



Bicyclists traveling along 17th Street

Chapter 3:

Circulation Element

Introduction

Costa Mesa’s transportation system consists of a comprehensive network of sidewalks, bicycle routes, trails, bus transit facilities, local streets, major roadways, and freeways. This integrated system supports connectivity among the major activity areas and residential neighborhoods, and brings people to and through the City. Although the established street system moves many people every day to local and regional destinations, the system—not unlike most road systems in Southern California established long ago—has been designed primarily for automobiles. This Circulation Element changes the paradigm for transportation planning by giving equal attention to planning and building systems that accommodate all mobility means, including on foot, by bicycle, and via transit.

This element includes goals, objectives, and policies that the City will use to make decisions regarding transportation improvements that significantly

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expand bicycle and pedestrian travel capabilities, manage the established roadway system efficiently and effectively, enhance transit facilities, and implement “complete street” strategies that ensure all users and mobility options are addressed in future street improvements.

Purpose

Costa Mesa will pursue strategies and programs that not only address relieving vehicular congestion but also create local conditions that emphasize active transportation. With its mild climate and flat terrain, Costa Mesa should be a place where people can easily bike and walk. The transportation system described in this element is a balanced multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. Those users include children, cyclists of all ages, pedestrians, persons with disabilities, motorists, movers of commercial goods, transit riders, and seniors. The City’s aim is to balance the ability of this varied circulation network to accommodate planned growth in a manner that minimizes delay, creates efficiencies, and supports the community’s environmental and economic goals.

The Circulation Element establishes policies governing the system of roadways, intersections, bike paths, pedestrian ways, and other components of the circulations system, which collectively provide for the movement of persons and goods throughout Costa Mesa. Most significantly, the element:

- Applies “Complete Streets” strategies for street improvements
- Defines active transportation improvements that will create improved conditions for walking and cycling
- Coordinates land use planning and transportation improvements to effectively manage and improve the established roadway system
- Identifies linkages and connectivity among all transportation modes.

Baseline Conditions-2015

Established Roadways

Regional Transportation

Costa Mesa is centrally located in Orange County near the Pacific Coast and is well served by the regional freeway system consisting of:

- San Diego Freeway (I-405), which traverses east-west across the northern portion of the City
- Corona del Mar Freeway (SR-73), which begins at I-405 between Fairview Road and Bear Street and extends southeast, where it becomes the San Joaquin Hills Transportation Corridor
- Costa Mesa Freeway (SR-55), which enters at the northeast corner of the City and extends southwest, transitioning into Newport Boulevard south of 19th Street

These freeways provide regional access throughout Orange County and points beyond, which is convenient but also can be severely congested during weekday and weekend peak-hour periods, placing additional burden on parallel streets.

Street System

North/south arterial roadways serving the City include Harbor Boulevard, Fairview Road, Bear Street, and Bristol Street, all of which are six-lane facilities; and Placentia Avenue and Red Hill Avenue, both of which are four-lane facilities. East-west arterial roadways serving the City include Anton Boulevard and Adams Avenue, which are six-lane facilities; Sunflower Avenue, which is a six-lane facility east of Bear Street and a four-lane facility west of Bear Street; and South Coast Drive, Baker Street, Fair Drive, Victoria Street, West 19th Street, and East 17th Street, all four-lane facilities.

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Looking north on Bristol Street from the pedestrian bridge connecting South Coast Plaza and the Segerstrom Center for the Arts

East-west access to Costa Mesa is constrained by the Santa Ana River on the west and on the east by John Wayne Airport and Upper Newport Bay. The Santa Ana River runs along the entire western City boundary, with crossings only at Adams Avenue, Victoria Street, and MacArthur Boulevard. Besides I-405, these roadways represent the only locations where Costa Mesa residents can travel to Huntington Beach and Fountain Valley. Although a crossing had one time been planned via West 19th Street, the Orange County Transportation Authority (OCTA) amended its Master Plan of Arterial Highways¹ in 2014 to remove this connection. To the east, the airport and Upper Newport Bay entirely constrain surface street connections extending east, except via Pacific Coast Highway to the south, Bristol Street parallel to SR-73, and MacArthur Boulevard north of I-405.

The circulation system layout is notable for its two grid patterns. Streets east of and including Newport Boulevard were constructed at approximately 45 degree angles from the traditional north/south streets in north Orange County. This results in odd-angled intersections along Newport Boulevard; west of Newport Boulevard, the streets are generally in a more traditional grid pattern.

¹ Cities throughout Orange County must ensure that their own circulation master plans are consistent with OCTA's Master Plan of Arterial Highways to remain eligible for M2 funds, as described later in this element.

Long-Term Regional Transportation Projects

I-405 Improvement Project

In 2015, I-405 through Orange County carried as many as 370,000 vehicles per day, making it one of the busiest roadways in the nation. OCTA, in cooperation with the California Department of Transportation (Caltrans), plans to widen the 16-mile length of I-405 between I-605 and SR-73 to handle forecasted vehicle volumes and to address ongoing congestion challenges. Project improvements include widening the freeway to include a general purpose lane and an express lane, improved overcrossings at Fairview Road and Santa Ana River, and a new bridge that will connect I-405 and SR-73. Several freeway ramps will be reconstructed; adjacent roads will be configured to accommodate the widening; and new sound walls will be built where necessary.

*The San Diego Freeway
(I-405) in Orange County*



State Route 55 (SR-55) Freeway Extension Alternatives

One of the keystone projects for alleviating congestion are the planned improvements for SR-55/Newport Boulevard. In 2015, close to 100,000 vehicles passed through the terminus of the Costa Mesa Freeway at 19th Street every day. OCTA has examined several alternatives of a freeway extension of SR-55 to address congestion resulting from the terminus of SR-55 at 19th Street in Costa Mesa. Alternatives include transportation systems management and traffic synchronization, construction of a single lane elevated structure at 17th Street, and a cut-and-cover tunnel that would run below SR-55/Newport Boulevard from 19th Street to Industrial Way. The cut-and-cover strategy offers the most benefits to Costa Mesa; in addition to

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completely removing freeway traffic from the local road network, it would allow the City to repurpose Newport Boulevard, including possibly using excess right-of-way for enhancing the downtown experience by adding landscaping and facilities that support other modes of transportation.

This General Plan assumes that the cut-and-cover approach, which the City supports, will not occur within the year 2035 planning horizon due to the significant costs and planning required.

Key Issues

Freeway Congestion

Interstate 405, between I-605 and SR-73, is one of the most congested freeways in Southern California during commute hours. In addition to particularly heavy traffic volumes, I-405 suffers from a lack of alternative routes plus closely spaced on- and off-ramps that interfere with smoothly flowing vehicle movements. The congestion impacts Costa Mesa by pushing non-local trips onto City streets and hindering easy access to commercial districts.

Traffic congestion at the terminus of SR-55 is caused by local and regional commuters. Through trips to Newport Beach and other coastal areas use capacity that would better serve local residents and businesses; these trips also clog intersections that affect east-west travel within the City.

Local Traffic Conditions

Residents cite congestion on local streets as a key concern. Due to the City's geographic location, accessibility from freeways, proximity to Orange County beaches, and popular attractions and destinations, many local streets experience frequent heavy traffic loads.

Need for a Comprehensive Bicycle System

While Costa Mesa has long had several Class I bicycle paths such as the Santa Ana River Trail, Banning Channel Trail, Victoria Street path, and the Joann Street Bike Trail, connectivity has been limited. Gaps in the bicycle network create challenges for cross-town travel and easy access to major activity areas and residential neighborhoods. While Costa Mesa's weather and terrain make for great biking, the lack of efficient and safe bike routes and supporting bike

infrastructure have made it difficult for bicycling to be a good alternative mode of travel.

Accommodating Pedestrians

Many residential neighborhoods in Costa Mesa are near shopping districts, schools, and parks. Pedestrian access improvements including attractive streetscape and landscape features, lighting, decorative crosswalks, enhanced traffic signal timing, and other amenities will attract higher use of pedestrian facilities.

Neighborhood Cut-Through Traffic

Three major freeways and several regional arterials provide access to the City and adjacent jurisdictions. As a result, some neighborhood streets are affected by cut-through traffic, resulting in higher than normal traffic volumes at higher speeds. Additionally, due to limited vehicle access routes over the Santa Ana River, a significant number of vehicles converge along Adams Avenue and Victoria Street to get to Huntington Beach. Many neighborhood streets in proximity to these streets are affected by cut-through traffic, especially by vehicles attempting quicker routes via Costa Mesa streets. Mobile technologies such as smart phone apps that alert motorists of congested streets and suggest alternative routes through residential neighborhoods compound the issue.

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Efficient movement within and through Costa Mesa and the region will be facilitated by developing and maintaining a well-designed and integrated multimodal transportation network for all users. Easy and convenient access to transit, pedestrian, and bicycle options within the City are essential to an efficient network.

Streets are the backbone of Costa Mesa’s circulation system. They lend identity to our neighborhoods and have always served as a determining force in the shape, form, and function of the City. Streets should be considered as places with many functions beyond moving people and goods, such as connecting neighborhoods, providing social spaces, and serving as statements of civic pride.

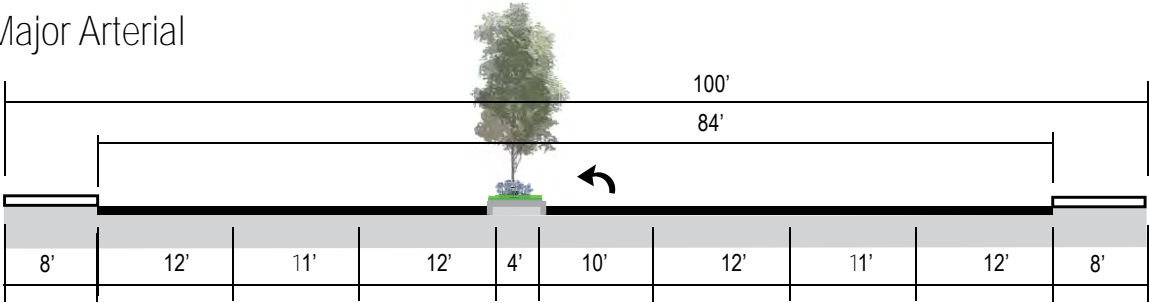
Master Plan of Streets and Highways (MPSH)

The City of Costa Mesa MPSH defines the existing and future roadway system in the City. One of the objectives of the MPSH is to maintain consistency with the Orange County Master Plan of Arterial Highways (MPAH). OCTA administers the MPAH, including the review and approval of amendments requested by local agencies. In order for Costa Mesa to receive funding from Orange County M2 funds for planned local road network improvements, the City’s MPSH must be consistent with the County’s MPAH.

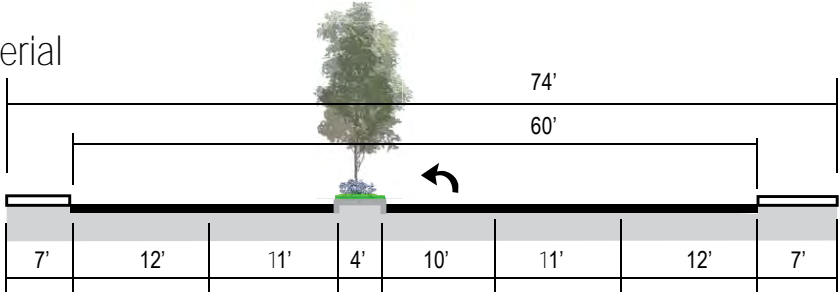
Roadway Classifications

Roadway classifications are designated on the MPSH as a general guideline for arterial highway right-of-way requirements. Additional right-of-way beyond the typical sections may be required for any classification when an arterial highway coincides with an adopted route for an additional public facility (e.g., special transit facilities, bikeways, wider landscaped parkways, wider sidewalks, or riding and hiking trails), or a scenic highway. Figure C-1 shows typical cross-sections for the arterial roadway designations on the MPSH, and Table C-1 lists the daily number of vehicles that can be accommodated by each type of arterial roadway.

