ATTACHMENT A

Draft 2025 Orange County Congestion Management Program Report

Orange County Transportation Authority

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Chapter 1: Introduction

Purpose and Need

In 1990, the passage of the Proposition 111 gas tax increase required California's urbanized areas – areas with populations of 50,000 or more – to adopt a Congestion Management Program (CMP). The purpose of the CMP is to support regional mobility objectives by reducing traffic congestion, provide a mechanism for coordinating land-use and development decisions that support the regional economy, and ensure gas tax funding eligibility.

The following year, Orange County's local agencies designated the Orange County Transportation Authority (OCTA) as the Congestion Management Agency (CMA). As a result, OCTA is responsible for the development, monitoring, and biennial updating of Orange County's CMP.

To achieve the purpose of the CMP, several policies are followed to monitor and address system performance issues. OCTA developed these policies in coordination with local jurisdictions, the California Department of Transportation (Caltrans), and the South Coast Air Quality Management District (SCAQMD).

The passage of AB 2419 (Chapter 293, Statutes of 1996), in 1996, gave local agencies the ability to opt out of the CMP process without the risk of losing state transportation funding. However, local jurisdictions in Orange County expressed a desire to continue the CMP process, because the requirements were similar to those of the Orange County Measure M Growth Management Program (GMP), and because it contributes to fulfilling requirements for the federal Congestion Management Process (23 Code of Federal Regulations 450.320), which is prepared by the Southern California Association of Governments (SCAG). The OCTA Board of Directors affirmed the decision to continue with the existing CMP process on January 13, 1997. Although the GMP was not part of the Measure M2 renewal that

took effect in 2011, local jurisdiction compliance with the CMP remains a Measure M2 funding eligibility requirement.

As mentioned above, the CMP contributes to the federal Congestion Management Process (Process). This Process serves to provide information on transportation system performance and assess alternative strategies for congestion management that meet state and local needs.

The federal Process is required in metropolitan areas with population exceeding 200,000, which includes the SCAG region. It must also be integrated into the development of Regional Transportation Plans and Federal Transportation Improvement Programs.

State Statute

Required Elements

California Government Code Section 65089(b) requires the CMP to include specific elements, as summarized below.

Traffic Level of Service Standards – §65089(b)(1)(A) & (B)

Traffic level of service (LOS) standards shall be established for a system of highways and roadways. The highways and roadway system shall be designated by OCTA and shall include, at minimum, all state highways and principal arterials. None of the designated facilities may be removed, and new state highways and principal arterials must be added, except if they are within an infill opportunity zone. The LOS must be measured using a method that is consistent with the Highway Capacity Manual. The LOS standards shall not be set below LOS "E", unless the LOS from the baseline CMP dataset is worse than "E". If a Congestion Management Program Highway System (CMPHS) segment or intersection does not meet the minimum LOS standard outside an infill opportunity zone, a deficiency plan must be adopted (subject to exclusions).

Chapter 2 specifically addresses this element.

Performance Measures – §65089(b)(2)

Performance measures shall be established to evaluate the current and future performance of the transportation system. At a minimum, measures must be established for the highway and roadway system, frequency and routing of public transit, and for the coordination of transit service by separate operators. These measures will be used to support improvements to mobility, air quality, land use, and economic objectives and shall be incorporated into the Capital Improvement Program, the Land-Use Analysis Program, and any required deficiency plans.

Chapter 3 specifically addresses this element.

Travel Demand – §65089(b)(3)

A travel demand element shall be established to promote alternative transportation methods, improve the balance between jobs and housing, and other trip reduction strategies. These methods and strategies may include, but are not limited to, carpools, vanpools, transit, bicycles, park-and-ride lots, flexible work hours, telecommuting, parking management programs, and parking cash-out programs.

Chapter 4 specifically addresses this element.

Land-Use Analysis Program – §65089(b)(4)

A program shall be established to analyze the impacts of land-use decisions on the transportation system, using the previously described performance measures. The analysis must also include cost estimates associated with mitigating those impacts. To avoid duplication, this program may require implementation through the requirements and analysis of the California Environment Quality Act (CEQA).

Chapter 5 specifically addresses this element.

Capital Improvement Program – §65089(b)(5)

The CMP shall use the performance measures described above to determine effective projects that mitigate impacts identified in the Land-Use Analysis Program, through an adopted seven-year capital improvement program. This seven-year program will conform to transportation-related air quality mitigation measures and will include any projects

that increase the capacity of the transportation system. Furthermore, consideration will be given to maintaining or improving bicycle access and safety within the project areas. Projects necessary for preserving investments in existing facilities may also be included.

Chapter 6 specifically addresses this element.

CMA Requirements

As Orange County's CMA, OCTA is responsible for the administration of the CMP, as well as providing data and models that are consistent with those used by SCAG. OCTA is also responsible for developing the deficiency plan processes. These requirements are described in the legislation and are summarized below.

