El Centro General
Plan Update 2040

Mobility Element

June 2021
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1. Introduction

1.1 PURPOSE OF THE MOBILITY ELEMENT

The City of El Centro is served by a well-developed system of local roadways that provide access to and circulation within many residential and commercial/employment areas within the City. Interstate 8 (I-8) provides a regional east-west connection, which leads to north-south connectivity by way of California State Route 86 (SR 86) within El Centro and California State Route 111 (SR 111) just east of El Centro.

The City of El Centro has made substantial efforts in recent years to improve mobility conditions on local roadways, and to encourage alternative means of travel. The use of other modes of transportation such as bicycling, walking, and public transit are promoted to reduce traffic congestion and to improve air quality.

The Mobility Element serves to identify a long-range vision for a balanced, multimodal transportation system that accommodates future growth while preserving the local character. It sets forth goals and policies and a series of transportation networks intended to improve connectivity and adequately support existing and planned land uses.

El Centro’s economic health and quality of life are directly tied to the transportation network, emphasizing the importance of the ability to efficiently move people and goods within and through the City. To this end, the Mobility Element encompasses users of all travel modes, including pedestrians, bicyclists, public transit users, motorists, and goods movement.
1.2 LEGAL BASIS AND REQUIREMENTS

The mobility element – also referred to as the circulation element – is one of seven mandated “elements” of a general plan, as required by California Government Code Section 65302. The mandatory elements for all jurisdictions include land use, circulation, housing, conservation, open space, noise, and safety. Cities and counties that have identified disadvantaged communities must also address environmental justice.

California Government Code Section 65302(b)(1) specifies a general plan must include:

“A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.”

The City of El Centro does not currently have any existing or proposed transportation terminals, military airports, or ports. Local public utilities and facilities are being addressed in the Public Facilities Element of the City’s General Plan. This Mobility Element is focused on the thoroughfares and multimodal transportation routes within the City's jurisdiction and its Sphere of Influence (SOI).

The Mobility Element was also developed pursuant to AB 1358, the Complete Streets Act, which requires agencies to address the following when making substantive revisions to the circulation element:

“plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.”

Other legislation such as Global Warming Solutions Act of 2006 (AB 32), The Sustainable Communities and Climate Protection Act (SB 375), and the most recent SB 743 to shift transportation impact metrics from levels of service to vehicle miles traveled were also referenced throughout development of the Mobility Element and influenced the policy and network recommendations set forth.
13 SCOPE AND CONTENT OF THE MOBILITY ELEMENT

The Mobility Element identifies goals and policies to promote a balanced and well-connected transportation system that serves the mobility needs of all users within El Centro. Specifically, the Mobility Element is required to address:

- Transportation routes, including all travel modes such as pedestrian, bicycle, transit, and vehicular, as well as goods movement, rail, and airports
- Major thoroughfares
- Terminals, not applicable
- Military airports and ports, not applicable
- Public utilities and facilities, addressed in the Public Facilities Element of the City of El Centro’s General Plan

14 RELATED PLANS AND PROGRAMS

Over the past decade plus, several key planning initiatives and legislative actions at the state and regional level have redefined the way local transportation planning is carried out. Examples include Assembly Bill 1358 (AB 1358) – the Complete Streets Act, Senate Bill 375 (SB 375) – Sustainable Communities and Climate Protection Act, Senate Bill 743 (SB-743) – Environmental Quality, and the Southern California Association of Governments (SCAG) Sustainability Program.

In September of 2008, the State of California approved AB 1358 – the Complete Streets Act. Effective January 1, 2011, AB 1358 requires city or county legislative bodies to plan for a balanced, multi-modal transportation network that meets the needs of all users of streets, roads, and highways. “All users” is defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

In 2008, SB 375 was adopted, requiring metropolitan planning organizations (MPOs) to formulate a “sustainable community strategy” (SCS) as part of their regional transportation plans (RTP). The SCS serves to specifically identify how the region will achieve targeted reductions in greenhouse gas emissions from automobiles and light trucks. In April 2016, SCAG’s Regional Council adopted the 2016-2040 RTP/SCS, with a vision encompassing three principles identified as key to the region’s future: mobility, economy, and sustainability. The RTP/SCS outlines a
plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands, with particular emphasis paid to designated High Quality Transit Areas (HQTAs). Although no current or planned HQTAs exist in El Centro or its Sphere of Influence, the RTP/SCS maintains relevance through its connection to land use patterns as prescribed by local jurisdictions, ensuring consistency between local planning documents such as the City of El Centro General Plan and regional plans, policies, and implementation strategies.

SB 743 was signed into law by Governor Brown in September 2013, making several changes to California Environmental Quality Act (CEQA) by removing vehicular delay, level of service (LOS), parking and other vehicular capacity measures as metrics of transportation system impacts for mixed-use, infill or transit-oriented development projects. Vehicle miles traveled (VMT) is considered the new analysis metric used to measure transportation impacts. VMT reflects the type, intensity and location of land uses in relation to the capacity of the vehicular transportation network. It is also influenced by the availability and quality of multimodal facilities, roadway connectivity, and system operations.

SB 743 requires the Governor’s Office of Planning and Research (OPR) to amend the CEQA Guidelines for evaluating transportation impacts and it is anticipated to be implemented statewide by July 1, 2020.

A number of additional regional and local planning documents work in concert to guide the transportation framework of El Centro. These include:

**City of El Centro Active Transportation & Safe Routes to School Plan (2019)**

In February 2019, the City adopted the Active Transportation and Safe Routes to School Plan (ATP/SR2S). The Plan sets forth vision and goals for the City of El Centro in terms of active transportation as well as identifies 44 bicycle and pedestrian improvement projects. It also has a strong focus on safe-routes-to-school by providing safety recommendations around all 16 schools in El Centro. Recommendations from this recently adopted ATP/SR2R were heavily utilized in the development of the Mobility Element.
SCAG’s 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016)

This document provides a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The Plan charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It outlines more than $556 billion in transportation system investments through 2040. The Plan was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

Imperial County Safe Routes to School Plan (2016)

The City of El Centro participated in the Imperial County Safe Routes to School Plan in 2016, which was awarded to the Imperial County of Transportation Commission and funded by a Caltrans grant through a partnership with SCAG. The Plan includes results obtained from workshops where local stakeholders identified safety issues and barriers that discourage students from walking or bicycling to their schools. It also includes a list of improvements for each school at important locations, such as crosswalk striping, sidewalk infill, and bicycle facilities.

City of El Centro Vision 2050 Strategic Plan (2015)

The Vision 2050 Strategic Plan encourages the City to provide multimodal transportation options to create an integrated transportation network for the community.

City of El Centro Parks and Recreation Facilities Master Plan (2008)

The Parks and Recreation Facilities Master Plan serves as a guide for future development and improvement of parks and recreational facilities in El Centro. Based on contemporary planning standards, the Master Plan favors larger park designs that provide pedestrian, bicycle, and public transit connections to the neighborhoods. The Master Plan also encourages the creation of linear parks and pedestrian connections in newer neighborhoods, where a tree lined streetscape system can be developed to link the existing parks and these new communities. Additionally, the Plan also contemplates open spaces that have been maintained in a natural state and irrigation channels that could potentially be covered, therefore providing corridors for pedestrian and bicyclist use.
City of El Centro General Plan Circulation Element (2004)

The City of El Centro has a circulation system that includes vehicular, public transit, rail, air, bicycle and pedestrian components. The Circulation Element discusses the following goals and policies for the following modes of transportation:

- Vehicular – Provide a system of roadways that meets the needs of the community;
- Public Transit – Promote a public transportation network that allows for convenient access to major destinations, both within El Centro, as well as within the region;
- Pedestrian and Bicycle Network – Provide for adequate bicycle and pedestrian access throughout the community; and
- Airports and Railways – Continue to utilize regional airports and railways to facilitate economic development, as well as the movement of people, and establish El Centro as a regional hub of commerce and travel.
2. Goals & Policies

The City of El Centro strives to achieve a balanced, interconnected multimodal transportation network that provides for the efficient and safe movement of all people and goods; promotes walking, bicycling and healthy living; reduces vehicle miles traveled and greenhouse gas emissions; and accommodates future growth for the City of El Centro.