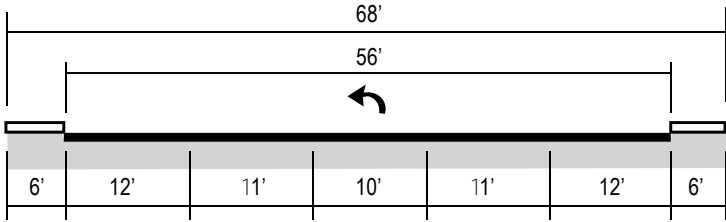
Major Arterial



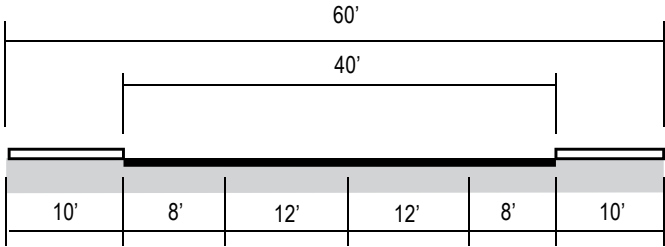
Primary Arterial



Secondary Arterial



Collector



- Notes:
1. Additional right-of-way may be required at intersections for accommodating turn lanes.
 2. Additional right-of-way may be required along streets that are planned to include future bicycle facilities, consistent with the Conceptual Bicycle Master Plan (Figure C-3).

Figure C-1: Roadway Typical Cross Sections

Table C-1: Master Plan of Streets and Highways

Arterials	Lanes	Typical Right-of-Way	Daily Vehicle Trips Accommodated
Major	Six-lane divided (median)	100 Feet	56,000-68,000
Primary	Four-lane divided (median)	74 Feet	38,000-45,000
Secondary	Four-lane undivided (no median)	68 Feet	25,000-30,000
Divided Collector	Two-lane divided (continuous two-way left-turn lane)	68 Feet	22,000
Collector	Two-lane undivided (no median)	60 Feet	12,500

Major Arterial

A Major Arterial highway is a six-lane divided (raised or painted median) roadway. A Major Arterial may be designed with emphasis for automobile, goods movement, and/or transit. Major Arterials carry a large volume of regional through traffic not handled by the freeway system.

Primary Arterial

A Primary Arterial highway is a four-lane divided (raised or painted median) roadway. A Primary Arterial may be designed with emphasis for automobile, goods movement, transit, and/or bicycle. A Primary Arterial's function is similar to that of a Major Arterial. The principal difference between the two classifications is capacity.

Secondary Arterial

A Secondary Arterial highway is a four-lane undivided (no median) roadway. A Secondary Arterial may be designed with emphasis for automobile and/or bicycle. A Secondary Arterial serves as a connector, distributing traffic between local streets and Major and Primary Arterials. Although some Secondary Arterials serve as through routes, most provide direct access to surrounding land uses.

Divided Collector Arterial

A Divided Collector Arterial is a modified Secondary Arterial with a reallocation of pavement width to emphasize bicycle and pedestrian use. It provides one bicycle lane per direction on bicycle corridors and one through vehicle lane per direction. The two directions of travel are divided by a continuous two-way left-turn lane.

Collector Arterial

A Collector Arterial is a two-lane undivided (no median), unrestricted access roadway. Collector Arterials differ from local collector streets in their ability to handle through traffic movements between two arterials.

Roadway Plan

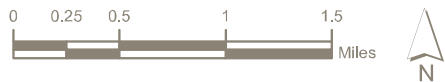
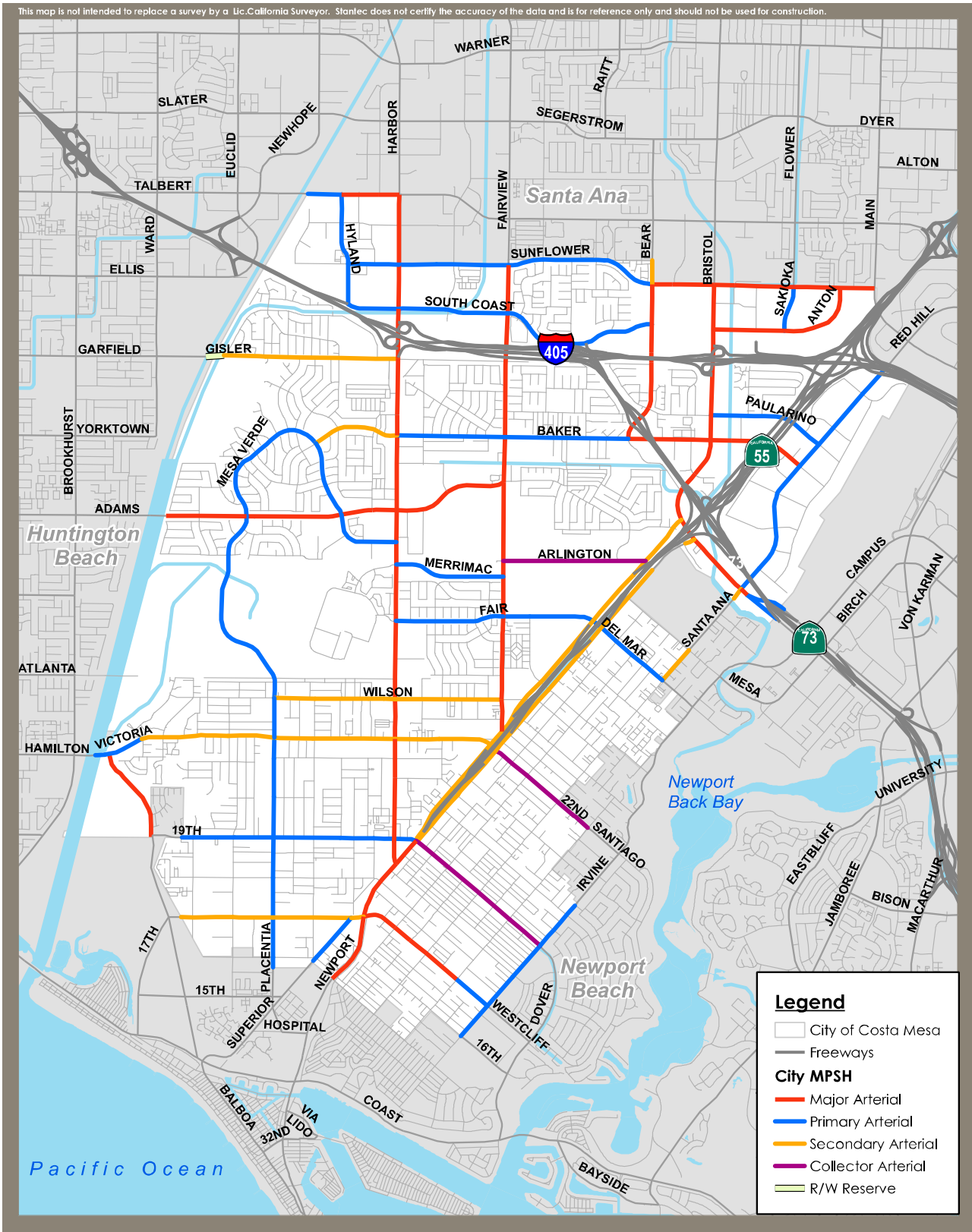
The Costa Mesa MPSH is shown in Figure C-2. Prior traffic studies and the General Plan analysis evaluated a number of potential modifications that are now either included in the MPSH or could be considered based on coordination with OCTA. Those modifications are discussed below.

Santa Ana River Crossings

A cooperative study was carried out by the cities of Costa Mesa, Newport Beach, Fountain Valley, and Huntington Beach and OCTA to support OCTA's amendment to the Orange County MPAH to downgrade the Gisler Avenue/Garfield Avenue crossing of the Santa Ana River to a "Right-of-Way Reserve" status and to delete the West 19th Street crossing of the Santa Ana River from the MPAH. To maintain consistency with the amended MPAH, the cities of Costa Mesa, Fountain Valley, and Huntington Beach have subsequently changed the designation of the Gisler Avenue/Garfield Avenue crossing to "Right-of-Way Reserve" status in their respective General Plan Circulation Element roadway systems, including the Costa Mesa MPSH presented here. The City of Huntington Beach has subsequently deleted the West 19th Street crossing from its General Plan circulation system. With this deletion, there is no possible connection for a vehicular bridge from Costa Mesa towards Huntington Beach. The Costa Mesa General Plan traffic study concluded that the future traffic demand in Costa Mesa can be adequately served without the West 19th Street crossing. Therefore, the West 19th Street crossing over the Santa Ana River has been deleted from the Costa Mesa MPSH.

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Map prepared by Stantec, Inc.



West 19th Street Downgrade

West 19th Street west of Placentia Avenue could be downgraded from a Primary Arterial to a Divided Collector Arterial on the MPSH, a downgrade that is supported by the results of the General Plan traffic study. This roadway is designated as a Primary Arterial on the Orange County MPAH. To maintain consistency with the MPAH, the City of Costa Mesa will initiate an MPAH amendment process with OCTA to downgrade this roadway to a Divided Collector Arterial.

West 17th Street Downgrade

West 17th Street west of Placentia Avenue could be downgraded from a Secondary Arterial to a Divided Collector Arterial on the MPSH, a downgrade that is supported by the results of the General Plan traffic study. This roadway is designated as a Secondary Arterial on the Orange County MPAH. To maintain consistency with the MPAH, the City of Costa Mesa will initiate an MPAH amendment process with OCTA to downgrade this roadway to a Divided Collector Arterial on the MPAH.

East 22nd Street Downgrade

East 22nd Street between northbound Newport Boulevard and Orange Avenue has been downgraded from a Secondary Arterial to a Collector Arterial on the MPSH. This downgrade is supported by earlier studies as well as the General Plan traffic study, and the Orange County MPAH has been amended by OCTA to incorporate this downgrade.

Baker Street Downgrade

Baker Street between Mesa Verde Drive East and Royal Palm Drive could be downgraded from a Secondary Arterial to a Collector Arterial on the MPSH, a downgrade that is supported by the results of the General Plan traffic study. This roadway is designated as a Secondary Arterial on the Orange County MPAH. To maintain consistency with the MPAH, Costa Mesa will initiate an MPAH amendment process with OCTA to downgrade this roadway to a Collector Arterial on the MPAH.

Bluff Road Deletion

The previous Costa Mesa MPSH included Bluff Road between Victoria Street and West 19th Street as a Major Arterial. The General Plan traffic study concluded that the future traffic demand in Costa Mesa can be adequately

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served without this roadway. Therefore, Bluff Road between Victoria Street and West 19th Street could be deleted from the MPSH. To maintain consistency with the MPAH, Costa Mesa will initiate an MPAH amendment process with OCTA to delete this roadway from the MPAH.

Balanced Approach to Complete Streets

The California Complete Streets Act (2008) places the planning, designing, and building of “Complete Streets” into the larger planning framework of the General Plan by requiring jurisdictions to plan for multimodal transportation networks. Complete Streets are designed and operated to enable safe access for all users, including pedestrians, bicyclists, the disabled, motorists, seniors, users of public transportation, and movers of commercial goods. These networks allow people to effectively travel to key destinations within their community and the larger region. In addition, all transportation projects should be evaluated as to their ability to improve safety, access, and mobility for all travelers and to recognize pedestrian, bicycle, and transit modes as integral elements of their transportation system.

Costa Mesa has already begun the work of reviewing the existing street network and looking for opportunities to improve alternative modes of transportation through the construction of bike paths, such as the Joann Street Bicycle Trail. The goals, objectives, and policies in this element continue the work of making enhancements to the transportation network to accommodate all modes of mobility.

Active Transportation

“Active transportation” refers to non-motorized travel modes such as walking, biking, or skateboarding. Because everyone uses a mode of active transportation at some point in a trip, such as walking to a bus stop or from a parking lot to work or school, active transportation is a critical component of a Complete Streets network. The Active Transportation Plan—divided in this element into a bicycle component and pedestrian component—responds to direct comments from residents for more active transportation facilities and increased connectivity throughout Costa Mesa and regional destinations.

Bicycle Master Plan

A transportation system that incorporates a well-designed bicycle network results in fewer motorized vehicle trips and miles of vehicle travel (and related pollutant emissions) while providing an option for healthful physical activity. Costa Mesa is committed to improving the bicycle experience with implementation of the comprehensive Bicycle Master Plan. The Conceptual Bicycle Master Plan is shown in Figure C-3. Following a detailed analysis and public review of the proposed facilities, a final Bicycle Master Plan will be incorporated into the Circulation Element. New bicycle facilities and amenities will be added to complement the established bicycle network.

Costa Mesa follows Caltrans' standards and recognizes four classes of bicycle facilities: Class I – Bike Paths or Bike Trails, Class II - Bike Lanes, Class III - Bike Routes (On-Street), and Class IV - Protected Bike Lanes. Figures C-4 and C-5 illustrate typical cross sections for each bicycle classification.

