4 COMMUNITY DESIGN & LIVABILITY

The concept of livability encompasses economic and social factors such as employment opportunities, housing affordability, public services, and safety, as well as the physical form of the city. This element explores the physical factors that make Lodi a desirable place to live. It envisions a compact and sustainable city form, walkable neighborhoods, a revitalized downtown and corridors, multiple new recreational opportunities, and a continued high quality of life.

Topics addressed include city form and identity; downtown; neighborhoods and corridors; streets, connectivity, and accessibility; and site planning and green building.

4.1 COMMUNITY DESIGN AND LIVABILITY FRAMEWORK

All scales of urban form affect livability—from the design of individual homes, to neighborhood streets and parks, to citywide systems of streets and open spaces. A highly livable city works at each scale. As growth occurs, maintaining Lodi's compact form and relationship with the regional landscape will be dominant issues. New neighborhoods and infill development will need to reflect needs of the future population, which increasingly comprises the elderly and non-traditional households, including single-person and multi-generational households. Growth will also place demands on the transportation system, resulting in increased traffic and pressure to widen and expand the street network, potentially impacting pedestrian walkability and bicycle access. Through a citywide survey and other outreach conducted for the General Plan, residents have indicated several priorities for the city's future. These include:

- Preserving Lodi's small-town character;
- Maintaining a compact form and protecting surrounding agricultural land;
- Enhancing downtown vitality;
- Revitalizing vacant or decrepit older buildings;
- Protecting agricultural land, large trees, and historic buildings;
- Increasing bikeways and pedestrian walkways; and
- Increasing park and recreational space.

Existing Framework

In addition to the General Plan and the Zoning Ordinance, urban design in the city is guided by the Downtown Development Standards and Guidelines, developed in 1997 and the Eastside Mobility and Access Plan, developed in 2006. The Downtown Development Standards and Guidelines were developed to ensure high quality building and street design in downtown Lodi. The Eastside Mobility and Access Plan emphasizes improving safety, access, and comfort for pedestrians, cyclists, transit uses and motorists between downtown and the Eastside neighborhood, focusing on Sacramento Street, Lodi Avenue and Central Avenue corridors. The Guidelines and Access Plan are consistent with the General Plan and will continue to guide development in their respective locations.

The agricultural edge provides contrast to the urban center, reinforcing Lodi's identity.

4.2 CITY FORM AND IDENTITY

Lodi today is a livable community. Community surveys indicate civic pride and a sense of identity. Well-situated away from the urban traffic and sprawl of the Bay Area, the city enjoys a favorable Central Valley climate. Lodi has a compact form, with visible history and a human scale. Downtown is active, well-kept, and pedestrian-oriented. Agricultural land surrounding Lodi provides a contrast to the urban center, further reinforcing Lodi's identity.

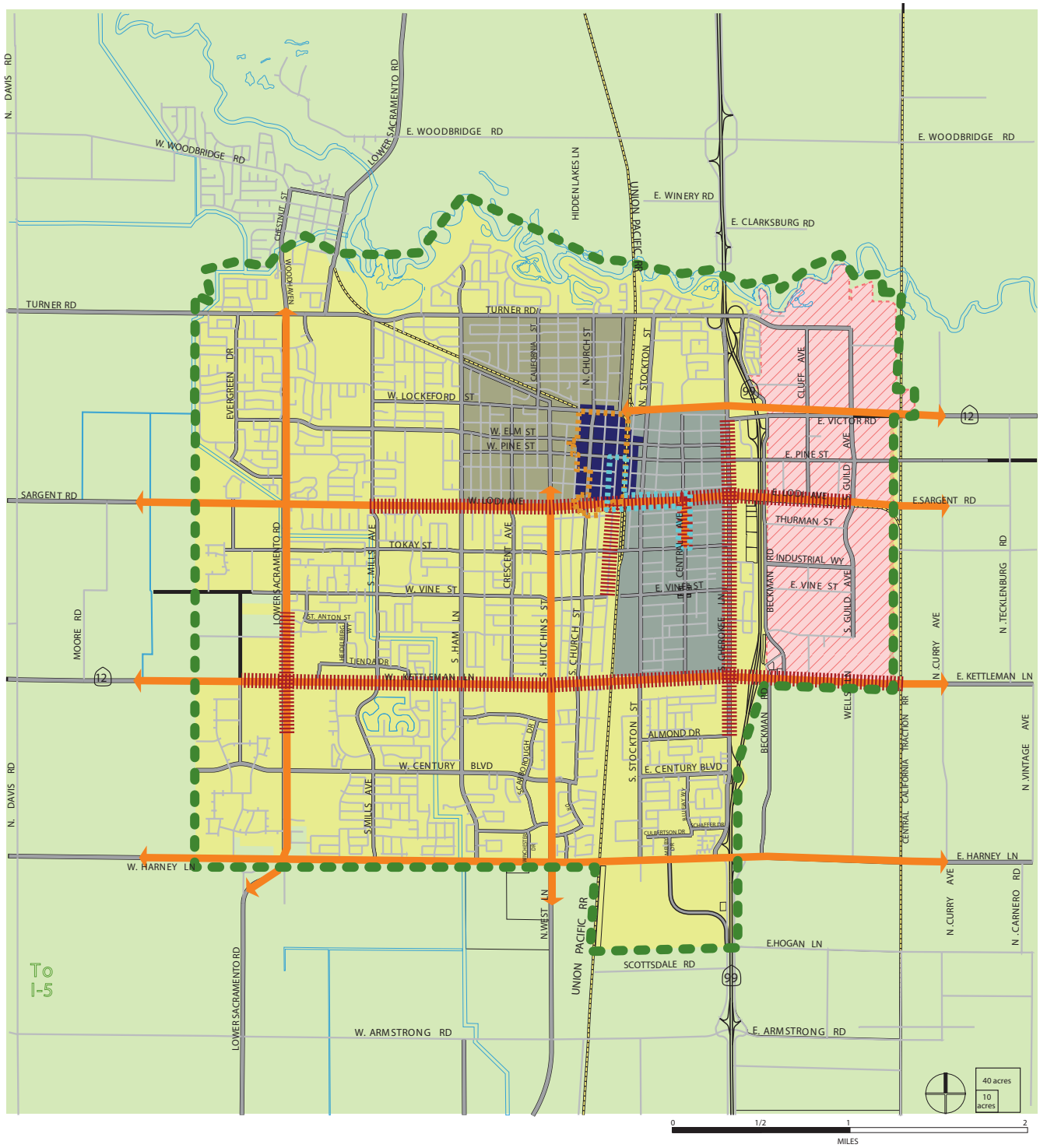
Compact and Coherent Form

Lodi has higher population density than any other community in the county and most of the Central Valley. Growth has remained contiguous, due to incremental development on all sides of the city core. This has allowed Lodi to maintain a generally square structure, as shown in Figure 4-1. As a result, downtown and the oldest neighborhoods remain close to the geographic center of the city. Furthermore, the city's built form consists of fairly uniform layers or "belts" of development radiating from the downtown. Consequently, Lodi's neighborhoods possess consistent urban design and livability qualities without significant disruptions. Because of the absence, until fairly recently, of large-scale developments, there is diversity in building design as well. In recent decades, growth has been focused on land at the southern and western edges in particular, resulting in increasing distances from downtown.

Several characteristics make Lodi a coherent and navigable city. Lodi has a historic and identifiable downtown, surrounded by graceful neighborhoods and tree lined streets. The city lacks major obstacles within its borders, with the exception of the railroad tracks and State Route (SR) 99, much of which is depressed through the city. The urban form is further defined by the contrast to the surrounding agricultural land, which complements the urban form and provides visual and functional definition to the city's outer edge. The agricultural setting not only provides a special identity, but also sustains emerging industries in viticulture and tourism, making it an integral component of the city's identity and economic base.

Historic buildings such as the Carnegie Forum, gracious old neighborhood streets, and new neighborhood design all help define the evolution of Lodi's structure.

FIGURE 4-1: URBAN FORM



- Downtown
- Old Lodi
- Eastside
- Newer Neighborhoods
- Industrial Development
- Commercial Corridors
- Urban/ Agricultural Edge
- Agricutural/ Rural Setting
- Key Connections
- Downtown Developemnt Standards and Guidelines Apply
- Eastside Mobility and Access Plan Study Area

City Structure Evolution

The typology of the neighborhoods emanating from downtown reflect their development era, with a close knit grid of streets at the core giving way to large-spaced arterials and introverted neighborhoods at the edge. This evolution is illustrated in Figure 4-2.

Lodi generally exhibits four patterns of residential neighborhood scale and structure—gridded, semi-gridded, curvilinear and varied—which roughly correspond to different eras of development. These patterns are described in the text below and in Figure 4-3. In general, neighborhoods are fairly homogeneous in their nature, rarely exhibiting a mix of land uses, parcel sizes, or street types. The only non-residential parts of Lodi that are notable in size and profile are the downtown commercial district and the industrial Eastside, which are singular areas unlike the rest of the city.

A. Old Lodi Grid Pattern

The grid pattern was established from the city's beginning in the 19th century and expanded from what is now downtown into surrounding neighborhoods through the 1950s. Downtown, Old Lodi and the Eastside neighborhoods exhibit a fine grained street grid with extensive street trees, small parcels, and small blocks, averaging approximately 350 feet by 450 feet. The short interconnecting blocks of Old Lodi predate the automobile, providing flexibility for pedestrians, bicyclists, and automobiles in moving through the neighborhood.

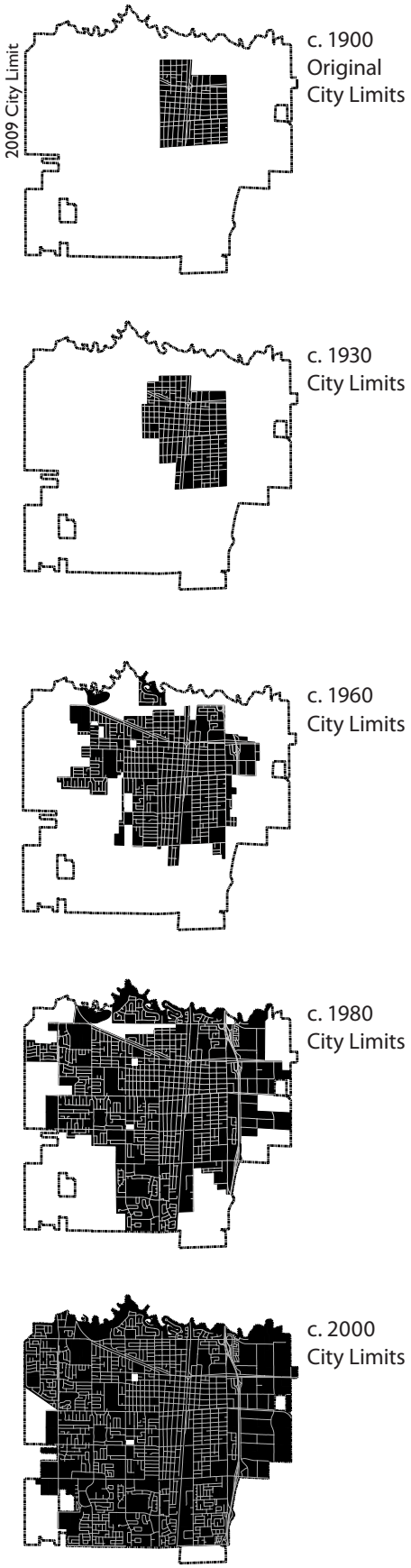
B. Semi-Gridded Pattern

As newer areas radiate out of this core, the overall street grid pattern remains intact, though block lengths begin to increase. Finding space for street trees in newer residential areas is a challenge as large home frontages are devoted to garages and driveways.

C. Curvilinear Pattern

The post-World War II period saw the introduction of the curvilinear pattern with cul-de-sacs,

FIGURE 4-2: URBAN EVOLUTION



t-intersections, and longer blocks, with through streets appearing only every quarter mile. Often these streets lack street trees except on larger arterials, though front yards of these residential neighborhoods are often landscaped with trees. This era also marked the introduction of large lot commercial development with large surface parking lots fronting on major arterials.

This typology remained dominant through the 1980s with the through street grid expanding in places to every half-mile in the 1960s, and further expanding to every mile by 1980. Parcel sizes also increased by nearly 50 percent when compared to parcels in the gridded areas of town. These neighborhoods lack a mix of uses within their boundaries and are largely isolated from other neighborhoods, jobs, and services.