**ME GOAL-1:** Adopt Complete Streets policies to provide streets in an equitable manner that are safe and accessible by users of all ages and all abilities.

“Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a complete street. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.” - The National Complete Streets Coalition, a subsection of Smart Growth America.

**ME Policy 1.1:** Provide integrated transportation and land use decisions that enhance smart-growth developments served by Complete Streets, which facilitate multimodal transportation opportunities.

**ME Policy 1.2:** Encourage short block spacing and continuation of the street grid network for new development to enhance connectivity to neighborhoods within the City. In key areas such as Downtown, mixed-use developments, and other land use opportunity areas (OA-3, OA-4, OA-5), the City should work with existing and future property owners to improve connectivity for bicycles and pedestrians.

**ME Policy 1.3:** Integrate Complete Streets in a manner that is sensitive to the local context recognizing that needs vary among neighborhoods and communities.
ME Policy 1.4: Plan, design, operate, and maintain city streets using Complete Streets principles for all types of transportation projects within the City including new, retrofit/reconstruction, maintenance, and ongoing projects. Repurposing unneeded roadway pavement to implement bicycle and pedestrian improvements, (for example, lane or road diets), should be considered as one of the tools to implement Complete Streets.

ME Policy 1.5: All departments are responsible for implementing Complete Streets and incorporating Complete Streets policies into their action plans and other planning documents.

ME Policy 1.6: Implement the updated typical cross-sections displayed in the Mobility Element that incorporate Complete Streets principles and help achieve goals.

ME Policy 1.7: Utilize traffic-calming tools to assist in implementing Complete Streets principles along Collectors and residential streets. Traffic calming tools include roundabouts, traffic circles, curb extensions, speed cushions, chokers/neckdowns, chicanes, etc.

ME Policy 1.8: Require new developments within El Centro to comply with the Complete Streets principles both along development frontage and within large parcels.

ME Policy 1.9: Develop and regularly update a Transportation Impact Fees (TIF) program to ensure adequate funding is allocated for the development, operation, and maintenance of the City's transportation system across all travel modes.

ME Policy 1.10: Pursue funding for multimodal infrastructure projects that promote Complete Streets, such as impact fees and local, regional, State, and federal grants.

ME Policy 1.11: Coordinate with the County of Imperial, Caltrans, and adjacent cities in planning, designing, and constructing new and existing roadways to ensure Complete Streets principles are considered and implemented.
**ME GOAL 2:** Support a safe pedestrian and bicycle transportation network in an equitable manner for people of all ages and abilities.

**ME Policy 2.1:** Improve the safety, comfort, and connectivity for pedestrians and bicyclists through the continued implementation of the Active Transportation & Safe Routes to School Plan (adopted in 2019), as may be updated, to increase the number of trips made by foot and bicycle to and from neighborhoods, schools, parks, retail locations, employment centers, government offices, and transit stations.

**ME Policy 2.2:** Enhance pedestrian and bicycle crossing efficiency and safety, including phasing and timing of traffic signals, crosswalks, and intersection design features.

**ME Policy 2.3:** Continue to improve pedestrian and bicycle accessibility and mobility to public facilities and commercial centers.

**ME Policy 2.4:** Install sidewalks along all Mobility Element roadways and strive to include a separation between curbs and sidewalks, such as a landscaped planting strip.

**ME Policy 2.5:** Maintain pedestrian and bicycle facilities, including improving the road surface and sidewalk, to reduce safety hazards associated with drainage grates, manholes, potholes, and uneven surfaces.

**ME Policy 2.6:** Ensure improvement projects benefit all demographic groups, with particular attention to ensure safe, healthy, and fair outcomes for low-income population, population of color, and population of all ages, genders, and abilities.

**ME Policy 2.7:** Encourage major employers to install bicycle racks and other trip supporting amenities, such as maintenance stations, lockers, and/or showers.

**ME Policy 2.8:** Encourage retailers, shops, and shopping centers to install bicycle racks.

**ME Policy 2.9:** Coordinate with adjacent jurisdictions to increase bicycle connections to and from neighboring communities.
ME GOAL 3: Promote a public transportation network that allows for convenient access to major destinations, both within El Centro, as well as within the Imperial County subregion.

ME Policy 3.1: Coordinate with Imperial Valley Transit (IVT) and Imperial County Transportation Commission (ICTC) to ensure that adequate bus service, including both fixed-route and on-demand, is available for all segments of the City, as well as, to enhance bus service and expand transit service area to accommodate future growth including Opportunity Areas 3, 4, and 5 identified in the Land Use Element.

ME Policy 3.2: Coordinate with IVT to enhance bus stop amenities by providing benches, shelters, trash receptacles, secure bicycle parking, and safe waiting areas. Public art opportunities should be considered, if applicable.

ME Policy 3.3: Encourage convenient and safe pedestrian linkages to and from the Downtown Transit Station to provide better first-mile/last-mile connectivity.

ME Policy 3.4: Coordinate with ICTC to further evaluate the El Centro Mobility Hub concepts presented in the Regional Mobility Hub Implementation Strategy and to discuss implementation strategies.

ME Policy 3.5: As El Centro continues to grow, monitor, and evaluate the need to implement transit priority treatments, such as dedicated bus lanes, queue jumper lanes, and transit signal priority strategies, to improve transit on-time performance and reliability.

ME GOAL 4: Provide appropriate vehicle circulation, especially along streets classified as Arterials.

ME Policy 4.1: Provide adequate roadway capacity to accommodate future growth yet minimize street widths to reduce capital and maintenance costs, decrease vehicle speeds, and improve safety for all users of the street.
ME Policy 4.2: Consider the construction of raised medians along major arterials, such as Imperial Avenue, to better manage vehicular access and improve traffic safety.

ME Policy 4.3: Implement Senate Bill (SB) 743 by establishing Vehicle Miles Traveled (VMT) thresholds and developing Traffic Impact Guidelines.

ME Policy 4.4: Although VMT will be utilized as the new traffic impact metric for California Environmental Quality Act (CEQA) review process, Level of Service (LOS) is still a critical measure and indicator of traffic operations. Level of Service (LOS) C shall be the threshold for all Mobility Element roadways and intersections, except that Level of Service (LOS) D would be acceptable upon review and approval by the City Engineer after consideration of impacts to the public and lack of feasibility of attaining Level of Service (LOS) C due to right-of-way constraints. With the additional exception of Imperial Avenue between Ocotillo Drive and I-8 westbound ramps, where LOS E would be acceptable due to right-of-way constraints, unless otherwise approved by the City Engineer.

ME Policy 4.5: Coordinate with ICTC, the County of Imperial, Caltrans, and adjacent cities to identify necessary improvements to the regional roadway system to ensure adequate regional access to and from El Centro.

ME Policy 4.6: Utilize Transportation System Management (TSM) measures throughout the City to ensure the mobility system is as efficient and cost effective as possible. These measures include, but are not limited to, improvements to signal coordination, transit signal priorities, and pedestrian/bicycle prioritized signals.

ME Policy 4.7: Utilize Transportation Demand Management (TDM) measures, such as those identified in the SCAG’s RTP/SCS, to discourage the single-occupant vehicle, particularly during the peak hours. These measures include, but are not limited to, rideshare incentives, telecommuting and flexible work schedules, parking
management, and incentives for employees who walk or bike to work.

**ME Policy 4.8:** Manage curb space in activity areas to balance demands of all users, such as emergency vehicles, buses, vehicle parking, bicycle/scooter parking, delivery loading/unloading, rideshare pick-up/drop-off, street furniture, etc.

**ME GOAL 5:** Provide and maintain a safe and efficient system for delivering goods and services.

**ME Policy 5.1:** Support the continued use of the rail corridor through the City as a key goods movement corridor.

**ME Policy 5.2:** Maintain a designated truck route network in the City to ensure safe and adequate infrastructure support for the travel of commercial vehicles.