Class I: Off-Street Paved Bike Paths

This class provides a pathway exclusive to bicycles and other active transportation modes, with no motor vehicle use of the roadway. Costa Mesa has extensive Class I bike routes within and adjacent to the City boundaries. Examples of Class I trails include Joann Street Bicycle Trail, Harbor Boulevard Bicycle Trail, Victoria Street Bicycle Trail, Fairview Channel Trail, Santa Ana River Trail, Greenville-Banning Channel Bikeway, and Back Bay Trail.

Class II: On-Street Striped and Signed Bicycle Lanes

Most of the functional bicycle trips in Costa Mesa are on Class II bicycle lanes on many of the arterial and collector streets in the City. The lanes are striped and signed for exclusive use of bicycles and are located adjacent to curb. The lanes use existing rights-of-way and share roadways with motor vehicles. Class II can be found along Placentia Avenue, Newport Boulevard, Santa Ana Avenue, Fairview Road, and South Coast Drive.

Class III: On-Street Shared-Lane Signed Bicycle Routes

Similar to Class II bicycle lanes, Class III routes are multimodal but generally are located on low-traffic residential streets; they are identified as bikeways through signage only. On these routes, several short-distance "Bicycle Boulevards" are planned to connect the eastside and westside Class II bike lanes.

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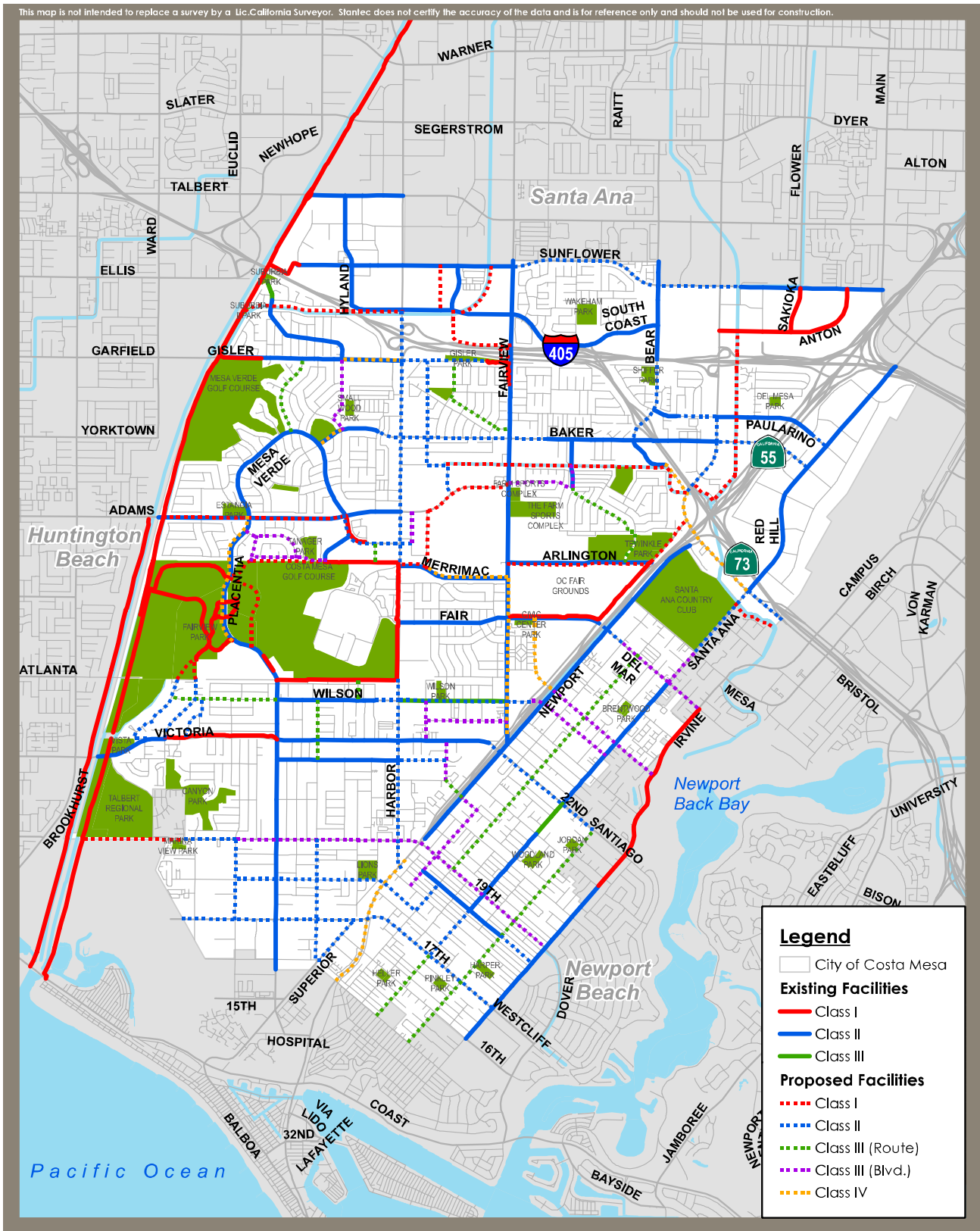
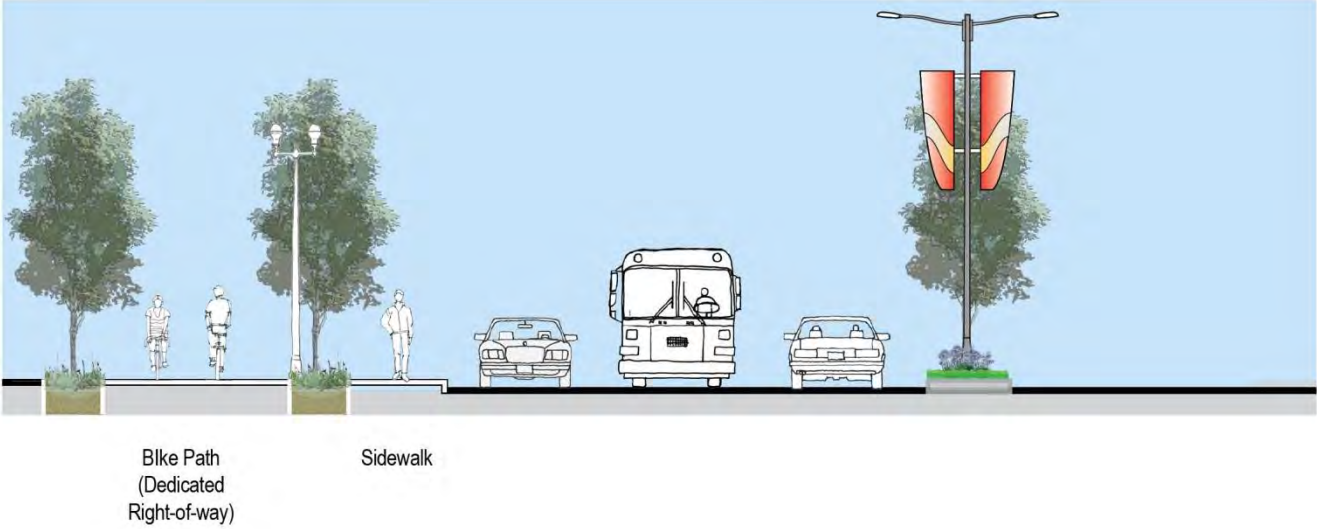
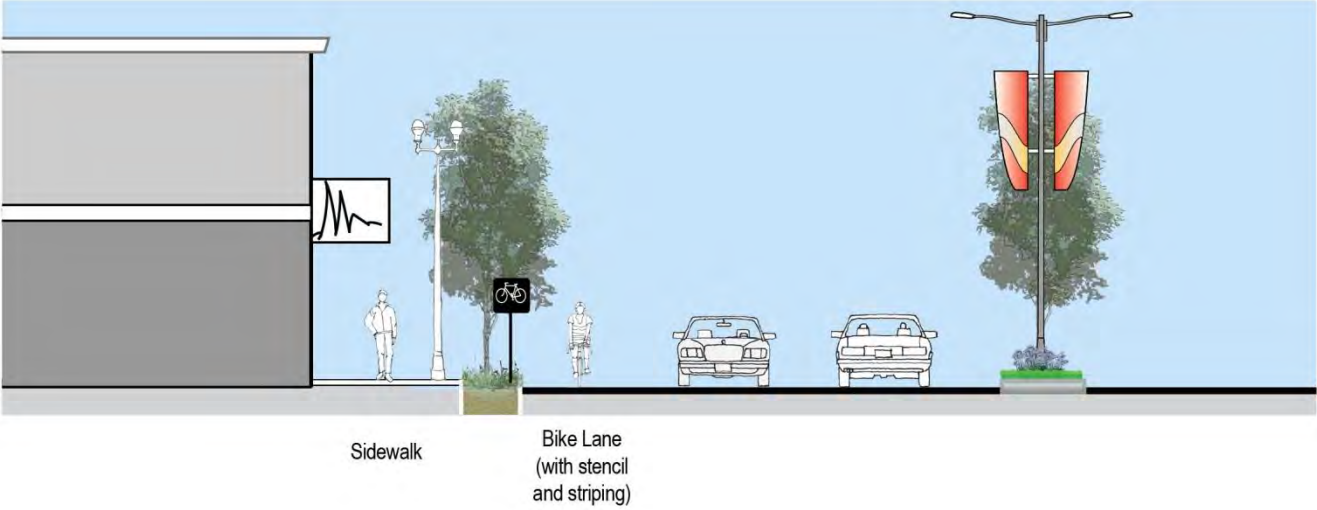


Figure C-3: Conceptual Bicycle Master Plan

Class I: Off-Street Paved Bike Paths



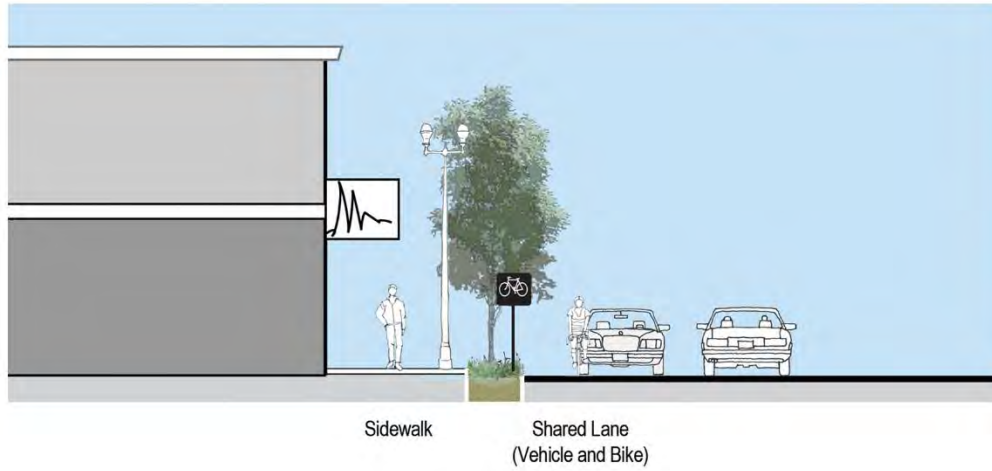
Class II: On-Street Striped and Signed Bicycle Lanes



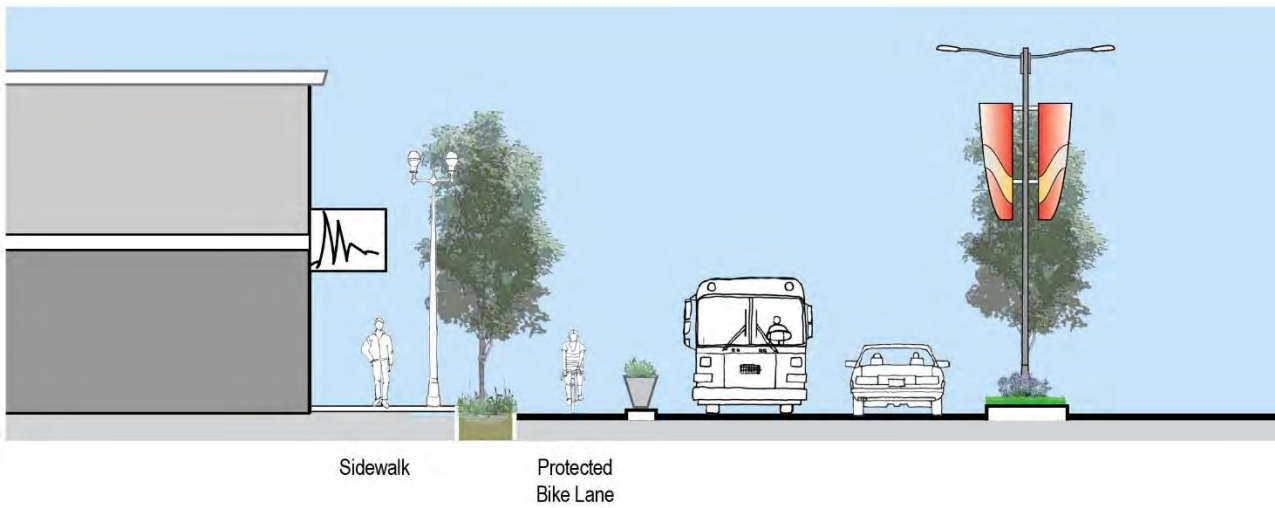
**Figure C-4: Bike Cross Sections
Class I and Class II**

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Class III: On-Street Shared-Lane Signed Bicycle Routes



Class IV: Protected Bike Lanes (Cycle Tracks), an On-Street and Separated Bike Lane



**Figure C-5: Bike Cross Sections
Class III and Class IV**

Bicycle Boulevards are achieved mostly through signage, pavement markings, landscaping, and other vehicular traffic-calming measures to optimize bicycle travel. They never require widening of streets or removal of curb parking. Santa Ana Avenue between 22nd Street and 21st Street is a Class III bicycle facility.