Modeling and Data Consistency – §65089(c)

In consultation with SCAG and local jurisdictions, OCTA developed a uniform database on traffic impacts for use in a countywide transportation computer model. This database is consistent with the database maintained by SCAG, the regional agency. The Orange County Transportation Analysis Model (OCTAM) is developed and maintained by OCTA. OCTAM uses standardized assumptions and conventions and is consistent with the methodologies adopted by SCAG. OCTA encourages local jurisdictions to use OCTAM to determine the quantitative impacts of development on the circulation system. This approach to modeling and data consistency reflects a consensus approach developed through discussions between OCTA and local jurisdictions.

Appendix G discusses this requirement in more detail.

Deficiency Plan Procedures – §65089.4

OCTA is responsible for preparing and adopting procedures for local deficiency plan development and implementation. OCTA's deficiency plan procedures incorporate a methodology for determining if deficiency impacts are caused by more than one local jurisdiction within Orange County. If required, a multi-jurisdictional deficiency plan must be adopted by all participating local jurisdictions. The procedures also provide for a conflict resolution process for addressing conflicts or disputes between local jurisdictions in meeting the multi-jurisdictional deficiency plan responsibilities.

Chapter 3 and Appendix C discuss this requirement in more detail.

Other Relevant Legislation

SB 743

Approved in 2013, SB 743 amended the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. Since its passing, the Governor's Office of Planning and Research has proposed changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation

impacts. Since adoption by the California Natural Resources Agency in 2018, automobile delay, as measured by LOS and other similar metrics, generally no longer constitutes a significant environmental effect under CEQA.

The intent of this legislation is to balance the need for traffic LOS standards with the need to build infill housing and mixed-use commercial developments within walking distance of mass transit facilities, downtowns, and town centers. In doing so, this legislation aims to provide greater flexibility to local governments to balance these sometimes-competing needs.

Lead agencies, including OCTA, are required to comply with SB 743 requirements in the CEQA Guidelines, and OCTA even evaluates VMT in plans such as the Long-Range Transportation Plan (LRTP). However, a jurisdiction may still adopt LOS as a performance standard for analyzing traffic conditions and maintaining throughput on its highway system. Therefore, as Orange County's CMA, OCTA still requires LOS analysis for certain projects as defined in the CMP Transportation Impact Analysis (TIA) Guidelines.

Chapter 2: Traffic Level of Service Standards

Since 1991, OCTA has used the Intersection Capacity Utilization (ICU) method to measure LOS at CMP intersections. The ICU methodology, developed with local and state agency input, is consistent with the Highway Capacity Manual and provides a standardized basis for performance monitoring. The ICU thresholds for each LOS grade are illustrated in Figure 1.