D. Varied Pattern

The newest neighborhoods exhibit a mix of the semi-gridded and curvilinear patterns, often with more connectivity than a curvilinear design but longer blocks and fewer connections than the fine-scale grid found in central Lodi. This pattern is also largely isolated from other neighborhoods, jobs, and services.

Future City Structure

The plan strives to provide connectivity while accommodating desired residential typologies. The plan envisions the evolution of Lodi's structure as one that maintains connectivity, smaller block sizes, the use of street trees, and an integration of uses within neighborhoods. This framework is illustrated in Figure 4-4.

The northern edge of the city is well defined by the Mokelumne River. Due to limited existing connections across the river and the difficulty and expense of new connections, the Mokelumne River shall remain the City's northern edge. The Armstrong Road Agricultural/Cluster Study Area, described in Chapter 3: Growth Management and Infrastructure, will delineate the southern boundary of Lodi's urban development and the northern border of Stockton, creating distinction and physical separation between the two cities.

The railroad currently acts as an edge between the east and west sides of the city. Connections across the railroad, in particular for pedestrians and bicycles, would unify the city and establish a more connected urban fabric. Additional edges exist along Harney Lane and Lower Sacramento Road due to walled and gated housing development. These streets will be important places to establish permeability and connectivity between proposed development and the urban center. A soft but clear transition at the agricultural and urban interface will establish the urban edge of Lodi while retaining access to the agricultural land.

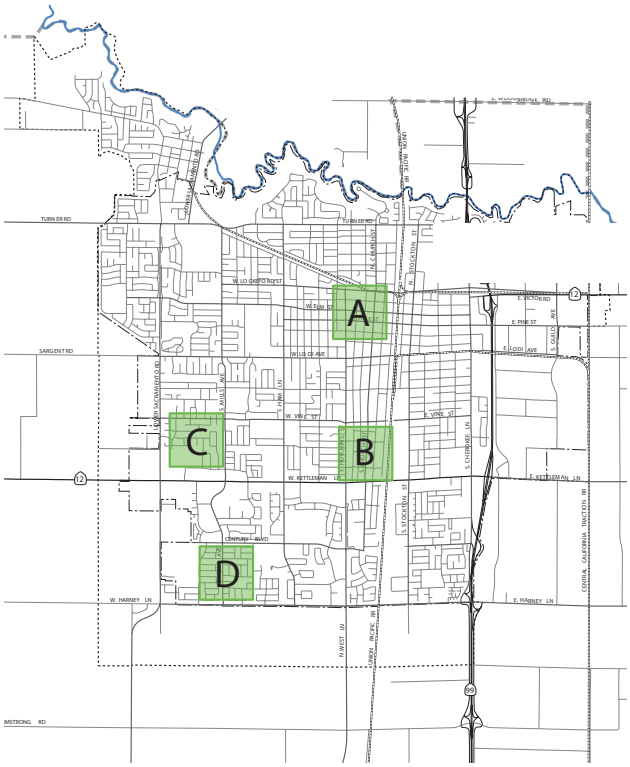


FIGURE 4-3: NEIGHBORHOOD SCALE STRUCTURE COMPARISON

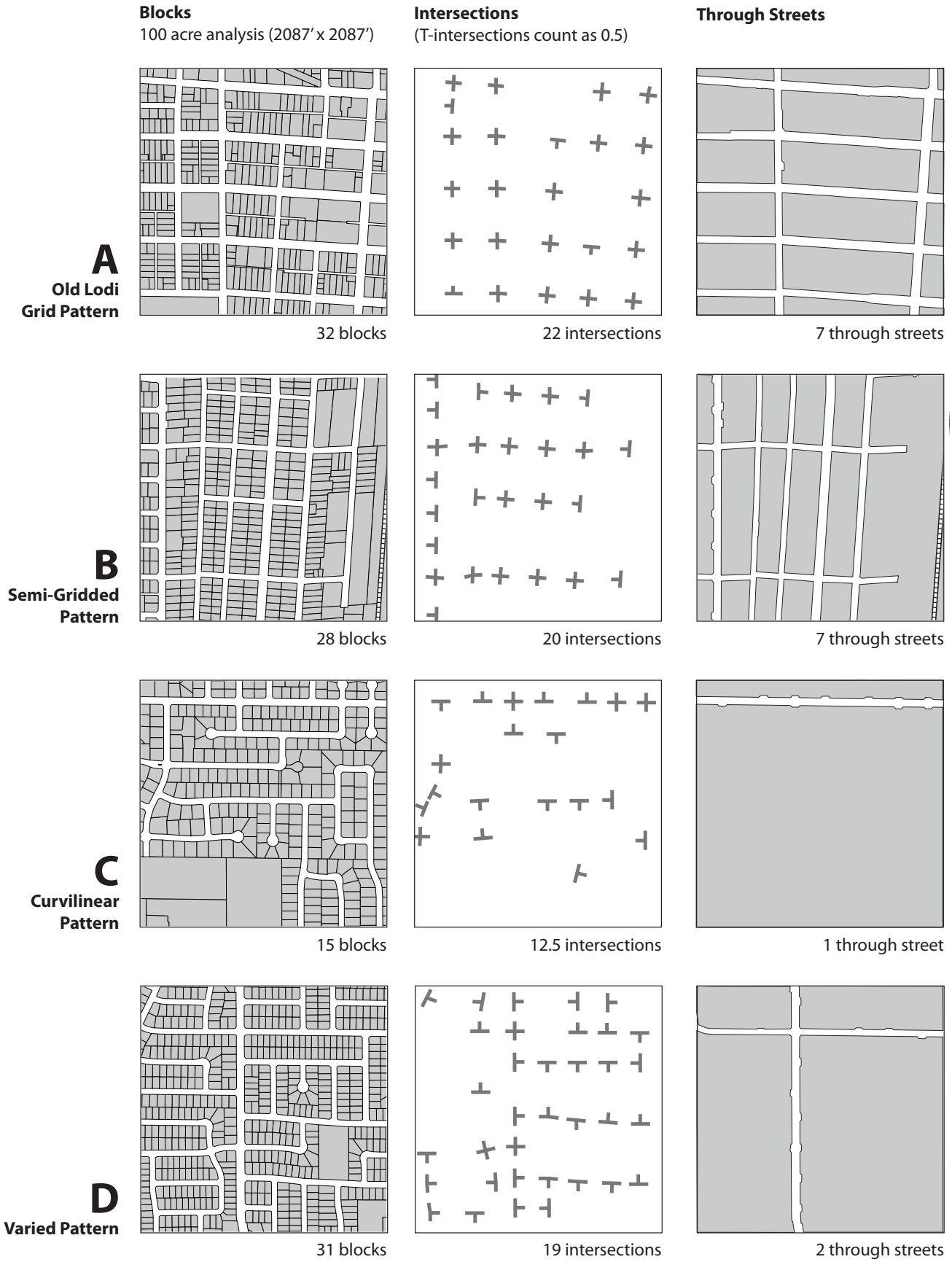
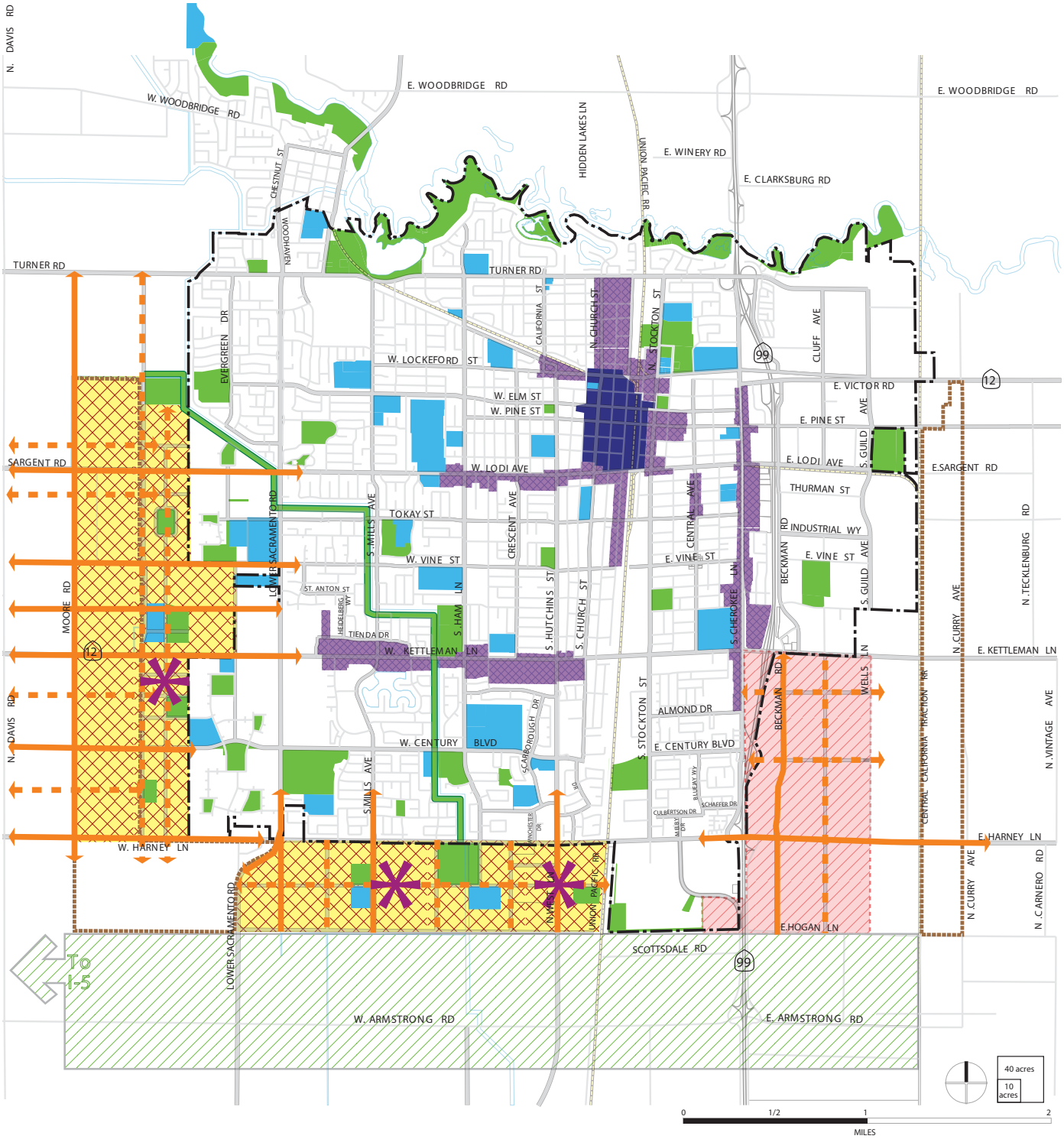


FIGURE 4-4: COMMUNITY DESIGN FRAMEWORK



- Urban Reserve
- City Limits (2008)
- Parks and Open Space
- Public and Quasi Public (including schools)
- Mixed Use Centers
- Mixed Use Corridors
- Downtown
- Major Street Connections
- Intermediate Street Connections (depending on specific alignment and interim development)
- New Neighborhood
- Southeast Employment Center
- Armstrong Road Agricultural/ Cluster Study Area

4.3 DOWNTOWN

Downtown Lodi

Downtown Lodi is located near the center of the city, roughly contained by Lockeford Street, Pleasant Avenue, the railroad, and Lodi Avenue. Downtown offers small scale retail in a vibrant pedestrian-oriented setting, and is easily accessible from nearby government offices and the surrounding residential neighborhoods. The downtown has benefited from revitalization efforts over the past decade, and the creation of Downtown Development Standards and Guidelines. Streetscape improvements to date have been made through the General Fund and Assessment District rather than through establishment of a redevelopment area, though future improvements may be dependent on some other financing structure. The streetscape, well articulated buildings, and active use of the street through outdoor dining and open air markets all contribute to the creation of a distinct and vibrant atmosphere. This plan envisions a slightly larger downtown that embraces the Eastside, extending to Main Street.

The heart of the pedestrian-oriented downtown area is along School Street. Church Street runs one block west of School Street and accommodates parking for School Street and the downtown area. Many of the parking lots accessible off of Church Street provide back door entrances or access to alleyways or arcades that access School Street. Other key north/south downtown streets include Sacramento Street and Main Street; east/west streets include Elm Street and Pine Street. The downtown area is currently one of the densest areas of Lodi, with an average floor area ratio (FAR) over 0.75 and building heights of one to three stories.