Class IV: Protected Bike Lanes (Cycle Tracks) - On-Street and Separated Bike Lanes

A cycle track is marked out by a separate bike lane, or multidirectional bike lane, that protects it from other traffic—vehicular, transit, and pedestrian—by a physical barrier such as a curb, planters, or parked cars. Cycle tracks can be configured either for one-way travel (with a lane on each side of the street) or for two-way travel (with each lane on one side of the street). The lane is for exclusive use by bicycles.

Physical separation can also be vertical, with the bike lane raised above ground (i.e., bicycle freeway). When cycle tracks are built, they tend to attract even more bicycle riders, as they are perceived to be safer. In this manner, cycle tracks can increase cycling as a share of the overall mode of travel and address roadway safety by minimizing collisions between vehicles and cyclists. No Class IV facilities are currently located in Costa Mesa.

Framework Bicycle Facilities

The Conceptual Bicycle Master Plan builds upon long-established bicycle assets in Costa Mesa, including the Santa Ana River Bicycle Trail, Greenville-Banning Channel Bikeway, Joann Street Bicycle Trail, and Victoria Street Bicycle Trail.

Santa Ana River Bicycle Trail and Banning Channel Bikeway

The Santa Ana River Trail is a dedicated bike path along the banks of the Santa Ana River. As a segment of the OC Loop, the Santa Ana River Trail provides bicycle access to Orange County beaches, as well as to Fairview Park, Talbert Nature Preserve, and Talbert Regional Park. A bridge over the Santa Ana River near Fairview Park and Talbert Nature Preserve provides pedestrian and bicycle access to both sides of the Santa Ana River Trail and the Banning Channel Bikeway.

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The Greenville-Banning Channel Bikeway is located on the eastern bank of the Santa Ana River and merges into the Santa Ana River Trail just south of Adams Avenue.

Joann Street Bike Trail

The Joann Street Bike Trail is a Class I bike path located along the southern edge of the Costa Mesa Golf Course and the western side of Harbor Boulevard. The trail connects Placentia Avenue and Tanager Drive.

Victoria Street Bike Trail

The Victoria Street Bike Trail is a Class I bike path located along the northern side of Victoria Street, between Canyon Drive and Placentia Avenue.

Bicycle Infrastructure to Increase Bicycling

This Circulation Element recognizes that a complete bicycle network must include infrastructure improvements and amenities for bicyclists that add comfort and convenience for commuters and recreational bicyclists.

Recommendations to implement Safe Routes to School programs, provide bike lockers, require new developments to provide adequate bicycle parking, and implement a bicycle sharing system will all contribute to the infrastructure needed to complete Costa Mesa's planned comprehensive bicycle network.



The Joann Street Bicycle Trail along the southern boundary of the Costa Mesa Golf Course.



Bike racks: from the simple to the artistic to the whimsical. They all serve the same intended purpose.

Bicycle Parking Facilities

Safe and convenient bike parking is an essential component of a comprehensive bicycle network. Bike racks are required to be provided in most new development projects. However, larger bicycle parking facilities should be located at schools and colleges, major activity centers and venues, parks and community centers, office complexes, and major shopping centers. Examples of bicycle parking facilities can include:

- **Bike racks, lockers, and shelters.** A bicycle rack is a device to which bicycles can be securely attached for parking purposes. A bike rack may be attached to the ground or some stationary object such as a building. A bicycle locker is a box in which a single bicycle can be placed and locked in. They are usually provided at places where numerous cyclists need bike parking for extended times, yet where the bikes might otherwise get damaged or stolen. Bicycle shelters typically include bike racks that are covered by a permanent structure to protect against the elements.
- **Secure bicycle parking areas.** Secure bicycle parking areas are enclosures for storing bicycles. They are commonly located in larger residential complexes or at colleges. They typically include 24-hour controlled access to limit bicycle theft and vandalism.
- **Attended bicycle stations.** Bike stations provide indoor bike parking served by an attendant. Stations can include various services, including valet parking, day-use lockers, self-repair stations, bike rentals, professional bike repair, classes, and events.

Bicycle Boulevards

Bicycle boulevards are low-traffic streets that have been optimized for use by cyclists. A variety of traffic-calming elements and signage are used to reduce car volumes and speeds, thus fostering a safe bicycling environment. Bicycle boulevards often include features that allow cyclists to travel farther without stop controls or intersection treatments that allow cyclists to continue through intersections, while cars are forced to turn. Bike boulevards often make use of “sharrows”— shared-lane markings—that communicate the presence of bicyclists to drivers.

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Colored Bicycle Lanes and Boxes

Bike boxes, painted at intersections, allow cyclists to move in front of the travel lane in order to be more visible to cars and avoid turning conflicts. Bicycle lanes are another technique to provide dedicated space in the street for cyclists and to increase driver awareness to the presence of cyclists. Increasingly, cities are using colored pavement treatments to designate bike lanes, either by coloring the beginning of the lane or the entire lane.



Example of a painted bicycle box at an intersection

Bicycle Programs

Developing a healthy bicycling environment and culture is an important part of supporting good bicycle access. Building a strong and lasting bicycling constituency requires a multifaceted approach that provides required infrastructure and makes cyclists feel they are part of a broad and growing community.

Safety Campaigns

Bicycle safety campaigns and programs are critical to creating a bicycle-friendly culture. Safe travels by bicyclists can be actively integrated into traffic safety programs such as training law enforcement officers on bicyclists' rights and responsibilities, promoting efficient reporting mechanisms for behaviors that endanger bicyclists, employing traffic safety officers to educate, and correcting bicyclists' traffic violations.

Celebrating Bicycling

Programs and activities can stimulate community spirit toward cycling, such as events that celebrate those who ride or allow families to ride safely together. Common events include organized and supported rides, where local streets

are closed to cars and cyclists are free to ride; bike commute month (or week), where local companies can compete for the highest cycling rates; or events that showcase numerous types of cycling. All these events can help to build a cycling culture.

An example of a cyclovía in Southern California



Accommodating Pedestrians

Walkability, access, and connections are essential components of a circulation system that accommodates pedestrians. Walkability includes design features such as wide sidewalks, safe street crossings, treatments that encourage cautious driving, and comfortable and safe walking environments. Comfortable sidewalks, well-designed pedestrian crossings, pathways, and pedestrian shortcuts allow people to get from one destination point to another with ease.

The City supports the integration of pedestrian-oriented improvements and amenities within the circulation system to improve walkability. Figure C-6 identifies the primary pedestrian districts in Costa Mesa that will receive focused attention.

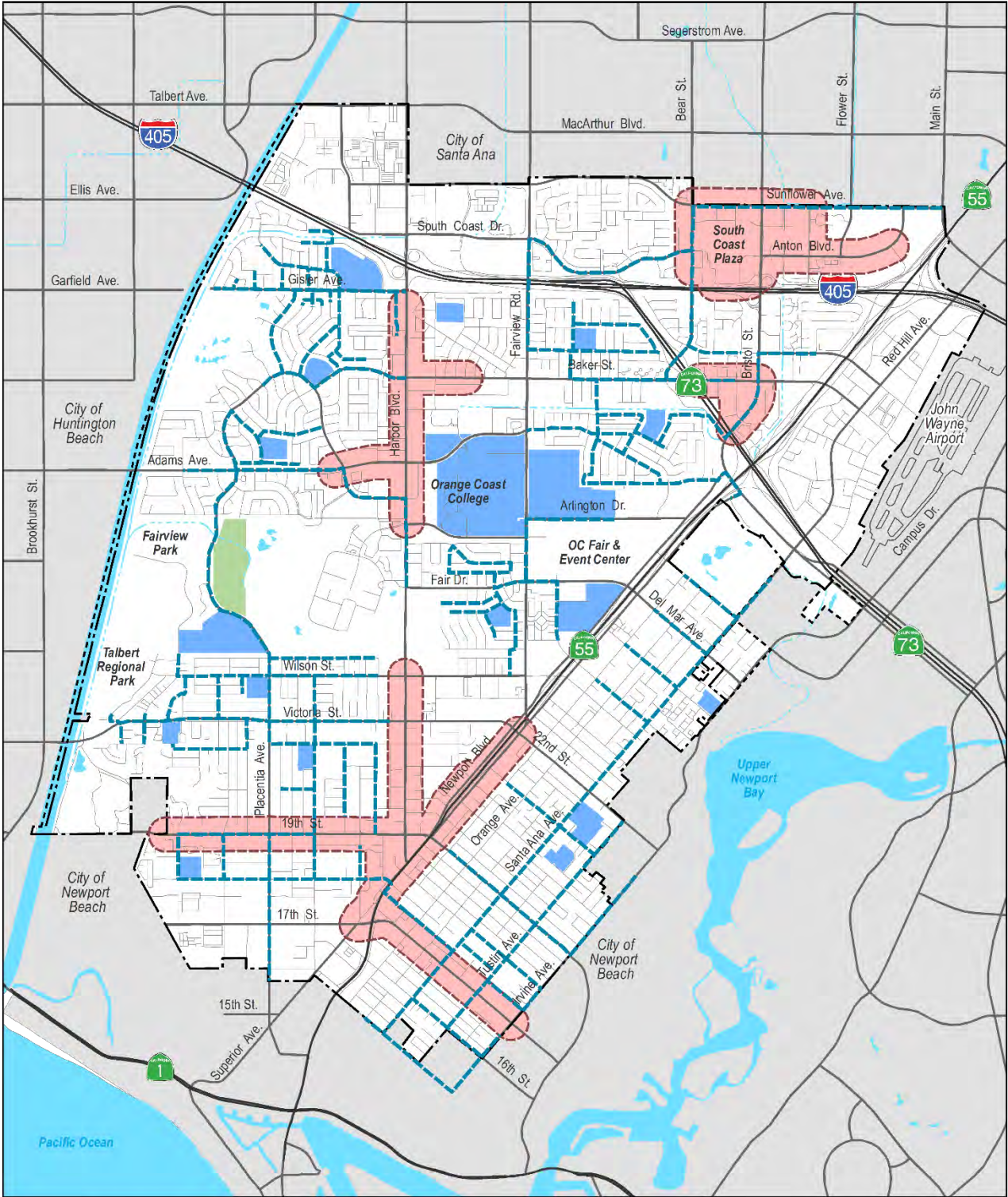
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Example of pedestrian-friendly streets with wide sidewalks, street furniture, and lighting that illuminates the sidewalk

Sidewalks and Sidewalk Zones

Sidewalks are not merely places for pedestrians to move about. As public spaces, sidewalks serve as the front steps to the City, activating streets socially and economically. Safe, accessible, and well-maintained sidewalks can enhance general public health and create vibrant social settings. In districts with heavy pedestrian activity—such as in the Westside, SoBECA and South Coast Plaza/Orange County Performing Arts districts—sidewalks should have several zones that accommodate pedestrians. The zones should include a frontage zone, pedestrian-through zone, street furniture zone, and enhancement/buffer zone. Figure C-7: *Sidewalk Zones*, provides an example.