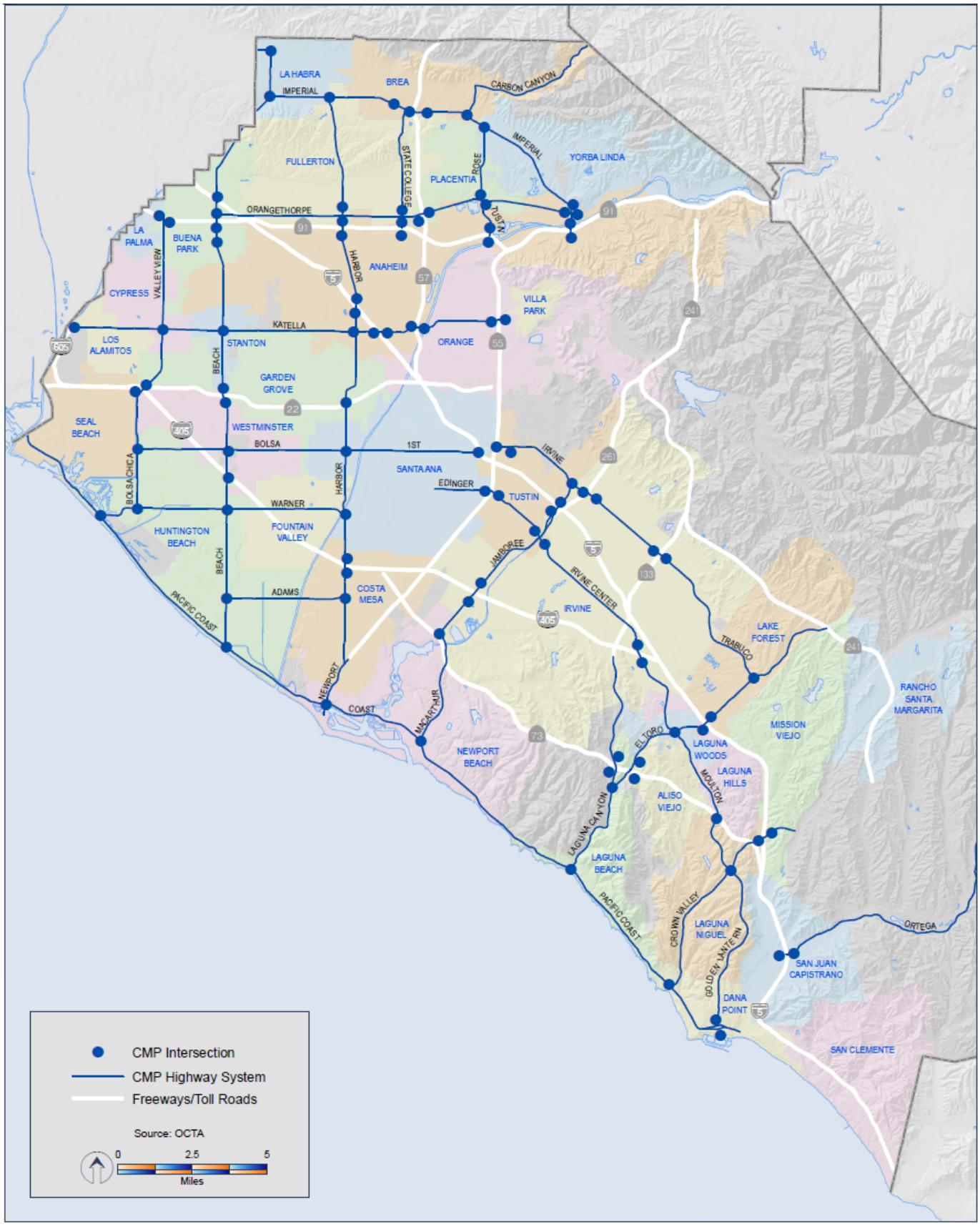
FIGURE 1: LOS Grade Chart

Level of Service	ICU Rating
A	0.00 – 0.60
B	0.60 – 0.70
C	0.70 – 0.80
D	0.80 – 0.90
E	0.90 – 1.00
F	> 1.00

The first measurement recorded (1992 for most CMP intersections) establishes the baseline for comparing future measurements. In general, CMPHS intersections must maintain an LOS grade of 'E' or better. However, if an intersection's baseline LOS is worse than 'E', it can remain at that level, provided the ICU does not increase by more than 0.10 compared to baseline conditions. Chapter 3 discusses the ICU method in more detail.

OCTA has an established CMPHS, consisting of Orange County's state highways and the arterials included in OCTA's Smart Street network (Figure 2). If, during any monitoring period, a CMPHS intersection is determined to be performing below the LOS standards, the responsible agency must identify improvements necessary to meet the LOS standards. This is accomplished either through existing plans or capital improvement programs, or through the development of a deficiency plan. This is described in more detail in Chapter 3.

FIGURE 2: 2025 CMP Highway System



Caltrans District 12 publishes quarterly mobility performance results, which are in Appendix A. Caltrans is responsible for monitoring freeway performance and addressing any deficient state-operated facilities. The CMP-related responsibilities of Caltrans include, but are not limited to:

A. Evaluating current conditions and identifying deficiencies.

B. Developing plans and strategies to address deficiencies.

C. Evaluating development projects of local and regional significance to determine whether they will impact the state transportation system and, if so, working with lead agencies to develop potential mitigation measures.

While OCTA uses LOS for monitoring CMPHS intersections, Caltrans applies a different set of performance measures for state facilities. These include metrics such as vehicle hours of delay, average speed, queue length, ramp metering effectiveness, and throughput. Caltrans also evaluates signal phasing and progression at ramp intersections that influence freeway performance.

Local agencies are encouraged to coordinate with the Caltrans Local Development Review Branch to determine what methodologies and thresholds of significance should be used to identify impacts from any development projects on the State transportation system.

Chapter 3: System Performance

Highway and Roadway System Performance Measures

This section discusses the process for determining ICU ratings, as well as how ICU ratings determine the LOS at CMPHS intersections. This method is generally consistent with the Highway Capacity Manual.

Overview of ICU Methodology

Traffic counts are manually collected at CMPHS intersections to initiate the ICU calculation process. The counts monitor the traffic flow, including the approach (northbound, eastbound, southbound, or westbound) and movement (left turn, through, or right turn) for each vehicle.

Each intersection has counts conducted in 15-minute increments, during AM and PM peak periods on three separate mid-weekdays (Tuesday, Wednesday, and Thursday). Counts are not taken during periods when irregular conditions exist (inclement weather, holidays, construction, etc.).

The highest count total during any four consecutive 15-minute count intervals within a peak period represents the peak-hour count set. For each intersection, a peak-hour count set is determined for each day's AM and PM peak period, resulting in a group of three AM peak-hour count sets and a group of three PM peak-hour count sets (one for each mid-week count day).

The group of AM peak-hour count sets is averaged, as is the group of PM peak-hour count sets. The results are the volumes used to determine AM and PM volume-to-capacity (V/C) ratios for each movement through the intersection. Several assumptions determine the capacities for each movement.

An example of an assumption used to determine capacity is the saturation flow-rate, which represents the theoretical maximum number of vehicles that can move through an intersection in a single lane during a green light phase. In 1991, OCTA and the technical staff members from local and state agencies agreed upon a saturation flow-rate of 1,700 vehicles per lane per hour. However, other factors can adjust this assumption.

Such factors include right turn lanes, which can increase the saturation flow-rate by 15 percent in specific circumstances. Right turn overlaps (signalized right turn lanes that are green during the cross traffic's left turn movements) and free right turns (lanes in which vehicles are allowed to turn right without stopping, even when the through signal is red) are some of the circumstances that will increase the saturation flow-rate. If right turns on red are permitted, a *de facto* right turn lane (approaches that do not have designated right turn lanes, but which are at least 19 feet wide and prohibit on-street parking during peak hours) may also increase the saturation flow rate.