**ME GOAL 6:** Continue to utilize regional airports and railways to facilitate economic development, as well as the movement of people, and establish El Centro as a regional hub of commerce and travel.

**ME Policy 6.1:** Coordinate with the County of Imperial and plan for the expansion of the Imperial County Airport to encourage inter-regional travel and commerce.

**ME Policy 6.2:** Review development proposals within areas affected by the operation of local airports and railways to ensure land use compatibility, protect the public safety, and allow for continued aviation and rail operations.

**ME Policy 6.3:** Encourage passenger rail service between El Centro, Calexico, and San Diego.
3. Transportation Routes

This section sets the stage for the mode specific transportation networks, providing background information, legislative context and the goals and policies intended to guide network development. The remainder of this Mobility Element is organized into the following sections:

- Pedestrian Mobility
- Bicycle Mobility
- Public Transit
- Vehicular Mobility

A comprehensive existing conditions report (dated March 2020 and included as Appendix A) was prepared to evaluate and illustrate El Centro’s existing transportation system.

This report served as a foundation, along with inputs from community members, correlation with the Land Use Element, and sound mobility planning principles, for the development of the various transportation networks in this Mobility Element.

3.1 PEDESTRIAN MOBILITY

The pedestrian environment influences every trip. Regardless of the primary travel mode, all trips start and end with a pedestrian. We walk from our origins to our destinations, to our bicycles, to transit stops, or to vehicles, underscoring the importance of safe and comfortable walking environments.

Providing quality pedestrian infrastructure paired with complimentary land use patterns can support increased opportunities for walking as a means of transportation and recreation while also improving pedestrian safety. Increased walking can lead to health benefits through exercise and decreased greenhouse gas emissions resulting from fewer vehicle trips.
Pedestrian facilities largely consist of sidewalks and trails, curb ramps, and crosswalks. Additional features help facilitate pedestrian crossings, such as pedestrian signal heads, curb extensions, and signage, while other amenities can be provided to enhance comfort, like lighting, landscaping, seating, and buffers from vehicular traffic.

El Centro is a growing city. Development projects, safe routes to school and transit improvements, and capital improvement projects continue to construct the City’s growing pedestrian network by closing sidewalk gaps, enhancing pedestrian crossings and the overall walking experience.

The Land Use Element has established five distinctive Opportunity Areas, with some intended to enhance and transform existing developments, while others represent the anticipated growth in the City. One thing they have in common is the need for multimodal mobility network support. Figure ME-1 provides sample pedestrian treatments to consider within these Opportunity Areas as well as throughout the City where quality pedestrian facilities can help with connecting and providing access to schools, shopping, employment, transit stations, and other amenities.
**Figure ME-1: Pedestrian Treatment Toolbox**

<table>
<thead>
<tr>
<th>Curb Extensions/Bulb-Outs</th>
<th>High-Visibility Crosswalks</th>
<th>Advance Stop Bars/Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorten the crossing distance for pedestrians and narrow the roadway, resulting in slower vehicle speeds.</td>
<td>Improve crosswalk visibility and reinforce to drivers where to stop. Continental crosswalks may be used in conjunction with advance stop bars.</td>
<td>Encourage drivers to stop well before the crosswalk, improving pedestrian safety and pedestrian visibility to drivers. May be used at intersections or mid-block crossings with additional signage.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Decorative Crosswalks</th>
<th>Pedestrian Countdown Signals</th>
<th>Lead Pedestrian Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve crosswalk visibility to drivers and are visually appealing. Decorative crosswalks can be used to help brand a district and create an identity.</td>
<td>Indicate to the pedestrian how many seconds are remaining in the pedestrian phase.</td>
<td>Give pedestrians a 3-7 second head start when entering an intersection, reinforcing their right-of-way overturning vehicles.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Pedestrian Hybrid Beacon</th>
<th>Rectangular Rapid Flashing Beacons</th>
<th>Pedestrian Refuge Islands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is a traffic control device used to stop vehicular traffic and allow pedestrians to cross safely. Vehicular traffic is only stopped when a pedestrian is present and activates the signal.</td>
<td>Are pedestrian activated flashing signs that alert drivers a pedestrian is crossing.</td>
<td>Reduce the exposure time experienced by a pedestrian in the intersection.</td>
</tr>
<tr>
<td>Pedestrian Scrambles</td>
<td>Protected Intersections</td>
<td>Roundabout</td>
</tr>
<tr>
<td>----------------------</td>
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</tr>
<tr>
<td>temporarily stop all vehicular traffic and allow pedestrians to cross an intersection in every direction, including diagonally, at the same time.</td>
<td>reduce the likelihood of highspeed vehicle turns, improve sightlines, and dramatically reduce the distance and time during which people on bikes are exposed to conflicts.</td>
<td>is a circular intersection where drivers travel counterclockwise around a center island. There are no traffic signals or stop signs in a roundabout. Drivers yield at entry to traffic in the roundabout, then enter the intersection and exit at their desired street.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Landscape Buffer</th>
<th>Pedestrian Scale Lighting</th>
<th>Pedestrian Amenities</th>
</tr>
</thead>
<tbody>
<tr>
<td>along roadways provide separation between pedestrians and vehicles, creating a more comfortable environment.</td>
<td>can increase visibility along sidewalks and intersection approaches while creating a more comfortable and inviting pedestrian environment.</td>
<td>such as seating, shaded areas, trash cans, and landscaping enhance the pedestrian environment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paseos/Walkways</th>
<th>Places to Gather</th>
<th>Wayfinding</th>
</tr>
</thead>
<tbody>
<tr>
<td>are pedestrian-only pathways that provide opportunities to create unique public spaces.</td>
<td>create a sense of place and belonging and are usually surrounded by entertainment/commercial land uses.</td>
<td>is used to help orient pedestrians and direct them to destinations. Maps and directional signage are two wayfinding examples.</td>
</tr>
</tbody>
</table>
3.2 BICYCLE MOBILITY

Bicycling offers a variety of transportation and recreational benefits. Bicycles can be used for local trips, potentially replacing vehicular trips while also reducing greenhouse gas emissions and congestion. They can be used by school-age children for commute trips to and from school. Bicycles can also help people access transit stops and reach their final destinations – commonly referred to as first-/last-mile. It is an accessible mode of transportation given the comparatively low entry and operational costs. As a form of recreation, bicycling can be used to fulfill exercise recommendations, thereby contributing to improved public health.

To realize these benefits, the bicycle network must be well-connected, safe, convenient, and comfortable for people of varying skill levels. Bicycle facilities should safely connect users from their trip origins to their destinations in a manner that is context appropriate. Safe and secure bicycle parking is another component that is often overlooked, yet critical to encouraging bicycle use.

Caltrans recognizes four classifications of bicycle facilities: Class I Bike Path, Class II Bike Lane, Class III Bike Route, and Class IV Separated Bikeway or Cycle Track.

Class I Bike Path

Also referred to as a multi-use path or shared-use path, Class I facilities provide a completely separated right-of-way designed for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized. Bike paths can provide connections where roadways are non-existent or unable to support bicycle travel. The minimum paved width for a two-way bike path is eight feet (ten feet preferred), with a two-foot-wide graded area adjacent to each side of the pavement.
**Class II Bike Lane**

Provides a striped lane designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited. Bike lanes are one-way facilities located on either side of a roadway. Pedestrian and motorist crossflows are permitted. Additional enhancements such as painted buffers and signage may be applied. The minimum bike lane width is five feet when adjacent to on-street parking, or six feet when posted speeds are greater than 40 miles per hour. Bike lanes can also have striped buffer areas a few feet in width to provide separation from vehicles.