Existing development patterns and street design are effective and aesthetically pleasing. One addition that could be considered is an extended pattern of small plaza spaces as community gathering spaces, located throughout the downtown, similar to the mini-squares that exist near the Post Office and in front of the theater.

Wayfinding and historic lighting help define the downtown core.

Downtown is one of the densest areas of Lodi.

The mini-square located in front of the theater is one of many pedestrian amenities downtown.

Downtown Lodi is vibrant and pedestrian oriented.

Downtown Mixed Use District

This plan strives to enhance and reinforce downtown as the vibrant center of the city through infill development and promoting a mix of uses, including more housing. The addition of residential uses and possibly hotel uses in the downtown core will increase demand for downtown services, contribute to the vibrancy of the area, and reduce pressure to develop outward onto agricultural land. To encourage density in the downtown core, allowable FAR will remain at 3.0, with up to six-story buildings. This is slightly taller than most buildings in downtown, but still at a height that could be well integrated into the area. These concepts are illustrated in Figure 4-5.

The downtown area also has the potential to expand across the railroad tracks at Pine Street and connect to Main and Stockton streets and to Hale Park. Main and Stockton streets already exhibit higher densities and mixed-uses similar to those found in the downtown area. Additional streetscaping on the eastern side of the railroad, rehabilitation of key sites, and implementation of wayfinding elements would improve the connection across the railroad and integrate this area into the downtown. While Main and Stockton streets are envisioned as part of the downtown area, it is important that they also maintain their distinct character, perhaps reflecting an art and entertainment focus.

FIGURE 4-5: DOWNTOWN MIXED USE DISTRICT

- Downtown Mixed Use District
- Ground floor active uses for a vibrant pedestrian experience
- Key streets for unique Eastside streetscape
- Key connections across the Union Pacific Railroad
- Existing Downtown streetscape
- Union Pacific Railroad
- Existing Downtown gateways
- No crossing at railroad

Public Art

Public art is currently used in the city to acknowledge local historical pride. For example, throughout downtown, several murals depict Lodi's history. Public art is also part of the East Lodi Avenue Reconstruction project, including 24 mosaic medallions. Public art can be an effective means to contribute to the unique identity of a place, and can have an expanded focus in the future.

Several murals throughout Lodi add character and depict Lodi's history.

4.4 NEIGHBORHOODS, CORRIDORS, AND MIXED USE CENTERS

In addition to downtown, key components of Lodi's structure are corridors—such as Kettleman Lane and Lodi Avenue—and neighborhoods. While the corridors are currently dominated by auto-oriented commercial uses, the general plan seeks a greater pedestrian focus, and mixed use development in some stretches, especially closer to the core. In addition to the corridors and neighborhoods, the general plan seeks to establish mixed-use centers for new development at the edge of the existing urbanized area. This section describes the key characteristics and goals of each of these three forms.

Low density housing in southwest Lodi, less than eight units per acre.

Neighborhoods

For many of Lodi's residents, livability begins with their neighborhood. Residential environments need to be comfortable, safe, and designed to support the needs of diverse groups including young children, adolescents, the elderly, handicapped, single adults, and families. Lodi's neighborhoods are very diverse, ranging from country roads with historic farmhouses to historic neighborhoods of Victorian cottages and California bungalows to recent large-scale master-planned developments.

Medium density housing in west Lodi, 8-15 units per acre.

Lodi's neighborhoods are largely internally consistent in their architecture and site design. Residential land in Lodi is generally single-family detached housing, developed at a density of less than eight units per acre. These densities are fairly consistent across the city's neighborhoods, with development at the urban fringes sometimes ranging from four to six units per acre. The main exception to this pattern is found in the older, gridded sections of Lodi—particularly the Eastside—where smaller parcels result in a slightly higher density and a greater mix of uses. Pockets of medium- to high-density housing can be found to the south of Kettleman Lane near Mallard Lake and off of Hutchins Street.

High density housing in southeast Lodi, over 25 units per acre.

Sidewalks in Old Lodi are continuous and tree lined, promoting walkability.

Garages sit back from homes and rarely occupy the street frontage in Old Lodi, creating a more active and pedestrian-oriented streetscape.

Many Eastside neighborhood streets are treelined and pedestrian oriented.

Old Lodi

Old Lodi is located within the gridded center of the city described above. Housing in this area is primarily single-family, but multifamily housing is well integrated into the fabric through design and landscaping that is consistent with the single-family units. Few homes have garages or driveways that break up the street.

Non-residential uses are incorporated into the predominately residential neighborhood, including public parks, stores, offices, government uses, and parking. Housing in this area is generally within 1/3 of a mile or less of commercial uses—easily within walking distance, making the neighborhood much closer to retail than any other residential area in the city. Several blocks also include alleyways, which allow garages, public utilities, and services to be accessed away from the main road, thereby maintaining continuity on the street, reducing noise, visual clutter, and traffic congestion.

Eastside

Neighborhoods east of the railroad tracks are located within the gridded center of the city described above. Smaller commercial strips, such as along Central Avenue, provide pedestrian-oriented access to services and shopping. Multifamily housing is more common in the Eastside neighborhoods. Many Eastside neighborhoods' homes and apartments, however, are in need of rehabilitation. In addition, many residents see a need to improve connections across the railroad tracks to the city center.

Newer Neighborhoods

Much of the recent residential development in Lodi has been at the western and southern edges of the city. These neighborhoods reflect the curvilinear and varied street patterns and tend to be auto-oriented rather than pedestrian-oriented. Garages often dominate housing frontage and break up the street curb, limiting on-street parking. Development is also generally single use in nature, with residential and commercial uses separated.

The curvilinear pattern restricts outside access to the neighborhood. Multiple curvilinear developments

create a series of residential islands interconnected only by major roadways, with travel distances that require driving. Restricting the number of access points to the larger street network can also create congestion at a few choke points, since traffic cannot easily distribute itself to other intersections. Finally, limited access points, indirect routes, and long blocks make walking an inefficient transportation choice. While some of the most recent neighborhoods have better internal connectivity than the curvilinear design, access is often somewhat limited to the broader roadway network of the city and the neighborhoods continue to lack non-residential uses.

Increasing connectivity and walkability throughout these neighborhoods could contribute to the livability of these already often pleasant neighborhoods. This can be accomplished with streetscape improvements and establishing pedestrian and bike network connections, such as paths that link cul-de-sacs.

Garages often dominate the frontage of newer single-family housing, detracting from the pedestrian experience.

Many of the most recent developments have started to include street trees.

Future Development

Infill development, particularly downtown and along key corridors, is expected to make up about a quarter of new housing in Lodi. The remaining development will occur throughout the city and at the southern and western edges of the city. These new neighborhoods are envisioned with a greater mix of uses, strong connections to commercial and public services, high quality design, and well landscaped streets. All potential street connections with the existing urban fabric will be extended through the neighborhoods.

Residential densities in this Plan allow slightly denser development than currently exists, though the majority of new development will continue to be in the form of single-family homes. Higher densities proposed for future growth in Lodi are targeted toward infill opportunities along the corridors and in downtown; and in the new mixed-use centers to complement the commercial development in those areas and to establish vibrant centers. These densities will contribute to maintenance of the compact form by avoiding unnecessary conversion of farmland and help support local businesses and transit. Regardless of density, all development must address community needs for parking, provide

adequately-sized housing units, and enable the development of accessible public open space. Ultimately it is not the density of new housing but the design and the degree to which it is integrated with local character and scale that determines whether new housing is successful.

Corridors

Lodi's corridors establish connections within the city, define its neighborhoods, and host most of the city's large-scale commercial uses. Corridors are generally four-lane automobile-oriented arterials, often divided by a median, which is in some cases landscaped. Frequent curb cuts, inconsistent setback distances, large building bulk, and large parking lots located between the street and buildings create a jarring visual break from the small scale and vegetated nature of Lodi's residential neighborhoods. Key corridors include Kettleman Lane, Cherokee Lane, Lodi Avenue, Century Boulevard, Lower Sacramento Road, Harney Lane, and Central Avenue.

The Plan strives to revitalize Kettleman Lane, Cherokee Lane, Lodi Avenue and Central Avenue by establishing them as mixed use corridors with a moderately high FAR of 1.2 which will allow slightly taller buildings and more intensity on each site. The Plan will activate the corridors with new development and re-use of existing buildings. Streets will be enlivened by locating buildings at the front of lots and parking behind, and by providing streetscape features such as trees and unified signage.

Kettleman Lane

Kettleman Lane (State Highway 12) runs east-west through Lodi. It is the main entry point to the city at the western edge, and a major commercial street. Kettleman Lane is auto-oriented, hosting big-box retail, restaurants and fast-food establishments, offices, and few large residential complexes. Most development is located at the back of large parking lots that dominate the street. Despite bike lanes and wide sidewalks, the street lacks pedestrian or bicycle appeal. Kettleman Lane is a four-lane arterial, with a periodic median that is landscaped in a few areas, though generally not wide enough to act as a pedestrian refuge.

Proposed improvements to Kettleman Lane are illustrated in Figure 4-6. Street improvements and safe pedestrian crossing where the Woodbridge Irrigation District Canal crosses Kettleman Lane would support the proposed trail along the Canal, as described in Chapter 6: Parks, Recreation and Open Space. However, while some changes to Kettleman Lane may achieve a more aesthetically pleasing appearance and improved pedestrian and bicycle friendliness, it is envisioned to remain an essential corridor for automobile access and large scale shopping destinations.

Cherokee Lane

Cherokee Lane, formerly State Highway 99, runs north-south through Lodi and is a major entry point for access off of SR-99. Cherokee Lane has consistent auto-oriented lighting and a landscaped median for the majority of its length, which help to make the street seem narrower than the curb-to-curb width of around 75 feet. Typical of old Highway 99, uses along Cherokee Lane are primarily auto oriented commercial, including food, motels, and automobile services and dealers. These uses reflect a variety of scales. Generally speaking, at the northern end of Cherokee Lane commercial uses are small scale and oriented to the street while the southern end is dominated by large scale car dealerships and auto-oriented commercial. The General Plan seeks to tie together the areas of disparate character into one unified corridor, as shown in Figure 4-7. The addition of streetscaping, higher intensity uses, and higher density housing interspersed along Cherokee Lane will help activate and revitalize the corridor.

Lodi Avenue

Lodi Avenue runs east-west through Lodi. This street is narrower than Kettleman and Cherokee lanes, with a curb-to-curb width around 60 feet in the area proposed as Mixed Use Corridor. Lodi Avenue has a greater mix of uses than many of the other major corridors, including a significant amount of residential use. Commercial uses are primarily setback behind parking lots, though the scale of development is smaller than that found on Kettleman or Cherokee lanes. The Lodi Avenue Reconstruction project from Union Pacific Railroad to Cherokee Lane is in final planning stages

