neighborhood streets.

Policy LEA 4-8: Build in areas for bike racks and bike-share stations in the higher intensity T-4 and T-5 areas of the plan area.

LEA-5: A NETWORK OF PARKS AND OPEN SPACES INTEGRATED INTO THE DEVELOPMENT AREA

Policies: Parks and Open Space

Policy LEA 5-1: Parks shall be generally located in the areas shown on the land use plan. Precise configuration of park sites shall be determined at the time of Tentative Subdivision Map approval.

Policy LEA 5-2: Require that each center include at least 5% of its Urbanized area to Civic or Public Space with there being at least one main Civic Space within 800 feet of the geographic center of each sub-area.

Policy LEA 5-3: Within 800 feet of every lot provided for Residential use, a Civic Space designed and equipped as a playground should be provided.

Policy LEA 5-4: Civic Spaces including Plazas and Squares shall be defined by building on at least one side, or up to three sides, and activated by ground floor uses.

Policy LEA 5-5: Parks shall be fronted by streets and buildings ensuring "eyes on the park" except on sides adjacent to drainage corridors and parkway.

Policy LEA 5-6: Require that Parks shall be designed for users of all ages.

Policy LEA 5-7: Require that all parklands, paseos, and other open space, as well as all drainage and publicly maintained roadside landscape corridors, be dedicated to the City and/or CCSD, as applicable.

##

EXHIBIT B

TRANSPORTATION ANALYSIS GUIDELINES

CITY OF ELK GROVE

ADOPTED FEBRUARY 2019

UPDATED DECEMBER 2019

UPDATED NOVEMBER 2023

PLANNING COMMISSION DRAFT (REVISED)

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1. INTRODUCTION

Transportation Analysis (TA) Guidelines are routinely established by jurisdictions to assist applicants with assessing potential traffic operations of proposed projects. The following guidelines have been developed to provide a clear and consistent technical approach to transportation analysis for projects within Elk Grove's jurisdiction.

On September 27, 2013, Governor Brown signed Senate Bill 743 (SB 743) and started a process intended to fundamentally change transportation impact analysis as part of California Environmental Quality Act (CEQA) compliance. These changes include the elimination of auto delay, level of service, and other similar measures of vehicle capacity or traffic congestion as a basis for determining significant impacts. The Governor's Office of Planning and Research (OPR) has issued final guidance entitled, *Proposed Updates to the CEQA Guidelines* (November 2017), covering the specific changes to the CEQA guidelines. The final guidance recommends elimination of auto delay and level of service for CEQA purposes and the use of Vehicle Miles Traveled, or VMT, as the preferred CEQA transportation metric. The City of Elk Grove General Plan (2018) incorporates the change in transportation impact analysis, resulting from SB 743, and includes VMT policy that establishes significance thresholds for CEQA analysis of future projects.

This document establishes protocol for transportation analysis studies and reports based on the current state-of-the-practice in transportation planning and engineering and includes guidance for General Plan consistency analysis (using roadway and intersection performance) and CEQA analysis (using VMT).

The City expects these guidelines to result in studies that provide comprehensive and accurate analysis of potential transportation operations to City facilities and services. This information is essential for decision makers and the public when evaluating individual projects.

PROJECT CONSIDERATIONS

The following types of projects may require a TA.

- Land use entitlements requiring discretionary approval by Elk Grove, which include but are not limited to: annexations, general plan amendments, specific plans, zoning changes, conditional use permits, and tentative maps.
- Transportation infrastructure modification or expansion, including Capital Improvement Projects (CIP) on City roads and State highways.
- Land use activity advanced by agencies other than Elk Grove that is subject to jurisdictional review under State and Federal law.
- Land use activity advanced by agencies other than Elk Grove that is inconsistent with the City's General Plan.

Section 2 identifies specific project parameters or "triggers" that may necessitate a TA.

INTENT OF ANALYSIS GUIDELINES

These guidelines address key elements required for preparing and reviewing transportation analysis studies in Elk Grove. This document is intended to be a resource applied in concert with professional judgment. The following major issues are addressed in this document.

- Situations and thresholds that commonly trigger the need for a TA.
- Scope and extent of the required study.
- Transportation analysis methods.
- Criteria to determine if the transportation-related impacts of a proposed project are significant under the California Environmental Quality Act (CEQA).
- Mitigation measure requirements.
- Guidelines for documentation of the findings, conclusions, and recommendations.

The City will primarily review transportation studies and reports based on the guidelines presented in this document. However, each project is unique, and the TA guidelines are not intended to be prescriptive beyond practical. Not all criteria and analyses described in this document will apply to every project. Early and consistent communication with the Development Services and Public Works Departments is encouraged to confirm the type and level of analysis required on a case-by-case basis. Ultimate determination of the criteria and analysis required for a project shall be the responsibility of the Public Works Director (as used in this document, "Public Works Director" means the Public Works Director or their designee).

GENERAL PLAN CONTEXT

The City of Elk Grove General Plan specifically identified the preparation of transportation analysis guidelines to support General Plan implementation.

The General Plan and implementing programs serve as a blueprint for future growth and development. The common vision is for Elk Grove to be a great place to make a home, a great place to work, a great place to play, where members of the community travel easily using all modes of transportation.

The General Plan vision is supported by nine Supporting Principles, with the most relevant to transportation listed here:

- Mobility and Active Transportation: Moving Around Anywhere, Any Way:

  Our residents, workers, and visitors need to move about efficiently, and have a variety of ways to do so. Connected transportation networks, regional coordination, and public and active transportation options are priorities for our community. Connected and mobile community members have the ability to travel within the City and to other places in the region by a variety of methods, with seamless transitions between modes and regions. Our community has roadways in place that allow for efficient movement and safe travel spaces for all modes of getting around. The infrastructure and facilities for pedestrians, bicyclists, and transit users are clean, safe, and well maintained, and walkways and bike lanes are continuous and completed with convenient connections to local and regional transit.

2. TRIGGERS REQUIRING ANALYSIS

Unless explicitly waived by the City, a TA is required when any one or more of the following conditions is met:

1. The project has the potential to create a significant environmental impact under CEQA (review Table 13 on Page 31 for a list of significance thresholds for all modes).
2. A transportation project that is likely to lead to a substantial or measurable increase in VMT (review Page 8 for a list of projects not likely to lead to a substantial or measurable increase in VMT).
3. The project requires a discretionary planning approval and was not previously analyzed under a prior TA or similar study.
4. The project will substantially alter physical or operational conditions on a City roadway, bikeway, sidewalk, or other transportation facility as determined by the Public Works Director.
5. The project potentially impacts a facility by creating an elevated collision concentration or rate as determined by the Public Works Director.

In general, a TA is applicable for three years. After three or more years of inactivity, a TA should be updated; however, the ultimate decision of if an updated TA is required shall be at the discretion of the Public Works Director or Development Services Director, as applicable.

In some instances, a master TA may be prepared for a larger development. If the master TA fully addresses development phasing and the phase or project is consistent with the intent of the larger development, specific phases will generally not require supplemental transportation analysis. However, each phase or project of the larger development will be required to prepare a site-access and on-site circulation analysis.

At a minimum, a site access and on-site circulation review is required for every project (see Page 39 for more information about the scope of site access and on-site circulation analysis).

PROJECT DEFINITION

The applicant shall provide a project description that, at a minimum, includes the following:

- Specific land uses and transportation facilities intended for the site or off-site roadway improvements that are part of the project.
- Size or intensity of the proposed development (e.g., square footage, acreage, dwelling units, tonnage, etc.).
- Documentation to inform the City whether the project will affect off-site transportation facilities or services including transit, rail crossings, roadways, bikeways, and sidewalks (see discussion of multimodal analysis beginning on Page 32 and Table 13 on page 45 for more information about potential multimodal impacts).

An accurate project description will help determine if a TA is required based on potentially significant environmental impacts.

VEHICLE MILES TRAVELED (VMT) ANALYSIS

The City has established VMT limits for projects, which are designed to achieve a 15 percent reduction in VMT below the 2020 baseline for new land use development. The VMT limits are established at the Citywide or Study Area level as well as the land use designation level underlying the project.

The City has also established VMT limits for new transportation projects. Transportation projects that are contemplated in the Transportation Network Diagram should not result in a net increase in citywide VMT per service population.

Projects with VMT less than or equal to the established limits will likely be found to have less than significant transportation impacts under CEQA. Projects with VMT exceeding the established limits that are unable to reduce VMT through reduction strategies identified in Table 12:

1. Must demonstrate clear community benefit, within the context of the General Plan's vision, goals, and policies; and
2. Would be found to have significant and unavoidable transportation impacts, requiring the City to adopt a statement of overriding considerations. Projects are required to mitigate transportation impacts to the extent feasible.

The following outlines screening for land use and transportation projects.

Land Use Project Screening

The City has established specific limits on VMT allowable for each land use project by General Plan land use designation as well as Citywide limits and limits within each Study Area. The City's Development Services Department will conduct an initial assessment of each project based on the project description and proposed uses. Figure 1 summarizes the VMT analysis process for land use projects.

Land use projects must show consistency with the General Plan Land Use Plan. Projects that are inconsistent with the Land Use Plan are automatically considered inconsistent with the VMT policy and shall conduct a VMT analysis. Projects that are consistent with the Land Use Plan move to the next step.

Projects that are not likely to lead to a substantial or measurable increase in VMT and are presumed to be less than significant include, but are not limited to, the following:

- Projects consistent with the General Plan and Zoning and located within low VMT generating areas (pre-screened areas) as determined by the Development Services Director.
- Projects consistent with the General Plan and Zoning and which qualify for a categorical or statutory exemption under CEQA.

- Projects consistent with the General Plan and Zoning and which were covered under a prior CEQA analysis, and where none of the conditions provided in CEQA Guidelines Section 15162 would trigger additional or new analysis.
- Project located within ½ mile of an existing major transit stop[1] or an existing stop along a high-quality transit corridor[2][3]. (At the time this document was approved, there were no major transit stops in Elk Grove).

Pre-screened areas have been determined to result in 15 percent or below the average service population VMT established for that land use designation if built to the specifications of the Land Use Plan. Projects not pre-screened must proceed to VMT analysis. The pre-screened VMT map is available from the Development Services Department in an interactive format.

For projects located within ½ mile of an existing major transit stop, the presumption of less than significant impact would not apply if project-specific or location-specific information indicates that the project will still generate significant levels of VMT. For example, the presumption might not be appropriate if the project:

- Has a floor area ratio of less than 0.75.
- Includes substantially more parking for use by residents, customers, or employees of the project than required by the City such that it discourages transit use by making it too convenient to drive.

If any of these apply, the project will be subject to VMT analysis. Notwithstanding these provisions, the Public Works Director may determine that a VMT analysis is required for any discretionary project where substantial evidence indicates the project is likely to result in substantial VMT.

Transportation Project Screening

Figure 2 outlines the VMT analysis process for transportation projects.

[1] Public Resource Code § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with frequency of service interval of 15 minutes of less during the morning and afternoon peak commute periods.").
[2] Public Resource Code § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.")

Figure 1 – Land Use Project VMT Analysis Process

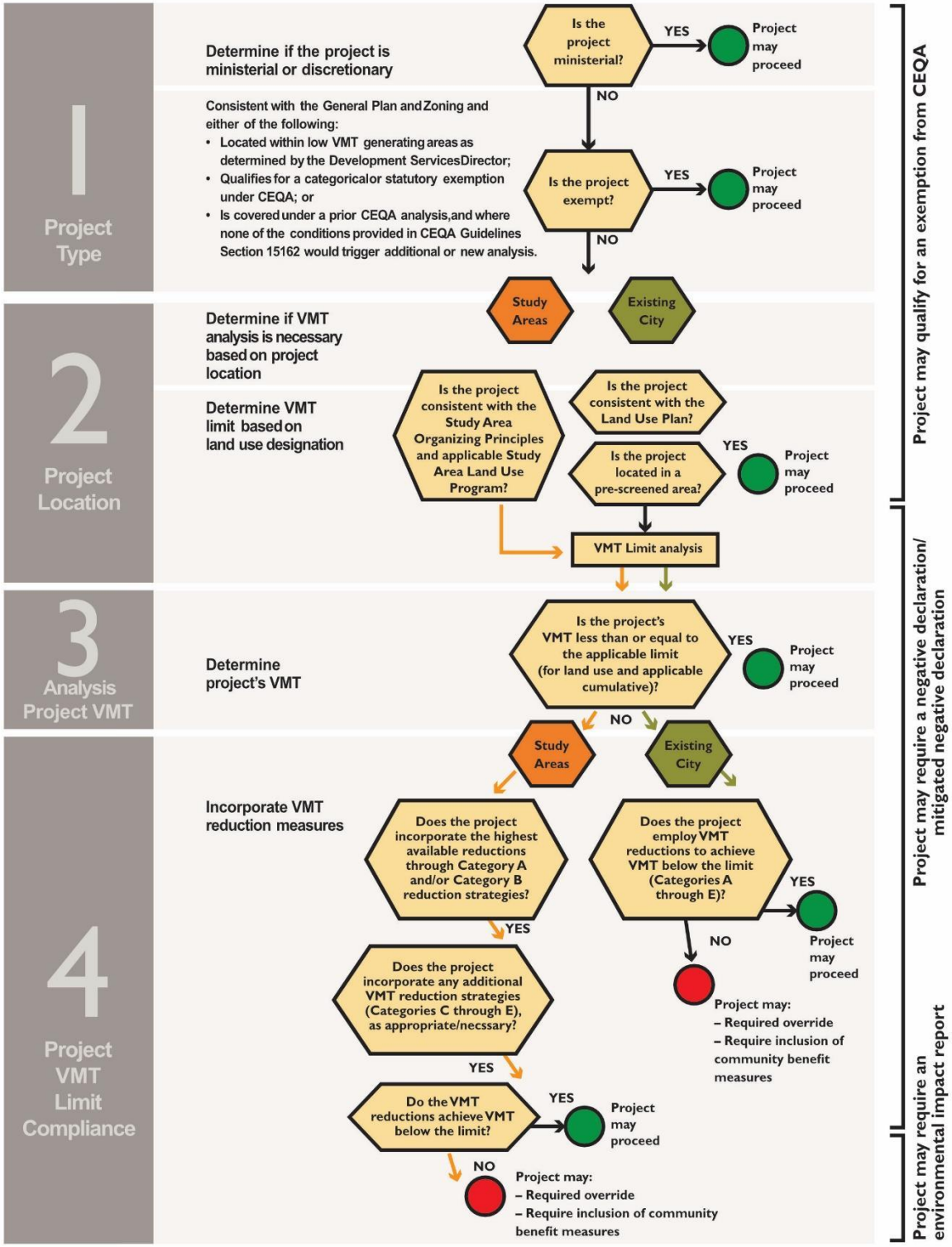
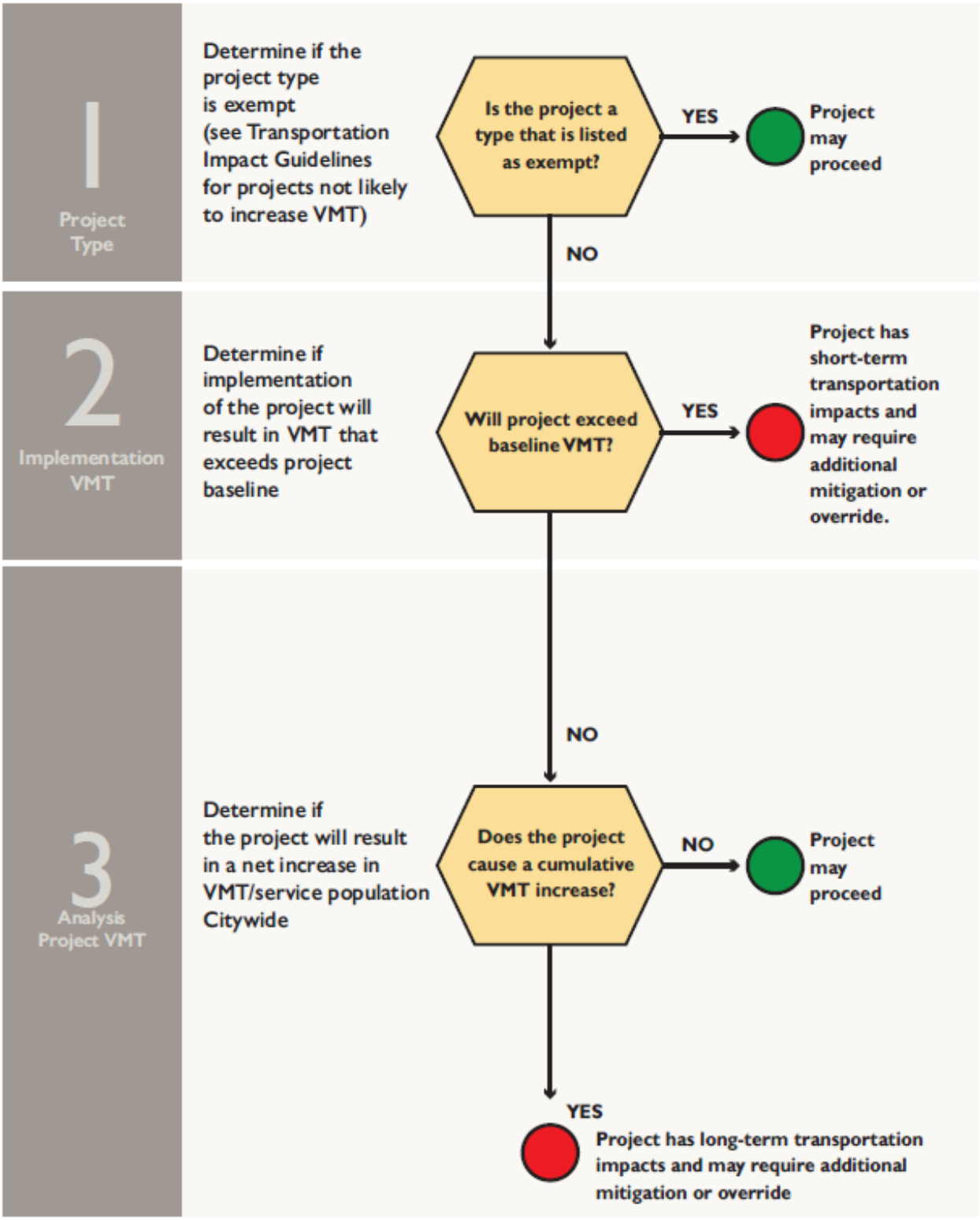