**Class III Bike Route**

Provides shared use of traffic lanes with cyclists and motor vehicles, identified by signage and/or street markings known as “sharrows.” Bike routes are best suited for low-speed, low-volume roadways. Bike routes provide network continuity or designate preferred routes through corridors with high demand. An enhanced bike route is called a Bike Boulevard. Bicycle boulevards are streets with low vehicular speeds and volumes, designed to give bicycle travel priority. Bicycle Boulevards use signs, pavement markings, and speed and volume management measures to discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets.
Class IV Cycle Track

Also referred to as a separated or protected bikeway, cycle tracks provide a right-of-way designated exclusively for bicycle travel within the roadway and physically protected from vehicular traffic. Cycle tracks can provide for one-way or two-way travel. Types of separation include, but are not limited to, grade separation, flexible posts, or on-street parking.

The planned bicycle network is shown in Figure ME-2.
Figure ME-2 Planned Bicycle Network

Note: Buffered Bike Lanes could be used as an interim classification for Cycle Tracks.

Bicycle Facilities
- Multi-Use Path (Class I)
- Bike Lane (Class II)
- Buffered Bike Lane (Class II)
- Bike Route (Class III)
- Bike Boulevard (Enhanced Class III)
- Cycle Track (Class IV)

Future Overpass
Future Interchange
Land Use Opportunity Area
3.3 PUBLIC TRANSIT

Public transit is an energy and space efficient travel mode, making it an important component of the transportation network. Encouraging transit use as El Centro continues to develop and grow will help accommodate the increase in roadway users. Efficient service that connects residential communities, employment centers, commercial areas, schools, and other public resources is important to attracting and sustaining ridership.

Pedestrian and bicycle access to transit stops is another important consideration. The pedestrian treatments and bicycle network presented in the previous sections are intended to facilitate safe and comfortable active transportation access to bus stops, helping connect transit riders to the stops during the first- and last-mile of their trips.

Public transit in El Centro is provided by ICTC through IVT. ICTC manages and sponsors fixed bus routes as part of Imperial Valley Transit, as well as two curb-to-curb demand responsive services: IVT ACCESS, for American with Disabilities Act (ADA) certified mobility disadvantaged persons who cannot use Imperial Valley Transit fixed route services in areas within ¾ of a mile of IVT fixed route service, and IVT RIDE, for ADA certified mobility disadvantaged persons who cannot use IVT fixed route service and for senior citizens 55 years and older within the communities of Brawley, Calexico, El Centro, and Imperial. In addition, ICTC also sponsors IVT MedTrans, which provides non-emergency transportation service between the Imperial Valley and San Diego County medical facilities, clinics, and doctor offices.

ICTC also prepared numerous studies that support El Centro’s public transit availability, including the 2014 Bus Stop Design and Safety Guideline Handbook, which focuses on clearly establishing transit design and safety guidelines that can be applied consistently throughout the IVT service area; the 2018 Short Range Transit Plan, which focuses on enhancing public transportation service for existing and potential users of public transit within ICTC service area; as well as a Regional Mobility Hub Implementation Strategy, in collaboration with SANDAG, to demonstrate how transportation services, amenities, and supporting technologies can work together to make it easier for communities to access transit and other shared mobility choices. The transit station in Downtown El Centro is identified as a potential mobility hub location in Imperial Valley.

The existing transit routes and stops are identified in Figure ME-3 along with Opportunity Areas where future transit services should be considered as development occurs and the potential demand supports.
3.4 VEHICULAR MOBILITY

The vehicle is the most in-demand travel mode in El Centro and nearly every city throughout the United States. The importance of efficient vehicular operations cannot be understated. Personal vehicles, bus transit, and movers of commercial goods all utilize the same roadway system.

Roadway congestion leads to increased greenhouse gas emissions from idling vehicles, longer travel times, and potentially increased vehicle miles traveled as drivers seek out of direction alternative routes. These considerations underscore the importance of maintaining the adequate flow of vehicles in a manner that is direct and safe.

Continued innovations in the transportation industry have led to more tools available now than ever before, enabling jurisdictions to accommodate vehicular demands while also offering quality networks for alternative transportation modes.

Two I-8 overpasses are proposed as part of this Mobility Element, at the following locations:

- Industry Way
- Pitzer Road

Additionally, three overpasses are proposed at railroad crossings at the following locations:

- Bradshaw Avenue, east of 8th Street
- East Danenberg Drive, west of Dogwood Avenue
- McCabe Road, at Dogwood Avenue

The purpose of these overpasses is to improve network connectivity and accommodate potential growth as indicated in the Land Use Element, as well as to improve safety for all users crossing the railroad tracks.
CLASSIFICATION SYSTEM

The planned vehicular classification system development was based on the City's existing functional classifications and future travel demand, with a horizon or buildout year of 2040. The roadway classifications are intended to balance the needs of all roadway users, while taking the existing built environment limitations into consideration. The City of El Centro Mobility Element system consists of arterial and collector designations. Figure ME-4 presents the planned roadway network classifications.

Table ME.1 displays the differences between existing functional classifications and the planned classification designations for Mobility Element roadways.
Figure ME-4 Planned Roadway Network Classifications

Roadway Classification
- 6-Lane Arterial
- 4-Lane Arterial
- 2-Lane Arterial
- 2-Lane Collector
- Future Roadway
- Rail Tracks
- Future Overpass
- Future Interchange
- Land Use Opportunity Area
<table>
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<th>Existing Functional Classification</th>
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<th>Jurisdiction</th>
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<td>4-Lane Arterial</td>
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<tr>
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<td>Bradshaw Avenue to Adams Avenue</td>
<td>Does Not Exist</td>
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</table>
Arterial

Arterials in El Centro are six, four, or two-lane roadways that are designed to carry moderate to heavier vehicular traffic volumes, while providing direct access to regional transportation corridors such as I-8 and SR-111. Arterial roadways provide the greatest number of vehicular network connections relative to other roadway types. They also provide major cross-town connections, traversing many of the City's signalized intersections. Generally, arterial roadways provide for vehicular priority without compromising the safety of other modes. Figure ME-5 and ME-7 depict cross-sections of designated arterial roadways.

Collector

Collectors provide local access throughout the community without providing direct access to the regional freeways or state routes. These roadways are two lanes and are generally near residential land uses. However, some collectors can be adjacent to commercial and industrial land uses as well. Collectors are undivided but may contain turn pockets at larger intersections. Posted speed limits along these roadways are relatively low. Accommodation for bicycles and pedestrians should be provided along collector roads. Less intense facility types, such as bicycle routes, may be acceptable due to lower vehicular speeds and volumes. Figure ME-8 depict cross-sections of designated collector roadways.

LEVEL OF SERVICE CRITERIA

Although vehicular level of service (LOS) is no longer a transportation impact measure in terms of CEQA, it is still critical measure and indicator to the City of El Centro as it continues to grow. LOS is a quantitative measure describing how well a transportation facility operates from a driver's perspective. These conditions are generally described in terms of speed, travel time, freedom to maneuver, comfort, convenience, and safety. LOS A represents optimum operating conditions from a driver's perspective, while LOS F represents the worst. Table ME.2 describes general definitions of vehicular LOS A through F.
Figure ME-5: Typical Cross-Sections of Designated 6-Lane Arterial Roadways

Imperial Avenue, between Bradshaw Avenue and Scott Avenue

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Bicycle facility buffer treatment may vary.

Imperial Avenue, between Scott Avenue and Adams Avenue

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Bicycle facility buffer treatment may vary.
Figure ME-6: Typical Cross-Sections of Designated 4-Lane Arterial Roadways, Part 2

La Brucherie Avenue, between Northern City Limits and McCabe Road
Dogwood Avenue, between Northern City Limits and McCabe Road

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Median treatment may vary.
Bicycle facility buffer treatment may vary.
Wider sidewalk (approx. 10 feet) should be considered for roadways fronting Opportunity Areas indicated in the Land Use Element.

La Brucherie Avenue, between Northern City Limits and McCabe Road

4th Street, between Adams Avenue and Wake Avenue

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Median treatment may vary.
Figure ME-6: Typical Cross-Sections of Designated 4-Lane Arterial Roadways, Part 3

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Median treatment may vary.
Bicycle facility buffer treatment may vary.
Wider sidewalk (approx. 10 feet) should be considered for roadways fronting Opportunity Areas indicated in the Land Use Element.