FIGURE 4-6: KETTLEMAN LANE

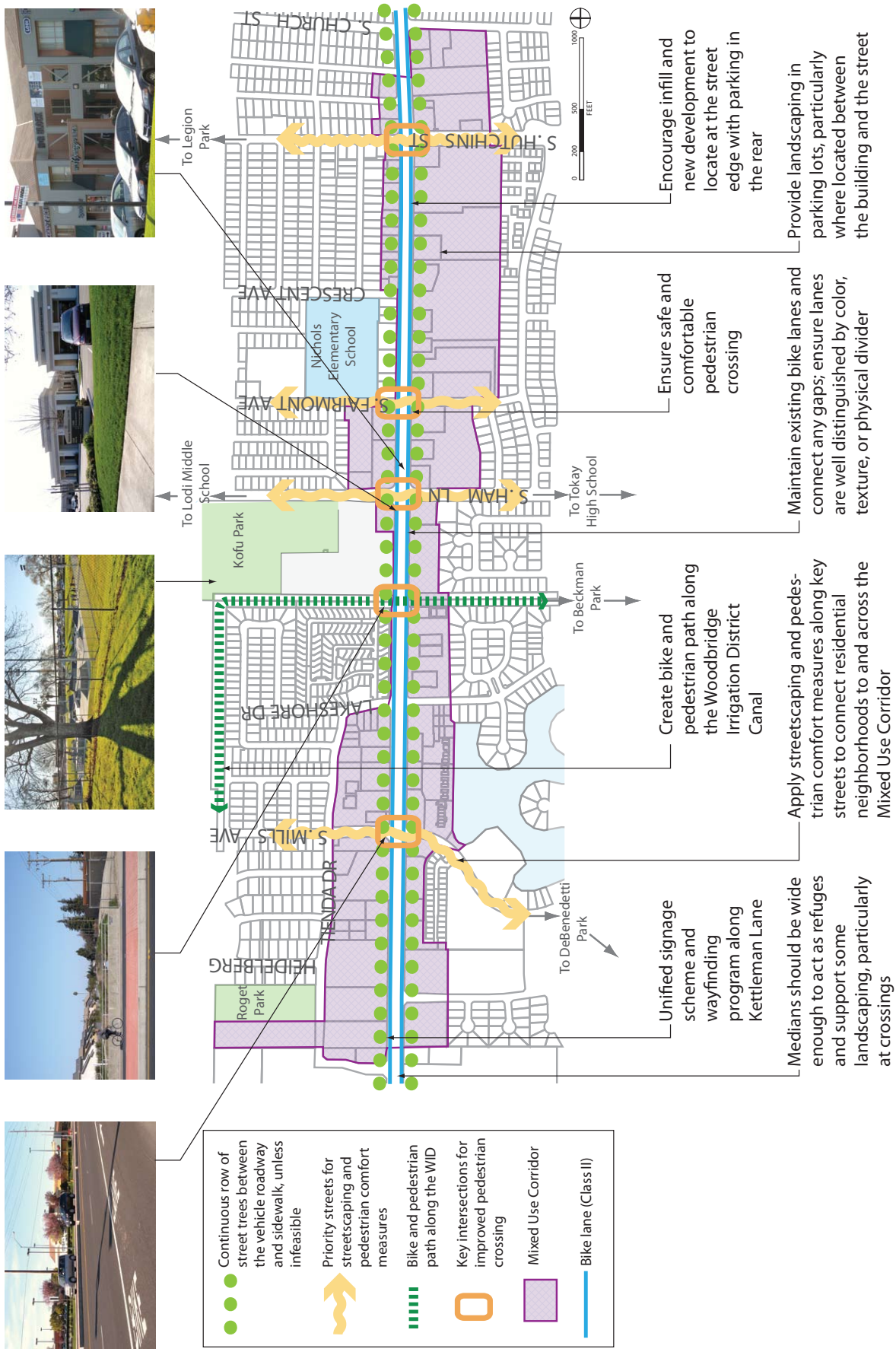
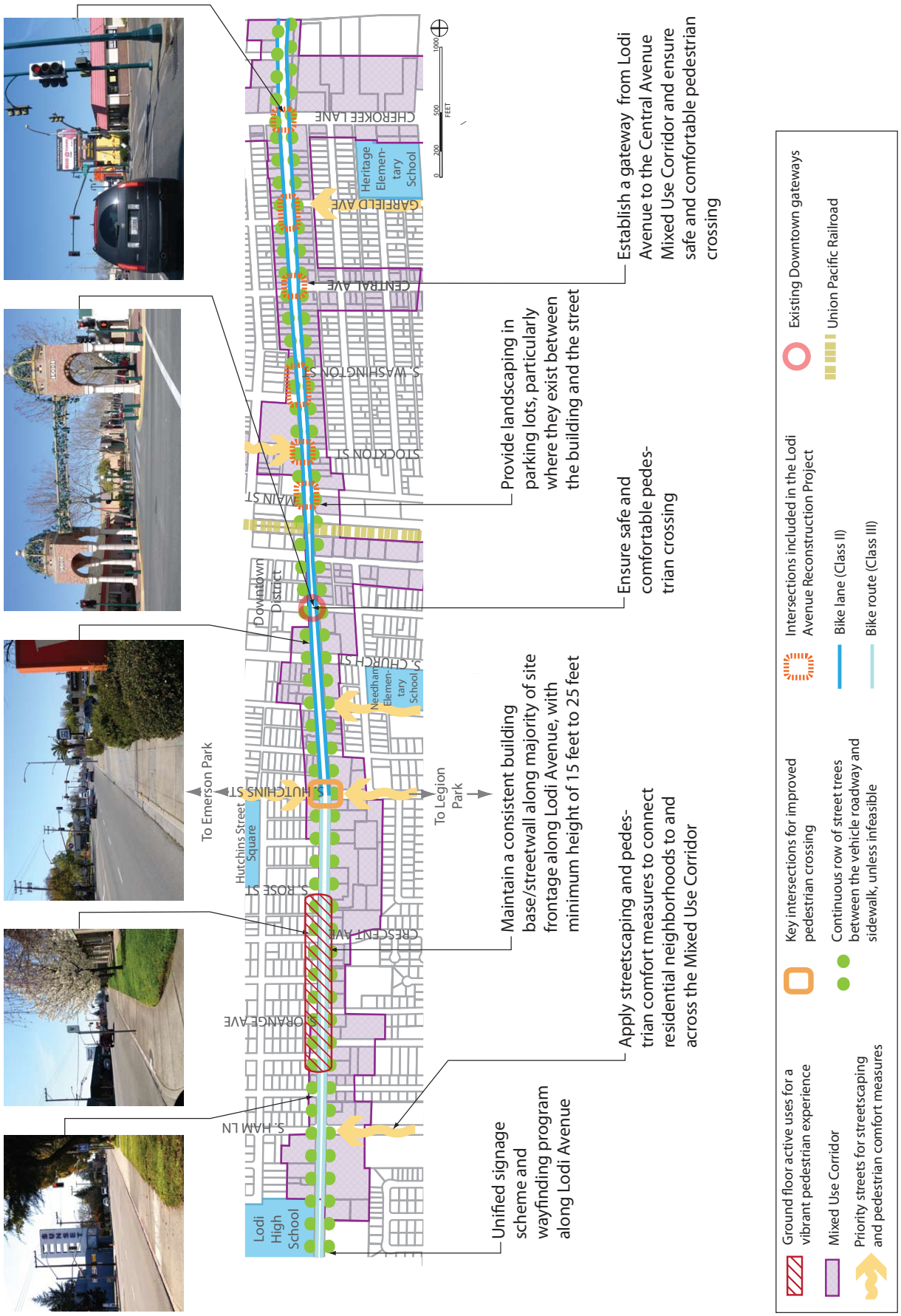


FIGURE 4-7: CHEROKEE LANE

FIGURE 4-8: LODI AVENUE



as of 2009. The project includes bulbouts and stamped concrete at key intersections as illustrated on Figure 4-8, decorative streetlights, and colored crosswalks, as well as landscaping, trees, benches and sidewalk artwork at various locations along Lodi Avenue. This General Plan envisions Lodi Avenue as a visually cohesive and pedestrian-friendly street with active ground floor uses, such as retail and restaurants, that are oriented toward the street.

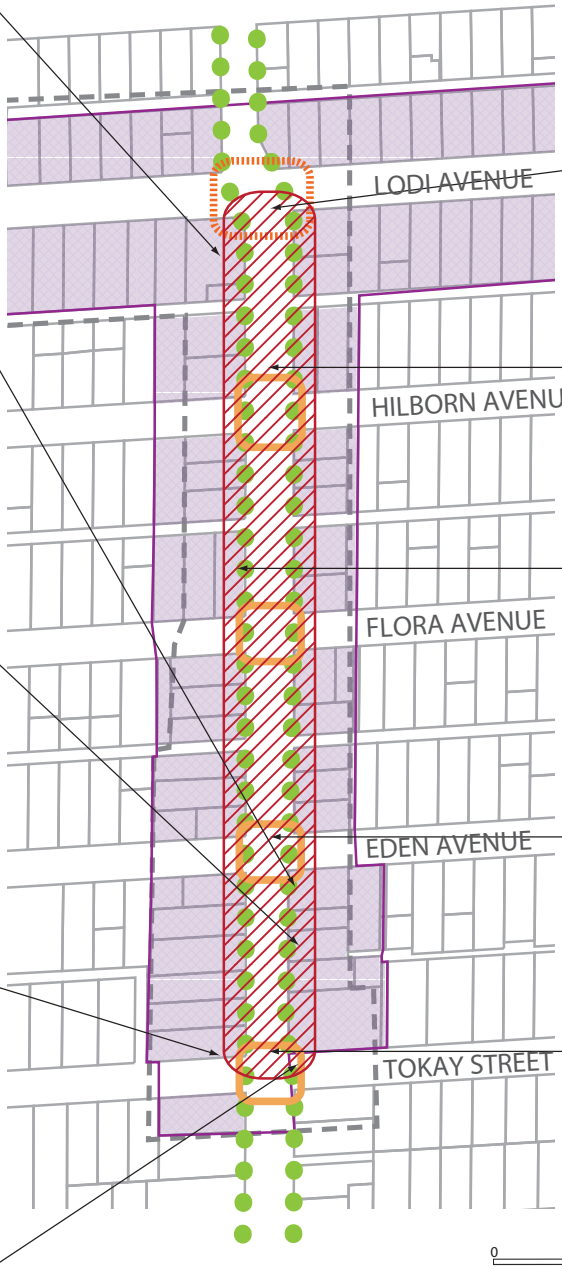
Central Avenue

Central Avenue is a smaller scale mixed-use street that has been identified by community members as a model for a neighborhood commercial center. Central Avenue is a two-lane street with angled parking, street trees, pedestrian scale lighting, and a planter strip that buffers the pedestrian from the street. Retail and commercial uses are generally one story and oriented to the street. Residential uses line the blocks immediately adjacent and are interspersed on the main commercial block, reflecting a well integrated mix of uses. This setting is very pedestrian friendly and walkable while also being convenient to access by car. These factors contribute to the success of the area as a neighborhood center. General Plan improvements are illustrated in Figure 4-9.

Mixed Use Centers

Mixed Use Centers will become focal points of new development as the city expands outward to the south and west. These areas will include a mix of uses, including medium- to high-density residential, office, and neighborhood commercial uses, allowing people to live and work in the same area. The Mixed Use Centers are designed to be adjacent to parks and near new schools and public facilities, to maximize accessibility. Essential components of Mixed Use Centers will be their connectivity to the existing urban form, the establishment of pedestrian and bicycle friendly streetscapes, and publicly accessible parks.

FIGURE 4-9: CENTRAL AVENUE



Establish a gateway from Lodi Avenue to the Central Avenue Mixed Use Corridor

Continue to implement the Eastside Mobility and Access Plan

Maintain a consistent building base/streetwall along majority of site frontage along Central Avenue, with minimum height of 15 feet

Unified signage scheme and wayfinding program along Central Avenue

Bulb-out with gathering space and special crosswalks at key intersections, as described in the Eastside Mobility and Access Plan

0 200 500
FEET

- Ground floor active uses for a vibrant pedestrian experience
- Mixed Use Corridor
- Eastside Mobility and Access Planning Area
- Continuous row of street trees between the vehicle roadway and sidewalk, unless infeasible
- Priority streets for streetscaping and pedestrian comfort measures
- Key intersections for improved pedestrian crossing
- Intersections included in the Lodi Avenue Reconstruction Project

Local residential streets, local commercial streets, and corridors should all accommodate bicycles and pedestrians as well as cars.