Figure 2 – Transportation Project VMT Analysis Process



Projects that are not likely to lead to a substantial or measurable increase in VMT include, but are not limited to, the following[4]:

- Public transit (e.g., establishing new routes or services or modifying existing routes or services).
- Addition of active transportation improvements (e.g., new trail segments), like on-street bike lanes and shoulder improvements to improve conditions for cyclists.
- Addition of roadway capacity on local and collector roadways only provided for the purpose of improving conditions for pedestrians, cyclists, and public transit (as applicable).
- Resurfacing, rehabilitation, maintenance, preventative maintenance, replacement, and repair projects that do not add additional roadway capacity.
- Installation, removal, or modification of turn lanes.
- Installation, removal, or modification of traffic control devices, including traffic signals, wayfinding, and traffic signal priority systems.
- Traffic signal optimization and or coordination to improve vehicle, bicycle, or pedestrian flow.
- Installation of roundabouts.
- Installation or modification of traffic calming devices.
- Lane reductions (i.e., road diets").
- Addition of auxiliary lanes that do not add additional roadway capacity.
- Removal of off-street parking and addition, adoption, or modification of parking devices and management strategies.
- Safety improvements, including roadway shoulder enhancements and auxiliary lanes, and grade separations for rail, transit, pedestrian, and bicycle facilities.
- Sidewalk infill, removing barriers to accessibility, and American with Disabilities Act (ADA) Improvements.
- Installation or modification of access control restrictions.
- Complete Streets Projects that do not add additional roadway capacity.
- Other improvements to the circulation system that do not add additional roadway capacity.

The City shall conduct an initial assessment of each project to determine if the proposed project is likely to substantially increase VMT, as determined by the Public Works Director, and would therefore require VMT analysis.

[4] OPR provides a more detailed list of project types that the State anticipates would not result in increased VMT in the *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA (January 2016)*. Applicants may find this discussion helpful in determining which types of projects to pursue.

3. SCOPE OF THE STUDY

The content and extent of a transportation analysis depend on the location and size of the proposed development, the prevailing conditions in the surrounding area, and the technical questions being asked by decision makers and the public.

STUDY AREA

The study area should be based on the current state-of-the-practice in transportation planning and engineering. For General Plan consistency analysis, the City must approve study locations before traffic data collection and analysis commences. Careful consideration of all modes and facilities (i.e., transit, pedestrian, bicycle, vehicle, rail crossings, or similar) is required when selecting the study area boundary. The study area should be viewed as the "area of influence" of a specific project. The extent of the study area should be determined according to the following guidelines:

- The minimum study area shall include the transportation network within two miles of the project site or the network area where the project adds more than 10 peak hour trips.

Additional facilities may be studied based on circumstances unique to the site. Applicants should consult with the City early regarding any additional study locations based on local or site-specific issues, especially those related to pedestrians, bicycles, rail crossings, and transit.

CEQA requires environmental analyses to reflect a "good faith effort at full disclosure" (CEQA Guidelines § 15151). Therefore, VMT analysis should not be truncated at jurisdictional or other boundaries. The City's VMT thresholds were developed using a modified version of the SACOG SACSIM model, developed for the update of the City of Elk Grove General Plan (EGSIM20), and estimated for the entire model network. Consequently, CEQA analysis should use the EGSIM20 model network for consistency of evaluation. There may be projects that require estimating travel beyond the EGSIM20 model network. Under these circumstances, the applicant should consult with the City to determine an appropriate area for analysis.

TRANSPORTATION ANALYSIS SCENARIOS

The potential transportation analysis scenarios are listed below. Most isolated or small projects consistent with the General Plan will be required only to complete the Present Conditions analysis. Larger projects and projects near other potential development projects may be required to analyze both Present and Near-Term Conditions.

Present Conditions

- **Existing Conditions** represented by transportation conditions for all travel modes in the study area based on recent field observations. Traffic volumes for roadway analysis should be based on recent count data. For CEQA compliance, the transportation impact analysis must include a description of the physical environmental condition near the project, as they exist at the time of the notice of preparation is published, or if no notice of preparation is published, at the time environmental

analysis is commenced, from both a local and regional perspective (CEQA Guidelines Section 15125(a)).

- **Existing Plus Project Conditions** represented by project changes to existing transportation conditions for all travel modes in the study area. Traffic volume forecasts for roadway analysis should reflect existing conditions plus traffic generated by the proposed project. For re-use or conversion projects, this will involve accounting for any existing use of the site that remains or will be discontinued.

Near-Term Conditions

- **Existing Plus Approved Projects Conditions** represented by changes to existing transportation conditions for all travel modes in the study area resulting from approved projects. Traffic volume forecasts for roadway analysis should reflect existing conditions plus growth due to approved development (this scenario may be skipped if the study area has limited or no approved developments).

- **Existing Plus Approved Projects Plus Project Conditions** represented by Existing Plus Approved Projects Conditions plus changes to these conditions caused by the proposed project (this scenario may be skipped if the study area has limited or no approved developments).

Future Conditions

- **Cumulative No Project Conditions** represented by transportation conditions for all travel modes in the study area reflecting all approved projects plus pending projects or expected development of other areas of the City designated for growth. In most cases, the project site will likely be vacant under this scenario. In some cases, though, this scenario may need to account for any existing uses on the site that could continue and potential increases in development allowed by ministerial approvals only.

- **Cumulative Plus Project Conditions** represented by Cumulative Conditions plus changes to these conditions caused by the proposed project. This scenario needs to account for whether the project is changing any existing or planned land uses on the site.

Additional analysis scenarios may be required in the traffic analysis dependent on project conditions and setting. For example, other scenarios may be needed for phasing or other interim conditions at the discretion of the City.

TRANSPORTATION ANALYSIS TIME PERIODS

The determination of analysis time periods will depend on the travel modes being evaluated. For non-auto travel modes, the analysis may include daily, peak period, or peak hour conditions. Final determination shall be made in consultation with City staff. For roadway analysis, General Plan Policy MOB-1.4 identifies average daily conditions for roadway performance and peak hour conditions for intersection performance. At a minimum, average daily traffic volumes will be used to determine compliance with roadway performance and weekday AM and PM peak hour traffic volumes will be used to determine compliance intersection

performance. For recreational and other non-typical peak hour uses, weekday afternoon, weekday late evening, or weekends shall be considered.

Based on the land use of the proposed project and upon consultation with the City, the study shall analyze traffic operations during the peak hour of the following time periods.

- Weekday morning peak (7:00 – 9:00 AM)
- Weekday evening peak (4:00 – 6:00 PM)

For some projects, the City may substitute or require additional peak hour analysis for the following time periods, or others as determined by the Public Works Director.

- Weekday afternoon peak (2:00 – 4:00 PM)
- Friday evening peak (5:00 – 7:00 PM)
- Weekend midday peak (11:00 AM – 1:00 PM)
- Weekend evening peak (4:00 – 7:30 PM)

The determination of study time periods should be made separately for each proposed project based upon the peaking characteristics of project-generated traffic and peaking characteristics of the adjacent street system and land uses. The time period(s) that should be analyzed are those that exhibit the maximum combined level of project-generated traffic and adjacent street traffic. Projects involving special events or that have unusual trip generation characteristics shall also analyze the peak hour for the project (i.e., the peak hour of the trip generator).

CONSULTATION WITH OTHER JURISDICTIONS

If the study area overlaps with other jurisdictions, the other jurisdictions shall be consulted to verify study locations and to specify the impact significance criteria that should be used in the TA for these locations. Section 15086 of the CEQA Guidelines shall be followed as the basis for satisfying consultation requirements. Roadway crossings of rail lines may require coordination with the Public Utilities Commission (PUC). The focus of any analysis related to rail crossings should be on whether the current crossing complies with current railroad design standards.

MAJOR COMPONENTS OF THE STUDY

The extent and complexity of a transportation analysis can vary greatly. Table 1 provides basic transportation and circulation elements that shall be acknowledged in every project requiring a TA. Section 4 identifies relevant General Plan policies. Specific analysis methodologies and significance criteria for each of the listed elements are described in further detail in Sections 5 and 6. Communicating the transportation analysis results. Effective graphics, charts, and simulations are often necessary to successfully communicate analysis results to decision makers and the public.

MODIFICATIONS TO EGSIM20 (VERSION CONTROL)

All modifications to EGSIM20 for the purposes of analysis for project analysis shall be documented in the transportation analysis report (or equivalent) for the subject project. Modifications include all network, traffic analysis zone, and land use/socio-economic changes made to apply EGSIM20. The level of documentation needed will depend on the scale of the transportation analysis applied, but at a level to the satisfaction of the Public Works Director or Development Services Director, as applicable. For significant changes to the traffic analysis zone geography or land use/socio-economic inputs, figures illustrating the modification (i.e., zone splits) shall be prepared and provided to the City in electronic format (e.g., GIS shapefile). The complete model (i.e., all input and output files) shall be submitted to the City of Elk Grove.

TABLE 1: TRANSPORTATION AND CIRCULATION ELEMENTS ADDRESSED IN AN IMPACT STUDY

Elements	Evaluation
On-site Circulation	Review and evaluate site access locations, driveway throat depths, size of major circulation features with respect to operations and safety, turning movement volumes at site access points, queuing at site access driveways, dimensions of truck loading areas, and emergency access. Address and accommodate pedestrian and bicycle access. See Appendix D for a sample.
Off-Site Traffic Operations	Study all roadway facilities using methods and procedures contained in the latest version of the *Highway Capacity Manual* (HCM).
Bicycle Facilities	Identify any existing or planned bicycle facilities that may be affected by the project. Focus on maintaining or enhancing connectivity and completing network gaps.
Pedestrian Facilities and Americans with Disabilities Act (ADA) compliance	Identify any existing or planned pedestrian facilities that may be affected by the project. Focus on maintaining or enhancing connectivity, completing network gaps, and removing barriers. Disclose evaluation and documentation of project features (e.g., road widening) with likely disparate impact on pedestrians (e.g., longer crossing time).
Parking	Compare the project parking plan with City standards.
Trucks (or other heavy vehicles)	For projects related to goods or materials movement, identify the number of truck trips that will be generated, and design facilities necessary to accommodate truck traffic. This will generally require evaluation of the Traffic Index for existing roadways serving the project and an assessment of whether roadways meet current City design standards.
Transit	Identify any existing or planned transit facilities that may be affected by the project. Focus on maintaining or enhancing connectivity and completing network gaps. For system planning, use crush load as capacity, not seated capacity.
Intersection Traffic Control	Evaluate unsignalized intersections located within the study to determine appropriate traffic control with or without the project. Consider stop control, signal control, and roundabout control.
General Plan Consistency	Evaluate the project against goals, policies, and actions set forth in the General Plan.
Other Subject Areas	Consider other subject areas on a case-by-case basis.
Other Jurisdictional Requirements	In situations where several agencies must approve a development or are responsible for affected roadways, the applicant must contact lead and responsible agencies to determine issues to be addressed, scope of study, etc. In general, the applicant will be responsible for analyzing project impacts against appropriate jurisdictional thresholds; however, the analysis methodology will be determined by the City in compliance with CEQA and the impacts will be mitigated consistent with City standards.
VMT	New land use plans or development projects must demonstrate that VMT produced by the proposed project does not exceed established VMT limits for the applicable land use designation. See Appendix E for calculation methodology. Transportation projects must demonstrate that the project will not increase citywide VMT per service population.

4. RELEVANT POLICIES

An important aspect of a TA is to provide sufficient information for the City to determine that a project is consistent with the General Plan. As such, individual projects shall be reviewed against relevant policies contained in the General Plan. Applicants should review the full policy statement in the General Plan.