**With Buffer Bike Lane**
4th Street/SR-86, between Wake Avenue and McCabe Road

**With Cycle Track**
Imperial Avenue, between Northern City Limits and Bradshaw Avenue
Imperial Avenue, between Adams Avenue and Wake Avenue
8th Street, between Northern City Limits and McCabe Road
Bradshaw Avenue, between Austin Road and SR-111
Adams Avenue, between Austin Road and 5th Street
Main Street, east of 4th Street
Danenberg Drive, between Austin Road and Dogwood Avenue
Figure ME-7: Typical Cross-Sections of Designated 2-Lane Arterial Roadways, Part 1

Valleyview Avenue, between Austin Road and 4th Street

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Wider sidewalk (approx. 10 feet) should be considered for roadways fronting Opportunity Areas Indicated in the Land Use Element.

Villa Avenue, between La Brucherie Avenue and Imperial Avenue

Note:
Landscape buffer between roadway and sidewalk should be considered.
Figure ME-7: Typical Cross-Sections of Designated 2-Lane Arterial Roadways, Part 2

2-LANE ARTERIAL
WITH CYCLE TRACKS

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Bicycle facility buffer treatment may vary.
Wider sidewalk (approx. 10 feet) should be considered for roadways fronting Opportunity Areas indicated in the Land Use Element.

Main Street, between Austin Road and 8th Street
Ross Avenue, between 4th Street and SR-111

2-LANE ARTERIAL
WITH BUFFERED BIKE LAKES

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Wider sidewalk (approx. 10 feet) should be considered for roadways fronting Opportunity Areas indicated in the Land Use Element.

Ross Avenue, between Austin Road and Imperial Avenue
Aurora Drive, between Imperial Avenue and 3rd Street

Ocotillo Drive, between Austin Road and Imperial Avenue
Wake Avenue, between Lotus Avenue and 4th Street and east of Dogwood Avenue
Industry Way, between Ross Avenue and McCabe Road
Figure ME-7: Typical Cross-Sections of Designated 2-Lane Arterial Roadways, Part 3

2-LANE ARTERIAL
WITH BIKE ROUTE

Notes:
Landscape buffer between roadway and sidewalk should be considered.

Cruickshank Drive, between La Brucherie Avenue and Imperial Avenue

4th Street, between Northern City Limits and Euclid Avenue

Villa Avenue, between 4th Street and Cannon Road
Valleyview Avenue, between Dogwood Avenue and Cannon Road
Figure ME-8: Typical Cross-Sections of Designated 2-Lane Collector Roadways, Part 1

Note:
Landscape buffer between roadway and sidewalk should be considered.

Orange Avenue, between Plank Road and Canal (west of Lotus Avenue)
Lotus Avenue, between Wake Avenue and Danenberg Drive

Orange Avenue, between Austin Road and Plank Road
Lotus Avenue, between Adams Avenue and southern terminus
Farnsworth Lane, between Danenberg Drive and McCabe Road

Orange Avenue, between Canal (west of Lotus Avenue) and La Brucherie Avenue
Ross Avenue, between Imperial Avenue and 4th Street
Figure ME-8: Typical Cross-Sections of Designated 2-Lane Collector Roadways, Part 2

2-LANE COLLECTOR
WITH BIKE BOULEVARD (DOWNTOWN EL CENTRO)

SIDEWALK BUFFER TRAVEL LANE TRAVEL LANE BUFFER SIDEWALK
5' VARIES 24' 26' VARIES 5'
CURB TO CURB (52')

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Wider sidewalk (approx. 10 feet) should be considered for roadways fronting Opportunity Areas indicated in the Land Use Element.

Main Street, between 8th Street and 4th Street
6th Street, between Broadway and State Street

2-LANE COLLECTOR
WITH BIKE BOULEVARD OR BIKE ROUTE

SIDEWALK BUFFER TRAVEL LANE TRAVEL LANE BUFFER SIDEWALK
5' VARIES 17-20' 17-20' VARIES 5'
CURB TO CURB (34-40')

Notes:
Landscape buffer between roadway and sidewalk should be considered.
Wider sidewalk (approx. 10 feet) should be considered for roadways fronting Opportunity Areas indicated in the Land Use Element.

6th Street, Lincoln Avenue and Broadway
6th Street, between State Street and Southwind Drive
3rd Street, between Euclid Avenue and Ross Avenue
Euclid Avenue, between 4th Street and 3rd Street
Brighton Avenue, between Waterman Avenue and 10th Street

Orange Avenue, between La Brucherie Avenue and Waterman Avenue
Orange Avenue, between 10th Street and Dogwood Avenue
Hamilton Avenue, between Austin Road and 6th Street
Pico Avenue, between Imperial Avenue and 6th Street
1st Street, between State Street and Orange Avenue
Figure ME-8: Typical Cross-Sections of Designated 2-Lane Collector Roadways, Part 3

Note:
Landscape buffer between roadway and sidewalk should be considered.

All other 2-Lane Collectors not listed previously
Table ME.2: Vehicular Level of Service Definitions

<table>
<thead>
<tr>
<th>LOS</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Controlled delay at the boundary intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.</td>
</tr>
<tr>
<td>B</td>
<td>Reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted and control delay at the boundary intersections is not significant. The travel speed is between 67% and 85% of the base free-flow speed.</td>
</tr>
<tr>
<td>C</td>
<td>Stable operation. The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at the boundary intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.</td>
</tr>
<tr>
<td>D</td>
<td>Less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersections. The travel speed is between 40% and 50% of the base free-flow speed.</td>
</tr>
<tr>
<td>E</td>
<td>Unstable operation and significant delay. Such operations may be due to some combination of adverse signal progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30% and 40% of the base free-flow speed.</td>
</tr>
<tr>
<td>F</td>
<td>Flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed. Also, LOS F is assigned to the subject direction of travel if the through movement at one or more boundary intersections have a volume-to-capacity ratio greater than 1.0.</td>
</tr>
</tbody>
</table>


As previously described in Policy 4.4, Level of Service (LOS) C shall be the threshold for all Mobility Element roadways and intersections, except that Level of Service (LOS) D would be acceptable upon review and approval by the City Engineer after consideration of impacts to the public and lack of feasibility of attaining Level of Service (LOS) C due to right-of-way constraints. With the additional exception of Imperial Avenue between Ocotillo Drive and I-8 westbound ramps, where LOS E would be acceptable due to right-of-way constraints, unless otherwise approved by the City Engineer.

Table ME.3 presents the roadway segment capacity and LOS standards to be utilized for the City of El Centro Mobility Element roadways.

Table ME.3: El Centro Roadway Segment Daily Capacity (ADT) and Level of Service Standards

<table>
<thead>
<tr>
<th>Roadway Functional Classification</th>
<th>ADT Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS A</td>
</tr>
<tr>
<td>6-Lane Arterial</td>
<td>32,000</td>
</tr>
<tr>
<td>4-Lane Arterial</td>
<td>22,000</td>
</tr>
<tr>
<td>2-Lane Arterial</td>
<td>11,000</td>
</tr>
<tr>
<td>2-Lane Collector</td>
<td>6,000</td>
</tr>
</tbody>
</table>
Figure ME-9 illustrates the 2040 forecast daily traffic volumes and anticipated roadway levels of service.

A detailed Vehicular Operations Technical Report was prepared to evaluate future roadway and intersection operations, including assumed intersection geometrics. This report is provided in Appendix B.
OTHER MOBILITY STRATEGIES

Transportation Demand Management (TDM) programs and Transportation System Management (TSM) tools help address the mobility needs of El Centro by maximizing efficiency of services while increasing person throughput, reducing congestion and parking demand, and providing quality information to the commuting public.