Roadway capacity can also be reduced under certain conditions. For example, if a lane is shared for through and turn movements, the saturation flow-rate of 1,700 could be reduced. This occurs only when the turn movement volumes reach a certain threshold that is calculated for each intersection with shared lanes. The reduction represents the slower turning movements interfering with through movements.

Finally, bicycle and pedestrian counts are conducted simultaneously with vehicle counts. Saturation flow-rate calculations may be requested to factor in bicycle and pedestrian activity for affected lanes. These calculations shall use standard reductions in accordance with the most recent Highway Capacity Manual. Reductions are only considered when field observations indicate the presence of more than 100 pedestrians per hour on one leg of an intersection.

Once the V/C ratios are determined for each movement, critical V/C ratios are calculated. Conflicting movements determine which V/C ratios are included in the calculation of the critical V/C ratios. Conflicting movements represent a situation where a movement from one approach prevents a movement from the opposite approach. For example, if through movements are being made from the southbound approach, left turn movements cannot simultaneously be made from the northbound approach. For each set of opposing approaches (north/south and east/west), the two conflicting movements with the greatest summed V/C ratios are identified. These summed V/C ratios then become known as the critical V/C ratios.

OCTA and technical staff members from local and state agencies also agreed upon a lost time factor of 0.05 in 1991. The lost time factor represents the assumed amount of time it takes for a vehicle to travel through an intersection. For each intersection, the critical V/C ratios are summed (north/south + east/west), and the lost time factor is added to the sum, producing the ICU rating for the intersection.

Based on a set of ICU rating ranges, which were agreed upon by OCTA and technical staff members from local and state agencies, grades are assigned to each intersection. The grades indicate the LOS for intersections and are used to determine whether the intersections meet the performance standards described at the beginning of the chapter.

The 2025 LOS ratings for the CMP intersections have been mapped in Figure 3. A spreadsheet of the baseline and 2025 LOS ratings for the CMP intersections and corresponding ICU measurements is located in Figure 4.

Note that in Figure 4, Orange County's average ICU rating has improved over the baseline. Between 1991 and 2025, the average AM ICU improved from 0.67 to 0.54 (an improvement of 19.4 percent), and the PM ICU improved from 0.71 to 0.57 (an improvement of 19.7 percent). The ICU improvements indicate that Orange County agencies are effectively operating, maintaining, and improving the CMP Highway System.