TRANSPORTATION NETWORK DIAGRAM

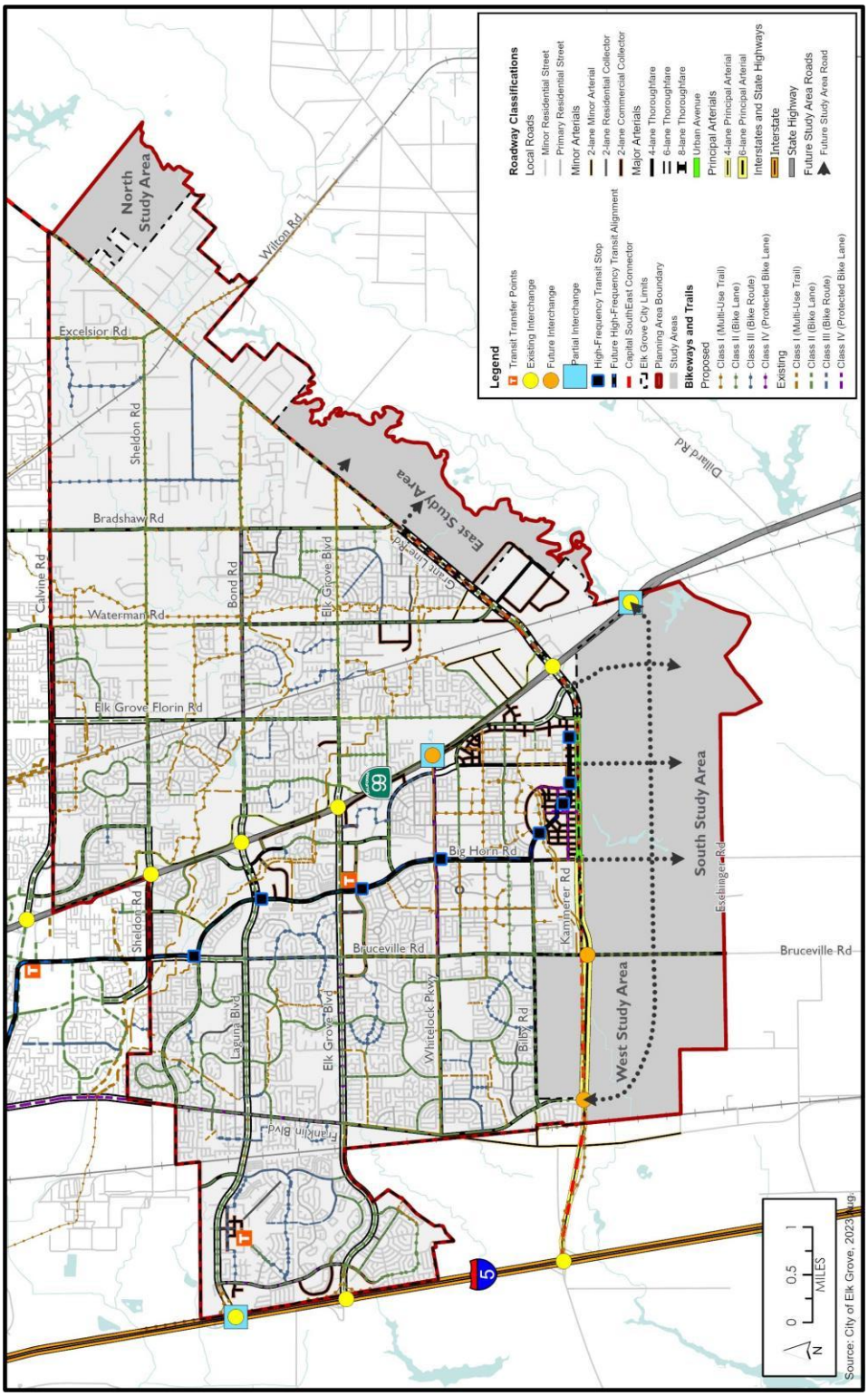
General Plan Policy MOB-1-4 includes performance targets for intersections and roadways. The City strives to implement the intersection and roadway segment performance targets summarized in these policies. The objective of Policy MOB-1-4 is to balance the effectiveness of design requirements to achieve the targets with the character of the surrounding area as well as the cost to complete the improvement and ongoing maintenance obligations. Figure 3 shows the roadway system and sizing diagram, which reflects the implementation of the RPT policy at a macro level; the City will consider the specific design of individual segments and intersections taking into consideration this policy and the guidance in the Transportation Network Diagram.

Table 2 provides a correspondence between the City's General Plan roadway classifications and the FHWA functional classifications.

TABLE 2: ROADWAY CLASSIFICATION CORRESPONDNECE

FHWA Functional Classification	City General Plan Roadway Classification
Interstate	Interstate and State Highway
Other Freeway or Expressway	
Other Principal Arterial	Principal Arterial
	Major Arterial (Thoroughfare, Urban Avenue)
Minor Arterial	Minor Arterial/Collector (Minor Arterial, Commercial Collector, Residential Collector)
Major Collector	
Minor Collector	
Local	Local Roads (Primary Residential Street, Minor Residential Street)

Figure 3 – Transportation Network Diagram



5. ANALYSIS METHODOLOGY

This section provides data collection and analysis procedures for conducting transportation impact studies in Elk Grove. The City is committed to equal levels of analysis for all modes of travel. The methodology presented in this section includes robust data collection and analysis techniques for pedestrian, bicycle and transit networks, in addition to vehicle circulation.

The General Plan includes policy guidance regarding roadway efficiency; however, the efficiency of the roadway network is not measured through LOS. Rather, the policy is structured to evaluate a range of metrics including vehicular capacity, intersection delay, pedestrian and bicycle safety and stress levels, and the character and context of the surrounding environment.

TRANSPORTATION DATA COLLECTION

Accurate data is essential to achieve a high level of confidence in transportation analysis results. Existing traffic conditions data shall be collected using the guidelines set forth in Table 3.

TABLE 3: EXISTING CONDITIONS DATA COLLECTION PROTOCOL

Data Set	Procedure
Peak period turning movement counts	Collect data for all study intersections on a Tuesday, Wednesday, or Thursday during weeks without holidays, large special events, or heavy construction in the study area that results in temporary travel pattern shifts. Fall or Spring days without rain and when school is in session are preferred. • Care should be taken to collect data on days when schools are in session. • Consult with the City to determine if adjustments are necessary to account for seasonal variation in traffic volumes. • Traffic counts shall not be used if more than three years old at study initiation. If available, City counts may be used but the traffic counts must be adjusted to reflect current year traffic volumes and patterns. • Bicycles and pedestrians should be included in all counts. • Some projects may require vehicle classification or occupancy counts. Consult with the City on a case-by-case basis.
Daily traffic counts	Collect data for all study roadway segments using the parameters described above for peak period turning movement counts except for collecting bicycle and pedestrian data.
Roadway geometrics	Establish existing geometrics from a combination of aerial photography, as-built plans, and site visits.
Travel time and speed	Only as necessary. Collect data using a floating car survey.
Signal timing	Request timing from the City and other operating agencies such as Caltrans. Verify timing in the field.

Data Set	Procedure
Collision data	For City facilities, collision shall be obtained from the Elk Grove Police Department. Obtain Statewide Integrated Traffic Records System (SWITRS) through the local California Highway Patrol or Traffic Accident Surveillance and Analysis System (TASAS) database through Caltrans District 3 for collision records in other jurisdictions or on the State Highway System. For City facilities, the calculated crash frequency shall be compared to the predicted crash frequency for similar facilities from the Highway Safety Manual (HSM). If the calculated crash frequency is greater than the predicted crash frequency, consult the Local Roadway Safety Manual (LRSM) or the Crash Modification Factor Clearinghouse to identify countermeasures to reduce crash frequency.
Mode split	Summarize daily and peak hour mode split from study area or communities adjacent to study area. Data sources could include the Census journey-to-work survey, the SACOG household travel survey, or other available surveys.
Transit routes and use	Map existing transit routes and stops serving the study area and identify service hours and levels of use. Document amenities (benches, shelters, bicycle parking, etc.) available at transit stops and centers within ¼-mile of non-residential projects and a ½-mile of residential projects.
Bicycle and pedestrian facilities	Map existing bicycle and pedestrian facilities within the study area (include sidewalks, crosswalks, signal heads, push buttons, related signing, and striping). Document barriers, deficiencies and high-pedestrian demand land uses including schools, parking, senior housing facilities, and transit stops or centers.

MULTIMODAL ANALYSIS

Evaluate the project's potential adverse effects on transportation facilities and services related to transit, rail crossings, bicycles, and pedestrians. The evaluation could include identification of any disruption to existing facilities and services or interference with the implementation of planned facilities and services. This effort will require identifying and mapping existing facilities. Particular attention should be made to roadway or intersection widening mitigation that would increase pedestrian/bicycle crossing times or increase the potential for vehicle and pedestrian/bicycle conflicts. Consideration should also be given to how a project affects accessibility between each travel mode and the surrounding land uses.

Pedestrian Level of Traffic Stress

The Pedestrian Level of Traffic Stress (LTS) refers to the pedestrian comfort associated with a roadway or intersection. The Pedestrian LTS methodology builds on Mekuria, Furth, and Nixon's 2012 Low Stress Bicycling and Network Connectivity report and LTS methodology with a corresponding index for pedestrian comfort. Pedestrian LTS includes recommended parameters for the pedestrian environment provided by the NACTO Urban Streets Design Guide (USDG) and additional considerations of comfort informed by practitioner and best practice experience. Roadway segments and intersection approaches receive individual

scores based on different considerations. The following factors are considered in developing the Pedestrian Streetscore LTS for roadways and intersections:

Roadways	**Intersections**
Usable sidewalk space	Crossing distance
Driveways	Accessibility
Pedestrian-scale lighting	Channelized right-turns
Street trees and landscaping	Leading pedestrian intervals (LPIs) and pedestrian scrambles
Speed	
Sidewalk quality	
Number of travel lanes	
Heavy vehicle volumes	
Crosswalk frequency	

The Pedestrian Streetscore LTS uses a scale that ranges from 1 to 4, with 1 being the least stressful and 4 being the most stressful. Table 4 summarizes Pedestrian Streetscore LTS.

TABLE 4: PEDESTRIAN STREETSCORE LTS

Streetscore LTS	Description
1	Highly comfortable, pedestrian-friendly, and easily navigable for pedestrians of all ages and abilities, including seniors or school-aged children walking unaccompanied to school. These streets provide an ideal "pedestrian-friendly" environment.
2	Generally comfortable for many pedestrians, but parents may not feel comfortable with children walking alone. Seniors may have concerns about the walking environment and take more caution. These streets may be part of a "pedestrian-friendly" environment where it intersects with a more auto-oriented roadway or other environmental constraints.
3	Walking is uncomfortable but possible. Minimum sidewalk and crossing facilities may be present, but barriers are present that make the walking experience uninviting and uncomfortable.
4	Walking is a barrier and is very uncomfortable or even impossible. Streets have limited or no accommodation for pedestrians and are inhospitable and possibly unsafe environment for pedestrians.

Bicycle Level of Traffic Stress

Bicycle LTS refers to the comfort associated with roadways, or the mental ease people experience riding on them. Metrics for bicycling LTS were developed at the Mineta Transportation Institute (MTI) and published in the report "Low-Stress Bicycling and Network Connectivity."5 The criteria establish a "weakest link" approach, as roadways are classified based on their segments with the highest level of traffic stress, assuming

[5] Mekuria, Maaza C., Peter G. Furth, and Hilary Nixon, (2012). *Low-Stress Bicycling and Network Connectivity*. San Jose, California: Mineta Transportation Institute.

that only those that are comfortable riding under the higher stress would travel on that road. Factors influencing LTS include:

- Number of travel lanes
- Speed of traffic
- Number of vehicles
- Presence of bike lanes
- Width of bike lanes
- Presence of physical barrier

Bicycle riders vary in experience, skill, ability, and confidence. As such, they rely on the bikeway system to cater to their specific needs and abilities. Advanced cyclists are more comfortable riding in traffic and value bikeways and routes that are direct and limit unnecessary delay. People with limited bicycling confidence and lower or developing skill levels such as children and older adult riders may desire more separation from traffic to feel comfortable enough to ride. Different bicycle types also require more space in bicycle facilities, such as trailers for children or cargo or adult tricycles. For these reasons, facilities should be designed to accommodate the lowest skill levels, especially in heavily traveled areas.

Recent research has correlated these different bicycle riders with the level of "traffic stress" they are willing to experience while cycling. Bicycle LTS criteria span from 1 to 4, with 1 being the least stressful and 4 being the most stressful. Table 5 summarizes Pedestrian Streetscore LTS.

TABLE 5: BICYCLE STREETSCORE LTS

Streetscore LTS	Description
1	Most children and elderly riders can tolerate this level of stress and feel safe and comfortable. LTS 1 roadways typically require more separation from traffic.
2	This is the highest level of stress that the mainstream adult population will tolerate while still feeling safe.
3	Bicyclists who are considered "enthused and confident" but still prefer having their own dedicated space for riding will tolerate this level of stress and feel safe while bicycling.
4	For bicyclists, this is tolerated only by those characterized as "strong and fearless," which comprises a small percentage of the population. These roadways have high speed limits, multiple travel lanes, limited or non-existent bike lanes and signage, and large distances to cross at intersections.

TRAFFIC OPERATIONS ANALYSIS

Traffic impacts shall be analyzed using standard or state-of-the-practice professional procedures for trip generation, trip distribution, and traffic assignment, which can generally be found through organizations such as Institute of Transportation Engineers (ITE), Caltrans, Federal Highway Administration (FHWA), and American Planning Associating (APA).

Intersection performance analysis calculation methods must be consistent with the latest edition of the Highway Capacity Manual (HCM). The HCM is published by the Transportation Research Board. The current version (as of the date of this document) was published in 2016.

Analysis Parameters

Analysis parameters (e.g., signal phasing, conflicting pedestrian volumes, etc.) for Existing and Existing Plus Project conditions shall be based on field measurements taken during traffic count collection or field observation. This typically applies to Existing Plus Approved Projects and Existing Plus Approved Projects Plus Project analysis.

For new study intersections and under Cumulative conditions, Table 5 provides guidance on state-of-the-practice procedures. Consult with the City regarding other analysis parameters not listed in Table 6.

TABLE 6: ANALYSIS PARAMETER RECOMMENDATIONS

Parameter	Recommendation
Peak hour factor (PHF)	Use measured approach PHF obtained through traffic data collection. For cumulative scenarios and existing conditions where peak hour factors are not available, refer to the HCM and maintain consistency through analysis scenarios and peak hours.
Saturation flow rate	A field measurement of the saturation flow rate is recommended in accordance with procedure in the HCM, Chapter 31, Section 5. For cumulative conditions, use the value recommended in the most recent HCM unless physical conditions and traffic controls warrant a change. The HCM recommends 1,900 vehicles per hour per lane.
Yellow Change Interval	Base on posted speed limit using California MUTCD reference table in Part 4 of Chapter 4D.
Red Clearance Interval	1 second per phase (if traffic signal is present under existing conditions, use existing red phase). Red phase may be greater on high-speed roadways.