**Transportation Demand Management**

Commute trips to work make up a majority of trips on streets and freeways, and therefore, play a role in reducing vehicle miles traveled (VMT). Throughout the SCAG region, employers offer TDM strategies and incentive programs to employees using alternative ways to get to work. This includes rideshare incentives, telecommuting and flexible work schedules, parking management, and incentives for employees who walk or bike to work. Additionally, convenient first/last mile infrastructure to fill gaps in transit access and transit priority treatments can encourage more people to use active transportation and participate in transportation options other than single occupancy vehicle trips.

**Transportation System Management**

Emerging technologies intended to integrate future mobility concepts and improve traffic management and operations are known TSM. The technologies employed vary widely and continue to evolve and shift how users experience the transportation system. TSM tools also have the potential to make the transportation system more efficient by reducing travel times, including signal coordination, transit signal priorities, and adaptive signals. Additionally, the deployment of connected and autonomous vehicles is edging closer to reality. A potential integration of these innovations in El Centro could include implementation of advanced analytics and high-speed communication networks to allow future connected vehicles, smartphones, and infrastructure to communicate and share real-time data.

**Other Emerging Technologies**

The transportation landscape continues to evolve. Technology, facility types, and design treatments are three transportation topics that have experienced notable changes in recent years. The rapid pace of these changes can make it difficult for cities to respond, requiring agencies to maintain a flexible approach and to be in tune with industry shifts.
This section provides descriptions of two emerging topics relevant to El Centro. These include current efforts related to shared micro-mobility devices and Neighborhood Electric Vehicles.

**Shared Micro-Mobility**

Shared micro-mobility devices are transportation devices intended for short point-to-point trips; this includes bicycles, electric bicycles, as well as electric and motorized scooters. These vehicles are generally rented through a mobile app or a kiosk and are picked up and dropped off in the public right-of-way. Since this is an evolving field of technology, other types of devices may be offered in the near future.

Micro-mobility services have the potential to solve some big problems confronting cities, and yet they also bring a unique set of challenges. Micro-mobility devices can solve the “first/last-mile” problem, reduce congestion and along with it, reduce a city’s environmental footprint. Nonetheless cities must address safety issues, how to accommodate micro-mobility devices on their roadways and parking issues.

**First/Last Mile Access to Transit**

According to publicly available data, approximately 27 percent of Lime scooter riders in major urban markets used an e-scooter to connect to or from public transportation during their most recent trip. Given the small, lightweight nature of micro-mobility devices they are useful in increasing access to transit stations.

**Transportation for Short Trips**

Micro-mobility devices can be used for trips under 5 miles. Statistics show that roughly 60 percent of US trips are under 5 miles and most of the time drivers ride alone (Forbes, 2019).

Furthermore, 46 percent of car traffic in the US is caused by cars on trips less than three miles. Data also shows that 30 percent of e-scooter riders reported using the device to replace a vehicle trip on their most recent trip. Though micro-mobility devices are not intended for every trip, they can be used to replace several short trips thereby reducing traffic congestion and vehicle emissions.

**Transportation Data**

Data from shared micro-mobility devices can be a rich source of information for cities. Cities need access to this data so permit compliance can be determined, they can effectively regulate, and make informed decisions about what is happening in the public right-of-way and how it might impact safety, health, equity, environmental outcomes and the distribution of people and resources.
Challenges can present themselves if not addressed on the front end, particularly regarding:

- Data formats and collection methods
- Who collects the data and how often
- How the data will be managed and accessed

Another challenge in this area can be data privacy. As the City develops a privacy policy, consideration should be made to include guidance for shared micro-mobility device providers. This should also involve coordination with all appropriate internal departments to develop and update protocols for how to handle, store and protect data.


**Low Impact Transportation**

Shared micro-mobility devices have a lower carbon footprint than motor vehicles. Additionally, shared micro-mobility devices make more efficient use of parking and infrastructure compared to an automobile trip.

**Equity**

Shared micro-mobility device deployment can raise equity issues. Currently, most micro-mobility devices are accessed through an app and registration requires the input of debit or credit card information. This necessitates two things: a mobile phone and a bank account. Lower income people may not have a cell phone or own cell phones that do not have app capabilities and are either unbanked or underbanked.

Companies are working on solutions. Grow Mobility, which operates in Latin America, offers digital wallets and digital payment functionality. These companies allow customers to purchase ride credits in cash. Additionally, ride credits can be used for other purchases and payments, such as, for utility bills, restaurants, and money transfers between friends.

Cities should work with shared micro-mobility device operators to address equity issues.

**Micro-Mobility Parking and Riding**

Parking and riding in improper locations can be a challenge for cities. Clearly delineating parking locations can help. Working with vendors to employ geofencing can also be useful. Geofencing, a communication technology that sets digital
boundaries, can be used to alert the rider if they enter a no-go zone or park improperly. In some instances, geofencing can also be used to control device speeds in defined locations.

Possible Parking Regulations

Increasingly, cities and operators are encouraging customers to leave the shared micro-mobility devices in designated parking zones or “corrals.” Designating parking locations provides cities with more control over device start and end locations, increases the predictability of users and non-users alike, and reduces encroachment of the public right-of-way.

Parking corrals should be marked with neutral, non-branded signage to best inform customers of where devices should be parked. It is recommended that devices should not be parked immediately adjacent to a crosswalk or curb ramp. Parking corrals are recommended for crowded areas where many trips start and end, and sidewalk space is in high demand.

Some in-road locations, where on-street vehicle parking is prohibited, may be suitable to designate for shared device parking. These may include locations where the curb space is too small to accommodate a traditional vehicle, or near an intersection or driveway locations where vehicular parking is prohibited to provide adequate sight distance.

The City of El Centro should maintain a flexible approach to accommodate and regulated shared mobility devices. A safety-first focus should continue to be the priority, while also providing a regulatory environment that does not deter device deployment or utilization. The technology, data, and user behaviors will continue to evolve, requiring the City to regularly evaluate program successes and challenges, and adjusting as necessary to ensure benefits are captured while still providing a safe roadway environment.

Neighborhood Electric Vehicles

Neighborhood Electric Vehicles (NEVs), are a type of low-speed, lightweight electric vehicle. NEVs present unique opportunities and challenges to infrastructure, as they often share space with cars, bikes, and other slow modes such as e-bikes and scooters.

California Regulatory Context

The California Vehicle Code defines NEVs as a type of Low Speed Vehicle. NEVs are limited to speeds up to 25 mph and may drive only on streets with speed limits up to 35 mph unless the jurisdiction has an adopted NEV Transportation Plan. If an
NEV is modified to travel at a speed greater than 35 mph, then it is required to have all the safety equipment of a full speed vehicle.

NEVs can cross streets of speed limits greater than 35 mph if the crossing begins and ends on a street with speed limits less than or equal to 35 mph or is designated by an adopted NEV plan. An NEV shall not traverse state highway intersections without traffic controls (e.g. traffic lights, stop signs) unless that intersection has been approved and authorized by the agency having primary traffic enforcement responsibilities for that crossing.

A local police department with primary traffic enforcing responsibility, or the CHP, may prohibit the use of NEVs on any roads under their jurisdiction in the interest of public safety. Any such prohibitions are made effective through signs upon the roadway.

NEVs need to conform to the safety standards set forth in the Federal Motor Vehicle Safety Standards governing the requirement for features such as seat belts and headlamps. The driver of an NEV must have a driver’s license, be insured in the same way as a driver of a full speed vehicle, and the vehicle must be registered with the DMV and have a VIN number. Dealers of NEVs are required to warn buyers of the risks associated with driving a vehicle without safety features.

**NEV Plans and Space Requirements**

If desired and funding mechanisms are available, the City of El Centro can develop and adopt a specific NEV plan designed to optimize the use of NEVs as a viable transportation mode.

Safe NEV routes can be established through a network of designated slow speed paths, striped lanes, and routes on streets with speed limits up to 35 mph. Consideration of safe crossings is key to ensuring connectivity of the network. Specific signage is necessary for ensuring mobility and safety for NEV routes so drivers of NEVs understand where they should and should not go, and other drivers are also aware of the presence of NEVs.