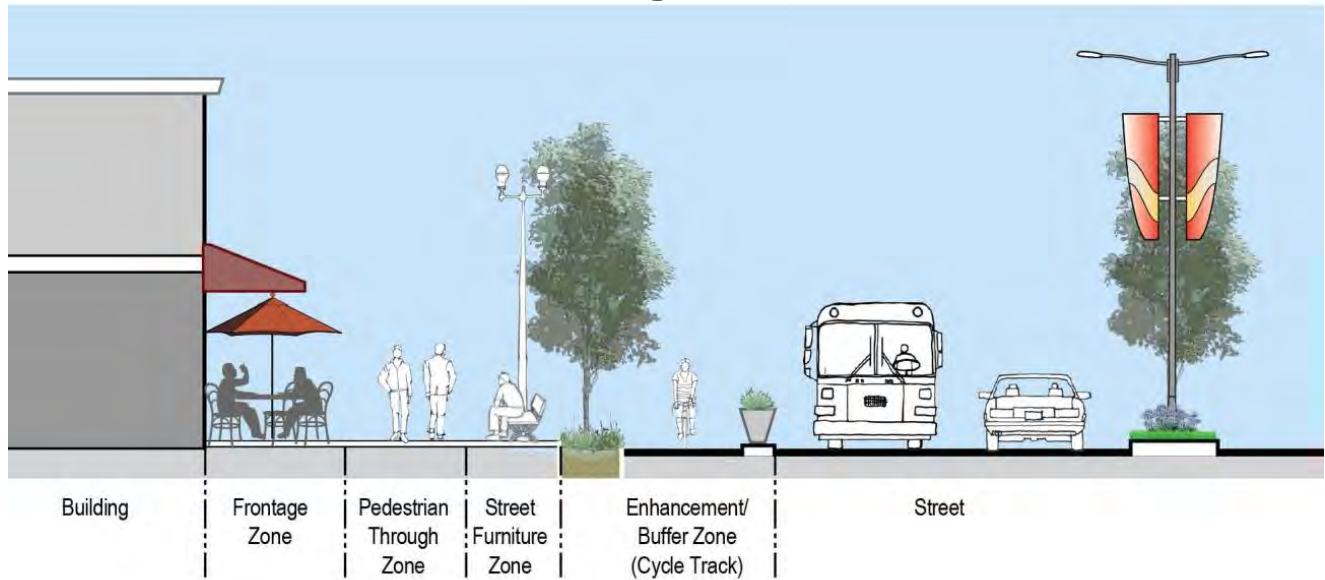
- Pedestrian Priority Areas**
- Pedestrian Priority Areas
- Suggested Route to School
- Parks and Schools**
- Parks and Open Spaces
- <all other values>
- Schools and Colleges

- City Boundaries**
- City Boundary
- Sphere of Influence

Source: City of Costa Mesa, 2015.

Figure C-6: Pedestrian Opportunity Zones

Figure C-7: Sidewalk Zones



Frontage Zone

The frontage zone is that section of the sidewalk that functions as an extension of the building, whether through entryways and doors or sidewalk cafes and sandwich boards. The frontage zone consists of both the structure and the façade of the building fronting the street, as well as the space immediately adjacent to the building.

Street Furniture Zone

The street furniture zone is defined as the section of the sidewalk between the curb and the pedestrian through zone in which street furniture and amenities, such as lighting, benches, newspaper kiosks, utility poles, tree wells, and bicycle parking are provided.

Pedestrian through Zone

The pedestrian through zone is the primary accessible pathway that runs parallel to the street. The through zone ensures that pedestrians have a safe and adequate place to walk and should be five to seven feet wide in residential settings and eight to 12 feet wide in downtown or commercial areas.

Enhancement/Buffer Zone

The enhancement/buffer zone is the space immediately next to the sidewalk that may consist of a variety of different elements. These include curb extensions, parklets, stormwater management features (e.g, bioswales), parking, bike racks, bike share stations, and curbside bike lanes or cycle tracks.

Crosswalks and Markings

Properly designed, marked, and signed crossings improve motorist courtesy toward pedestrians. The City supports the provision of marked crosswalks at protected (signalized or stop-controlled) intersections if their presence minimizes pedestrian-auto conflicts. The City has prioritized improving intersections near schools to create pedestrian-friendly environments under the suggested Safe Routes to School program. Figure C-6: *Pedestrian Opportunity Zones*, identifies areas where the City will pursue street enhancements to create pedestrian-friendly environments. Table C-2: *Street and Intersection for Pedestrian Safety*, outlines the types of design improvements that create safer streets and intersections for pedestrians.

Table C-2: Street and Intersection Improvements for Pedestrian Safety

Design Improvements	Supplemental Design Improvements
<ul style="list-style-type: none"> ▪ Traffic Signal ▪ Stop Sign ▪ High-Visibility Crosswalks ▪ Mid-Block Crosswalks ▪ Pedestrian Refuge Islands 	<ul style="list-style-type: none"> ▪ Advance Stop and Yield Lines ▪ Flashing Lights and Beacons ▪ Special Intersection Paving ▪ Raised Crosswalk and Intersections ▪ RRFB and HAWKS

HAWK – High Intensity Activated Crosswalk is a pedestrian hybrid beacon that is used at busy crosswalks. The beacon is activated to solid red followed by flashing red when the pedestrian button is pushed.

RRFB – Rectangular Rapid Flash Beacons are used at mid-block pedestrian crossings to increase driver awareness of potential pedestrian conflicts. They use irregular flash patterns when activated by pedestrians to get driver attention.

Costa Mesa has approved several projects under its Capital Improvement Programs that invest in all neighborhoods with proven methods to enhance pedestrian safety, including:

- Implementation of traffic-calming devices
- Illuminated crosswalks
- New landscaped parkways and medians to both address pedestrian-orientation and provide effective visual cue to slow traffic
- Completion of sidewalks and curbs

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- Extensive traffic signal synchronization

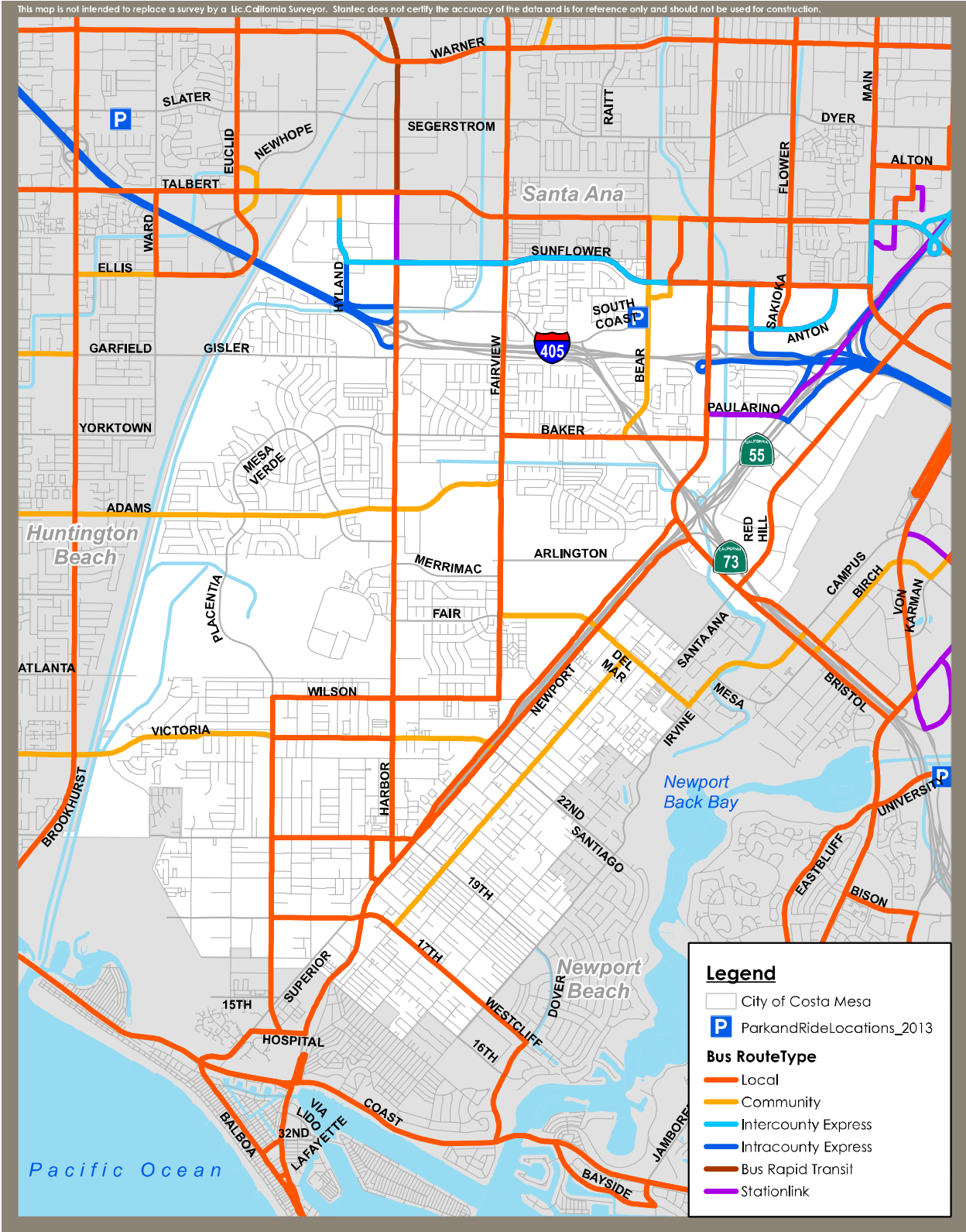
Transit Services

Transit services—which includes buses, trains, commuter shuttles, paratransit, and emerging forms of multi-passenger transport—offer a mobility alternative for residents, employees, students, and visitors who either do not have access to, or prefer not to use, a car. OCTA provides local bus and paratransit services within Orange County, with several routes in Costa Mesa.

One of the primary goals of this element is to make transit use a more viable option for both work and non-work trips. Accomplishing this goal will require an improved transit system capable of providing faster and more frequent trips while maintaining safe, clean, and dependable service. As OCTA and the City continue to enhance public transit, the City will also prioritize these activities, particularly when it comes to improvements and investments made in street design and land uses that take into account transit transportation. Figure C-8 identifies Transit Corridors in Costa Mesa that will receive focused transit improvement attention. Transit Corridors feature improvements such as enhanced signal coordination, transit amenities, bicycle accommodations, and an improved pedestrian experience.

Limited-Stop Bus Service: Bravo!

A limited-stop bus service route is a service that stops less frequently than local service. OCTA operates Bravo!, a limited-stop bus route (Route 543) along Harbor Boulevard, with buses making stops every 10 to 15 minutes. Bravo! extends from the Fullerton Transportation Center through Anaheim, Garden Grove and Santa Ana, ending at MacArthur Boulevard at the Costa Mesa city limit.



Source: Stantec, Inc.

Figure C-8: Transit Corridors
 Costa Mesa General Plan | C-29



Paratransit

Through OCTA's Senior Mobility Program and ACCESS, the City supports discounted bus fares to seniors and flexible paratransit shuttles. ACCESS is OCTA's shared-ride service for people who are unable to use the regular fixed-route bus service because of functional limitations caused by a disability. OCTA's Senior Mobility Program is designed to fill the gap between local fixed-route buses and ADA paratransit by providing local transportation services to seniors.

Improving Vehicular Travel

Traffic congestion impacts many of Costa Mesa's roadways. This results in driver frustration, added pollution from idling vehicles, and residents constrained as they try to get to work, school, and other local destinations. Costa Mesa is committed to improving local traffic conditions both to address the harmful effects of congestion and to support of the Orange County Congestion Management Plan (CMP) goals of:

1. Achieving regional mobility and air quality objectives
2. Providing a mechanism for coordinating land use and development decisions that support the regional economy
3. Determining gas tax fund eligibility

In 2013, Senate Bill 743, a law that introduced Vehicle Miles Traveled (VMT) as the replacement to Level of Service (LOS) as the primary metric of

transportation system performance. The law requires that the new metric be used when analyzing the impacts of a project under the California Environmental Quality Act (CEQA) and will go into effect in 2017 when new CEQA guidelines are adopted.

While the law specifies that VMT will be the baseline metric for future CEQA analysis, it allows the local agencies to continue using LOS for purposes of long-term transportation planning. Consistent with current State law, Costa Mesa continues to use LOS as the performance metric for land use and circulation planning, although the City supports policies that would reduce VMTs primarily through the implementation of a transportation demand management and the active transportation and transit strategies. Overall, the City's goal is to prevent the deterioration of LOS at key intersections within the City. The City will pursue a broad array of projects that will help maintain and improve of LOS for vehicular travel.