Parameter	Recommendation
Conflicting pedestrians for signalized intersections and roundabouts	Primarily based on existing pedestrian counts or observations. Otherwise, refer to the most current version of the HCM to determine the number of pedestrian activations per cycle into appropriate categories. The following three categories are included in the 2010 HCM. • Low pedestrian activity (near freeway interchanges/community commercial sites) – 10% of the cycles are expected to have pedestrian activations. • Medium pedestrian activity (near community commercial sites) – 25% of the cycles are expected to have pedestrian activations. • High pedestrian activity (in and around downtown) – 50% of the cycles are expected to have pedestrian activations. To determine conflicting pedestrians, assume one pedestrian per activation. Pedestrian activity must also be considered at roundabout intersections.
Traffic signal cycle lengths	Replicate existing coordination plans, cycle length, and phasing (e.g., leading left turns) when possible. For new signalized locations, segment the cycle lengths into the following three categories unless other cycle lengths can be justified through the traffic operations analysis. • In and around downtown – try to limit signal cycle lengths to less than 60 seconds. • In and around suburban areas – try to limit signal cycle lengths to less than 90 seconds. • Near freeway interchanges/regional commercial – try to limit signal cycle lengths to less than 120 seconds. Ensure that minimum pedestrian times are satisfied.
Heavy truck percentages	Based on the existing heavy-truck percentage and adjusted to account for future planned development. In general, heavy-truck percentages should be greater on truck routes and main thoroughfares than on local streets. Minimum recommended value is 2%.
Lane utilization factor	If applicable, adjust lane utilization factors based on field observations.

Analysis Tools and Methods

Traffic operations analysis for state highways and local roadways shall be conducted using tools and methods approved by the City. Table 7 identifies recommended analysis tools. Other tools or methods may be used upon receiving approval from the Public Works Director. Special conditions related to congested conditions, state highway facilities, and roundabouts are discussed in more detail below.

TABLE 7: INTERSECTION OPERATIONS ANALYSIS RECOMMENDED ANALYSIS TOOL

Software/ Method	Traffic Studies[1]		Roundabouts		Arterial/ Interchange Operations	Simulation Analysis[4]		
	Operations[2]	Signal Coordination[3]	Planning	Design		Unique Geometrics	Heavily Congested Conditions	Multi-Modal
FHWA Roundabout Guidelines			X					
Synchro/ SimTraffic	X	X	X		X	X		
HCS	X				X			
AASIDRA[5]			X	X				
Micro-Simulation[6]		X		X	X	X	X	X

Notes: The most current version of analysis software (with updated software patches) should be used.

1. Refer to thresholds for identifying if a traffic study is required.
2. Appropriate for isolated intersection operations or for signal systems that are not coordinated.
3. Mandatory for coordinated signal systems to maximize vehicle progression.
4. Should be applied to analyzing operations of congested conditions or non-standard conditions where traditional analytical approaches may not be appropriate.
5. AASIDRA is to be used only for roundabout analysis.
6. Specific software program selection should be conducted in consultation with the City and consider the types of technical questions being asked in the study and the modes to be included.

Congested Conditions

Analysts should note that the HCM recommends the use of simulation models to analyze congested conditions. Since simulation tools can simultaneously evaluate vehicle interactions across a complete network (including the interaction of multiple modes), they can provide a more complete understanding of traffic operating conditions during peak congested periods and what may happen when a specific bottleneck is modified or eliminated.

State Highway Analysis

In Elk Grove, the analysis of the State highway system will typically include basic freeway segments, ramp junctions, weaving sections, and ramp terminal intersections. HCM methods shall be used for basic freeway segments, ramp junctions, and ramp terminal intersections, but Caltrans has alternative analysis methods for weaving sections as defined in the Caltrans *Highway Design Manual* (HDM Section 504.7). The Caltrans District 3 traffic operations branch shall be consulted before beginning analysis affecting a state facility. Analyzing ramp terminal intersections should consider that these intersections are closely spaced in most cases and operate as an integrated system versus as isolated locations.

Intersection and Roadway Performance Targets

General Plan Policy MOB-1-4 includes performance targets for intersections and roadways. The City strives to implement the intersection and roadway segment performance targets (RPT) summarized in Table 8 and 9, respectively. The objective of Policy MOB-1-4 is to balance the effectiveness of design requirements to achieve the targets with the character of the surrounding area as well as the cost to complete the improvement and ongoing maintenance obligations. The Transportation Network Diagram (Figure 4) reflects the implementation of the RPT policy at a macro level; the City will consider the specific design of individual segments and intersections in light of this policy and the guidance in the Transportation Network Diagram.

Deviations from these metrics may be approved by the designated approving authority (e.g., Zoning Administrator, Planning Commission, City Council). These targets represent aspirational goals but shall not be mandated performance standards.

TABLE 8: INTERSECTION PERFORMANCE TARGETS

Intersection Control	(Delay in Seconds)
Stop (Side-Street & All-Way)	< 35.1
Signal	< 55.1
Roundabout	< 35.1

TABLE 9: ROADWAY SEGMENT PERFORMANCE TARGETS

Facility Type	Number of Lanes	Median	Speed (mph)	Average Daily Traffic Design Target (Number of Vehicles)
Arterial or Arterial\Collector	2	No	25	13,600
			30	14,600
			35	15,700
			40	16,600
			45	17,700
			55	18.600
		Yes	25	14,300
			30	15,600
			35	16,500
			40	17,500
			45	18,600
			55	19,600
	4	No	30	29,800
			35	31,600
			40	33,500
			45	35,300
	4	Yes	30	31,400
			35	33,300
			40	35,300
			45	37,200
	5	Yes	45	45,600
	6	Yes	30	46,400
			35	48,900
			40	51,500
			45	54,000
	7	Yes	45	59,400
	8	Yes	45	64,800
			55	72,000
Expressway	4*	Yes	55	64,800
	6	Yes	55	97,200
Freeway	4	Yes	55+	74,400
	6	Yes	55+	111,600
	8	Yes	55+	148,800

Note: For the SouthEast Connector Expressway, the City may implement alternative design targets in consultation with the JPA.

ON-SITE TRANSPORTATION REVIEW

A detailed site review is required for every project. Consideration shall be given to the following qualitative and quantitative reviews and summarized in the TA.

- Existence of any current traffic problems in the local area such as a high-accident location, non-standard intersection or roadway, or an intersection in need of a traffic signal.
- Applicability of context-sensitive design practices compatible with adjacent neighborhoods or other areas that may be impacted by the project traffic.
- Proximity of proposed site driveway(s) to other existing driveways or intersections.
- Adequacy of vehicle parking relative to both the anticipated project demand and zoning code requirements.
- Adequacy of the project site design to fully satisfy truck loading demand on-site, when the anticipated number of deliveries and service calls may exceed 10 per day.
- Adequacy of the project site design to provide at least the minimum required throat depth at project driveways.
- Adequacy of the project site design to convey all vehicle types.
- Adequacy of on-site vehicle, bicycle, and pedestrian circulation and provision of safe pedestrian paths from residential areas to school sites, public streets to commercial and residential areas, and the project site to nearby transit facilities.
- Project site design resulting in inadequate emergency access or response times.

TRAFFIC FORECASTS AND VMT ANALYSIS

A fundamental requirement for establishing transportation analysis is to follow state-of-the-practice or best practice methodology. This ensures that the analysis meets environmental regulatory conditions and provides a high level of confidence in the results. For traffic volume forecasts, this means that the forecasting models being used meet the following four criteria.

- **The scale of the model matches that of the project**. Most studies will cover local projects, meaning that they involve specific intersections, roadways, interchanges, or corridors. Therefore, locally valid travel demand models should be used to develop traffic volume forecasts. Using regional travel demand models without modification to address the scale of the project is not appropriate.

- **The model is calibrated and validated within the study area**. The model's validation in the study area should be verified for each time period being forecast (i.e., daily, AM peak hour, PM peak hour, etc.) and for each mode being analyzed.

- **The model validation includes static and dynamic tests**. Static validation tests should include those specified in *2017 Regional Transportation Plan Guidelines for Metropolitan Planning Organizations* (California Transportation Commission, 2017). Dynamic tests verify that the model contains an appropriate level of sensitivity related to the types of transportation network or land use changes associated with the project. Appendix C contains sample tests.

- **The model forecasts are adjusted to account for base year model error**. Raw model volume forecasts need to be adjusted to account for differences between base year model volume estimates and base year traffic counts. The specific methodology should be based on *National Cooperative Highway Research Project 255, Highway Traffic Data for Urbanized Area Project Planning and Design,* Transportation Research Board, December 1982.

The City's VMT thresholds were developed using a modified version of SACOG's SACSIM model (EGSIM20) and estimated for the entire model network. Consequently, CEQA analysis should use the EGSIM20 model network for consistency of evaluation.

VMT Methods

Prior to SB 743, CEQA required VMT analysis as part of air pollution and greenhouse gas (GHG) analysis. SB 743 and the modifications to the CEQA guidelines introduced another VMT analysis for transportation. The analyses require different VMT inputs, which are described below. The following three methods shall be used for calculating VMT for project analysis, unless an alternative method is approved by the Public Works Director:

- The Boundary Method
- The Origin-Destination Method (Regional Targets Advisory Committee, or "RTAC")
- The Origin-Destination Method (Tour-Based)

Table 10 compares the three common methods used to estimate VMT for project analysis, including the analysis application, the types of trips included in the calculation, whether the method accounts for the full length of trips, and source of the VMT.

TABLE 10: VMT METHODS

Method		Analysis Application	Approach	Formula	Trip Types Included[1]	Full Accounting?		Source
						Trip Length	Trips	
Boundary		Air Quality	Estimates/forecasts VMT for a specific boundary area like the City of Elk Grove	Volume x Distance for all model links in the boundary	II IX XI XX	Does not account for entire trip length	Excludes trips without an origin or destination at the home	Assigned model roadway network
OD	RTAC	GHG	Estimates/forecasts VMT based on all trips that have one end in a project location	Trips x Trip Length	II 50% IX 50% XI	Fully accounts for entire trip length	Excludes trips without an origin or destination at the home	Model origin-destination trip matrix
	Tour-Based	Transportation	Estimates/forecasts VMT based on all trips that have one end in a project location	Trips x Trip Length	II IX XI	Fully accounts for entire trip length	Includes trips without an origin or destination at the home	DAYSIM travel diary

Notes:
[1]RTAC – Regional Targets Advisory Committee
[2]Description of Trip Types
II – Internal to Internal Trips
IX – Internal to External Trips
XI – External to Internal Trips
XX – External to External (Through) Trips

VMT Analysis – Land Use Projects

The project's total daily VMT will be evaluated against the underlying General Plan Land Use Designation limit of VMT per service population and Citywide (or Study Area) limit of total daily VMT (see Table 11). VMT analysis methods should be consistent with those identified in Table 10 for transportation applications. Appendix E outlines the detailed General Plan VMT calculation methodology.

VMT analysis must be submitted to and approved by the Public Works Director. If the Public Works Director determines the project's daily VMT is at or below the established limits, no further analysis or VMT reduction measures are required.

TABLE 11: VMT METRICS

Data Set	Data Set	Purpose
Total Daily VMT	Sum of all daily vehicle miles traveled produced by all uses within the City or applicable Study Area.	Assessing a project against Citywide or Study Area total limits.
VMT per Service Population	Sum of all vehicle miles traveled produced by uses in the applicable land use designation, divided by the sum of total employees working within the assessed area and dwelling units in the assessed area.	Assessing a project against land use designation limits.

Reduction Strategies (Mitigation)

If the Public Works Director determines the project's daily VMT for the underlying land use designation is above the established limits, the VMT study shall be augmented to identify VMT reduction strategies, drawn from the accepted categories shown in Table 12, and associated VMT reductions to achieve daily values below the established limit. Infill projects may use any category of reduction strategies. Projects within the growth areas must incorporate the highest available reductions through Category A and/or Category B reduction strategies first (as determined by the City) before utilizing strategies in other categories.

TABLE 12: VMT REDUCTION STRATEGIES

Data Set		Description
A	Land Use/ Location	Land use-related components such as project density, location, and efficiency related to other housing and jobs; and diversity of uses within the project. Also includes access and proximity to destinations, transit stations, and active transportation infrastructure.
B	Site Enhancement	Establishing or connecting to a pedestrian/bike network; traffic calming within and in proximity to the project; car sharing programs; shuttle programs.
C	Transit System Improvement[1]	Improvements to the transit system including reach expansion, service frequency, types of transit, access to stations, station safety and quality, parking (park-and-ride) and bike access (to transit itself and parking), last-mile connections.
D	Commute Trip Reduction[1]	For residential: transit fare subsidies, education/training of alternatives, rideshare programs, shuttle programs, bike share programs For employer sites: transit fare subsidies, parking cash-outs, paid parking, alternative work schedules/telecommute, education/training of alternatives, rideshare programs, shuttle programs, bike share programs, end of trip facilities
E	In-Lieu Fee	A fee is leveed that is used to provide non-vehicular transportation services that connect project residents to areas of employment or vice versa. This service may be provided by the project applicant in cooperation with major employers.

Notes:[1] Can be achieved through TDM program measures.

VMT Analysis – Transportation Project

Short-term analysis is required for all projects determined not to be exempt. To conduct short-term analysis, projects should use the City of Elk Grove base year travel forecasting model to estimate the CEQA baseline no project VMT/Service Population, as follows:

1. Add the transportation project to the base year travel forecasting model to estimate the CEQA baseline plus project VMT/Service Population.
2. Provide the City with a comparison of project VMT estimates to the VMT policy limits to determine if the addition of the transportation project would result in a short-term transportation impact.

Long-term analysis is required for all projects determined not to be exempt. If required, the City (or a consultant under the direction of the City) shall conduct long-term VMT analysis using one of two methods.

1. Use the City of Elk Grove future year travel forecasting model to estimate the buildout no project VMT/Service Population. Add the transportation project to the travel forecasting model to estimate the cumulative plus project VMT/Service Population. Compare VMT estimates to the VMT policy limits to determine if the addition of the transportation project would result in a long-term transportation impact.
2. Calculate VMT/Service population using the ratio of City-generated VMT (using an origin-destination method) and Citywide service population. If the project would result in a net increase of VMT/Service Population, the project may have a long-term transportation impact.

Reduction Strategies (Mitigation)

If the City in its sole discretion determines that the project exceeds short-term or long-term VMT limits, the transportation project shall be determined to have transportation impacts. Additional mitigation measures may be required of the project. Possible mitigation measures may include the following:

- Addition of Class 1, Class 2, or Class 4 bicycle lanes
- Addition of sidewalks or other pedestrian improvements
- Incorporation of transit-related improvements

6. IMPACT ASSESSMENT

The main intent of the TA is to determine potential transportation impacts of proposed projects. This information is essential for decision makers and the public when evaluating individual projects. This section explains what operating conditions shall be used when determining an impact. These guidelines also establish criteria for when a project impact is considered significant.