Cities throughout California are adopting the Streets and Highway Code definitions of bicycle facilities to include provisions for NEVs as “Slow Speed” networks. Typically, this can be done within the design considerations of existing bikeways, although occasionally additional lane width is required to accommodate NEVs.

Developing an NEV plan will give the City of El Centro greater flexibility as to where these vehicles can be operated, potentially expanding their use. NEV plans exempt jurisdictions from the California Vehicle Code rule that restricts NEVs to roads with speed limits of 35 mph and under.
3.5 GOODS MOVEMENT, RAIL, AND AIRPORT

**Truck Traffic**

Maintaining the efficient movement of goods is essential for sustaining a local economy and meeting basic consumer needs. The SCAG 2016-2040 RTP/SCS and the Imperial County Long Range Transportation Plan identify the regional role of the Calexico Port of Entry (POE) and Calexico East POE in particular, and the importance of the roadway network in surrounding Imperial County cities in serving the Ports and supporting the truck traffic generated.

The RTP/SCS identifies the need for goods movement to be carefully balanced with overall sustainability, public health, and environmental justice goals, and establishes the need for goods movement strategies to work in concert with the region's overall emissions reduction targets. These overarching guidelines are adapted to the local setting by the Imperial County Long Range Transportation Plan, which identifies particular improvements for the county such as roadway widening and grade separation, while reiterating the need for consideration of potential impacts to local community health, safety, and quality of life.

Two types of truck routes serve the City of El Centro: Primary and Local. Primary truck routes utilize the main corridors within the City such as Imperial Avenue, Adams Avenue, 4th Avenue, Dogwood Avenue, Main Street, and the I-8. Local truck routes utilize local connectors within the City such as 8th Street, Industry Way, Cruickshank Drive, Bradshaw Avenue, Adams Avenue, Commercial Avenue, Heil Avenue, Ross Avenue, Wake Avenue, and Danenberg Drive. Figure ME-10 displays the designated truck routes within the City of El Centro.

**Rail**

There are three rail lines that serve the City of El Centro. Union Pacific Railroad operates a main line that extends west and northeast from El Centro. This line connects Los Angeles Port of Entry (POE) with the greater Union Pacific Rail Network. A branch line connects the Calexico POE to the south. Several minor spurs connect to Westmoreland, areas north of Holtville, and shipping yards within El Centro. The western line, the San Diego and Arizona Eastern Railroad, terminates to the west in Plaster City. Rail service beyond Plaster City has been cut off since damage to the line was incurred in 2009. No passenger rail currently serves the City of El Centro nor are there any plans for future passenger rail service. The Imperial County Long Range Transportation Plan seeks to sustain freight movement operations and transportation connections where possible via rail grade-separation, while acknowledging the need to balance potential impacts to local communities in Imperial County.
Figure ME-10 Truck Routes

- **Primary Truck Route**
- **Local Truck Route**
Airport

The Imperial County Airport (IPL) is located less than a mile north of the El Centro City Limit. The Imperial County Airport is accessible via Imperial Avenue, where the airport driveway connects at Airport Road.

The airport is a county-owned public-use airport. Service is subsidized by the Essential Air Service program. The facility is non-towered and has two (2) runways. The airport solely serves general aviation operations, but the National Plan of Integrated Airport Systems categorizes this airport as a non-primary commercial service airport. Currently, Mokulele Airlines is the only commercial airline serving IPL with direct flights to Los Angeles (LAX). Two cargo airlines, Ameriflight and FedEx Feeder, serve IPL with direct flights to Ontario (ONT). IPL Airport was founded in 1940 and occupies about 370 acres.

The Airport Land Use Compatibility (ALUC) Plan Update for Imperial County (1996) serves as a guiding document for the County's military and public use airports, promoting continued operation while protecting public and airport users alike from potential adverse noise and safety concerns, while maintaining compatibility with City and County general plans. According to AirNav Airport Operational Statistics, in 2018, the airport had an average of 40 airport activities per day, or 14,600 annual airport activities. Of these movements, approximately 40 percent were local general aviation, 27 percent were military operations, 24 percent of operations from transient aircraft, and eight percent commercial aviation. A total of 34 aircraft are based at the airport, which includes 30 single-engine airplanes, one multi-engine airplane, and three helicopters.

Noise abatement procedures and a prohibition of night operations are in place to reduce the airport's noise footprint on the community, which maintains compatibility with SCAG 2016-2040 RTP/SCS Aviation Performance Measure 12, maintaining sensitivity to Aviation Noise Impacts.

However, the California Department of Transportation (Caltrans) Airport Land Use Planning Handbook (Caltrans Handbook) was revised in 2011, and identifies modified geometrics, naming conventions, and evaluation criteria for ALUCP map zones. Until the ALUCP is revised to reflect the most current Caltrans Handbook, applicable proposed actions are analyzed pursuant to the Caltrans Handbook to enable the Imperial County Airport Land Use Commission to determine if they comply with current Caltrans regulations.
4. Major Thoroughfares

In addition to the discussion provided under Section 3.4, several corridors in El Centro function as the backbone of its roadway network by carrying higher traffic volumes and providing connectivity and access to important activity/employment centers as well as to the state highway system and regional freeway system (I-8). These corridors are referred to as thoroughfares. Additional design considerations are given at these thoroughfares to improve traffic operations and safety.

A description of the thoroughfares within the City is provided below:

**La Brucherie Avenue between Northern City Limits to Ocotillo Drive** – This corridor is classified as a Four-Lane Arterial and anticipated to carry moderate vehicular traffic ranging from 9,900 to 18,800 daily trips by 2040. La Brucherie Avenue serves a blend of commercial and residential uses and provides both direct and indirect access to several schools.

Pedestrian activities are higher along areas adjacent to schools and design considerations such as curb extensions, high visibility crosswalks, lead pedestrian intervals need to be given to improve pedestrian safety. Given the width, speed and volume along La Brucherie Avenue, any midblock crossing should be treated with a Pedestrian Hybrid Beacon (also known as HAWK signal). Additionally, La Brucherie Avenue is planned to have both Class I and Class IV bicycle facilities and serves as a critical north-south corridor in the bicycle network.

Project sheets were developed for La Brucherie Avenue at Villa Avenue (Figure ME-11) and La Brucherie Avenue at Hamilton Avenue (Figure ME-12) to illustrate conceptual plan view design and recommended cross-section. These locations were selected as representatives of the entire thoroughfare corridor.

**Imperial Avenue between Northern City Limits to West Danenberg Drive** – This corridor is largely classified as a Four-Lane Arterial except for the section between Bradshaw Avenue and Adams Avenue, which is classified as a Six-Lane Arterial. Imperial Avenue is under Caltrans jurisdiction and is also named State Route 86 north of Adams Avenue. Imperial Avenue provides access to high activity/employment centers such as commercial land uses that include retail, fast food restaurants, dining, and the El Centro Regional Medical Center as well as schools and residential areas. With the planned construction of the interchange at I-8, Imperial Avenue will be extended southerly and eventually serve Opportunity Area 5.

Imperial Avenue is anticipated to carry the greatest volumes of vehicular traffic within the City, ranging from 17,800 to 39,700 daily trips by 2040, due to the
connections it provides to the regional freeway system, major commercial centers, and neighboring jurisdictions such as the City of Imperial. Given the higher travel speed and higher traffic volumes, it is recommended that a raised median be constructed along this corridor to better manage vehicular access and improve traffic safety. Imperial Avenue north of Adams Avenue also serves as a route by movers of commercial goods, therefore, considerations such as turning radius for large vehicles are required.

Pedestrian activity is also relatively high along this corridor, hence it is important to provide continuous sidewalks and buffers to separate pedestrians from vehicles, where feasible. Pedestrians are most vulnerable when crossing roadways whether at an intersection or midblock, hence design considerations such as curb extensions, high visibility crosswalks, lead pedestrian intervals need to be given to improve pedestrian safety. Given the width, speed and volume along Imperial Avenue, any midblock crossing should be treated with a Pedestrian Hybrid Beacon (also known as HAWK signal). Additionally, Imperial Avenue is planned to have Class IV cycle tracks north of Wake Avenue and Class I multi-use path along the frontage of Opportunity Area 5 to better accommodate the anticipated demand of cyclists and pedestrians.