FIGURE 3: 2025 CMP Intersection Level of Service

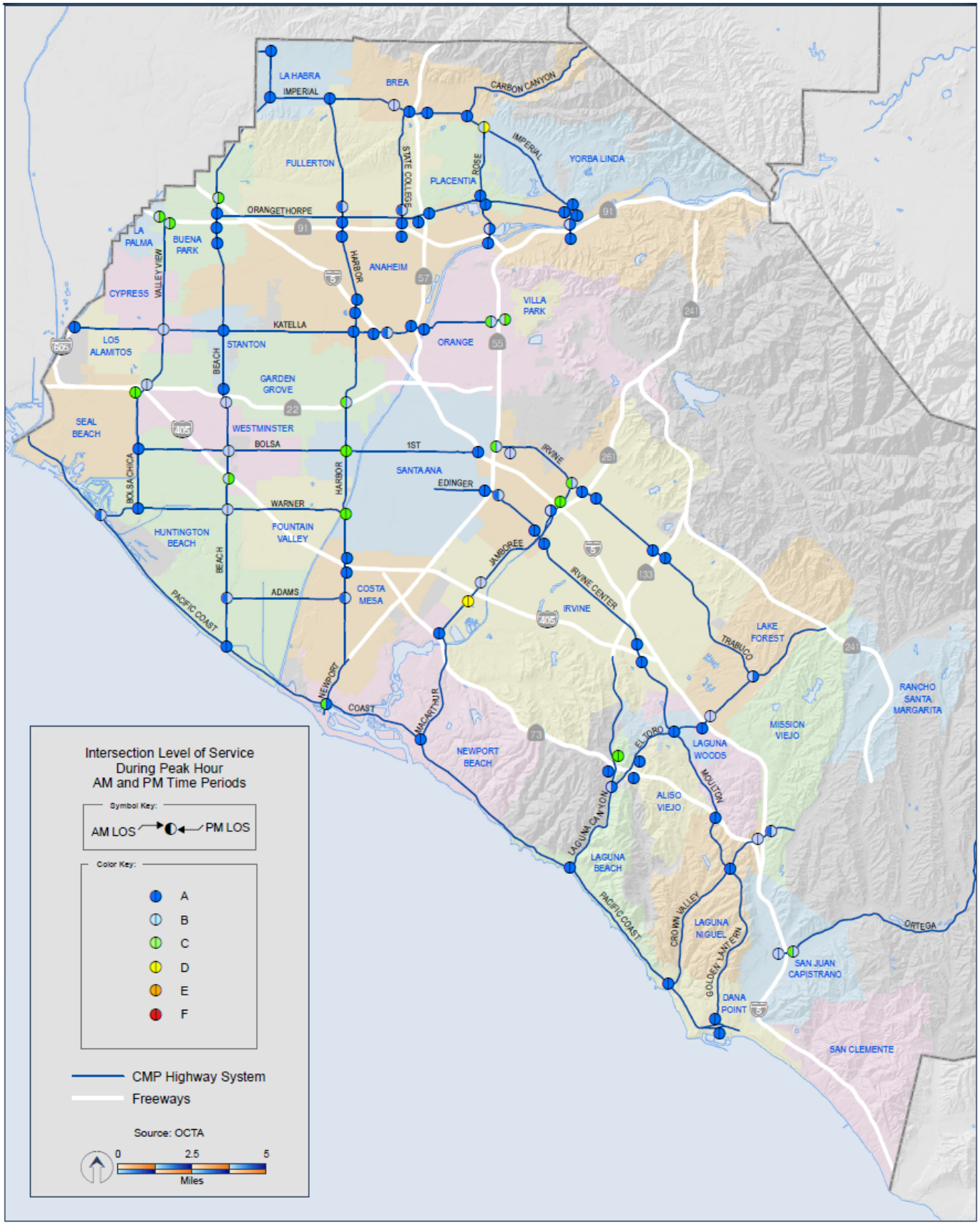


FIGURE 4: 2025 CMP Level of Service Chart

Jurisdiction	Intersection/Interchange	Baseline AM LOS	Baseline AM ICU	2025 AM LOS	2025 AM ICU	Baseline PM LOS	Baseline PM ICU	2025 PM LOS	2025 PM ICU
Anaheim	Anaheim Boulevard-I-5 NB Ramp/Katella Avenue	A	0.49	A	0.38	D	0.82	B	0.61
Anaheim	Harbor Boulevard/Katella Avenue	A	0.53	A	0.54	B	0.67	A	0.58
Anaheim	Harbor Boulevard/I-5 SB Ramps	A	0.29	A	0.28	A	0.31	A	0.35
Anaheim	Harbor Boulevard/SR-91 EB Ramps	A	0.46	A	0.42	A	0.52	A	0.48
Anaheim	I-5 NB Ramp/Harbor Boulevard	A	0.52	A	0.54	A	0.54	A	0.42
Anaheim	I-5 SB Ramps/Katella Avenue	A	0.48	A	0.56	A	0.41	A	0.55
Anaheim	SR-57 NB Ramps/Katella Avenue	A	0.51	A	0.35	A	0.41	A	0.42
Anaheim	SR-57 SB Ramps/Katella Avenue	A	0.52	A	0.4	A	0.51	A	0.49
Anaheim	SR-91 EB Ramp/Imperial Highway	C	0.73	A	0.54	C	0.79	A	0.51
Anaheim	SR-91 EB Ramps/State College Boulevard	B	0.69	A	0.5	D	0.82	A	0.51
Anaheim	SR-91 EB Ramps/Tustin Avenue	B	0.66	A	0.48	D	0.84	A	0.43
Anaheim	SR-91 WB Ramp/Harbor Boulevard	B	0.61	A	0.52	C	0.77	A	0.55
Anaheim	SR-91 WB Ramp/Imperial Highway	C	0.71	B	0.63	B	0.63	A	0.56
Anaheim	SR-91 WB Ramp/State College Boulevard	A	0.55	A	0.54	B	0.63	A	0.6
Anaheim	SR-91 WB Ramps/Tustin Avenue	B	0.64	B	0.61	A	0.6	A	0.57
Anaheim	Imperial Highway Off/SB On/Orangethorpe Avenue	A	0.32	A	0.39	A	0.39	A	0.49
Anaheim	Imperial Highway NB On/Orangethorpe Avenue	A	0.26	A	0.24	A	0.3	A	0.35
Anaheim	Imperial Highway/Orangethorpe Avenue Ramps	A	0.41	A	0.47	A	0.42	A	0.39
Brea	SR-57 SB Ramps/Imperial Highway	B	0.68	A	0.51	B	0.7	A	0.6
Brea	State College Boulevard/Imperial Highway	C	0.73	B	0.66	E	0.93	B	0.62
Brea	Valencia Avenue/Imperial Highway	A	0.56	A	0.41	A	0.59	A	0.44
Brea	SR-57 NB Ramp/Imperial Highway	C	0.78	A	0.5	E	0.91	A	0.6
Buena Park	Beach Boulevard/Orangethorpe Avenue	C	0.76	A	0.53	D	0.87	A	0.54