Concurrent with the project-specific transportation system LOS improvements, the City will:

- Complete and annually maintain a needs assessment for traffic service levels and traffic safety
- Develop and annually update a priority list of improvement projects
- Regularly assess peak-hour traffic volumes at critical intersections
- Minimize circulation improvements that will necessitate the taking of developed private property
- Pursue programs that reduce vehicle speeds and cut-through traffic on local streets
- Develop a program to regularly evaluate traffic collision data

Transportation Demand Management

Transportation Demand Management, or TDM, is a general term for strategies that promote the efficient use of transportation systems without adding physical capacity (additional lanes or widening) on the roadway system. TDM strategies can help address a variety of traffic problems and provide secondary economic, social, and environmental benefits. When all are considered, TDM strategies are often the most cost-effective way to improve transportation. Examples of TDM include:

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- Telecommuting
- Bike/Transit Integration
- Carpool/Vanpool
- Pedestrian Facility Improvements
- Transit Improvements/Transit Pass Subsidy
- Encouraging Walking and Cycling
- Parking Management and Pricing
- Bicycle Parking/Facilities
- Alternative Work Schedules
- Flexible Work Hours

To implement these strategies and support regional air quality objectives, the City has adopted a Transportation Demand Management Ordinance. The City will continue to work with major employers to implement TDM strategies.

Neighborhood Traffic Management

Managing traffic in neighborhoods that are most affected by congestion and cars traveling at unsafe speeds requires the multiple-prong approach that Costa Mesa has practiced for many years, such as installing traffic-calming infrastructure, reclassifying minor streets, and deploying Intelligent Transportation Systems (ITS). The added strategy of implementing Complete Streets plans will augment past and ongoing efforts to protect residential neighborhoods from the ill effects of cut-through traffic.

Goals, Objectives, and Policies

The following goals, objectives, and policies work in concert with those in the Land Use Element.

Goal C-1: Implement “Complete Streets” Policies on Roadways in Costa Mesa

Plan, develop, and implement a comprehensive transportation system that serves all users and modes of travel.

Objective C-1A: *Create a transportation network that meets the mobility needs of all Costa Mesa residents, businesses, and visitors.*

Policy C-1.1: Update the City’s engineering standards for public and private streets to provide for safe, comfortable, and attractive access and travel for pedestrians, bicyclists, motorists, and transit users of all ages, abilities, and modes of travel.

Policy C-1.2: Allow for flexible use of public rights-of-way to accommodate all users of the street system while maintaining safety standards.

Policy C-1.3: Complete and annually maintain a needs assessment for traffic service levels and traffic safety. Develop and annually update a priority list of improvement projects, with priorities based on: 1) correcting identified hazards; 2) accommodating multimodal trips; 3) improving and/or maintaining peak-hour traffic volumes at critical intersections; 4) improving efficiency of existing infrastructure utilization; and 5) intergovernmental coordination.

Policy C-1.4: Pursue downgrade of arterials that no longer have the demand requiring their buildout to planned capacity.

Policy C-1.5: Implement road diets on street segments with excess capacity to enhance bicycle and pedestrian facilities.

Policy C-1.6: Encourage the conversion of excess on-street parking spaces for expanded sidewalk gathering places or landscaping.

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Policy C-1.7: Encourage community participation in City processes and programs focused on improving mobility and transportation facilities.

Policy C-1.8: Pursue downgrade of 17th Street from 6-lane Major Arterial to 4-lane Primary Arterial between Orange Ave and Tustin Avenue, through Master Plan of Arterial Highways (MPAH) Amendment process with the Orange County Transportation Authority.

Objective C-1B: *Preserve the character of our residential neighborhoods.*

Policy C-1.9: Implement traffic calming measures that discourage speeding and cut-through traffic on residential streets.

Policy C-1.10: Encourage non-motorized transportation in residential areas by providing sidewalks and implementing bicycle friendly design of local streets.

Policy C-1.11: Reduce or eliminate intrusion of traffic related to non-residential development on local streets in residential neighborhoods.

Policy C-1.12: Prioritize intersection improvements which improve through traffic flow on Major, Primary, and Secondary Arterials, and reduce impacts on local neighborhood streets with emphasis on pedestrian safety.

Policy C-1.13: Promote engineering improvements such as physical measures constructed to lower speeds, improve safety, and otherwise reduce the impacts of motor vehicles.

Policy C-1.14: Design and Implement transportation projects to meet local and regional system capacity needs in accordance with the Master Plan of Streets and Highways.

Policy C-1.15: Implement neighborhood approved traffic-calming measures in residential neighborhoods and appropriate commercial areas, such as street narrowing, curb extensions, roundabouts, landscaped medians, and radar speed feedback signs.

Policy C-1.16: Establish priority-ranking system to evaluate traffic-calming requests for implementation throughout the City.

Policy C-1.17: Pursue programs that reduce vehicle speeds and cut-through traffic on local streets.

Goal C-2: Effectively Manage and Improve the Roadway System

Develop and maintain a robust and efficient vehicular circulation network.

Objective C-2A: *Implement policies that encourage and accommodate all users while maintaining the efficiency of the circulation system.*

Policy C-2.1: Establish a citywide crosswalk policy to address installation, maintenance, removal, and enhancements of crosswalks at intersections and mid-block locations. Crosswalk locations and treatment will be based on criteria including, but not limited to safety, traffic volume, and concentration of pedestrian activity. Potential enhancements may include leading pedestrian intervals at signalized intersections, bulb-outs, and median refuges to reduce crossing distances.

Policy C-2.2: Avoid creation of frequent driveways for new development access in active pedestrian areas that create conflict points between pedestrians and vehicles.

Policy C-2.3: Encourage commercial property owners to use shared driveway access and interconnected roads within blocks, where feasible. Require driveway access closures or consolidations, or both when a site is remodeled or redeveloped.

Policy C-2.4: Collaborate with law enforcement and public safety organizations to coordinate policies and programs that would reduce injuries and deaths on the roadways.

Policy C-2.5: Designate routes for truck traffic to minimize potential conflicts between trucks and cars, pedestrians, bicycles, transit, and vehicle access and circulation. Establish by ordinance a truck map that depicts allowable truck routes within the City.

Policy C-2.6: Periodically review and update traffic signal timing at all signalized intersections to maintain traffic signal

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coordination and to accommodate bicycle and pedestrian needs.

Policy C-2.7: Develop new traffic level of services criteria in accordance with SB 743 to meet the California Environmental Quality Act (CEQA).

Policy C-2.8: Continue the use of the Intersection Capacity Utilization (ICU) methodology to address local traffic level of service and impacts, with Level of Service “D” as the threshold for meeting the City’s significance criteria.

Objective C-2B: *Construct street improvements and apply congestion management tools to obtain efficient performance of the transportation system.*

Policy C-2.9: Incorporate the street system improvements identified in the General Plan Environmental Impact Report (EIR) into the Capital Improvement Program.

Policy C-2.10: Continue to deploy intelligent transportation systems (ITS) strategies—such as adaptive signal controls, fiber optic communication equipment, closed circuit television cameras, real-time transit information, and real-time parking availability information—to reduce traffic delays, lower greenhouse gas emissions, improve travel times, and enhance safety for drivers, pedestrians, and cyclists.

Policy C-2.11: Investigate all operational measures, including the use of one-way streets, to improve traffic circulation and to minimize congestion for all travel modes.

Policy C-2.12: Investigate and utilize state-of-the-art transportation system management technology and industry practices to address recurring and non-recurring traffic events (i.e., special events, incident/emergency management).

Policy C-2.13: Continue to evaluate and pursue design and operational improvements (medians, driveway closures, signal synchronization or phasing, parking or turn restrictions, etc.) to improve the efficiency of intersections.

Goal C-3: Enhance Regional Mobility and Coordination

Encourage development of a regional transportation network that addresses regional mobility needs for all modes of travel.

Objective C-3A: *Promote development of transportation projects along regional corridors.*

Policy C-3.1: Maintain compliance with Orange County Congestion Management Plan (CMP) requirements, including consistency with CMP level of service standards, adoption of a seven-year capital improvement program, analysis of impacts of land use decisions on the CMP highway system, and adoption and implementation of deficiency plans when intersections do not meet adopted performance standards.

Policy C-3.2: Support the goals and objectives of the Orange County Long Range Transportation Plan, including expansion of transportation system choices, improvement of transportation system performance, and sustainability of transportation infrastructure.

Policy C-3.3: Support the goals and objectives of the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), including expansion of transportation system choices, improvement of transportation system performance, and sustainability of transportation infrastructure.

Policy C-3.4: Coordinate signal timing on all major arterials with a local signal synchronization program consistent with the Orange County Traffic Signal Synchronization Master Plan (TSSMP).

Policy C-3.5: Ensure Costa Mesa's input, participation, and discretionary review of applicable region-wide transportation system policies, programs, and construction.

Policy C-3.6: Develop short-term and long-term improvements to the SR-55 corridor in coordination with Caltrans and OCTA to address regional mobility needs.

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- Policy C-3.7:** Promote the City’s preferred alternative of undergrounding the SR-55 freeway south of 19th Street within the City limits.
- Objective C-3B:** *Coordinate and partner with local and regional agencies to promote projects and policies that improve regional mobility.*
- Policy C-3.8:** Coordinate with adjacent jurisdictions to maintain or improve mobility within the City to achieve a standard Level of Service no worse than “D” at all intersections under State or joint control. Intersection Level of Service analyses for General Plan conditions for locations under State or joint control will be updated periodically and presented to the City Council.
- Policy C-3.9:** Consult with Caltrans and OCTA regarding the I-405 widening project to minimize adverse impacts to Costa Mesa’s neighborhoods, businesses, and streets.
- Policy C-3.10:** Coordinate with OCTA and other jurisdictions to remove Gisler Avenue Bridge over the Santa Ana River from the City’s Master Plan of Streets and Highways and County’s Master Plan of Arterial Highways.
- Policy C-3.11:** Collaborate with Caltrans and neighboring jurisdiction to improve signal timing and coordination along major arterials across jurisdictional boundaries.
- Policy C-3.12:** Work closely with the State of California and other government agencies to control traffic-related impacts of uses on State- or other agency-owned land (i.e., Orange County Fairgrounds, Orange Coast College, etc.).
- Policy C-3.13:** Coordinate with other responsible agencies the planning, funding, prioritization, and implementation of bicycle, pedestrian, and transit programs and supporting infrastructure.

Goal C-4: Promote Transportation Demand Management, Transit, and Efficiency

Utilize Transportation Demand Management strategies to manage demand and maximize available capacity.

Objective C-4A: *Encourage greater utilization of Transportation Demand Management (TDM) strategies to reduce dependence on single-occupancy vehicles.*

Policy C-4.1: Support South Coast Air Quality Management District (SCAQMD) trip reduction programs, including park and ride lots, transit subsidies, carpool and vanpool programs, flexible working hours, bicycle facilities, and other traffic reduction strategies.

Policy C-4.2: Support local and multi-jurisdictional car-sharing and bike-sharing programs.

Policy C-4.3: Consider implementing park-once approaches for multiuse districts and regional destinations areas.

Policy C-4.4: Embrace innovative parking solutions that reduce the required spaced needed for parking, such as automated parking lifts and elevators.

Policy C-4.5: Encourage and provide incentives for commercial, office, and industrial development to provide preferred parking for carpools, vanpools, electric vehicles, and flex cars.

Policy C-4.6: Encourage and support programs that increase vehicle occupancy, including the provision of traveler information, shuttles, preferential parking for carpools/vanpools, transit pass subsidies, and other methods.

Policy C-4.7: Promote the combination of TDM measures as much more effective than any single measure.

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Policy C-4.8: Require discussion of transportation system management (TSM) and TDM measures in all EIRs prepared for major projects.

Policy C-4.9: Encourage the integration of compatible land uses and housing into major development projects to reduce vehicle use.

Policy C-4.10: Allow the application of transportation management rideshare programs, integration of complementary land uses, and other methods to reduce project related average daily and peak hour vehicle trips to achieve consistency with allocated trip budgets.

Objective C-4B: *Promote regional and local transit services as an alternative to automobile travel.*

Policy C-4.11: Ensure that roadways designated as transit routes can accommodate transit vehicle circulation and convenient pedestrian access to and from transit stops.

Policy C-4.12: Review all capital improvement projects to ensure improvements located on existing and planned transit routes include modification of street, curb, and sidewalk configurations to allow for easier and more efficient transit operations and improved passenger access.