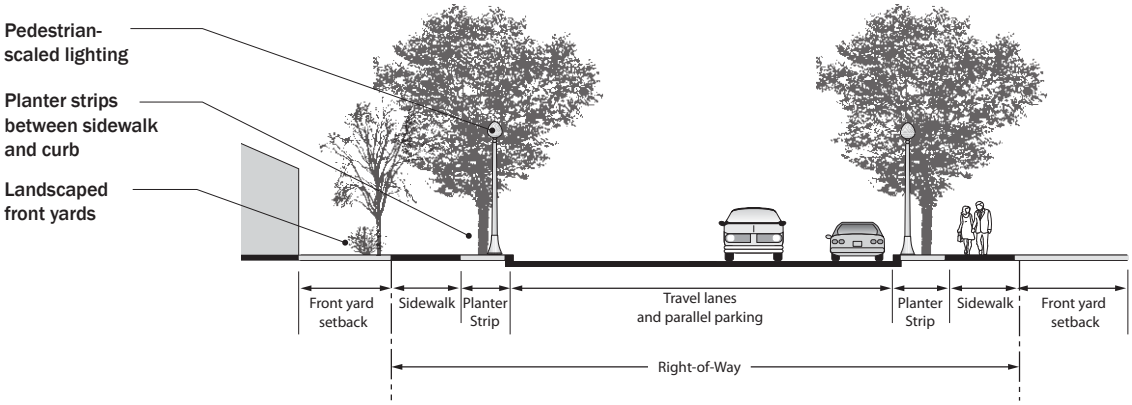
4.5 STREETS, CONNECTIVITY, AND ACCESSIBILITY

Street Design

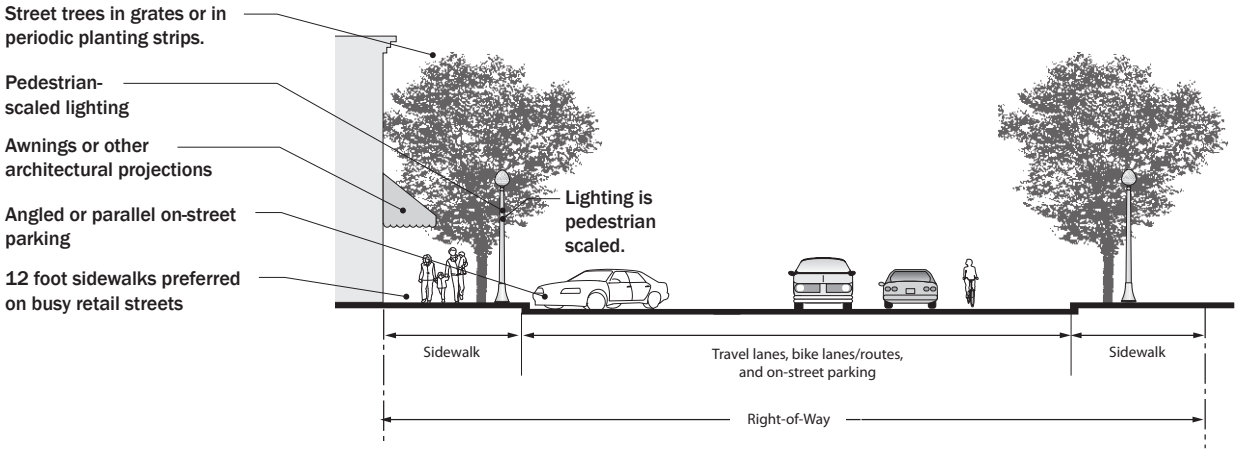
Street design, landscaping, and traffic calming contribute to neighborhood identity, ensure safety, promote social interaction, and enable pedestrian and bicyclist activity. Street design elements that contribute to successful streets include provision of sidewalks, sense of enclosure, short blocks with connections to adjacent neighborhoods, and a strong building-to-street relationship. Narrow streets provide pedestrian comfort, slow traffic, and create less impervious surface. Successful wider streets require much greater attention to street trees and consideration of the pedestrian realm. Short blocks and small parcels lend themselves to walkability by creating interest and options to the walker. Trees provide multiple benefits: supplying shade, making the street more alive by their movement and richness, purifying the air and increasing the oxygen content, providing a sense of privacy, allowing contact with nature, adding character and reducing noise. Landscaping, provision of pedestrian amenities such as appropriately scaled lighting and benches, and buildings that line the street with active uses all contribute to the comfort of a street. Street design variation is shown in Figure 4-10.

FIGURE 4-10: STREETSCAPE CONCEPTS

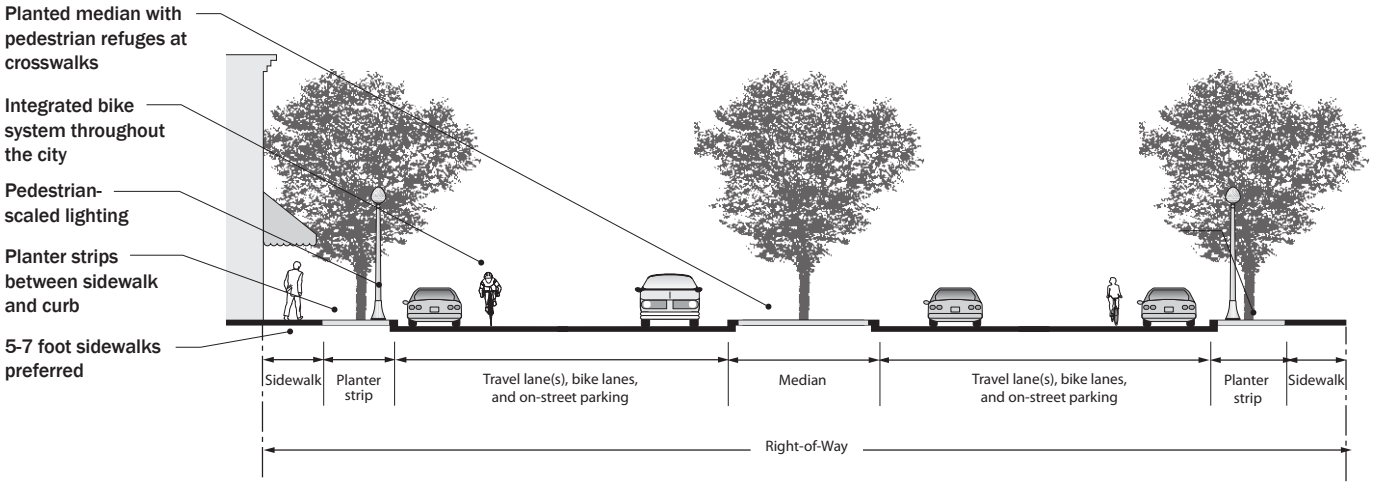
Local Residential Street



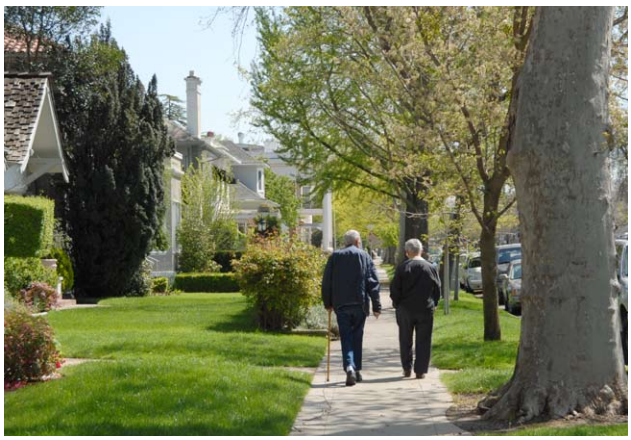
Local Commercial Street



Mixed Use Corridor



NOTE: These street cross sections are illustrative only. Actual roadway configurations are subject to comprehensive engineering and design.



Walkability is achieved in many contexts, including a walking trail along the WID irrigation canal, tree-lined and continuous residential streets, and sidewalks with pedestrian amenities such as special paving and benches.

Walkability

"Walkability" is the extent to which the built environment supports and encourages walking by providing for pedestrian comfort, safety, and choice. Like bicycling, walking is a sustainable mode of transport that reduces congestion, conserves energy and does not contribute to air or noise pollution. Beyond its utilitarian value for trips to work, school, or shopping, it can be recreational and improve health.

Overall, Lodi is highly walkable, particularly in central Lodi, downtown, and in small commercial areas such as Central Avenue. In some neighborhoods, however, factors such as lack of sidewalks, street trees, or connectivity degrade walkability. Several elements impact walkability, including:

Path connectivity: A successful path network is well-connected, with a high density of intersections and small block sizes. Connectivity is best addressed when an area is being planned and is far more difficult and expensive to remedy once a place is built, indicating the importance of connectivity in new residential and commercial development. In some cases, connectivity retrofits might be possible, such as by connecting cul-de-sacs with walkways to provide a continuous bicycle and pedestrian system. Other retrofits, such as providing pedestrian overpasses or underpasses, are likely to be too costly to pursue.

- **Linkage of Movement Systems:** A successful pedestrian path is linked seamlessly with other modes, particularly to public transit, thereby minimizing automobile dependence. Providing continuity from home to various destinations requires a pedestrian network that is well supported by transit and situated within an accessible mix of land uses.
- **Fine Grained Land Use Patterns:** A walkable neighborhood or city has an accessible pattern of activities to serve daily needs, such as access to a park, school, library, and/or market on foot within 10 to 20 minutes. Like path connectivity, land use intensity and diversity are best established at the very beginning of the development process since once a low-density and coarse-grained pattern is put in place, it is a legal and physical challenge to insert density and variety.

- **Safety:** The pedestrian network needs to be safe for people of all ages and degrees of mobility, both from traffic hazards and crime. On appropriate streets, traffic calming techniques—whereby vehicular traffic is slowed through a variety of devices such as chokers, speed bumps, raised crosswalks, rough paving, roundabouts, or landscaping—are one approach to making streets more pedestrian friendly and safer. To address safety from crime, paths intended for use after dark require appropriate lighting. Walkers are most comfortable with street level lighting only bright enough to illuminate faces, pavement obstacles and level changes.
- **Path Context:** Many aspects of the path context can contribute to a positive walking experience, including visual interest of the built environment, design of the street as a whole, transparency of fronting structures, visible activity, views, lighting, street trees, and other landscape elements.
- **Path Quality:** Successful paths are continuous and have relatively smooth surfaces to ensure ease of walking and wheelchair access. The required width varies based on need, ranging from single-file trails, or sidewalks that allow two to three people to pass, to broad walkways. Landscape elements such as planting strips between the sidewalk and street help insulate the pedestrian from the moving traffic, and street trees provide protection from the sun and help define the street space. Additional carefully placed amenities and the addition of paving patterns add visual interest and contribute to city identity.

Connections/Connectivity

Strengthening connections between neighborhoods, local centers, public spaces, regional parks, and the downtown shopping area is an important step to improving livability. Neighborhoods can be assessed by their internal and external connectivity as described below.

Internal Connectivity

Internal connectivity describes how easy it is to get from point to point within a relatively small defined area. Connectivity is enhanced by through-streets and a higher number of intersections, which translate to greater availability of options for travel within the neighborhood and to and from the neighborhood. Through-streets are most common in the downtown and older areas such as Old Lodi and the Eastside. While a higher number of intersections increase connectivity, a lower number of intersections can focus traffic on higher capacity collector streets, reducing options for travel through neighborhoods and increasing the amount of through traffic on some streets. Spacing of intersections is important in order to avoid overly frequent intersections which may impede traffic flow and overly long blocks, which may lengthen travel time and distance.

External Connectivity

External connectivity is how well an area can access, and be accessed by the city's street network, land uses, residents, and visitors. While three-way intersections provide neighborhood access to the citywide street network, a neighborhood wholly linked to surrounding arterials by three-way intersections is like an island within the city with no other neighborhood directly connected to it. In comparison, four-way intersections allow people to travel freely between neighborhoods. These connections are important because they permit the shortest routes between destinations, thereby enabling walking and biking.

The older grid-based neighborhoods of downtown, Old Lodi, and the Eastside have the greatest number of access points and are the most inter-connected—it is easy to travel from one location to another and neighborhoods link easily into one another. The areas immediately outside of these neighborhoods see a drop-off in the frequency of four-way connections but still have many three-way intersections, so at least these neighborhoods can easily access the wider city. Beyond these neighborhoods, such as areas west of Ham Lane or south of Kettleman Street, access points are less frequent, in some cases with only two or three occurring every half mile. As a result, the neighborhoods in these areas function as islands, separated from the rest of the city and impeding easy connections between adjacent areas.

Accessibility

Another fundamental measure of neighborhood livability is ease of access, especially by foot, bicycle, stroller, and wheelchair to key elements of the neighborhood such as schools, parks, local shops and services, cultural facilities, libraries, or transit stops. Accessibility is about how easy it is to reach and use important functions of everyday life and key cultural and social resources. It is driven by the quality, convenience, and effectiveness of connections by different modes of transportation. This in turn is affected by allowable densities, distances between different land uses, the grain of the street network, locations of public services, and expenditure on non-motorized modes of travel such as bike lanes and sidewalks. The layout of the street pattern facilitates or discourages access, especially for pedestrians and bicyclists. When housing, jobs, services, parks, and schools are great distances from one another and are connected by roads that lack bike lanes or sidewalks, cars become a necessity for almost all trips, leading to high levels of traffic, air pollution, and low quality of life for those who cannot drive.

Schools and Parks

The livability of a city is shaped by how easy it is to access essential resources and services. Parks and schools are two of the most important public services for livability; having good accessibility to these services is crucial. Currently, Lodi's network of parks and schools are generally well-distributed around the city. A majority of residential land in Lodi is within a five minute walk of a park or school. While a substantial portion of southwest Lodi lacks parks or schools, two parks proposed for the area would remedy that gap in coverage and would significantly increase the proportion of residential land served. New parks and schools are proposed as integral components of new development around the mixed use centers, located a quick walk, bike ride, or drive from many homes. Further detail on parks can be found in Chapter 6: Parks, Recreation and Open Space.