Buena Park	I-5 SB Ramps/Beach Boulevard	C	0.72	B	0.65	C	0.78	C	0.73
Buena Park	SR-91 EB Ramp/Beach Boulevard	C	0.74	A	0.6	D	0.84	A	0.56
Buena Park	SR-91 EB Ramp/Valley View Street	A	0.58	B	0.62	D	0.86	C	0.71
Buena Park	SR-91 WB Ramp/Beach Boulevard	A	0.58	A	0.43	A	0.59	A	0.47
Buena Park	SR-91 WB Ramp/Valley View Street	C	0.8	B	0.65	E	0.94	C	0.77
Costa Mesa	Harbor Boulevard/Adams Avenue	E	0.99	A	0.54	F	1.09	B	0.63
Costa Mesa	I-405 SB Ramps/Harbor Boulevard	A	0.53	A	0.47	B	0.63	A	0.58
Costa Mesa	I-405 NB Ramps/Harbor Boulevard	E	0.95	A	0.49	F	1.07	A	0.58
Cypress	Valley View Street/Katella Avenue	B	0.63	B	0.64	D	0.87	B	0.67
Dana Point	Crown Valley Parkway/Bay Drive/PCH	F	1.41	A	0.47	F	1.62	A	0.56
Dana Point	Street of the Golden Lantern/Del Prado Avenue	A	0.32	A	0.19	A	0.53	A	0.28
Dana Point	Street of the Golden Lantern/PCH	A	0.42	A	0.52	A	0.55	A	0.6
Fullerton	Harbor Boulevard/Orangethorpe Avenue	A	0.6	A	0.56	E	0.94	B	0.66
Fullerton	State College Boulevard/Orangethorpe Avenue	C	0.8	A	0.58	D	0.86	B	0.67
Garden Grove	SR-22 WB/Beach Boulevard	C	0.73	B	0.69	C	0.73	B	0.62
Garden Grove	SR-22 WB Ramp/Valley View Street	C	0.76	B	0.67	D	0.87	B	0.67
Garden Grove	SR-22 WB Ramps/Harbor Boulevard	F	1.1	C	0.71	F	1.16	C	0.67
Huntington Beach	Beach Boulevard/405 SB Ramp/Edinger Avenue	B	0.63	B	0.69	E	1.03	C	0.71
Huntington Beach	Beach Boulevard/Adams Avenue	A	0.55	A	0.54	C	0.67	B	0.65
Huntington Beach	Beach Boulevard/PCH	A	0.45	A	0.51	A	0.47	A	0.53
Huntington Beach	Beach Boulevard/Warner Avenue	C	0.78	B	0.68	E	0.93	B	0.66
Huntington Beach	Bolsa Chica Street/Bolsa Avenue	B	0.66	A	0.44	A	0.53	A	0.46
Huntington Beach	Bolsa Chica Street/Warner Avenue	A	0.57	A	0.54	D	0.81	A	0.6
Huntington Beach	PCH/Warner Avenue	D	0.81	A	0.54	B	0.72	B	0.62
Irvine	SR-133 NB Ramps/Irvine Boulevard	A	0.37	A	0.51	A	0.33	A	0.58