Policy C-4.13: Provide transit stop amenities that facilitate access to and from transit stops and transfer locations. These may include pedestrian pathways approaching stops, high-quality benches and shelters, traveler information systems (real-time transit arrival information), and bike storage and bicycle connections. Bus stops should accommodate timed transfers between buses and other transit services where necessary.

Policy C-4.14: Encourage new development along major transit corridors to provide efficient and safe access to transit stops and public sidewalks.

- Policy C-4.15:** Support and participate with OCTA ACCESS Service in providing transportation assistance to senior citizens and the disabled.
- Policy C-4.16:** Consult with OCTA for transit services, such as changes to bus routes, bus stops, and hours of operation. Additionally, coordinate with OCTA for changes to transit services provided for seniors, the disabled, and transit dependent populations.
- Policy C-4.17:** Consult with the Newport-Mesa Unified School District to maintain school bus services provided for local schoolchildren.
- Policy C-4.18:** Coordinate with OCTA to improve transit services in the City, including strategies such as bus rapid transit, express services, community circulators, and other strategies.
- Policy C-4.19:** Encourage new local transit programs in coordination with OCTA, consisting of shuttle services to local and regional destinations.
- Policy C-4.20:** Coordinate with OCTA to construct bus turnouts at appropriate locations, with attractive shelters designed for safe and comfortable use.
- Policy C-4.21:** Require discussion of transit service needs and site design amenities for transit ridership in EIR for major projects.

Goal C-5: Ensure Coordination between the Land Use and Circulation Systems

Facilitate close coordination between development of land use and circulation system.

Objective C-5A: *Coordinate land use policies and development activities that support a sustainable transportation system.*

Policy C-5.1: Ensure that new development projects are consistent with the vehicular trip budgets, where adopted.

C i r c u l a t i o n E l e m e n t

- Policy C-5.2:** Require that large developments and redevelopments provide short-term and long-term vehicular traffic impact studies.
- Policy C-5.3:** Encourage permitted General Plan land uses which generate high traffic volumes to be located near major transit and transportation corridors to minimize vehicle use, congestion, and delay.
- Policy C-5.4:** Maintain balance between land use and circulation systems by phasing new developments to levels that can be accommodated by roadways existing or planned to exist at the time of completion of each phase of the project.
- Policy C-5.5:** Promote development of mixed-use projects to reduce number of vehicle trips.
- Policy C-5.6:** Coordinate the design and improvement of pedestrian and bicycle ways in major residential, shopping and employment centers, parks, schools, other public facilities, public transportation facilities, and bicycle networks with adjacent cities.
- Policy C-5.7:** Require dedication of right-of-way, in an equitable manner, for development that increases the intensity of land use.
- Policy C-5.8:** Minimize circulation improvements that will necessitate the taking of private property on existing developed properties.
- Policy C-5.9:** Require that circulation necessary to provide or attain the minimum traffic level of service standard at an intersection to which a development project contributes measureable traffic be completed within three years of issuance of the first building permit for such development project, unless additional right-of-way or coordination with other government agencies is required to complete the improvement. Improvements may be required sooner if, because of extraordinary traffic generation characteristics of the project or extraordinary impacts to the surrounding circulation system, such improvements are necessary to prevent significant adverse impacts.

- Policy C-5.10:** Allow for construction of circulation improvements for a phased development project to be constructed commensurate with the project construction, based upon the findings of a traffic study approved by the City of Costa Mesa.
- Policy C-5.11:** Maintain balance between land use and circulation systems by phasing new development to levels that can be accommodated by roadways existing or planned to exist at the time of completion of each phase of the project.
- Policy C-5.12:** Support consistency with the Orange County *Sustainable Communities Strategy* (OC SCS) and SCAG RTP/SCS by providing an integrated land use and transportation plan to meet mandated emissions reduction targets consistent with SB 375.
- Objective C-5B:** *Establish strategies and processes that allow large developments to analyze and mitigate traffic impacts and infrastructure needs.*
- Policy C-5.13:** Require that new development projects improve access to and accommodations for multimodal transportation.
- Policy C-5.14:** Require developers of new building and redevelopment/reuse projects as part of the project development review process that are located along bus routes to pay a designated fair share of the cost of providing improved bus stop facilities and related street furniture or, where appropriate, dedicate land for improved bus stop facilities.
- Policy C-5.15:** Consider the needs of the transportation and infrastructure system early for large developments and coordinate with developers to design projects that minimize traffic impacts and infrastructure demands, and implement complete streets wherever feasible. Alternatively, address transportation and infrastructure system impacts through the implementation of development agreements.

Goal C-6: Fund and Evaluate the City's Transportation Network

Explore opportunities to secure funding for enhancing the circulation system.

Objective C-6A: *Pursue funding sources to maintain and enhance the transportation and infrastructure system.*

Policy C-6.1: Evaluate traffic collision data regularly, and identify top collision locations for automobiles, bicycles, pedestrians, transit in Costa Mesa. Develop appropriate countermeasures and pursue funding from all available sources to implement them.

Policy C-6.2: Continue to develop and maintain long-range capital improvement programs consistent with the General Plan and M2 eligibility requirements.

Policy C-6.3: Coordinate with OCTA to fund, develop, and maintain a Master Plan of Streets and Highways consistent with the Master Plan of Arterial Highways (MPAH).

Policy C-6.4: Require a locally collected and administered traffic mitigation fee program to guarantee that new development pays for its fair share toward improvements resulting in reductions in air pollutant and GHG emissions and traffic impacts generated by the development.

Policy C-6.5: Actively pursue local, State, and federal funding to implement, maintain, and evaluate the transportation and infrastructure system.

Policy C-6.6: Supplement funding from annual fees or assessments on existing and new development with grants and other nonlocal sources.

Policy C-6.7: Develop strategies to implement an infrastructure and transportation system to be consistent with State policies on resiliency and sustainability.

Policy C-6.8: Amend the General Plan, if necessary, to be responsive to evolving funding requirements and to comply with State and federal regulations affecting the goals and policies of the Circulation Element.

- Policy C-6.9:** Coordinate with OCTA and Caltrans to seek funding and implementation solutions to improve Newport Boulevard at the terminus of the State Route 55 freeway to relieve congestion from regional traffic.
- Policy C-6.10:** Review the City’s transportation impact fee program on a regular basis, and adjust fees as needed to ensure that funding is available for planned transportation improvements that will benefit all travel modes.
- Policy C-6.11:** Prioritize funding and timing for implementing transportation improvements. Consider prioritizing multimodal projects that provide the most benefit to all users.
- Policy C-6.12:** Require that every new development project pay its share of costs associated with the mitigation of project generated impacts.
- Policy C-6.13:** Measure M2 sales tax revenues shall not be used to replace private developer funding which has been committed for any project.
- Policy C-6.14:** The City’s seven-year capital improvement program shall be adopted and maintained in conformance with the provisions of Measure M2 for the purpose of maintaining the established level of service standard.
- Policy C-6.15:** Maintain a traffic impact fee for circulation system improvements to the Master Plan of Streets and Highways; review and update fees on a regular basis.
- Objective C-6B:** *Evaluate the transportation system to ensure that it meets the City’s circulation goals.*
- Policy C-6.16:** Provide an annual Capital Improvement Program General Plan consistency report.
- Policy C-6.17:** Provide annual public review of implementation status reports of goals, policies, and objectives stated in the Circulation Element.
- Policy C-6.18:** Adopt and seek out methods and processes that provide appropriate and accurate data for evaluating the

performance of the transportation and infrastructure system.

Goal C-7: Promote a Friendly Active Transportation System in Costa Mesa

Create a bicycle and pedestrian friendly environment throughout Costa Mesa for all types of users and all trip purposes in accordance with the five “Es:” Education, Encouragement, Enforcement, Engineering, and Evaluation.

Objective C-7A: *Expand, enhance, and protect the existing bicycle and pedestrian network to provide a comprehensive, system of Class I, Class II, Class III, and Class IV facilities to increase connectivity between homes, jobs, schools transit, and recreational resources in Costa Mesa.*

Bikeways and Pedestrian Paths

- Recommendation C-7.1:** Develop an extensive bicycle and pedestrian backbone network through the use of standard and appropriate innovative treatments.
- Recommendation C-7.2:** Plan and install new bicycle lanes on Major Arterials, where feasible and appropriate.
- Recommendation C-7.3:** Plan and install shared lane markings (“sharrows”) and signage on appropriate existing and planned bicycle routes where bicycle lane implementation is demonstrated to be infeasible.
- Recommendation C-7.4:** Where feasible, Class I shared-use paths should be a priority for future developments.
- Recommendation C-7.5:** Plan and install new shared-use paths in utility corridors and/or along flood control channels, and extend existing bicycle and shared-use paths.
- Recommendation C-7.6:** Plan and complete north/south multi-purpose and bicycle routes through the City to augment the east/west route.

The following recommendations are aimed at providing the maximum flexibility in meeting the goals and policies in this Circulation Element.

- Recommendation C-7.7:** Consider the identification and feasibility of potential Class IV cycle tracks.
- Recommendation C-7.8:** When feasible, implement the completion through regional coordination of the Costa Mesa roadway and trail segments of regional bikeway plans.
- Recommendation C-7.9:** Encourage reallocation of roadway rights-of-way where appropriate to accommodate shared-use path and bicycle facilities, while preserving and respecting the character of each adjacent neighborhood.
- Recommendation C-7.10:** Support bicycle improvement projects that close gaps in the regional bicycle network either by implementing specific projects recommended in the Plan or through other treatments.
- Recommendation C-7.11:** Encourage bicycle projects that connect local facilities and neighborhoods to major bicycle corridors.
- Recommendation C-7.12:** Work cooperatively with adjoining jurisdictions and local/regional agencies to coordinate bicycle planning, and implementation activities. Where required, develop consistent active transportation plans and policies with regional and adjacent agencies.
- Recommendation C-7.13:** Prioritize safe access to major regional trails such as the OC Loop/Santa Ana River Trail and the Newport Back Bay Trail System. Where feasible, plan and provide a continuous low-stress Class I and/or Class IV facility from east to west across the city between these facilities.
- Recommendation C-7.14:** Explore favorable opportunities to remove parking to accommodate bicycle lanes.
- Recommendation C-7.15:** Identify favorable opportunities to retain parallel parking adjacent to sidewalks to maintain pedestrian safety.
- Recommendation C-7.16:** Consider every street in Costa Mesa as a street that cyclists could use.

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- Recommendation C-7.17:** Link on-road and off-road bicycle and pedestrian facilities within Costa Mesa to existing and planned facilities in adjacent and regional jurisdictions.
- Recommendation C-7.18:** Low-stress design techniques should be considered where necessary to attract a wide variety of users.
- Recommendation C-7.19:** Establish designated safe routes to schools for biking and walking.
- Recommendation C-7.20:** Designate walkable districts in the City.

Bike and Pedestrian Facilities

- Objective C-7B:** *Provide end-of-trip facilities that support the bicycle network.*
- Recommendation C-7.21:** Provide bike parking and bike-related amenities at public facilities and along public rights-of-way.
- Recommendation C-7.22:** Pursue public-private partnerships to furnish local businesses with secure bike parking and other related amenities.
- Recommendation C-7.23:** Develop and adopt bicycle parking equipment standards for bicycle parking to be installed within the public right-of-way and post on the City website.
- Recommendation C-7.24:** Work with local schools and colleges to provide ample and secure bike parking and other related amenities for students and employees.
- Recommendation C-7.25:** Work with OCTA to maximize bicycle amenities, such as bus stop solar lighting and bicycle lockers, at high-volume transit stops.
- Recommendation C-7.26:** Prioritize the installation of bicycle-scale and/or pedestrian-scale lighting.
- Recommendation C-7.27:** Encourage and incentivize providing attended bicycle parking services, such as a bicycle valet, at major City events, OC Fair, Farmers' Markets, holiday festivals, and other community events.

Recommendation C-7.28: Prioritize schools with the highest auto traffic volume during peak hours and insufficient parking for staff and parents. Plan and install bicycle facilities adjacent those schools.

Recommendation C-7.29: Provide bike parking and bike-related amenities at public facilities and along public right-of-way.

“First and Last Mile” Programs

Objective C-7C: *Encourage sustainable modes of transportation to fill gaps between the first and last miles of trips (walking, biking, ride sharing, transit, taxi and car-sharing).*

Recommendation C-7.30: Identify citywide infrastructure needed to create the interconnected multi-trail system.

Recommendation C-7.31: Improve the quality, aesthetics, and safety of high-use pedestrian corridors.

Recommendation C-7.32: Development and implement a bicycle sharing system.