SCENARIO EVALUATION

Transportation impact determination for a proposed development project shall be based upon the comparison of the following scenarios using the significance criteria cited below.

- Existing Conditions vs. Existing Plus Project Conditions
- Existing Plus Approved Projects Conditions vs. Existing Plus Approved Projects Plus Project Conditions (if necessary)
- Cumulative No Project Conditions vs. Cumulative Plus Project Conditions

SIGNIFICANCE CRITERIA

A project impact is considered significant when it meets the criteria listed in Table 13.

TABLE 13: SIGNIFICANCE CRITERIA

Elements	Significant Impact Determination
On-Site Circulation	• Project designs for on-site circulation, access, and parking areas fail to meet City or industry standard design guidelines. • A project fails to provide adequate accessibility for service and delivery trucks on-site, including access to truck loading areas.
Bicycle Facilities	• A project disrupts existing or planned bicycle facilities or conflicts with adopted City non-auto plans, guidelines, policies, or standards. • The project adds trips to an existing transportation facility or service (e.g., bike path) that does not meet current design standards. • The project degrades the Bicycle Streetscore LTS.
Pedestrian Facilities and Americans with Disabilities Act (ADA) compliance	• A project fails to provide accessible and safe pedestrian connections between buildings and to adjacent streets and transit facilities. • A project disrupts existing or planned pedestrian facilities or conflicts with adopted City non-auto plans, guidelines, policies, or standards. • The project adds trips to an existing transportation facility or service (e.g., sidewalk) that does not meet current design standards. • The project degrades the Pedestrian Streetscore LTS.
Parking	• A project increases off-site parking demand above that which is desired according to the City in the immediate project area.
Trucks (or other heavy vehicles)	• A project fails to provide safe accommodation of forecast truck traffic or temporary construction-related truck traffic. • The project adds 100 daily passenger vehicle trips (or equivalent – see Appendix D – FHWA Vehicle Classification Definitions) to an existing roadway that does not meet current City design standards (e.g., structural section, horizontal and vertical curves, lane and shoulder width, or similar.).
Transit	• A project creates demand for public transit services above the crush load capacity that is provided or planned. • A project disrupts existing or planned transit facilities and services or conflicts with adopted City non-auto plans, guidelines, policies, or standards.
VMT	• Project exceeds VMT per service population limits outlined in Policy MOB-1.
General Plan Consistency	• A project conflicts or creates inconsistencies with General Plan policies.
Other Subject Areas	• The construction of a project creates a temporary but prolonged impact due to lane closures, need for temporary signals, emergency vehicles access, traffic hazards to bikes/pedestrians, damage to roadbed, truck traffic on roadways not designated as truck routes, etc.
Other Jurisdictional Requirements	• The project exceeds established significance criteria thresholds for locations under the jurisdiction of other agencies.

CUMULATIVE IMPACTS

Cumulative impact analysis must comply with the California Environmental Quality Act (CEQA). Land use development and infrastructure projects that are consistent with the General Plan, are expected to rely on the General Plan cumulative traffic analysis and EIR conclusions.

- The cumulative scenario is required per CEQA Guidelines Section 15130.
- The general definition of cumulative as a scenario is that it represents past, present, and reasonably foreseeable actions regarding land use development and the transportation network (see CEQA Guidelines Section 15355).

The General Plan environmental impact report (EIR) was based on a full build out of the City's land use designations and will generally cover the cumulative traffic effects of consistent development projects. However, over time, it is likely that general plan amendments or regional growth will influence background traffic volumes. If this occurs, individual projects may be required to conduct a project-specific cumulative analysis based on the determination of the Development Services Director or Public Works Director, as applicable.

7. RECOMMENDED PROCESS AND DOCUMENTATION

The project applicant shall retain a professional traffic engineer to conduct the transportation analysis. It is recommended that the applicant's consultant conduct the work in the following phased manner and seek City acceptance before initiating the next task. In some cases, review by other affected jurisdictions will be required.

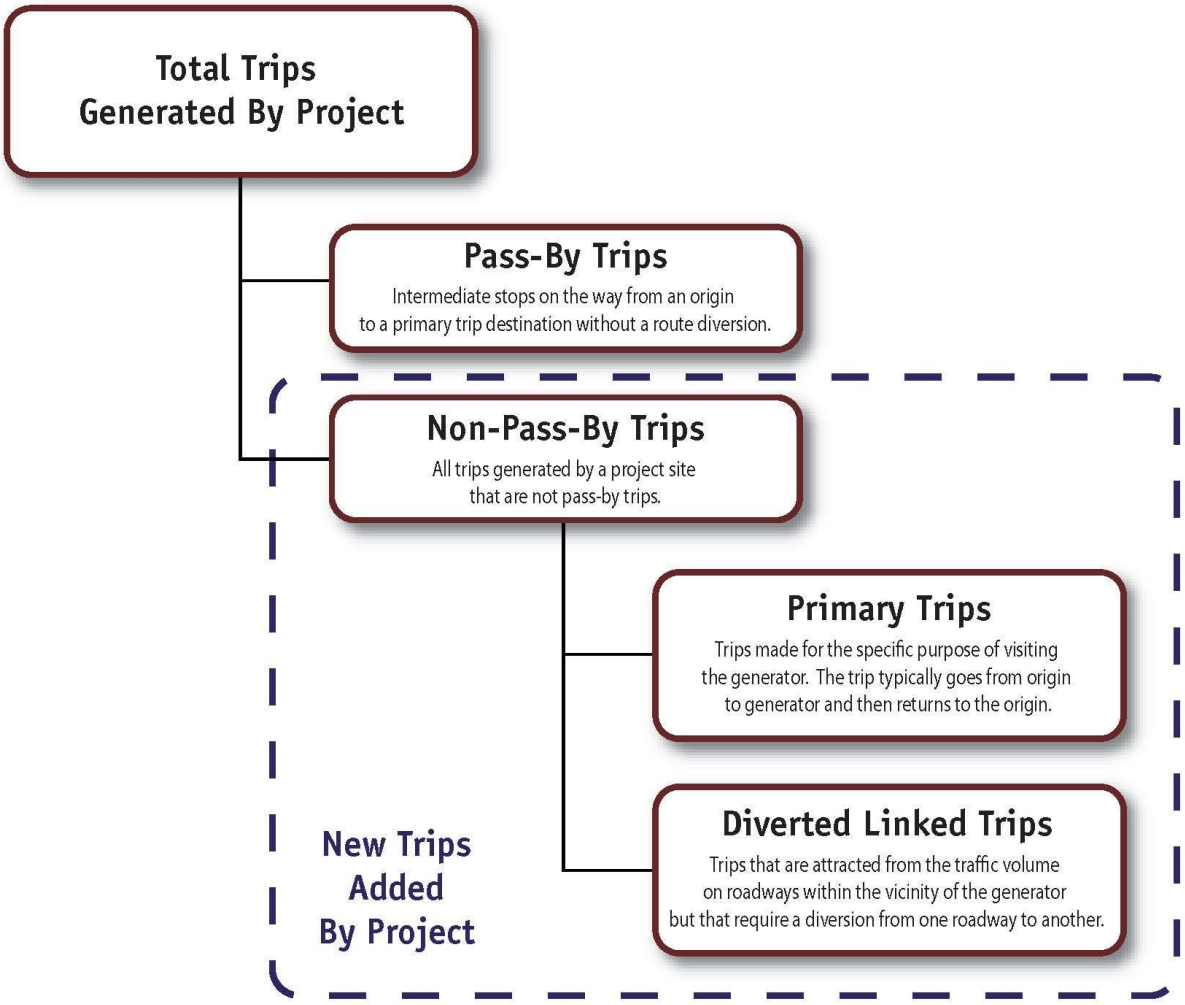
Based on the criteria outlined in Section 2 (Triggers Requiring an Impact Study), determine the level of analysis needed. The analysis may require a General Plan consistency analysis, using roadway and intersection performance, and CEQA analysis, using VMT. All projects are required to complete a site access and on-site circulation review.

- **Transportation Study Scope of Work** detailing project description, site location, analysis method, area-wide assumptions, study intersections and/or roadways, peak hours for analysis, and traffic data collection.
- **Project Trip Generation and Trip Distribution** documenting all key technical assumptions, data sources, and references.
- **Administrative Draft Transportation Study Report** prepared according to the Scope of Work, Project Trip Generation, and Trip Distribution approved by the City.
  - The format of this report may need to be discussed with the environmental consultant to determine if an independent transportation study report is required or if the consultant should prepare a transportation and circulation section for incorporation into a specified environmental document.
- **Draft Transportation Study Report** addressing the City's comments on the Administrative Draft Report.
- **Final Transportation Study Report / Response to Public Comments** addressing comments from the City, Caltrans, neighboring cities, or other responsible agencies.
  - The format of this report may need to be discussed with the environmental consultant. It may be a final report incorporating the comments or written responses to public comment.

Appendix B contains a recommended outline for the TIS document.

Appendix A:
Trip Generation Sample Calculations

The following figure describes trip types relevant to trip generation and the difference between the total trips generated by the project versus new trips added by the project.



The estimation of new trips generated by the proposed development project may include credit for trips associated with existing uses on the site. Existing uses are those actively present on the project site at the time data is gathered for the traffic impact study.

The final estimate of new daily and peak-hour trips associated with a proposed development project should represent the net contribution of the proposed project. The City will review the trip generation analysis and determine if additional analysis is required.

Trip generation analysis should be primarily based on trip generation rates derived from local empirical data. Recognizing that this is not always possible, applicants may use the most recent version of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*[6] and recommendations provided in the *Trip Generation Handbook*.[7] If multiple trip generation rate sources exist, the study shall provide a comparison and use the rates that best reflect local conditions and applicable regulatory constraints.

The project trip generation rate cannot be based solely on one nearby or similar land use facility. The sample used for non-standard trip generation rates shall include at least three similar facilities in Elk Grove or neighboring jurisdictions with similar characteristics.

If the study involves comparable sites located in other communities, the applicant must demonstrate to the satisfaction of the City that the sites and uses to be studied are reasonably equivalent to the site and use proposed within the City.

The final trip generation rates used for the project should be a weighted average of the various trip generation rates available. A tabular summary of the final trip generation rate calculation shall be provided. Appendix A provides sample trip generation calculations.

1. *Trip Generation Manual*, 10th Edition, Institute of Transportation Engineers, Washington, D.C., 2017
2. *Trip Generation Handbook, 3rd Edition, An ITE Recommended Practice*, Institute of Transportation Engineers, Washington, D.C., June 2014

Table A-1 shows how trip generation information and assumptions should be prepared and documented for submittal to Elk Grove.

TABLE A-1: SAMPLE ESTIMATED PROJECT TRIP GENERATION

Land Use	Size	Unit	Daily		Trip Rates						Trips					
			Rate	Trips	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Residential																
Single-Family[1]	400	du	9.31	3,724	0.18	0.54	0.72	0.59	0.34	0.93	72	216	288	236	136	372
Apartments[2]	100	du	7.51	751	0.11	0.42	0.53	0.47	0.26	0.73	11	42	53	47	26	73
Commercial																
Commercial[3]	100	ksf	67.91	6,791	0.96	0.61	1.57	3.00	3.26	6.26	96	61	157	300	326	626

Note: du = dwelling units; ksf = 1,000 square-feet

1. Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (7th Edition) regression equations for Single-Family Detached Housing (Land Use Code 210):
   Daily: Ln(T) = 0.92 Ln (X) (50% Inbound, 50% Outbound)
   AM Peak Hour: T = 0.70(X) +9.43 (25% Inbound, 75% Outbound)
   PM Peak Hour: Ln (T) = 0.90 Ln (X) + .53 (63% Inbound, 37% Outbound)
   Where: T = trips generated, X = dwelling units, Ln = natural log
2. Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (7th Edition) regression equations for Apartment (Land Use Code 220):
   Daily : T = 6.01(X) + 150.35 (50% Inbound, 50% Outbound)
   AM Peak Hour: T = 0.49(X) + 3.73 (20% Inbound, 80% Outbound)
   PM Peak Hour: T = 0.55(X) + 17.65 (65% Inbound, 35% Outbound)
   Where: T = trips generated, X = dwelling units, Ln = natural log
3. Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (7th Edition) regression equations for Shopping Center (Land Use Code 820):
   Daily : Ln (T) = 0.65 Ln (X) + 5.83 (50% Inbound, 50% Outbound)
   AM Peak Hour: Ln (T) = 0.60 Ln (X) + 2.29 (61% Inbound, 39% Outbound)
   PM Peak Hour: Ln (T) = 0.66 Ln (X) + 3.40 (65% Inbound, 35% Outbound)
   Where: T = trips generated, X = 1,000 square-feet, Ln = natural log

Source: ITE, *Trip Generation,* (7th Edition), 2003; Fehr & Peers, 2005.

Additional Notes:

- Survey data or the most recent version of ITE should be used to calculate trip generation.
- Pass-by reductions should be considered for commercial uses where applicable.

For mixed use developments, internalization should be considered. Internalization can be calculated using ITE's *Trip Generation Handbook*.

Appendix B:
TA Sample Report Format Outline

The following outline for transportation analysis includes topic areas for General Plan consistency analysis, using roadway and intersection performance, and CEQA analysis, using VMT. The actual outline for any analysis documentation will depend on the scope of the analysis and may be comprehensive and include necessary topics for General Plan consistency analysis, CEQA analysis, and site-access and on-site circulation, or may just need to document a review of site-access and on-site circulation.