FIGURE 4: 2025 CMP Level of Service Chart

Jurisdiction	Intersection/Interchange	Baseline AM LOS	Baseline AM ICU	2025 AM LOS	2025 AM ICU	Baseline PM LOS	Baseline PM ICU	2025 PM LOS	2025 PM ICU
Irvine	SR-133 SB Ramps/Irvine Boulevard	A	0.37	A	0.46	A	0.29	A	0.47
Irvine	SR-261 NB Ramps/Irvine Boulevard	A	0.38	A	0.36	A	0.53	A	0.48
Irvine	SR-261 SB Ramps/Irvine Boulevard	A	0.42	A	0.38	A	0.4	A	0.38
Irvine	I-405 NB Ramps/Enterprise Dr/Irvine Center Drive	E	0.95	A	0.48	A	0.39	A	0.58
Irvine	I-405 NB Ramps/Jamboree Road	F	1.03	B	0.65	C	0.78	B	0.67
Irvine	I-405 SB Ramps/Irvine Center Drive	E	1	A	0.46	A	0.57	A	0.47
Irvine	I-405 SB Ramps/Jamboree Road	E	0.92	D	0.81	B	0.66	D	0.85
Irvine	I-5 NB Ramps/Jamboree Road	A	0.54	C	0.71	C	0.75	C	0.72
Irvine	I-5 SB Ramps/Jamboree Road	A	0.4	B	0.67	A	0.35	A	0.58
Irvine	MacArthur Boulevard/Jamboree Road	B	0.61	A	0.49	B	0.69	A	0.56
La Habra	Harbor Boulevard/Imperial Highway	D	0.81	A	0.58	D	0.86	A	0.57
La Habra	Beach Boulevard/Imperial Highway	D	0.85	A	0.51	D	0.87	A	0.58
La Habra	Beach Boulevard/Whittier Boulevard	A	0.33	A	0.46	A	0.29	A	0.49
Laguna Beach	El Toro Road/SR-73 NB Ramps	E	0.91	A	0.52	A	0.59	A	0.57
Laguna Beach	El Toro Road/SR-73 SB Ramps	A	0.41	A	0.39	B	0.67	A	0.54
Laguna Beach	Laguna Canyon Rd/SR-73 NB Ramps	C	0.73	C	0.76	C	0.72	C	0.74
Laguna Beach	Laguna Canyon Rd/SR-73 SB Ramps	A	0.32	A	0.33	A	0.33	A	0.42
Laguna Beach	Laguna Canyon Road/El Toro Road	F	1.54	B	0.63	F	1.16	A	0.59
Laguna Beach	Laguna Canyon Road/PCH	D	0.84	A	0.53	C	0.74	A	0.58
Laguna Hills	I-5 SB Ramp/Avenida de la Carlotta/El Toro Road	F	1.18	A	0.42	F	1.13	A	0.41
Laguna Niguel	Moulton Parkway/SR-73 SB Ramps	A	0.45	A	0.34	A	0.38	A	0.35
Laguna Niguel	Moulton Parkway/Crown Valley Parkway	A	0.56	A	0.52	B	0.65	A	0.55
Laguna Niguel	I-5 SB Ramps/Crown Valley Parkway	E	0.94	B	0.62	F	1.01	B	0.63
Laguna Woods	Moulton Parkway/El Toro Road	A	0.56	A	0.53	F	1.26	A	0.59
Lake Forest	I-5 NB/Bridger/El Toro Road	F	1.03	B	0.69	D	0.81	B	0.63
Lake Forest	Trabuco Road/El Toro Road	B	0.69	B	0.66	C	0.8	A	0.54
Los Alamitos	I-605 NB Ramps/Katella Avenue	B	0.68	A	0.41	B	0.65	A	0.5
Mission Viejo	I-5 NB Ramps/Crown Valley Parkway	D	0.86	A	0.59	B	0.69	B	0.66
Newport Beach	MacArthur Boulevard/PCH	A	0.51	A	0.5	B	0.7	A	0.6
Newport Beach	Newport Boulevard/PCH	A	0.56	C	0.75	A	0.49	A	0.5
Orange	SR-55 NB Ramps/Sacramento/Katella Avenue	C	0.75	B	0.68	D	0.85	C	0.72
Orange	SR-55 SB Ramps/Katella Avenue	C	0.73	C	0.78	E	0.95	B	0.69
Placentia	Rose Drive/Imperial Highway	E	0.95	B	0.66	E	0.99	D	0.81
Placentia	SR-57 NB Ramps/Orangethorpe Avenue	B	0.67	A	0.48	C	0.8	A	0.58
Placentia	SR-57 SB Ramps/Iowa Place/Orangethorpe Avenue	C	0.74	A	0.42	B	0.69	A	0.39
Placentia	Del Cerro Dr/Orangethorpe Avenue	A	0.29	A	0.3	A	0.27	A	0.34
Placentia	Rose Dr/Del Cerro Drive	A	0.59	A	0.59	A	0.51	A	0.47
San Juan Capistrano	I-5 NB Ramps/Ortega Highway	A	0.52	C	0.71	A	0.58	B	0.7
San Juan Capistrano	I-5 SB Ramps/Ortega Highway	B	0.61	B	0.63	C	0.77	B	0.65
Santa Ana	Harbor Boulevard/1st Street	A	0.48	C	0.75	D	0.81	C	0.75
Santa Ana	Harbor Boulevard/Warner Avenue	E	0.93	C	0.74	E	0.98	C	0.75
Santa Ana	I-5 SB Ramps/1st Street	A	0.29	A	0.44	A	0.46	A	0.5
Santa Ana	SR-55 SB Ramp/Auto Mall/Edinger Avenue	D	0.9	A	0.52	F	1.06	A	0.53
Santa Ana	SR-55 SB Ramps/Irvine Boulevard	B	0.68	C	0.77	D	0.83	C	0.67
Stanton	Beach Boulevard/Katella Avenue	D	0.89	A	0.58	F	1.02	A	0.58
Tustin	Jamboree Road/Edinger Avenue-NB Ramp	A	0.28	A	0.51	A	0.32	A	0.55
Tustin	Jamboree Road/Edinger Avenue-SB Ramp	D	0.81	A	0.51	A	0.41	A	0.55
Tustin	Jamboree Road/Irvine Boulevard	B	0.65	C	0.71	A	0.59	B	0.67

FIGURE 4: 2025 CMP Level of Service Chart

Jurisdiction	Intersection/Interchange	Baseline AM LOS	Baseline AM ICU	2025 AM LOS	2025 AM ICU	Baseline PM LOS	Baseline PM ICU	2025 PM LOS	2025 PM ICU
Tustin	SR-55 NB Ramps/Edinger Avenue	C	0.72	A	0.43	B	0.65	B	0.63
Tustin	SR-55 NB Ramps/Irvine Boulevard	A	0.59	B	0.62	A	0.45	B	0.62
Westminster	SR-22 EB/Beach Boulevard	A	0.53	A	0.46	A	0.54	A	0.46
Westminster	Beach Boulevard/Bolsa Avenue	F	1.09	B	0.66	F	1.11	B	0.63
Westminster	Bolsa Chica Road/Garden Grove Boulevard	E	0.91	C	0.75	E	0.97	C	0.74
	COUNTY AVERAGE		**0.67**		**0.54**		**0.71**		**0.57**

AM - Before Noon
DR - Drive
EB – Eastbound
I-405 – Interstate 405
I-5 – Interstate 5
I-605 – Interstate 605
ICU – Intersection Capacity Utilization
LOS – Level of Service
NB – Northbound
PCH - Pacific Coast Highway
PM - After Noon
SB – Southbound
SR-133 – State Route 133
SR-22 – State Route 22
SR-261 – State Route 261
SR-55 – State Route 55
SR-57 – State Route 57
SR-73 – State Route 73
SR-91 – State Route 91
WB – Westbound

Deficiency Plans

If an intersection does not meet LOS standards, then a deficiency plan is required, as described under California Government Code Section 65089.4. The deficiency plan identifies the cause of congestion, the improvements needed to solve the problem, and the cost and timing for implementing proposed improvements.