Jobs and Services

Ready access to employment, stores, and services is another crucial component of livability. Quick commutes and the ability to easily run errands and make household purchases frees up time for personal activities, reduces the cost of everyday transportation, lowers the amount of traffic congestion, and limits the emission of greenhouse gases. In Lodi, most services are concentrated in a few areas, including downtown, along Kettleman Lane, Fairmont Avenue, Lodi Avenue, and Cherokee Lane and in pockets at major intersections on Ham Lane, Lockeford Street, Hutchins Street, and Lower Sacramento Road. This linear distribution along roads often requires access by car to move from one business to another, increasing time and traffic congestion. In comparison, clusters of services allow users to park at a single location for a longer period of time. Clustered development can only be found in downtown, at the intersection of Central and Lodi avenues, and at the intersection of Kettleman Lane and Lower Sacramento Road.

Overall, the varied location, form, and uses of the city's non-residential areas provide a number of options to residents and often provide a mix of jobs and services in the same area. In particular, jobs and services along Kettleman Lane and Lodi Avenue are well positioned for accessibility—residential uses are located to their immediate north and south, and the streets have capacity for high amounts of traffic. On the other hand, residents along the southern edge of Lodi appear to lack neighborhood stores and instead have longer trips to large shopping centers on Ham Lane and Lower Sacramento Road.

Improving Accessibility

New concentrations of jobs and services will be in Mixed Use Centers and in the southeast. These nodes of employment will require effective transit access and pedestrian and bicycle connections. The Mixed Use Centers aim to improve accessibility by locating housing, jobs, and services in close proximity. Extensions of the street grid are envisioned in the plan as grids that ensure direct connections to the existing network. Additional connections to residential areas through a trail or path system of linear parks would also improve accessibility. For instance, linear parks could be used to connect housing south of Kettleman Lane with amenities to the north.

4.6 SITE PLANNING AND GREEN BUILDING

The General Plan approaches sustainability at multiple scales, woven throughout the plan in various chapters. One approach is through establishing the city in a compact and efficient framework, thereby reducing the impact on surrounding land and making use of existing infrastructure. Another is by promoting pedestrian- and bicycle-friendly streets. This section identifies how to ensure that new development and renovations minimize use of resources and impact on the environment through site planning and green building.

Site Planning

Site planning is an essential component in reducing the overall impact of a development. Sustainable site planning begins with consideration of surrounding uses and access to transit to maximize connectivity with key public uses, services, and employment. Once the site is established, sustainable site planning practices—sometimes also referred to as Low-Impact Design—are employed to maintain or restore the natural hydrologic functions on a site. The goal is to structure the development of a site—through arrangements of buildings, roads, parking areas, site features and storm water management plans—to detain, filter, treat, and reduce runoff, as well as reduce urban heat island impacts. By reducing water pollution and increasing groundwater recharge, sustainable site design helps improve the quality of receiving surface waters and stabilize the flow rates of nearby streams, potentially minimizing flooding impacts and benefiting wildlife habitats.[1]

Green Building and Construction

Green building is a term used to describe a structure that is designed, built, renovated, operated or reused in a sustainable and resource-efficient manner. It encompasses the environmental, economic, and social impacts of buildings, including energy efficiency, water conservation, indoor environmental quality, use of recycled and renewable materials, and site planning. Green construction refers to the building demolition and construction processes, including the fuels and energy used in construction equipment and vehicles; the waste generated at construction sites; and runoff, water quality, and air quality impacts associated with the construction phase of the project. The Plan strives to improve construction and demolition practices to reduce waste and energy consumption. The result is a more environmentally sustainable building that also enhances the health and productivity of its occupants while saving money and resources.

Several green building programs have developed in response to a growing movement by local governments and other community interests to address environmental and economic sustainability through an integrated design approach. The LEED™ (Leadership in Energy and Environmental Design) system developed by the U.S. Green Building Council has developed several sets of design standards that apply to both building and site design. In addition to LEED™, many California cities and counties have adopted their own sustainable design guidelines or programs, many of which are based upon the California-based Build It Green GreenPoint rating system. These programs can serve as a foundation for the City of Lodi and either be adopted or incorporated into future guidelines. Strategies that are common throughout the design and practice of green building are focused on flexibility and creativity during the design process.

1 Modified and adapted from www.wbdg.org

4.7 POLICIES

GUIDING POLICIES

CD-G1 Enhance Lodi's identity and livability by maintaining a compact urban form, with clear edges and delineation between urban and rural uses.

CD-G2 Promote downtown as the symbolic center of the city, with a greater mix of uses, and building types, and an expanded extent that embraces the Eastside. Promote downtown as a tourist destination.

CD-G3 Respect and maintain Lodi's small-town character, its existing neighborhoods, the historic downtown, and historic buildings.

CD-G4 Structure new neighborhoods to promote walkability, and ensure they are integrated with the surrounding urban fabric.

CD-G5 Foster a well connected street network that enhances accessibility to jobs, services, parks, schools, and shopping, particularly at the scale of pedestrians and bicyclists.

CD-G6 Foster redevelopment of key corridors as vital spines, with nodes of mixed-use, higher intensity, pedestrian- and bicycle-friendly development.

CD-G7 Promote a mix of uses, densities, and building typologies in new development.

CD-G8 Promote sustainable development practices and conservation of resources to reduce environmental impact and ensure long-term sustainability.

CD-G9 Encourage green building and construction in new development and renovations

IMPLEMENTING POLICIES

Citywide Policies

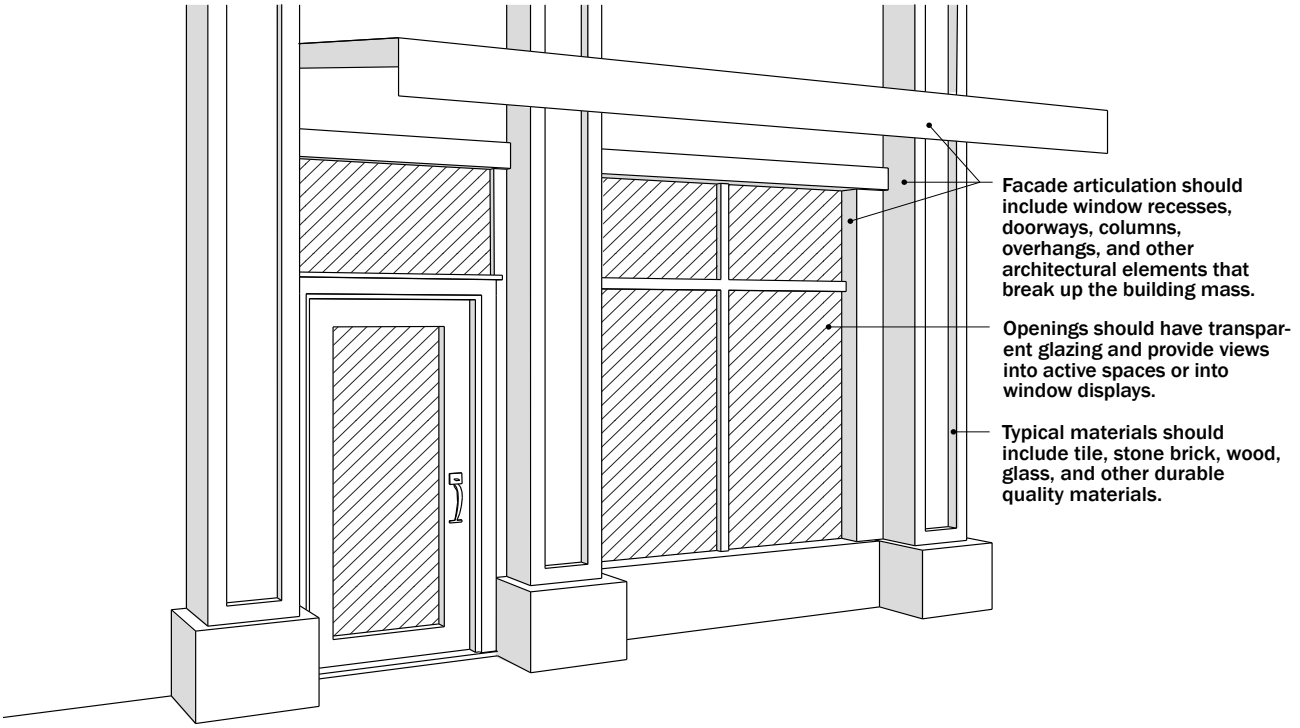
CD-P1 Incentivize infill housing—within the Downtown Mixed Use district and along Mixed Use Corridors—through the development review, permitting and fee processes.

CD-P2 Ensure that Zoning and Subdivision ordinances include measures that guide infill development to be compatible with the scale, character and identity of adjacent development.

CD-P3 Ensure that the Zoning Ordinance includes measures to promote fine-grain development along retail and mixed-use streets, using horizontal and vertical building articulation that engages pedestrians and breaks up building mass.

CD-P4 Ensure that the Zoning Ordinance includes measures to promote durable and high quality building materials and high standards of construction for longevity and reduced maintenance costs over time, especially for buildings in high-pedestrian activity areas, such as downtown, along Mixed Use Corridors, and in Mixed Use Centers.

BUILDING ARTICULATION

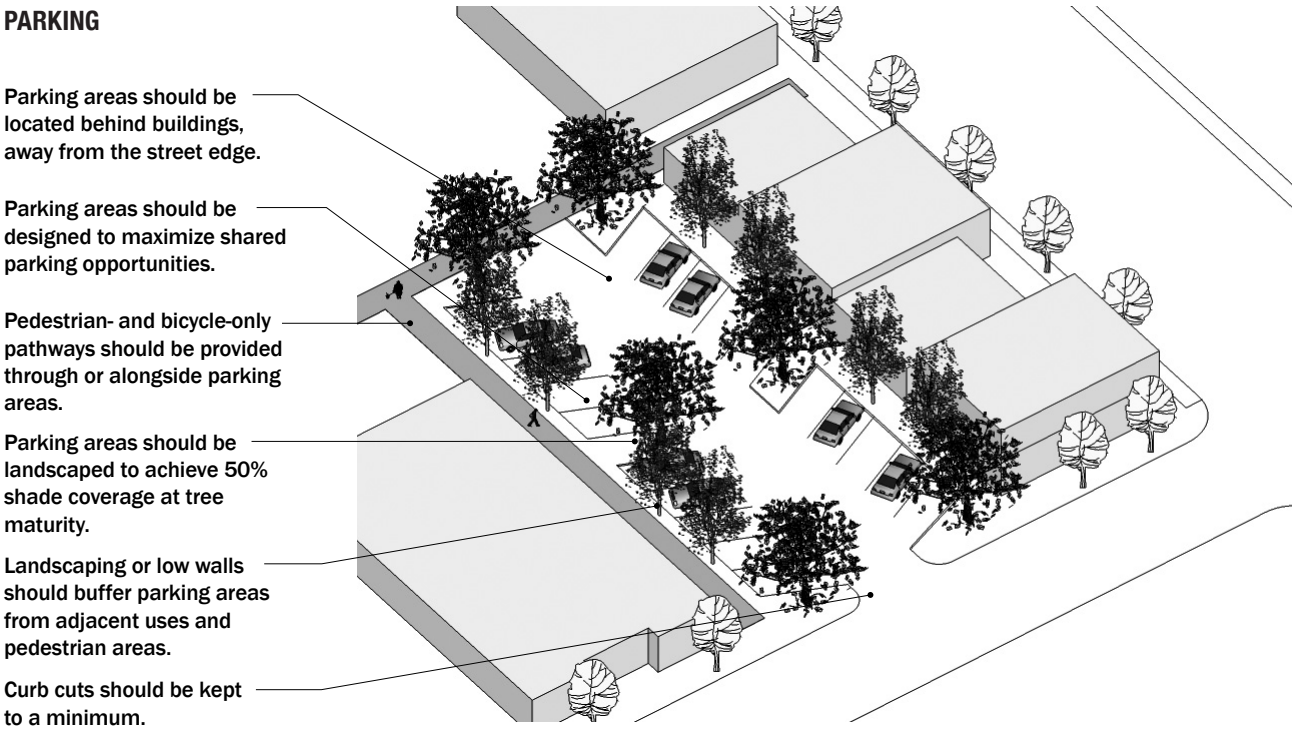


Articulated facades create engaging streetscapes for pedestrians and more attractive buildings for both newer developments (left) and older structures (right).