Introductory Items

- Front Cover/Title Page – signed and sealed by a registered California Civil or Traffic Engineer
- Table of Contents, List of Figures, and List of Tables
- Executive Summary

1. Introduction/Background

- Project description
- Project sponsor/contact info
- Type and size of development
- Site plan (include proposed driveways, roadways, traffic control, parking facilities, emergency vehicle access, and internal circulation for vehicles, bicyclists, and pedestrians)
- Location map (include major streets, study intersections, and neighboring zoning and land uses)

2. Existing Conditions

- Existing roadway system within project site and surrounding area
- Location and routes of nearest public transit system serving the project
- Location and routes of nearest pedestrian and bicycle facilities serving the project
- Figure of study intersections with peak hour turning movement counts, lane geometries, and traffic control
- Map of study area showing ADT of study roadways
- Table of existing peak hour average vehicle delay
- Table summarizing existing VMT

3. **Existing Plus Project Conditions**

- Table of trip generation for project
- Figure/map of trip distribution (in percent)
- Maps of study area with applicable peak hour turning movements (Project Only and Existing Plus Project)
- Table of Existing and Existing Plus Project intersection peak hour average vehicle delay
- Traffic signal and other warrants
- Findings of project impacts
- Mitigation measures for project impacts (include a map showing physical mitigation)
- Scheduling and implementation responsibility of mitigation measures
- Impacts of mitigation measures
- VMT comparison table

4. **Existing Plus Approved Projects Conditions**

- Table of trip generation for approved project(s)
- Figure and/or table of approved projects trip distribution (in percent)
- Map of study area with applicable peak hour turning movements (Approved Projects Only and Existing Plus Approved)
- Table of intersection peak hour average vehicle delay
- Traffic signal and other warrants
- VMT comparison table

5. **Existing Plus Approved Projects Plus Project Conditions**

- Similar content to Existing Plus Project Conditions

6. Cumulative and Cumulative Plus Project Conditions

- Map of study area with Cumulative No Project peak hour turning movements
- Map of study area with Cumulative Plus Project peak hour turning movements
- Table of Cumulative and Cumulative Plus Project intersection peak hour average vehicle delay
- Traffic signal and other warrants
- VMT comparison table
- Findings of project impacts
- Mitigation measures for project impacts (include a map showing physical mitigation)
- Scheduling and implementation responsibility of mitigation measures
- Impacts of mitigation measures

7. Construction Impacts

8. Phasing Impacts (for large projects only)

9. Appendices

- List of references
- List of authors
- Traffic counts
- Technical calculations for all analyses – signed and sealed by a registered California Civil or Traffic Engineer
- Modifications made to City of Elk Grove travel demand forecasting model including network modifications and land use changes by traffic analysis zone

Appendix C:
Travel Demand Model Validation Tests

As noted in the TA guidelines, the model validation shall include both static and dynamic tests. Static validation tests compare the model's base year traffic volume estimates to traffic counts using the statistical measures listed below and the threshold criteria contained in Table C-1 as specified in the *Travel Forecasting Guidelines*, Caltrans, 1992.

- Volume-to-Count Ratio – is computed by dividing the volume assigned by the model and the actual traffic count for individual roadways model-wide.
- Percent of Links Within Caltrans Deviation Allowance – the deviation is the difference between the model volume and the actual count divided by the actual count.
- Correlation Coefficient – estimates the correlation between the actual traffic counts and the estimated traffic volumes from the model.
- Percent Root Mean Square Error (RMSE) – is the square root of the model volume minus the actual count squared divided by the number of counts. It is a measure similar to standard deviation in that it assesses the accuracy of the entire model.

TABLE E-C-1: STATIC VALIDATION CRITERIA AND THRESHOLDS

Validation Item	Criteria for Acceptance[1]
Percent of links with volume-to-count ratios within Caltrans deviation allowance	At Least 75%
Correlation Coefficient	At Least 0.88
Percent Root Mean Squared Error (RMSE)	Below 40%
Notes: [1] Travel Forecasting Guidelines, Caltrans, 1992.	

Dynamic validation determines a model's sensitivity to changes in land uses and/or the transportation system. These tests are recommended in the *Model Validation and Reasonableness Checking Manual* (Travel Model Improvement Program, FHWA, 1997). The results of dynamic validation tests are inspected for reasonableness in the direction and magnitude of the changes.

Dynamic validation will include one or more of the following model sensitivity tests, as appropriate given the specific type of project under analysis.

- Add lanes to a link
- Add a link
- Delete a link
- Change link speeds
- Change link capacities
- Add 100 households to a TAZ
- Add 1,000 households to a TAZ
- Add 5,000 households to a TAZ
- Add 10,000 households to a TAZ

Review of the model's response to the dynamic validation tests should indicate changes to the model volumes have occurred in the appropriate direction and magnitude.

Appendix D:
FHWA Vehicle Classification Definitions

VEHICLE AND TRUCK TRIP EQUIVALENCIES

Vehicle and Truck Trip Equivalencies		
Vehicle Classification	**Description**	**Trigger for a TIS (New Vehicle Trips Per Day)**
Auto	2 axles	100
Small Truck	2 axles/6 tires (includes buses)	50
Medium Truck	3 & 4 axles	20
Large Truck	5 plus axles	5

FHWA VEHICLE CLASSES WITH DEFINITIONS

(Source: http://www.fhwa.dot.gov/policy/ohpi/vehclass.htm)

Class 1: Motorcycles -- All two or three-wheeled motorized vehicles. Typical vehicles in this category have saddle type seats and are steered by handlebars rather than steering wheels. This category includes motorcycles, motor scooters, mopeds, motor-powered bicycles, and three-wheel motorcycles.

Class 2: Passenger Cars -- All sedans, coupes, and station wagons manufactured primarily for the purpose of carrying passengers and including those passenger cars pulling recreational or other light trailers.

Class 3: Other Two-Axle, Four-Tire Single Unit Vehicles -- All two-axle, four-tire, vehicles, other than passenger cars. Included in this classification are pickups, panels, vans, and other vehicles such as campers, motor homes, ambulances, hearses, carryalls, and minibuses. Other two-axle, four-tire single-unit vehicles pulling recreational or other light trailers are included in this classification. *Because automatic vehicle classifiers have difficulty distinguishing class 3 from class 2, these two classes may be combined into class 2.*

Class 4: Buses -- All vehicles manufactured as traditional passenger-carrying buses with two axles and six tires or three or more axles. This category includes only traditional buses (including school buses) functioning as passenger-carrying vehicles. Modified buses should be considered to be a truck and should be appropriately classified.

NOTE: In reporting information on trucks the following criteria should be used:

1. Truck tractor units traveling without a trailer will be considered single-unit trucks.
2. A truck tractor unit pulling other such units in a "saddle mount" configuration will be considered one single-unit truck and will be defined only by the axles on the pulling unit.
3. Vehicles are defined by the number of axles in contact with the road. Therefore, "floating" axles are counted only when in the down position.
4. The term "trailer" includes both semi- and full trailers.

Class 5: Two-Axle, Six-Tire, Single-Unit Trucks -- All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with two axles and dual rear wheels.

Class 6: Three-Axle Single-Unit Trucks -- All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with three axles.

Class 7: Four-Axle Single-Unit Trucks -- All trucks on a single frame with four or more axles.

Class 8: Four or Fewer Axle Single-Trailer Trucks -- All vehicles with four or fewer axles consisting of two units, one of which is a tractor or straight truck power unit.

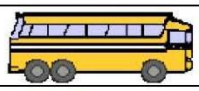
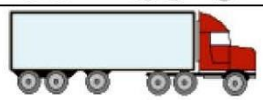
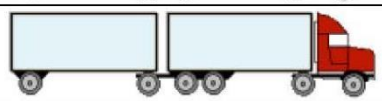
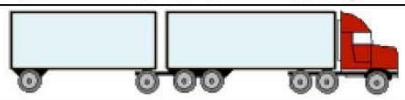
Class 9: Five-Axle Single-Trailer Trucks -- All five-axle vehicles consisting of two units, one of which is a tractor or straight truck power unit.

Class 10: Six or More Axle Single-Trailer Trucks -- All vehicles with six or more axles consisting of two units, one of which is a tractor or straight truck power unit.

Class 11: Five or fewer Axle Multi-Trailer Trucks -- All vehicles with five or fewer axles consisting of three or more units, one of which is a tractor or straight truck power unit.

Class 12: Six-Axle Multi-Trailer Trucks -- All six-axle vehicles consisting of three or more units, one of which is a tractor or straight truck power unit.

Class 13: Seven or More Axle Multi-Trailer Trucks -- All vehicles with seven or more axles consisting of three or more units, one of which is a tractor or straight truck power unit.

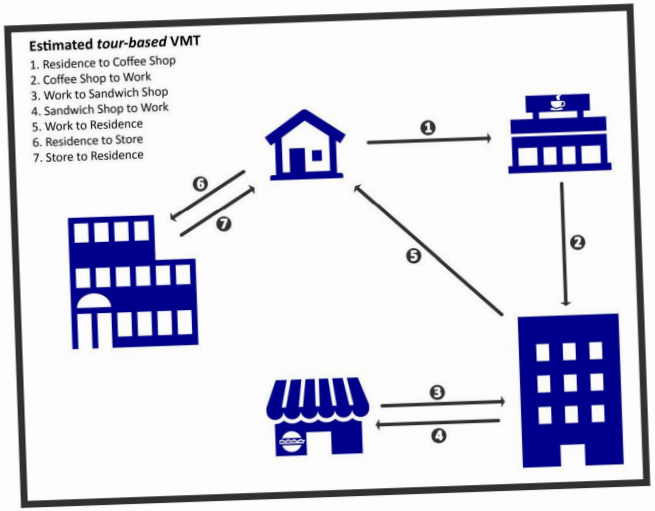
Class	Description	Picture	ESAL* /Truck	Traffic Factor (car =1)
Class 1 Class 2 Class 3	Motorcycle Passenger Car Pickup Van		0.0004	1
Class 4	Bus		0.39	969
Class 5	2 Axles, 6-Tire Single Units		0.04	103
Class 6	3 Axles, Single Unit		0.49	1,236
Class 7	3 to 4 Axles, Single Trailer		2.12	5,296
Class 8	3 to 4 Axles, Single Trailer		0.45	1,116
Class 9	5 Axles, Single Trailer		1.19	2,970
Class 10	6 or More Axles, Single Trailer		1.06	2,650
Class 11	5 or Less Axles, Multi-Trailers		0.96	2,402
Class 12	6 Axles, Multi-Trailers		2.71	6,765
Class 13	7 or More Axles, Multi-Trailers		1.69	4,224

* ESAL = Equivalent Single Axle Load

Appendix E:
General Plan VMT Calculation Methodology

Household VMT Calculation

VMT per Capita is used to evaluate residential projects. It includes all vehicle "tours" (both work/commute vehicle tours and non-work vehicle tours) that start and end at residential units. VMT from these tours are summed to the home location. VMT for each home is then summed by TAZ and divided by the total population in that TAZ to arrive at VMT per Capita.



Process.docx file includes the full documentation.

Input files required :

1. _trips_1_1.csv
2. _houehold.tsv
3. 2016_raw_parcel.dbf
4. ixxi_taz.dbf
5. Outside_sacog_vmt_estimation_steps_0.xlsx

Input Files

In [ ]:
```
import pandas as pd
from dbfread import DBF
import numpy as np
```

In [ ]:
```
pd.set_option('display.max_rows', 5)
pd.set_option('display.max_columns', 50)
import warnings
warnings.filterwarnings ('ignore')
```

In [ ]:
```
TAZ_Jurisdiction = pd.read_csv("parcel_taz_juris.csv")
```

In [ ]:
```
trips_input = pd.read_csv("_trip_1_1.csv")
household_input = pd.read_csv("_household.tsv", delimiter = "\t")
taz_rad_input = pd.read_csv("tazrad07.txt", delimiter = "\s+" ,header = None)
parcel_id = DBF("pa40_raw_parcel.dbf")
parcel_id = pd.DataFrame(parcel_id)
ixxi_input = DBF("ixxi_taz.dbf")
ixxi_input = pd.DataFrame(ixxi_input)
IXXI_VMT_by_TAZ_input = pd.read_excel('Outside_sacog_vmt_estimation_steps_0_new_method.xlsx', sheet_name='IXXI_VMT_by_TAZ', index_col=None)
```

In [ ]:
```
def vmt_gen(row):
    if row["mode"] == 5:
        return row["distau"] * 0.3
    elif row["mode"] == 4:
        return row["distau"] * 0.5
    else:
```

```
        return row["distau"] * 1

veh_trips = trips_input[(trips_input["mode"] == 3) | (trips_input["mode"] == 4) | (trips_input["mode"] == 5)]
veh_trips["VMT"] = veh_trips.apply(vmt_gen, axis =1)
```

Summarize II VMT by Parcel

In [ ]:
```
trip_hh_merge = pd.merge(veh_trips, household_input, how = "left", on = "hhno")
trip_hh_merge_vmt = trip_hh_merge.groupby("hhparcel")["VMT"].sum().reset_index()
trip_hh_merge_vmt = trip_hh_merge_vmt.rename(columns={"hhparcel": "HHPARCEL", "VMT": "VMT_II"})
```

In [ ]:
```
trip_hh_merge['hhsize'].sum(),len(trip_hh_merge),trip_hh_merge_vmt['VMT_II'].sum()
```

Summarize II VMT by TAZ

In [ ]:
```
## Summarize II VMT by Parcel
ii_vmt_all_parcel = pd.merge(parcel_id, trip_hh_merge_vmt, how='left',left_on ="PARCELID", right_on = "HHPARCEL")
ii_vmt_all_parcel = ii_vmt_all_parcel.sort_values('PARCELID')
ii_vmt_all_parcel = ii_vmt_all_parcel.fillna(0)
ii_vmt_parcel = ii_vmt_all_parcel[['PARCELID','TAZ','HH_P','VMT_II']]
```

In [ ]:
```
ii_vmt_taz = ii_vmt_parcel.groupby("TAZ")["VMT_II"].sum().reset_index()
ii_vmt_taz = ii_vmt_taz.rename(columns={ "VMT_II": "VMT_II_TAZ"})
```

In [ ]:
```
ii_vmt_taz["VMT_II_TAZ"].sum(), veh_trips["VMT"].sum(), trip_hh_merge_vmt['VMT_II'].sum()
```

In [ ]:
```
taz_pops = household_input.groupby("hhtaz")["hhsize"].sum().reset_index()
taz_pops = taz_pops.rename(columns={'hhtaz':'TAZ', "hhsize": "POP"})
```

IXXI VMT by TAZ

In [ ]:
```
ixxi_taz_input_LU = ixxi_input[["I", "HHS", "EMPTOT", "FOOD", "RET", "SVC"]]
ixxi_taz_VMT_w_LU = pd.merge(IXXI_VMT_by_TAZ_input,  ixxi_taz_input_LU, how = "left", on = "I" )
ixxi_taz_VMT_w_LU["IX_VMT_RES"] = (ixxi_taz_VMT_w_LU["IX_VMT_I"] + ixxi_taz_VMT_w_LU["IX_VMT_J"]) * ((ixxi_taz_VMT_w_LU["HHS"])/ (1+ ixxi_taz_VMT_w_LU["HHS"] + 1.1*(i
```

In [ ]:
```
ixxi_VMT_taz = ixxi_taz_VMT_w_LU[["I", "IX_VMT_RES"]]
ixxi_VMT_taz = ixxi_VMT_taz.rename(columns={'I':'TAZ', "IX_VMT_RES": "VMT_ixxi"})
```

In [ ]:
```
len(ixxi_VMT_taz)
```

In [ ]:
```
ixxi_vmt_taz_2 = pd.merge(ixxi_VMT_taz, taz_pops, how='left', on = "TAZ")
ixxi_vmt_taz_2['VMT_ixxi_per_cap_taz'] = np.where(ixxi_vmt_taz_2["POP"]>0, ixxi_vmt_taz_2["VMT_ixxi"] / ixxi_vmt_taz_2["POP"], 0)
```

In [ ]:
```
ixxi_vmt_taz_2['POP']=ixxi_vmt_taz_2['POP'].fillna(0)
```

In [ ]:
```
len(ixxi_vmt_taz_final)
```

In [ ]:
```
TAZ_RAD = TAZ_Jurisdiction[['TAZ', 'RAD']]
```

In [ ]:
```
TAZ_RAD = TAZ_RAD.drop_duplicates()
```

In [ ]:
```
ixxi_vmt_taz_final = pd.merge(ixxi_vmt_taz_2, TAZ_RAD, on = "TAZ", how='left')
```