Recommendation C-7.33: Proposed new mode split goals:

- 50 percent motor vehicles
- 10 percent transit
- 10 percent bicycles
- 20 percent walking
- 10 percent carpools, taxi, transportation network company services, and car sharing

Recommendation C-7.34: Establish a goal for all trips of less than three miles to be 30 percent by bicycle, and establish a goal of less than 1 mile to be 30 percent by walking.

Recommendation C-7.35: Consider implementing a small-scale transportation system to encourage mode shift to popular destinations as defined by users.

Goal C-8: Create a Safer Place to Walk and Ride a Bicycle

Provide a safe, convenient, and attractive bicycling and pedestrian environment. Apply design standards, enforcement of traffic laws, maintenance practices, and safety awareness campaigns to encourage and increase the use of bicycle and pedestrian facilities.

Design and Way-finding

Objective C-8A: *Develop bicycle and pedestrian facilities with approved uniform design standards, and implementation of way-finding signage providing information on various destinations.*

Recommendation C-8.1: Require that all facilities be designed in accordance with the latest federal, state, and local standards.

Recommendation C-8.2: Provide and maintain bicycle and pedestrian signal detectors, informational signage, and lighting, along City bikeways.

Recommendation C-8.3: Develop, install and maintain a bicycle and pedestrian way-finding signage program to indicate route turns, the presence of intersecting bikeways, streets and distances to nearby local and major destinations.

Recommendation C-8.4: Develop a list of acceptable plant materials for shared use paths that will not damage, create security problems or hazards for bicyclists. Incorporate canopy trees and native, drought-tolerant landscaping as a standard Class I facility (shared use path) feature. Encourage the use of sustainable drainage designs, such as bio-swales.

Recommendation C-8.5: Utilize Complete Streets elements as demonstrated in most recent versions of National Association of City Transportation Officials (NACTO) Urban Street Design Guide and Bikeway Design Guide.

Recommendation C-8.6: Crosswalks will include high visibility crossing treatments.

Recommendation C-8.7: Paint direction arrows on all bike lanes and bike paths to reduce the risk of collisions.

Safety Enforcement and Reporting

Objective C-8B: *Continue and expand enforcement activities that enhance safety of bicyclists on bike paths and roadways.*

Recommendation C-8.8: Enforce laws that reduce bicycle/pedestrian/motor vehicle incidents and conflicts.

Recommendation C-8.9: Train police officers on bicyclists’ rights and responsibilities and bicycle/pedestrian/vehicle collision evaluation.

Recommendation C-8.10: Utilize the City’s bicycle-mounted patrol officer program to educate and enforce pedestrian and bicycle user violations not necessarily to punish, but to correct.

Recommendation C-8.11: Promote efficient reporting mechanisms for behaviors that endanger cyclists and pedestrians.

Recommendation C-8.12: Develop a partnership with the school community to establish and update suggested routes to schools for biking and walking.

Safe Roadway Conditions

Objective C-8C: *Maintain bicycle and pedestrian facilities that are clear of debris and provide safe conditions for all users.*

Recommendation C-8.13: Establish routine maintenance schedule/standards for bicycle and pedestrian facilities such as sweeping, litter removal, landscaping, repainting of striping, signage, and signal actuation devices.

Recommendation C-8.14: Encourage and empower citizens to report maintenance issues that impact bicyclist and pedestrian safety including, but not limited to,

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potholes, sidewalk lifting, and overgrown vegetation.

Recommendation C-8.15: Establish procedures for responding to citizen reports in a timely manner.

Recommendation C-8.16: Where feasible, reduce or eliminate conflict points such as driveways that cross the sidewalk.

Safety Education

Objective C-8D: *Increase education of bicycle and pedestrian safety through programs and training of school children and the public.*

Recommendation C-8.17: Create, fund, and implement bicycle-safety curricula and provide to the public, tourists, various ethnic groups, diverse ages and disadvantaged communities.

Recommendation C-8.18: Provide multilingual bicycle-safety maps and brochures (print and electronic versions) in languages that are widely used in Costa Mesa.

Recommendation C-8.19: Encourage schools to develop and provide bicycle-safety curricula for use in elementary, middle, and high schools, such as the Bicycle Rodeo events.

Recommendation C-8.20: Support marketing and public awareness campaigns aimed at improving bicycle and pedestrian safety.

Recommendation C-8.21: Provide a user education program developed and promoted to encourage proper trail use and etiquette.

Recommendation C-8.22: Work with local bicycle advocacy organizations to develop, promote and support a series of bicycle education classes. Include information on bicycle safety, maintenance, and security.

Recommendation C-8.23: Develop and distribute education material regarding bicycle and pedestrian responsibilities and laws.

Safety Data

Objective C-8E: *Monitor and analyze bicycle and pedestrian safety.*

Recommendation C-8.24: Request bicycle and pedestrian collision reports from local law enforcement periodically and consider improvements to address problem areas.

Recommendation C-8.25: Establish an expedited process to report maintenance and safety concerns, e.g. pavement markings (sharrows, missing bike lane lines), ramps, curb cut-outs, broken walk/bike signal buttons, signage, minor maintenance of bike lanes/paths (street/path sweeping, minor surface patching, inoperable traffic signal bicycle detection).

Recommendation C-8.26: Conduct Roadside Safety Audits (RSAs) on a regular basis to provide periodic snapshots of roadway safety, including bicycle, pedestrian, equestrian, skateboard, and other non-motorized modes of travel.

Goal C-9: Integrate Active Transportation Elements into Circulation System and Land Use Planning

Provide bikeway and walkway facilities that are integrated with other transportation systems and land use planning decisions.

Land Use Planning Decisions and Active Transportation

Objective C-9A: *Consider bicycle and pedestrian facilities during land use planning process.*

Recommendation C-9.1: Incorporate the Costa Mesa Bicycle and Pedestrian Master Plan into the City’s General Plan.

Recommendation C-9.2: Ensure that all current and proposed land use planning is consistent with the Costa Mesa Bicycle and Pedestrian Master Plan.

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- Recommendation C-9.3:** Require new developments provide adequate bicycle parking and pedestrian access.
- Recommendation C-9.4:** Collaborate with property owners to increase bicycle parking over time.
- Recommendation C-9.5:** Encourage the integration of compatible land uses and housing into major development projects to reduce vehicle use.
- Recommendation C-9.6:** Provide a fully integrated network of modern active transportation facilities to and from major activity centers and residential centers.
- Recommendation C-9.7:** Identify areas where an increase in the need for active transportation can reasonably be anticipated due to housing/business growth.
- Recommendation C-9.8:** Make commercial and recreational areas more enjoyable for pedestrians by implementing measures such as providing shade, planting trees, eliminating visible parking lots and vacant land, and minimizing long stretches of building façade.
- Recommendation C-9.9:** Develop creative, artistic, and functional bicycle parking solutions, and install them throughout the City as a standard.

Active Transportation in Developments

- Objective C-9B:** *Integrate bicycle and pedestrian facility improvements during planning, design and implementation of transportation projects.*
- Recommendation C-9.10:** Promote the preservation of bicycle access within all roadway rights-of-way, as well as the development of innovative, safety-enhanced on-street facilities, such as bicycle boulevards and cycle tracks.
- Recommendation C-9.11:** Establish bike boulevards on streets with low traffic volumes and slow speeds to encourage bicycling.
- Recommendation C-9.12:** Proactively seek new opportunities for acquisition of abandoned rights-of-way and other lands for the development of new multi-

use pathways that integrate with the planned network.

Recommendation C-9.13: Improve the safety of all road users through the implementation of neighborhood traffic-calming treatments.

Recommendation C-9.14 Detours through or around construction zones should be designed for safety and convenience, and with adequate signage for cyclists and pedestrians.

Recommendation C-9.15: Provide opportunity for public input prior to the removal of an existing bicycle or pedestrian facility or the approval of any development or street improvement that would preclude these planned facilities.

Goal C-10: Promote an Active Transportation Culture

Develop educational and promotional programs to increase bicycle and pedestrian usage that respects and accommodates all users to foster a more balanced transportation system.

An Active Transportation Culture

Objective C-10A: *Encourage more people to walk and bicycle by supporting programs that foster community support for bicycling and walking, and raise public awareness about active transportation.*

Recommendation C-10.1: Support marketing and public awareness campaigns through a variety of media aimed at promoting bicycling and walking as a safe, healthy, cost-effective, environmentally friendly transportation choice.

Recommendation C-10.2: Support programs aimed at increasing bicycle and walk trips by providing incentives, recognition, or services that make bicycling and walking a more convenient transportation mode.

Recommendation C-10.3: Promote bicycling and walking at City-sponsored and public events, such as Earth Day,

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Bike to Work Day/Month, farmers' markets, public health fairs, art walks, craft fairs, and civic events.

Recommendation C-10.4: Encourage and promote bicycle related businesses within Costa Mesa including, but not limited to, involvement of civic clubs and organizations.

Recommendation C-10.5: Promote active transportation events in Costa Mesa to raise awareness and encourage bicycling, including, but not limited to, those that may involve temporary road closures, bike to work/school, senior walks, historic walks, and ciclovías.

Recommendation C-10.6: Encourage major employment centers and employers to promote commuting by bicycle including the use of flex-time work schedules to support non-rush bicycle commuting. Build a coalition with City, businesses, schools, and residents to promote active transportation.

Recommendation C-10.7: Encourage participation in bicycle and pedestrian promotion activities by education facilities, arts programs, active transportation clubs, and entertainment providers.

Recommendation C-10.8: Achieve "Silver Level Bicycle Friendly Community" by League of American Bicyclists by 2025.

Recommendation C-10.9: Achieve "Walk Friendly Community" status from WalkFriendly.org by 2025.

Recommendation C-10.10: Achieve "HEAL City" designation by 2017.

Goal C-11: Promote the Positive Air Quality, Health, and Economic Benefits of Active Transportation

Encourage active transportation by promoting air quality, health, and economic benefits, and by pursuing multiple sources of funding for active transportation programs and facilities.

Improving the Environment with Active Transportation

Objective C-11A: *Improve air quality and public health and reduce ambient noise by promoting Active Transportation programs.*

Recommendation C-11.1: Determine baseline emissions levels, then track and communicate changes in emissions as modes of transportation trips shift to encourage more walking and biking.

Recommendation C-11.2: Improve the quality of life in Costa Mesa by reducing neighborhood traffic and noise.

Recommendation C-11.3: Increase pedestrian and bicycle trips, thereby reducing vehicle trips and vehicle miles Traveled.

Recommendation C-11.4: Coordinate with appropriate federal, state, and county health agencies on active transportation programs to achieve health benefits.

Economic and Other Incentives

Objective C-11B: *Provide economic incentives for expanding and enhancing bicycle and pedestrian facilities.*

Recommendation C-11.5: Incentivize the business community to support pedestrians and bicycle users in tangible ways.

Recommendation C-11.6: Partner with the business and school communities to create a marketing strategy to encourage individual businesses to market Costa Mesa as a bicycle-friendly City.

Recommendation C-11.7: Encourage developers to include features, amenities and programs that are proven to increase walking and/or bicycling.

Recommendation C-11.8: Offer incentives for businesses whose employees walk or bike to work.

Recommendation C-11.9: Encourage the Chamber of Commerce and the business community to promote active transportation in commercial areas to stimulate economic vitality.

Goal C-12: Monitor, Evaluate, and Pursue Funding for Implementation of the Bicycle and Pedestrian Master Plan

Objective 12A: *Continuously monitor and evaluate Costa Mesa’s implementation progress on the Bicycle and Pedestrian Master Plan policies, programs, and projects.*

Recommendation C-12.1: Establish a monitoring program to measure the effectiveness and benefits of the Costa Mesa Bicycle and Pedestrian Master Plan.

Recommendation C-12.2: Track citywide trends in active transportation through the use of Census data, bicycle and pedestrian counts, travel surveys, and online surveys as part of annual reviews of the General Plan.

Recommendation C-12.3: Ensure that Bicycle and Pedestrian Master Plan programs and projects are implemented in an equitable manner geographically, socioeconomically, and serving disadvantaged communities.

Fund the Plans

Objective C-12B: *Pursue grants and other sources of funding for bicycle and pedestrian projects.*

Recommendation C-12.4: Strategize use of resources on developing effective and efficient grant application and program administration.

Recommendation C-12.5: Pursue multiple sources of funding and support efforts to maintain or increase federal, state and local funding for the implementation of the Bicycle and Pedestrian Master Plan.

Recommendation C-12.6: Consider designating a portion of development traffic impact fees to fund bicycle and pedestrian facilities.