CD-P5 Configure parking areas to balance a vital pedestrian environment with automobile convenience. Parking areas should be:

- Located in locations less visible from the sidewalk—behind buildings and away from the street edge, especially along Mixed Use Corridors and Centers, and principal downtown streets. Where a lot faces two streets, parking lots should be accessible by side road.
- Sized and located to take advantage of shared parking opportunities.
- Accommodating to pedestrians and bicycle traffic with pedestrian-only pathways through parking areas.
- Landscaped to achieve fifty percent (50%) shade coverage at tree maturity. Architectural elements such as trellises and awnings may also contribute to shade coverage.
- Buffered from adjacent uses and pedestrians through the use of low walls and hedges.

PARKING



This parking lot in downtown enables several uses to share parking.

This parking garage in downtown reduces the need for surface lots and curb cuts.

Downtown

CD-P6 Update downtown regulations in the Zoning Ordinance:

- Establish a Downtown District to encompass the area shown as Downtown Mixed Use in the Land Use Diagram (Chapter 2, Figure 2-1).
- Require active uses—such as retail, eating and drinking establishments—at the ground level for the area shown in Figure 4-5.
- Update allowable uses to permit residential uses on upper levels on all streets in downtown.

CD-P7 Extend downtown streetscape treatment to embrace the entire area where ground-level retail is required, especially streetscape treatment for streets east of the railroad in the Downtown Mixed Use district. The elements should be consistent with the existing downtown streetscape, but should identify the eastern section as a unique area within downtown.

CD-P8 Require active uses or pedestrian oriented design in alleyways located in the downtown area to establish retail and pedestrian connections, particularly where alleyways connect retail streets (such as between School Street and Sacramento Street) or retail to parking (such as between School Street and Church Street).

Other pedestrian oriented design may include pedestrian only walkways, high quality paving, landscaping, lighting, seating, or other similar features.

CD-P9 Continue to use the Eastside Mobility and Access Plan as a means of connecting downtown and the Eastside neighborhood.

CD-P10 Incentivize rehabilitation and adaptive reuse of buildings, especially east of the railroad, particularly on Main and Stockton streets in the Downtown Mixed Use district, through development review, permitting and fee processes.

The General Plan supports improved connections between downtown and the Eastside neighborhood, while maintaining the Eastside's character and development pattern.

Pedestrian friendly alley in downtown connecting to parking in rear (top) and shops (bottom).

Mixed Use Corridors

CD-P11 Establish development standards in the Zoning Ordinance for Mixed Use Corridors that create a pedestrian-scaled environment:

- Require a minimum percentage of the frontage of sites along Lodi and Central avenues to be devoted to active uses. Ensure that depth and height of the provided space is adequate to accommodate a variety of tenants and provide flexibility for the future.
- Maintain a consistent building base/streetwall along majority of site frontage along all Mixed Use Corridors except Kettleman and Cherokee lanes, with minimum height ranging from 15 to 25 feet, depending on the scale and character of the corridor, with taller streetwall along wider corridors.
- Along Sacramento Street, and Lodi and Central avenues, require new development to be built to the street edge, with parking located in the rear.
- Require buildings to be finely articulated and visually engaging.
- For properties located at key intersections—in particular the intersections of Lodi Avenue and Central Avenue, Lodi Avenue and School Street, and Lodi Avenue and Sacramento Street—require appropriate design features, including: buildings that punctuate the corner with design elements and/or projects that provide additional public or pedestrian amenities (such as the inclusion of plazas).

CD-P12 Provide incentives, through the development review, permitting and fee processes, to redevelop underutilized commercial properties located within the Mixed Use Corridors.

CD-P13 To provide development flexibility, consider incorporating overall development intensity measures (such as floor area ratio) for all non-residential and residential uses, rather than regulating density/intensity separately.

CD-P14 Minimize pavement widths (curb-to-curb) along Mixed Use Corridors to prioritize pedestrian and bicycle movement, while ensuring adequate street width for traffic flow.

CD-P15 Improve or maintain streetscapes, along Mixed Use Corridors. Streetscape improvements could be implemented through a city streetscape program. Amenities may include:

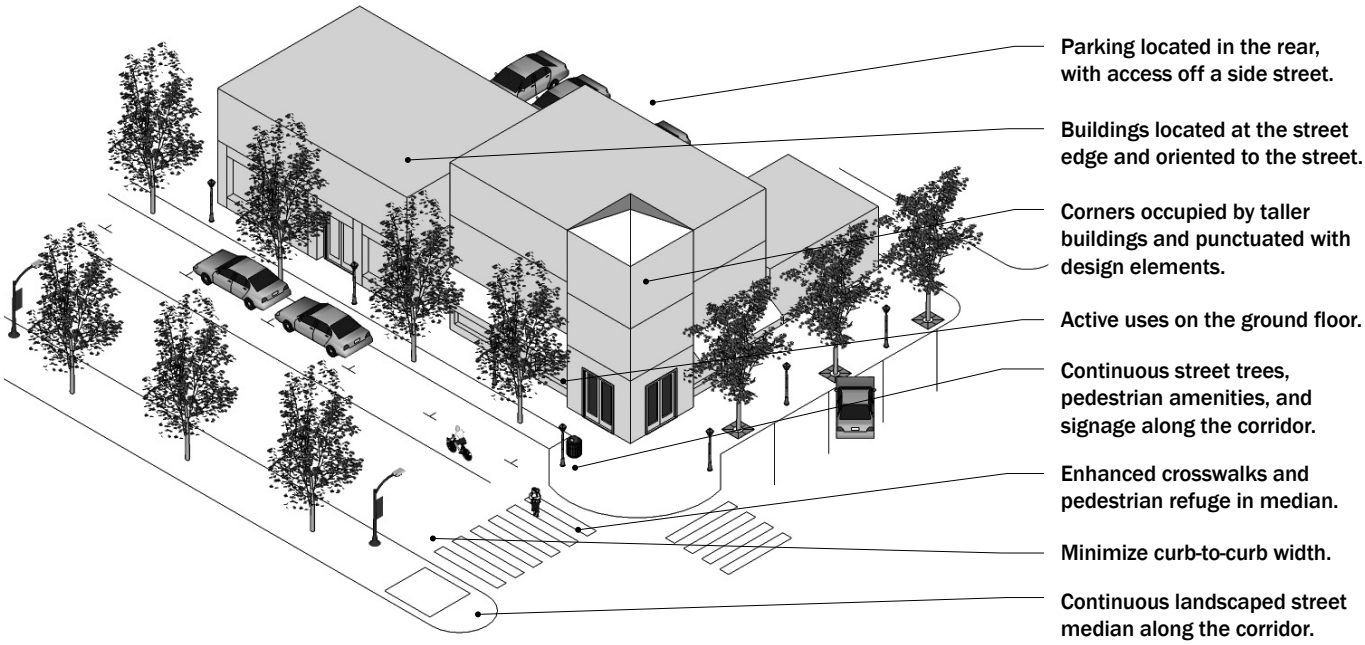
- Street trees
- Wide sidewalks
- Special paving
- Street lighting
- Seating
- Info kiosks, particularly in the downtown area
- Open bus stop shelters
- Bicycle racks

CD-P16 Provide continuous street trees along the curb, between the vehicle roadway and the sidewalk, unless this is physically impossible due to constraints such as underground utility lines. Minimize curb cuts to emphasize continuous unbroken curb lengths.

CD-P17 Develop a wayfinding and signage scheme along the city's major corridors and streets that utilizes public art and street elements, such as banners and light fixtures. The scheme should reinforce the City's identity and linkages to downtown. Include Kettleman Lane, Lodi Avenue, Cherokee Lane, Sacramento Street, Central Avenue, and Stockton Street in the wayfinding scheme.

CD-P18 Require active uses at the ground floor on Lodi and Central avenues within their Mixed Use Corridor designations, as noted shown in Figures 4-8 and 4-9, respectively.

MIXED USE CORRIDOR



Parking is consolidated in a rear lot in this section of downtown.

Street trees, corner bulb-outs, street furniture, distinctive pavers, ground-floor active uses, and buildings located at the street edge together form a street that is safe and attractive for pedestrians.

Streets, Connectivity, and Accessibility

Refer to Chapter 5: Transportation for policies related to transportation infrastructure, including for pedestrians and bicycles.

CD-P19 Develop requirements for street trees in all new growth areas that maximize shade to minimize urban heat island impacts.

CD-P20 Require all subdivisions in new growth areas to prepare a street plan demonstrating maximum connection to existing streets, specifically incorporating streets shown in Figure 4-4 and intermediate street connections. Ensure that new development on the west side enables expansion of the street grid for future growth, beyond this General Plan horizon.

Existing and emerging development at the City's edges has not been designed to enable future extensions, producing disconnected neighborhoods.

CD-P21 Discourage gated development and cul-de-sacs. Where gated developments are provided, ensure that connectivity to the rest of the city is not compromised, by creating pedestrian/bicycle and vehicular connections within the development and to public streets. Where cul-de-sacs are provided, require pedestrian and bicycle connection at the terminus of the cul-de-sac to the adjacent street. Limit maximum block lengths in new neighborhoods to 600 feet, with pedestrian/bicycle connection no more than 400 feet apart (where resulting from connection at end of cul- de-sac), and 400 feet between through streets along Neighborhood Mixed Use Centers.

CD-P22 Encourage alternatives to soundwalls and permit new soundwalls only where alternatives are not feasible, such as along Highway 99, the railroad tracks, Expressways, and Major Arterials. Along Major Arterials that coincide with a Mixed Use Center, such as Kettleman Lane, ensure that soundwalls do not disrupt pedestrian-orientated character.

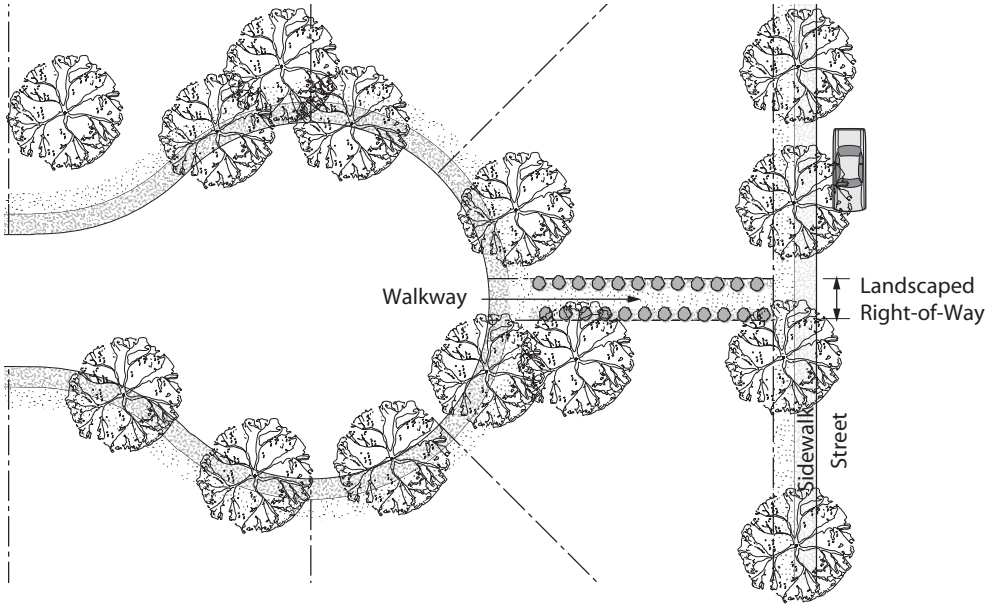
CD-P23 While soundwalls can limit sound to development immediately adjacent to traffic, much of the sound is simply reflected to development further away, resulting in increases in ambient noise levels. Moreover, soundwalls are disruptive to neighborhood character and connectivity. Alternative designs could include frontage roads, dense vegetation, and ensuring sufficient insulation in residential units that would potentially be impacted by the noise.

CD-P24 Create smooth transitions between neighborhoods and across the railroad with pedestrian paths and/or uniform streetscape design.

CD-P25 Use bike lanes, trails, or linear parks to improve connectivity throughout the city and in particular between housing located south of Kettleman and amenities located north of Kettleman, as shown in Figure 4-7. These pathways should employ easy and safe crossings and connect to destinations such as downtown, shopping centers, parks, and/or schools.