In [ ]:
```
ixxi_vmt_taz_final['RAD']=ixxi_vmt_taz_final['RAD'].fillna(0)
```

IXXI VMT by RAD

In [ ]:
```
ixxi_vmt_taz_rad = ixxi_vmt_taz_final[ixxi_vmt_taz_final['RAD']>0]
```

In [ ]:
```
ixxi_vmt_rad = ixxi_vmt_taz_rad.groupby(['RAD']).agg({'VMT_ixxi':'sum','POP':'sum'}).reset_index()
```

In [ ]:
```
ixxi_vmt_rad['VMT_ixxi_per_cap_rad'] = np.where(ixxi_vmt_rad["POP"]>0, ixxi_vmt_rad["VMT_ixxi"] / ixxi_vmt_rad["POP"], 0)
```

In [ ]:
```
ixxi_vmt_rad = ixxi_vmt_rad.drop(columns={'VMT_ixxi','POP'})
```

Parcel Level Calculation

In [ ]:
```
household_pop = household_input.groupby('hhparcel')['hhsize'].sum().reset_index()
```

In [ ]:
```
hh_VMT_II = pd.merge(ii_vmt_parcel, TAZ_Jurisdiction, on = 'PARCELID', how="left")
```

In [ ]:
```
hh_VMT_II_pop = pd.merge(hh_VMT_II, household_pop, left_on='PARCELID', right_on = 'hhparcel', how="left")
```

In [ ]:
```
hh_VMT_II_pop['POP'] = hh_VMT_II_pop['hhsize']
```

In [ ]:
```
hh_VMT_II_pop = hh_VMT_II_pop.drop(columns=['TAZ_y'])
hh_VMT_II_pop = hh_VMT_II_pop.rename(columns={"TAZ_x": "TAZ"})
```

In [ ]:
```
hh_VMT_II_pop = hh_VMT_II_pop[['PARCELID','TAZ','JURIS','RAD','VMT_II','HH_P','POP']]
```

In [ ]:
```
HH_VMT_by_parcel_rad = pd.merge(hh_VMT_II_pop, ixxi_vmt_rad, on = "RAD", how = "left")
HH_VMT_by_parcel_rad = HH_VMT_by_parcel_rad.fillna(0)
```

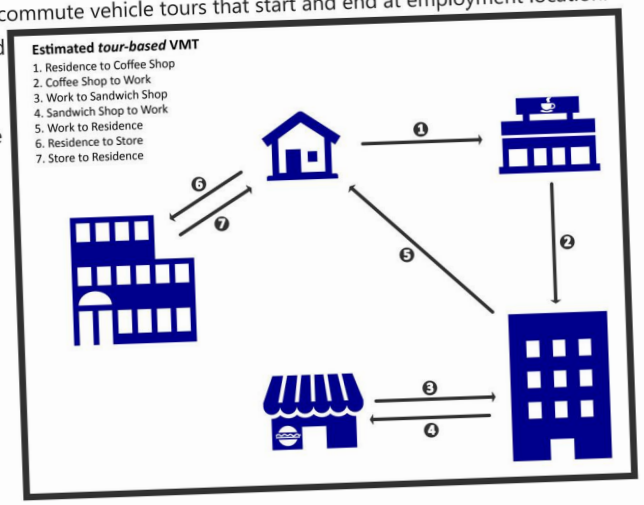
In [ ]:
```
HH_VMT_by_parcel_rad ['VMT_IXXI'] = HH_VMT_by_parcel_rad['VMT_ixxi_per_cap_rad']*HH_VMT_by_parcel_rad['POP']
HH_VMT_by_parcel_rad ['VMT_TOT'] = HH_VMT_by_parcel_rad ['VMT_II'] + HH_VMT_by_parcel_rad ['VMT_IXXI']
HH_VMT_by_parcel_rad ['VMT_TOT_PER_CAP'] = np.where(HH_VMT_by_parcel_rad["POP"]>0, HH_VMT_by_parcel_rad["VMT_TOT"] / HH_VMT_by_parcel_rad["POP"], 0)
```

In [ ]:
```
Household_VMT_by_parcel_rad = HH_VMT_by_parcel_rad[['PARCELID', 'TAZ', 'RAD','HH_P','POP','VMT_II', 'VMT_IXXI', 'VMT_TOT', 'VMT_TOT_PER_CAP']]
```

In [ ]:
```
Household_VMT_by_parcel_rad.to_csv("Household_VMT_by_parcel.csv", index=False)
```

Work Tour VMT by parcel Calculation

VMT per Employee is used to evaluate commercial and industrial employment projects. VMT per Employee includes all work/commute vehicle tours that start and end at employment location. VMT from these tours are summed to the employment parcels. VMT for each employment parcel is then summed by TAZ and divided by the total employment of that TAZ to arrive at VMT per Employee per TAZ.



The work/commute vehicle tours estimated by SACSIM19 include intermediate stops. VMT from these tours must include the full mileage of the entire round-trip work/commute tour including all stops based on the SACSIM19 model. \ From SACOG guidelines, Work-tour VMT includes trips **#1, 2, 5, 3**, and **4** from the image.

Process.docx file includes the full documentation.

Input files required :

1. _trips_1_1.csv
2. _household.tsv
3. _tour.tsv
4. pa40_raw_parcel.dbf
5. tazhhsums.txt
6. worker_ixxifractions.dat
7. Outside_sacog_vmt_estimation_steps_0.xlsx

Import packages

In [1]:
```
import pandas as pd
from dbfread import DBF
import numpy as np
```

In [2]:
```
pd.set_option('display.max_rows', 5)
pd.set_option('display.max_columns', None)
import warnings
warnings.filterwarnings('ignore')
```

Input Files

In [3]:
```
tour_input = pd.read_csv("_tour.tsv", delimiter = "\t")
trips_input = pd.read_csv("_trip_1_1.csv")
household_input = pd.read_csv("_household.tsv", delimiter = "\t")
parcel_input = DBF("pa40_raw_parcel.dbf")
parcel_input = pd.DataFrame(parcel_input)
worker_ixxi_fractions = pd.read_csv("worker_ixxifractions.dat", sep = "\s+", header = None)
```

In [4]:
```
work_tour_ixxi = pd.read_excel('Outside_sacog_vmt_estimation_steps_0_new_method.xlsx', sheet_name='work_tour_ixxi', index_col=None)
```

In [5]:
```
```

```
TAZ_Jurisdiction = pd.read_csv("parcel_taz_juris.CSV")
```

In [6]:
```
trips_input_c = trips_input
def vmt_gen(row):
    if row["mode"] == 5:
        return row["distau"] * 0.3
    elif row["mode"] == 4:
        return row["distau"] * 0.5
    else:
        return row["distau"] * 1

trips_input_c = trips_input_c[(trips_input_c["mode"] == 3) | (trips_input_c["mode"] == 4) | (trips_input_c["mode"] == 5)]
trips_input_c["VMT"] = trips_input_c.apply(vmt_gen, axis =1)
```

Filter Work Trips ii VMT by parcel

- Merge trips and tour files
- Filter by pdpurp = 1 (Destination purpose = work)
- Summazire (groupby) data by destination parcels (tdpcl) to get VMT for each trip

In [7]:
```
trip_tour_merge = pd.merge(trips_input_c, tour_input, how = "left", left_on = "tour_id" , right_on = "id")
trip_tour_merge = trip_tour_merge[['opcl',"pdpurp", "parent", "tdpcl", "topcl", "VMT" ]]
work_trip_tour = trip_tour_merge[trip_tour_merge["pdpurp"] == 1]
work_trips_dest = work_trip_tour.groupby("tdpcl")["VMT"].sum().reset_index()
```

Add Work Subtours by parcel

- Filter data by parent>0 (subtour)
- Summarize VMT data by origin parcel (topcl). Origin parcel of a work based subtour will be the work location.
- Add this to the work tours calculated in the previous step
- This will be total II work VMT

In [8]:
```
work_subtour = trip_tour_merge[trip_tour_merge["parent"]>0]
work_subtour_origin_parcel = work_subtour.groupby("topcl")["VMT"].sum().reset_index()

ii_work_vmt = pd.merge(work_trips_dest, work_subtour_origin_parcel, left_on = "tdpcl", right_on = "topcl", how = "outer" )
ii_work_vmt["VMT_x"] = ii_work_vmt["VMT_x"].fillna(0)
ii_work_vmt["VMT_y"] = ii_work_vmt["VMT_y"].fillna(0)
ii_work_vmt["VMT_II"] = ii_work_vmt["VMT_x"] + ii_work_vmt["VMT_y"]
```

Separate Internal-External Worker By Parcel

In [9]:
```
worker_ixxi_fractions.columns = ["taz", "residents_ix", "workers_xi"]
parcel_jobs = parcel_input[["PARCELID", "TAZ", "EMPTOT_P"]].copy()
parcel_workers = pd.merge(parcel_jobs, worker_ixxi_fractions, left_on = "TAZ",right_on = "taz", how = "left")
parcel_workers["External_Workers"] = parcel_workers["EMPTOT_P"] * parcel_workers["workers_xi"]
parcel_workers["Internal_Workers"] = parcel_workers["EMPTOT_P"] - parcel_workers["External_Workers"]
```

In [10]:
```
parcel_work_vmt = pd.merge(parcel_workers, ii_work_vmt, how = "left", left_on = "PARCELID", right_on = "tdpcl" )
```

In [11]:
```
parcel_work_vmt = pd.merge(parcel_workers, ii_work_vmt, how = "left", left_on = "PARCELID", right_on = "tdpcl" )
parcel_work_vmt["VMT_II"] = parcel_work_vmt["VMT_II"].fillna(0)
parcel_work_vmt["VMT_II_Per_Worker"] = parcel_work_vmt["VMT_II"]/ parcel_work_vmt["Internal_Workers"]
parcel_work_vmt["VMT_II_Per_Worker"] = parcel_work_vmt["VMT_II_Per_Worker"].fillna(0)
```

In [12]:
```
parcel_work_vmt = parcel_work_vmt[['PARCELID','TAZ','EMPTOT_P','External_Workers','Internal_Workers','VMT_II','VMT_II_Per_Worker']]
```

Summarize II VMT and workers by TAZ

In [13]:
```
taz_work_vmt_ii = parcel_work_vmt.groupby("TAZ")[("VMT_II",'EMPTOT_P','Internal_Workers')].sum().reset_index()
```

In [14]:
```
taz_work_vmt_ii['VMT_II_Per_Emp'] = taz_work_vmt_ii["VMT_II"]/ taz_work_vmt_ii["Internal_Workers"]
```

Add IXXI VMT by TAZ

In [15]:
```
## Add IXXI VMT by TAZ# This step is tricky - have not fully figures out yet, but we need another input here

VMT_work_tour_ixxi = work_tour_ixxi[["I","F_exW_VMT(XI)", "F_exW_VMT(IX)",'external_workers']]
VMT_work_tour_ixxi = VMT_work_tour_ixxi[VMT_work_tour_ixxi['I']>30]
VMT_work_tour_ixxi["VMT_IXXI"] = VMT_work_tour_ixxi["F_exW_VMT(XI)"] + VMT_work_tour_ixxi["F_exW_VMT(IX)"]
VMT_work_tour_ixxi['VMT_IXXI_per_Emp'] = np.where(VMT_work_tour_ixxi['external_workers']>0,VMT_work_tour_ixxi['VMT_IXXI']/VMT_work_tour_ixxi['external_workers'],0)
```

TAZ Level Calculation

In [16]:
```
VMT_work_tour = pd.merge(VMT_work_tour_ixxi, taz_work_vmt_ii, how = "left", left_on = "I", right_on = "TAZ")
VMT_work_tour["VMT_II"] = VMT_work_tour["VMT_II"].fillna(0)
```

In [17]:
```
VMT_work_tour["VMT_Total"] = VMT_work_tour["VMT_II"] + VMT_work_tour["VMT_IXXI"]
```

In [18]:
```
VMT_work_tour['VMT_Per_Emp'] = np.where(VMT_work_tour['EMPTOT_P']>0, (VMT_work_tour["VMT_Total"] / VMT_work_tour["EMPTOT_P"]), 0)
```

In [19]:
```
VMT_work_tour = VMT_work_tour.drop(columns=['TAZ'])
VMT_work_tour = VMT_work_tour.rename(columns={"I": "TAZ"})
```

In [20]:
```
VMT_work_tour2 = pd.merge(VMT_work_tour, TAZ_Jurisdiction, how = "left", on = "TAZ")
```

In [21]:
```
VMT_work_tour3 = VMT_work_tour2[['TAZ','RAD','EMPTOT_P','external_workers','VMT_II','VMT_IXXI','VMT_Total','VMT_Per_Emp','JURIS']]
```

In [22]:
```
#VMT_work_tour3.to_csv('Work_Tour_VMT_by_taz.csv', index=False)
```

IX-XI VMT by RAD

In [23]:
```
rad_VMT_IXXI = VMT_work_tour2.groupby('RAD')[('VMT_IXXI','external_workers')].sum().reset_index()
```

In [24]:
```
rad_VMT_IXXI["VMT_IXXI_per_worker_rad"] = rad_VMT_IXXI["VMT_IXXI"] / rad_VMT_IXXI["external_workers"]
```

In [25]:
```
rad_VMT_IXXI = rad_VMT_IXXI.drop(columns={'external_workers','VMT_IXXI'})
```

Parcel level Calculation

In [26]:
```
VMT_Parcel_rad = pd.merge(parcel_work_vmt,TAZ_Jurisdiction, left_on = "PARCELID", right_on = "PARCELID", how = "left" )
```

In [27]:
```
Work_Tour_VMT_parcel_rad = pd.merge(VMT_Parcel_rad, rad_VMT_IXXI, left_on = 'RAD', right_on = 'RAD', how="left")
```

In [28]:
```
Work_Tour_VMT_parcel_rad['VMT_IXXI_per_worker_rad'] = Work_Tour_VMT_parcel_rad['VMT_IXXI_per_worker_rad'].fillna(0)
```

In [29]:
```
Work_Tour_VMT_parcel_rad['VMT_IXXI'] = Work_Tour_VMT_parcel_rad['VMT_IXXI_per_worker_rad']*Work_Tour_VMT_parcel_rad['External_Workers']
```

In [30]:
```
Work_Tour_VMT_parcel_rad['VMT_TOT'] = Work_Tour_VMT_parcel_rad['VMT_II']+Work_Tour_VMT_parcel_rad['VMT_IXXI']
```

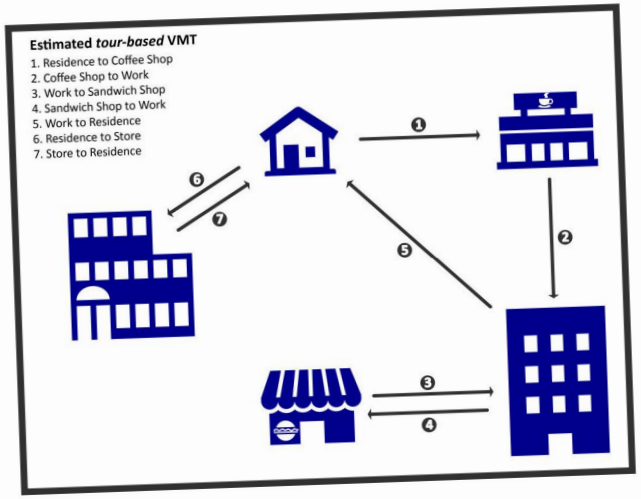
In [31]:
```
Work_Tour_VMT_parcel_rad['VMT_TOT_per_emp'] = np.where(Work_Tour_VMT_parcel_rad['EMPTOT_P']>0,Work_Tour_VMT_parcel_rad['VMT_TOT'] / Work_Tour_VMT_parcel_rad['EMPTOT_P
```

In [32]:
```
Work_Tour_VMT_parcel_rad = Work_Tour_VMT_parcel_rad.drop(columns=['TAZ_y'])
Work_Tour_VMT_parcel_rad = Work_Tour_VMT_parcel_rad.rename(columns={"TAZ_x": "TAZ"})
```

In [33]:
```
Work_Tour_VMT_parcel_rad = Work_Tour_VMT_parcel_rad[['PARCELID','TAZ','JURIS','RAD','EMPTOT_P','External_Workers','Internal_Workers','VMT_II','VMT_IXXI','VMT_TOT','VM
```

In [34]:
```
Work_Tour_VMT_parcel_rad.to_csv('Work_Tour_VMT_by_parcel.csv', index=False)
```

Other VMT by parcel Calculation



Other-tour VMT includes trip **#6-7** from the image.