Project sheets were developed for Imperial Avenue just south of Treshill Road (Figure ME-13), Imperial Avenue at Pico Avenue (Figure ME-14), Imperial Avenue at Wensley Avenue (Figure ME-15), Imperial Avenue at Aurora Drive (Figure ME-16), and Imperial Avenue south of Wake Avenue (Figure ME-17) to illustrate conceptual plan view design and recommended cross-section. These locations were selected as representatives of the entire thoroughfare corridor.

Adams Avenue between La Brucherie Avenue and Park Avenue – This corridor is classified as a Four-Lane Arterial. Adams Avenue is under Caltrans jurisdiction and is also named State Route 86 between Imperial Avenue and Park Avenue. Adams Avenue provides access to commercial uses such as retail, fast food restaurants, dining, high-medium density residential areas, as well as Opportunity Area 1 Adams Avenue Mixed Use Village District. Adams Avenue is anticipated to carry moderate to high vehicular traffic ranging from 10,100 to 27,300 daily trips by 2040. Adams Avenue also serves as a route by movers of commercial goods, therefore, considerations such as turning radius for large vehicles are required.

Adams Avenue experiences and will continue to experience high pedestrian activity levels; features displayed in the Pedestrian Treatment Toolbox under Section 1.5 should be considered for implementation. Additionally, Adams Avenue is planned to have Class IV cycle tracks to provide a safe environment for people on bicycles.

Project sheets were developed for Adams Avenue and Imperial Avenue (Figure ME-18), Adams Avenue at 12th Street (Figure ME-19) to illustrate conceptual plan view
design and recommended cross-section. This location was selected as a representative of the entire thoroughfare corridor.

4th Street between Park Avenue and Wake Avenue – This corridor is classified as a Four-Lane Arterial. 4th Street is under Caltrans jurisdiction and is also named State Route 86. 4th Street, in a similar fashion as Imperial Avenue, provides access to high activity/employment centers such as commercial land uses that include retail, fast food restaurants, dining, and Downtown El Centro (Opportunity Area 2), as well as residential areas. With direct access to I-8, 4th Street is anticipated to carry relatively and consistently high vehicular traffic at around 25,000 daily trips by 2040. 4th Street also serves as a route by movers of commercial goods, therefore, considerations such as turning radius for large vehicles are required.

High level of pedestrian activity is anticipated around Opportunity Area 2 along 4th Street and thus features displayed in the Pedestrian Treatment Toolbox under Section 1.5 should be considered for implementation. Given limited right-of-way, no bicycle facility is planned along 4th Street within the limits described for this corridor.

Project sheets were developed for 4th Street at Olive Avenue (Figure ME-20) and 4th Street at Danenberg Drive (Figure ME-21) to illustrate conceptual plan view design and recommended cross-section. This location was selected as a representative of the entire thoroughfare corridor.

Dogwood Avenue between East Main Street and Southern City Limits – This corridor is classified as a Four-Lane Arterial and provides access to industrial and residential uses, as well as Opportunity Areas 3 and 4. With direct access to I-8, Dogwood Avenue is anticipated to carry high vehicular traffic ranging from 23,300 to 31,700 daily trips by 2040. Dogwood Avenue also serves as a route by movers of commercial goods, therefore, considerations such as turning radius for large vehicles should be required.

High level of pedestrian activity is anticipated around Opportunity Areas 3 and 4 along Dogwood Avenue and thus features displayed in the Pedestrian Treatment Toolbox under Section 1.5 should be considered for implementation. Like La Brucherie Avenue, Dogwood Avenue is planned to have both Class I and Class IV bicycle facilities and serves as a critical north-south corridor in the bicycle network for the eastern side of El Centro.

Project sheets were developed for Dogwood Avenue at Orange Avenue (Figure ME-22) and Dogwood Avenue at the Mall area (Figure ME-23) to illustrate conceptual plan view design and recommended cross-section. These locations were selected as representatives of the entire thoroughfare corridor.
Figure ME-11 La Brucherie Avenue at Villa Avenue

CONCEPTUAL PLAN VIEW

Note:
Buffer area treatment specifics to be determined at a later time.
Landscaping buffer between roadway and sidewalk should be considered at a project level of feasibility.

CONCEPTUAL CROSS-SECTION
Figure ME-12 La Brucherie Avenue at Hamilton Avenue

CONCEPTUAL PLAN VIEW

CONCEPTUAL CROSS-SECTION
Figure ME-13 Imperial Avenue at Treshill Road

CONCEPTUAL PLAN VIEW

CONCEPTUAL CROSS-SECTION

Note:
Buffer area treatment (flex posts, planters, raised curbs, etc.) will be determined at a later time.
Landscaping between roadway and sidewalk should be considered at a project level if feasible.
Figure ME-14 Imperial Avenue at Pico Avenue

CONCEPTUAL PLAN VIEW

Note:
- Buffers: treatment, planters, raised curb
- Sidewalk: to be determined at later time
- Landscape buffer between roadway and sidewalk should be considered at a project level if possible

CONCEPTUAL CROSS-SECTION
CONCEPTUAL PLAN VIEW

Note:
Buffer area treatment (flex posts, planters, raised curb, etc.) will be determined at a later time. Landscape buffer between roadway and sidewalk should be committed at a project level, if feasible.

CONCEPTUAL CROSS-SECTION
Figure ME-16 Imperial Avenue at Aurora Drive

CONCEPTUAL PLAN VIEW

Note:
Buffer area treatment (flex posts, planter, raised curbs) will be determined at a later time.
Landscape buffer between roadway and sidewalk should be considered at project level if feasible.

CONCEPTUAL CROSS-SECTION
Figure ME-17 Imperial Avenue south of Wake Avenue

CONCEPTUAL PLAN VIEW

Note:
Landscape buffer between roadway and sidewalk should be considered at a project level, if feasible.

CONCEPTUAL CROSS-SECTION

Note:
Within Opportunity Area 5, wider sidewalks should be provided to accommodate higher pedestrian demand and create placing-making opportunities.
CONCEPTUAL PLAN VIEW

CONCEPTUAL CROSS-SECTION
CONCEPTUAL PLAN VIEW

Note:
Buffer area treatment, flex posts, planters, raised curb, etc. will be determined at a later time.
Landscape buffer between roadway and sidewalk should be considered at a project level if feasible.

CONCEPTUAL CROSS-SECTION

Note:
Within Opportunity Area 1, wider sidewalks should be provided to accommodate higher pedestrian demand and create place-making opportunities.
Figure ME-20 4th Street at Olive Avenue

CONCEPTUAL PLAN VIEW

CONCEPTUAL CROSS-SECTION
Figure ME-21 4th Street at Danenberg Drive

CONCEPTUAL PLAN VIEW

CONCEPTUAL CROSS-SECTION

Note:
Buffer area treatment (e.g., planters, raised curbs, etc.) will be determined at project stage.
Landscape buffer between roadway and sidewalk should be considered at project level if feasible.
Median treatments may vary from two-way left-turn lane to striped median to raised median.
Figure ME-22 Dogwood Avenue at Orange Avenue

CONCEPTUAL PLAN VIEW

Note:
Buffer area treatments (flex posts, planters, raised curb) will be determined at a later time.
Landscape buffer between roadway and sidewalk should be considered at a project level if feasible.
Median treatments may vary from two-way left-turn lane to striped median to raised median.

CONCEPTUAL CROSS-SECTION
Figure ME-23 Dogwood Avenue at the Mall area

**CONCEPTUAL PLAN VIEW**

Note: Within Opportunity Area 4, wider sidewalks should be provided to accommodate higher pedestrian demand and create placing-making opportunities.

**CONCEPTUAL CROSS-SECTION**

Note: Within Opportunity Area 4, wider sidewalks should be provided to accommodate higher pedestrian demand and create placing-making opportunities.