CD-P26 Increase public art throughout Lodi. Encourage the placement of art in locations that are interactive and accessible to the public. Develop a funding strategy to ensure adequate support of arts and cultural programs.

CUL-DE-SAC CONNECTION



Cul-de-sac connections can increase connectivity for pedestrians and bicycles.

Lush street trees provide shade and minimize urban heat island impacts.

New Residential Neighborhoods

CD-P27 Focus new growth, which is not accommodated through infill development of existing neighborhoods, in easily-accessible and pedestrian friendly neighborhoods that include neighborhood-oriented commercial, public services such as schools and parks, and residential uses.

CD-P28 Design new development to connect with nearby uses and neighborhoods; include paths to connect to the rest of the city; exhibit architectural variety and visual interest; conform to scale requirements; and relate housing to public streets.

CD-P29 Minimize the visual impact of automobiles in residential areas. Methods include reducing garage frontage, minimizing curb cuts, setting garages and parking areas back from houses, locating garages at rear or along alleyways, and providing narrow roads.

Mixed Use Centers

CD-P30 Require all development at sites designated Mixed Use Center to provide a mix of commercial uses, while allowing residential uses, to create a "node," typically centered around a plaza, or "a main street," with a minimum of ten percent (10%) of the land area devoted to non-residential land uses, to create pedestrian vitality in the core area. Allow a range of other supportive commercial uses, such as medical, dental, and real-estate offices, as well as community facilities.

CD-P31 Require each core to have at least one plaza or other satisfactory gathering space along the main street that enables gathering and promotes a sense of neighborhood identity.

CD-P32 Integrate new Mixed Use Centers into the city's existing fabric and proposed new development. Provide a network of streets and connections that expands circulation opportunities for pedestrians and bicyclists and ensures connections by multiple modes between the new centers, and existing neighborhoods.

Update Subdivision ordinance to require:

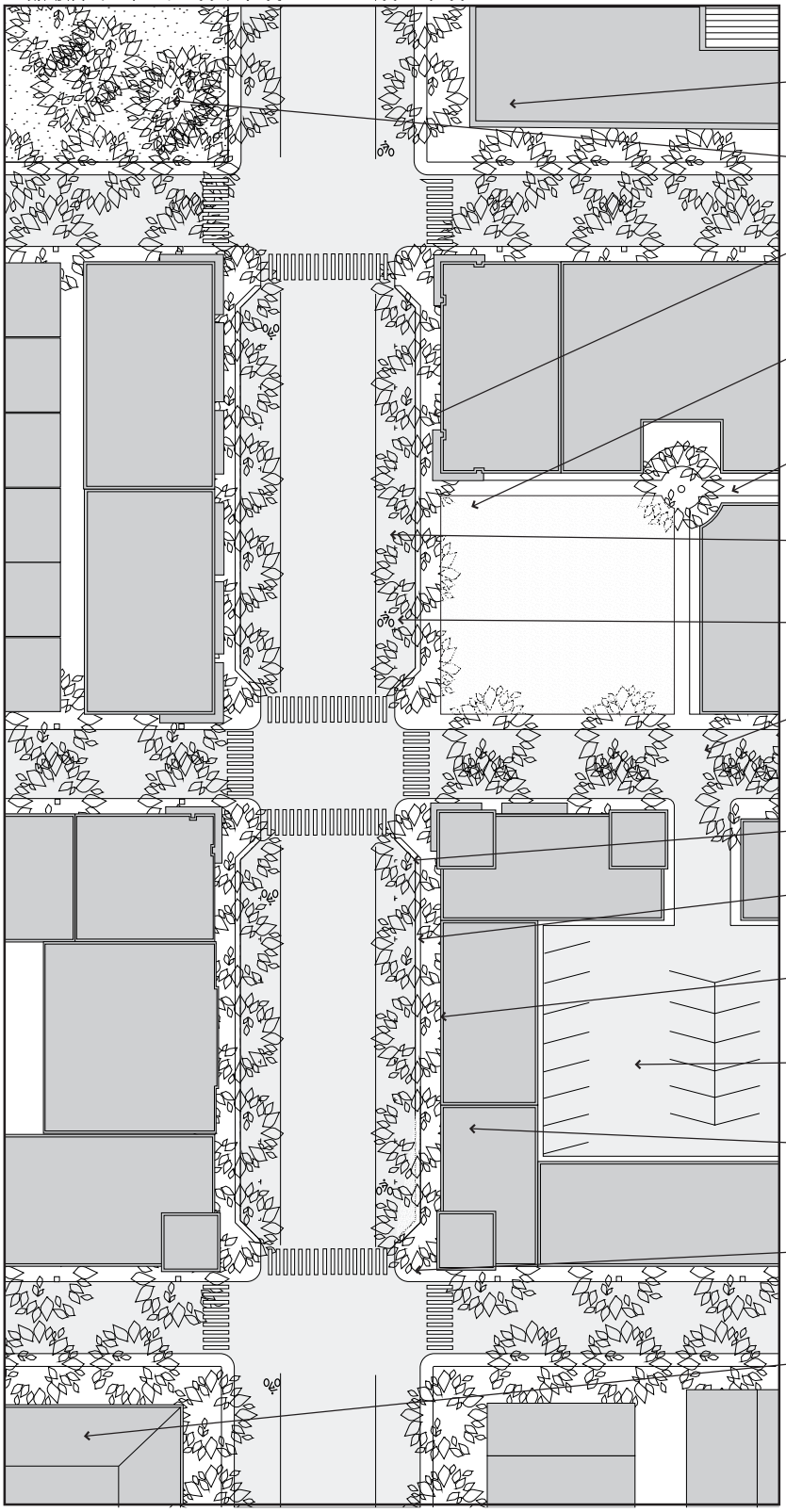
- Master plans for new development that show publicly accessible parks, and a connected street grid.
- Blocks that do not exceed 600 feet in length unless additional pedestrian connections or public space is included.
- Street trees on public streets.
- Sidewalks on public streets.

CD-P33 In order to use less energy and reduce light pollution, ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) shall be designed to prevent artificial lighting from illuminating adjacent residential neighborhoods and/or natural areas at a level greater than one foot candle above ambient conditions.

CD-P34 Require that any office uses in Mixed Use Centers front along the street edge with minimal setbacks; locate parking in the rear or underground; provide plazas and other open space amenities for employees; provide street landscaping; and provide pedestrian connections where appropriate.

CD-P35 Minimize curb cuts to expand pedestrian space and increase the supply of curbside parking. Methods include requiring abutting new developments to share a single access point from the road and allowing only one curb cut per parcel.

MIXED USE CENTER



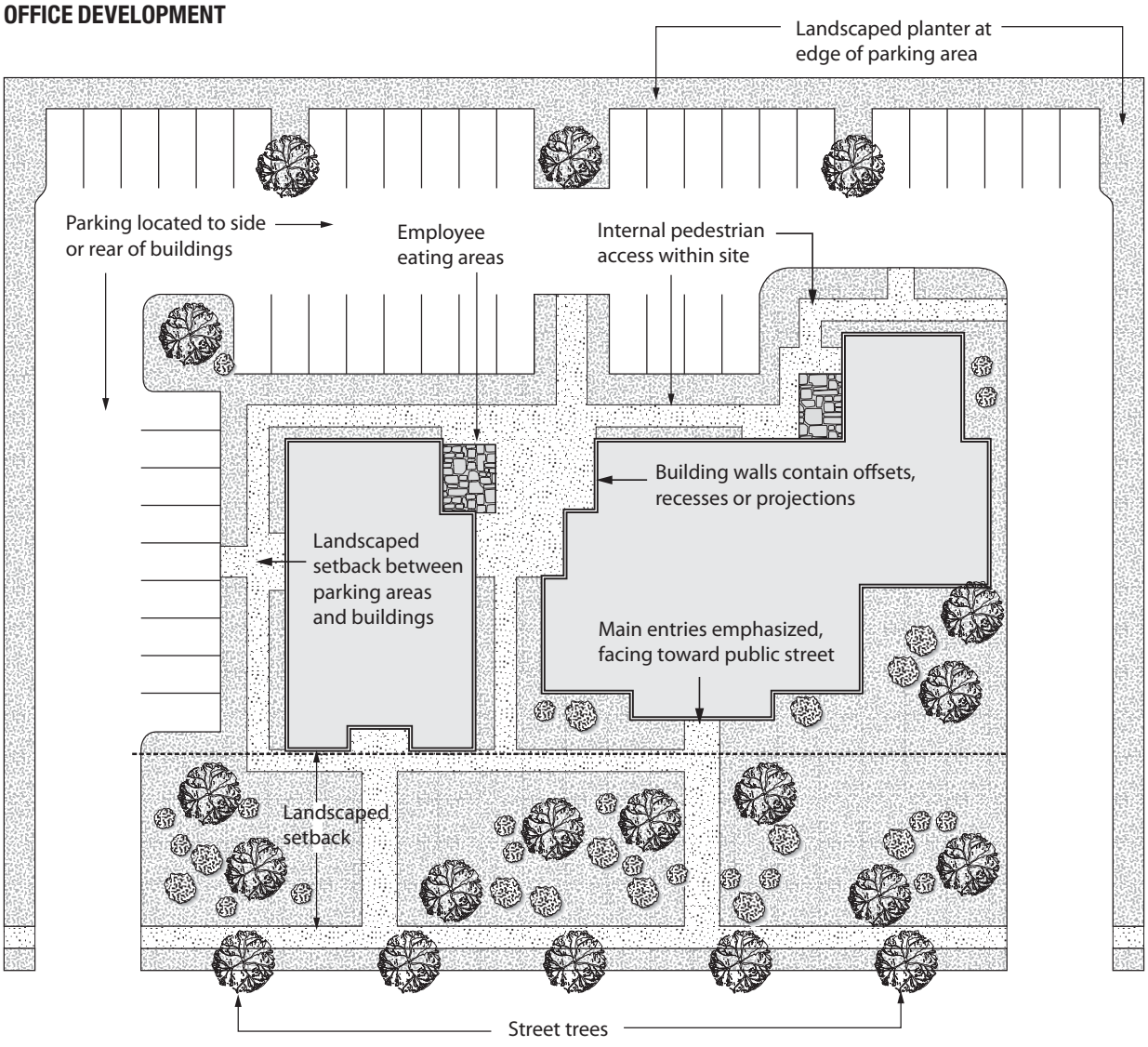
New Office Development

CD-P36 Require new office development to be designed to address not just automobile access, but also potential for transit access, and allowing lunchtime pedestrian access to adjacent uses. Locate new office development along the street edge, with the main entrance facing the street. Parking should not be located between the street and building.

CD-P37 Include pedestrian paths that provide internal access on all site plans. Pedestrian paths should access the sidewalk, main building entrances, and parking areas.

CD-P38 Provide landscaped setbacks between all parking areas and buildings, and at the edges of parking areas.

OFFICE DEVELOPMENT



Site Planning and Green Building

Refer to Chapter 7: Conservation for related energy and climate change policies and Chapter 8: Safety for related stormwater management policies.

CD-P39 Promote location and siting of buildings that minimizes energy use by features such as enhancing use of daylight, minimizing summer solar gain, and use of ventilating breezes.

CD-P40 Design any City-owned buildings or City-owned buildings that are proposed for new construction, major renovation to meet the standards set by LEED™ or equivalent.

CD-P41 Prepare, or incorporate by reference, and implement green building and construction guidelines and/or standards, appropriate to the Lodi context, by 2012. The guidelines and/or standards shall ensure a high level of energy efficiency and reduction of environmental impacts associated with new construction, major renovation, and operations of buildings. Ensure that these guidelines/standards:

- Require documentation demonstrating that building designs meet minimum performance targets, but allow flexibility in the methods used.
- Exceed California's 2005 Title 24 regulation standards for building energy efficiency by 15%, with particular emphasis on industrial and commercial buildings.
- Reduce resource or environmental impacts, using cost-effective and well-proven design and construction strategies.
- Reduce waste and energy consumption during demolition and construction.
- Identify street standards, such as street tree requirements, appropriate landscaping practices, and acceptable materials.
- Incorporate sustainable maintenance standards and procedures.
- Promote incorporation of energy conservation and weatherization features in existing structures. Develop programs that specifically target commercial and industrial structures for energy conservation and weatherization measures in order to reduce annual kWh per job.

These guidelines could be developed directly from the LEED™ system developed by the U.S. Green Building Council, the California-based Build It Green GreenPoint rating system, or an equivalent green building program.

Solar photovoltaic system in a residential setting.

Permeable pavement design.

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