Process.docx file includes the full documentation.

Input files required :

1. _trips_1_1.csv
2. _household.tsv
3. _tour.tsv
4. pa40_raw_parcel.dbf
5. tazhhsums.txt
6. worker_ixxifractions.dat
7. Outside_sacog_vmt_estimation_steps_0.xlsx

Import packages

In [1]:
```
import pandas as pd
from dbfread import DBF
import numpy as np
```

In [2]:
```
pd.set_option('display.max_rows', 5)
pd.set_option('display.max_columns', None)
import warnings
warnings.filterwarnings('ignore')
```

Input Files

In [3]:
```
tour_input = pd.read_csv("_tour.tsv", delimiter = "\t")
trips_input = pd.read_csv("_trip_1_1.csv")
```

In [4]:
```
parcel_input = DBF("pa40_raw_parcel.dbf")
parcel_input = pd.DataFrame(parcel_input)
```

In [5]:
```
TAZ_Jurisdiction = pd.read_csv("parcel_taz_juris.csv")
```

In [6]:
```
trips_input_c = trips_input
def vmt_gen(row):
    if row["mode"] == 5:
        return row["distau"] * 0.3
    elif row["mode"] == 4:
```

```
        return row["distau"] * 0.5
    else:
        return row["distau"] * 1

trips_input_c = trips_input_c[(trips_input_c["mode"] == 3) | (trips_input_c["mode"] == 4) | (trips_input_c["mode"] == 5)]
trips_input_c["VMT"] = trips_input_c.apply(vmt_gen, axis =1)
```

Filter Other Tours and VMT - II VMT by Parcel

- Merge trips and tour files
- Filter by pdpurp:
  - 4 - personal bussiness/medical
  - 5 - shop
  - 6 - meal
- Summazire (groupby) data by destination parcels (tdpcl) to get VMT for each trip

In [7]:
```
trip_tour_merge = pd.merge(trips_input_c, tour_input, how = "left", left_on = "tour_id" , right_on = "id")
trip_tour_merge = trip_tour_merge[['opcl',"pdpurp", "parent", "tdpcl", "topcl", "VMT" ]]
Other_trip_tour = trip_tour_merge[(trip_tour_merge["pdpurp"] == 4)|(trip_tour_merge["pdpurp"] == 5)|(trip_tour_merge["pdpurp"] == 6)]
Other_trips_dest = Other_trip_tour.groupby("tdpcl")["VMT"].sum().reset_index()
```

In [8]:
```
parcel_Other_vmt = pd.merge(parcel_input, Other_trips_dest, how = "left", left_on = "PARCELID" , right_on = "tdpcl")
```

In [9]:
```
parcel_Other_vmt = parcel_Other_vmt[['PARCELID','TAZ','EMPTOT_P','VMT']]
```

Parcel Level Calculation

In [11]:
```
VMT_Parcel = pd.merge(parcel_Other_vmt,TAZ_Jurisdiction, on = "PARCELID", how = "left" )
VMT_Parcel = VMT_Parcel.fillna(0)
```

In [12]:
```
VMT_Parcel.to_csv('Other_VMT_by_parcel.csv', index=False)
```

VMT by Service Population

Import Files

In [1]:
```
import pandas as pd
from dbfread import DBF
import numpy as np
import warnings
warnings.filterwarnings ('ignore')
```

In [2]:
```
parcel = pd.read_csv('pa40_raw_parcel.txt')
parcel_jurisdiction = pd.read_csv("parcel_taz_juris.csv")
```

In [3]:
```
hh_VMT = pd.read_csv('Household_VMT_by_parcel.csv')
work_VMT = pd.read_csv('Work_Tour_VMT_by_parcel.csv')
retail_VMT = pd.read_csv('Other_VMT_by_parcel.csv')
```

Toatal VMT and VMT per Service population - By Parcel

In [4]:
```
parcel2 = pd.merge(parcel_jurisdiction, parcel, how='left', left_on= 'PARCELID',right_on='parcelid')
parcel2['STUDENT'] =  parcel2['stugrd_p']+parcel2['stuhgh_p']+parcel2['stuuni_p']
student = parcel2[['PARCELID','STUDENT','TAZ','JURIS','LUTYPE']].fillna(0)
```

In [5]:
```
hh_VMT = hh_VMT[['PARCELID','POP','HH_P','VMT_TOT']]
work_VMT = work_VMT[['PARCELID','EMPTOT_P','VMT_TOT']]
retail_VMT = retail_VMT[['PARCELID','VMT']]
```

In [6]:
```
all_parc_hh_work_VMT = pd.merge(hh_VMT,work_VMT,how='left', on= 'PARCELID')
all_parc_all_VMT = pd.merge(all_parc_hh_work_VMT,retail_VMT,how='left', on= 'PARCELID')

all_parc_service_pop_VMT = pd.merge(all_parc_all_VMT,student,how='left', left_on='PARCELID', right_on='PARCELID')
all_parc_service_pop_VMT = all_parc_service_pop_VMT.fillna(0)
```

In [7]:
```
all_parc_service_pop_VMT = all_parc_service_pop_VMT.rename(columns={'VMT_TOT_x':'RES_VMT','VMT_TOT_y':'WORK_VMT','VMT':'OTHER_VMT','EMPTOT_P':'EMPLOYEE','JURIS':'Juri
```

In [8]:
```
all_parc_service_pop_VMT = all_parc_service_pop_VMT.round(2)
```

In [9]:
```
all_parc_service_pop_VMT['TOTAL_VMT'] = all_parc_service_pop_VMT['RES_VMT']+all_parc_service_pop_VMT['WORK_VMT']+all_parc_service_pop_VMT['OTHER_VMT']
all_parc_service_pop_VMT['SERVICE_POP'] = all_parc_service_pop_VMT['POP']+all_parc_service_pop_VMT['EMPLOYEE']++all_parc_service_pop_VMT['STUDENT']
all_parc_service_pop_VMT['VMT_SERVICE_POP'] = np.where(all_parc_service_pop_VMT["SERVICE_POP"]>0, all_parc_service_pop_VMT["TOTAL_VMT"]/all_parc_service_pop_VMT["SERV
```

In [10]:
```
all_parc_service_pop_VMT = all_parc_service_pop_VMT[['PARCELID','TAZ','Jurisdiction','LUTYPE','HH_P','POP','EMPLOYEE','STUDENT','RES_VMT','WORK_VMT','OTHER_VMT','TOTA
```

Total VMT & VMT per Service Population by Land Use Type

In [11]:
```
LUTYPE_service_pop_VMT = all_parc_service_pop_VMT.groupby('LUTYPE')[('POP','EMPLOYEE','STUDENT','RES_VMT','WORK_VMT','OTHER_VMT','TOTAL_VMT','SERVICE_POP')].sum().res
```

In [12]:
```
LUTYPE_service_pop_VMT['VMT_SERVICE_POP'] = np.where(LUTYPE_service_pop_VMT["SERVICE_POP"]>0, LUTYPE_service_pop_VMT["TOTAL_VMT"]/LUTYPE_service_pop_VMT["SERVICE_POP"
```

Output

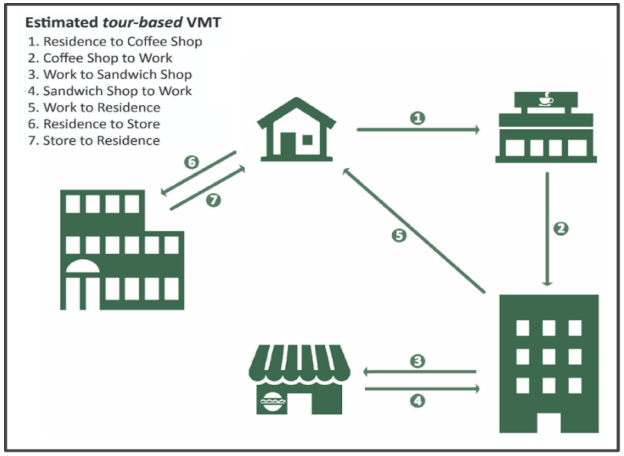
In [17]:
```
writer = pd.ExcelWriter('VMT_by_Service_Pop.xlsx', engine='xlsxwriter')

all_parc_service_pop_VMT.to_excel(writer, sheet_name='VMT_by_parcel', index=False)
TAZ_service_pop_VMT.to_excel(writer, sheet_name='VMT_by_TAZ')
Jurisdiction_service_pop_VMT.to_excel(writer, sheet_name='VMT_by_Jurisdiction')
LUTYPE_service_pop_VMT.to_excel(writer, sheet_name='VMT_by_LandUse')

writer.save()
```

Types of Project	VMT Analysis		SACOG	Sacramento County	City of Elk Grove
Residential Projects	**Analysis Methodology**		Household generated VMT	Homebased tour VMT	Household generated VMT
	SB 743 Threshold		Household generated VMT per resident for new projects – 15% below regional Average	Homebased tour VMT per resident for new projects– 15% below regional Average	Total VMT[1] per service population[2] for new projects – 15% below **Citywide** Average
	HBW[3] Tour	1-2-5	Y	Y	Y
	HBO[4] Tour	6-7	Y	Y	Y
	NHB[5] (Work Based Subtour)	3-4	Y	N	Y
	IX-XI[6] (External work travel by residents)		Y	Y	Y
	IX-XI[7] (Work travel by external workers)		N	N	N
	XX[8]		N	N	N
	Commercial Vehicle[9]		N	N	N
Office/ Industrial Projects	**Analysis Methodology**		Work Tour VMT	Work Tour VMT	Work Tour VMT
	SB 743 Threshold		Work Tour VMT per employee for new projects – 15% below regional Average	Work Tour VMT per employee for new projects – 15% below regional Average	Total VMT[1] per service population[2] for new projects – 15% below **Citywide** Average
	HBW[3] Tour	1-2-5	Y	Y	Y
	NHB[5] (Work Based Subtour)	3-4	Y	N	Y
	IX-XI[6] (External work travel by residents)		N	N	N
	IX-XI[7] (Work travel by external workers)		Y	Y	Y
	XX[8]		N	N	N
	Commercial Vehicle[9]		N	N	N
Retail/ Public Facilities Projects	**Analysis Methodology**		Regional Change in VMT	Regional Change in VMT	Total VMT
	SB 743 Threshold		Total regional VMT with the project should not exceed baseline total VMT	Total regional VMT with the project should not exceed baseline total VMT	Total VMT[1] per service population[2] for new projects – 15% below **Citywide** Average
	HBW[3] Tour	1-2-5	Y	Y	Y
	HBO[4] Tour	6-7	Y	Y	Y [10]
	NHB[5] (Work Based Subtour)	3-4	Y	Y	Y
	IX-XI[6] (External work travel by residents)		Y	Y	N
	IX-XI[7] (Work travel by external workers)		Y	Y	Y
	XX[8]		N	N	N
	Commercial Vehicle[9]		Y	Y	N

The figure below shows a travel diary of a typical day for a household member within the SACOG region. Each leg of the arrow indicates an individual trip. This example includes 7 trips and 2 tours. Tours are defined as a chain of trips that begin and end at the household location (trips 1-2-5 is a home-based work tour). Tours that begin and end at a location other than home are called sub-tours (trip 3-4 is a work-based subtour).



Work location can be Office/Industrial/Retail/Public facilities etc.

[1] Total VMT = calculated by adding household generated VMT and employment generated VMT for each parcel

[1] Service Population = Residents + Employees + Students

[3] HBW = Home-based work tour, includes intermediate stops

[4] HBO = Home-based other tour (shopping, personal business, medical, school, recreational etc.), includes intermediate stops

[5] NHB = Non Home-based tour (tour that begin and end at a non-home location i.e., subtours), includes intermediate stops

[6] IX-XI = Internal-External / External-Internal, External work travel by residents who reside within SACOG but work outside the region

[7] IX-XI = Internal-External / External-Internal, Travel by workers that reside outside SACOG region but work within the region

[8] XX = External-External Travel, Trips that don't have any stops within SACOG region

[9] Commercial Vehicle = Trips by commercial vehicles (small-large trucks)

** [10] Only includes Customer/Visitor Tour (Tours at employment location by people who don't work there). Trip purposes included in for this are the following:*

-- Personal Business/ Medical

-- Shop

-- Meal

All trips/tours are from the SACSIM19 Activity based model travel diary (DaySim travel diary)

IX-XI VMT accounts for vehicle travel that occurs outside of the SACSIM model area by using SACSIM IX-XI trips and average trip distance outside SACOG region, calculated using Replica (Spring 2019) mobility data.

CERTIFICATION
ELK GROVE CITY COUNCIL RESOLUTION NO. 2023-284

STATE OF CALIFORNIA)
COUNTY OF SACRAMENTO) ss
CITY OF ELK GROVE)

I, Jason Lindgren, City Clerk of the City of Elk Grove, California, do hereby certify that the foregoing resolution was duly introduced, approved, and adopted by the City Council of the City of Elk Grove at a regular meeting of said Council held on December 13, 2023 by the following vote:

AYES: COUNCILMEMBERS: Singh-Allen, Brewer, Robles, Spease, Suen

NOES: COUNCILMEMBERS: None

ABSTAIN: COUNCILMEMBERS: None

ABSENT: COUNCILMEMBERS: None

Jason Lindgren, City Clerk
City of Elk Grove, California