A deficiency plan process was developed by the CMP Technical Advisory Committee to provide local jurisdictions with a framework for maintaining compliance with the CMP when a portion of the CMPHS fails to meet its established LOS standard (Appendix C-1). The Deficiency Plan Decision Flow Chart (Appendix C-2) illustrates the individual steps that must be taken for a local jurisdiction to meet CMP deficiency plan requirements.

Deficiency plans are not required if a deficient intersection is brought into compliance within 18 months of its initial detection, using improvements that have been previously planned and programmed in the CMP Capital Improvement Program. In addition, CMP legislation specifies that the following shall be excluded from deficiency determinations:

- Interregional travel (trips with origins outside the Orange County CMPHS)
- Construction, rehabilitation, or maintenance of facilities that impact the system
- Freeway ramp metering
- Traffic signal coordination by the State or multi-jurisdictional agencies
- Traffic generated by the provision of low-income and very low-income housing
- Traffic generated by high-density residential development within one-quarter mile of a fixed-rail passenger station
- Traffic generated by any mixed-use development located within one-quarter mile of a fixed-rail passenger station, but only if more than half of the land area, or floor area, of the mixed-use development is used for high-density residential housing.

Per §65089.4, the following three CMP intersections have adjustment factors applied to their traffic counts as a result of interregional travel:

- *Beach Boulevard/Whittier Boulevard (City of La Habra)*
- *Beach Boulevard/Imperial Highway (City of La Habra)*
- *Harbor Boulevard/Imperial Highway (City of La Habra)*

There are no intersections exceeding the CMP level of service standard in 2025.

Transit System Performance Measures

In addition to roadway performance, the CMP statute requires transit performance monitoring, including service frequency, load factors, on-time performance, and coordination among providers. The following section discusses OC Bus and Metrolink services and evaluates the related metrics.

Overview

As Orange County's transit provider, OCTA continually monitors the frequency and routing of its transit services. Bus and rail transit are essential components of Orange County's transportation system and are important tools for achieving a balanced and equitable multimodal transportation system capable of maintaining level of service standards.

Fixed-Route Bus Service

Currently, OC Bus service consists of 51 routes: 34 local, eight community, four limited-stop, four rail feeder, and one circulator shuttle.

- Local routes (numbered 1 to 99): Operate primarily along arterial corridors serving bus stops spaced about one quarter mile apart, serving diverse destinations such as residential areas, employment centers, educational institutions, and health care facilities. They are the most heavily used routes and often require additional trips during peak commute periods.
- Community routes (numbered 100 to 199): Typically shorter and less direct, often serving as local circulators providing connections to the broader community with one-seat rides. They often link to the local transit network. Operating hours vary based on the purpose and type of service.
- Rail feeder/StationLink routes (numbered 400 to 499): Provide first and last mile trips to and from employment centers for commuters using Metrolink commuter rail service. Feeder trips are scheduled to match specific train trips and, like express routes, operate only during commute hours.
- Limited stop/Rapid routes (numbered 500 to 599): Provide faster travel times by stopping less frequently, typically every 3/4 to one mile, and connect with other

OCTA bus networks and modes. Local bus riders making longer-distance trips are among those attracted to the service. Typically, limited-stop routes operate on weekdays.

- Shuttle routes (numbered 600 to 699): Serve special events or provide additional connections to points of interest. Shuttle routes may be point-to-point and seasonal in nature such as OCTA's Orange County Fair Express network or a community circular route. Operating hours vary based on the purpose and type of service.

- Circulator Shuttle routes (numbered 800 to 899): Typically provide frequent, short-distance connections to local businesses or destinations. For example, Route 862 connects the Santa Ana Regional Transportation Center to Downtown Santa Ana during OC Streetcar construction, mirroring the future OC Streetcar alignment and headway, helping riders acclimate to the service.

Post-Pandemic Bus Service

In March 2020, federal and state emergency declarations were issued to reduce the spread of coronavirus (COVID-19). This resulted in reduced demand for public transit with average weekday bus ridership declining from approximately 125,000 boardings per day to the low 30,000s. In response, OCTA implemented an emergency service change on March 23, 2020, that reduced bus service to approximately 40 percent of the pre-pandemic levels. Since then, ridership has steadily recovered and is back to approximately 125,000 boardings per day.

Recent Transit Studies

The lack of ongoing operating revenues, competing resources (e.g., rising paratransit costs), shift in ridership patterns, and impacts from COVID-19 in recent years have all contributed to an increasing set of challenges. Improvement priorities include addressing vehicle loads, headways, on-time performance, and service accessibility. The following studies highlight OCTA's efforts to address priorities and identify equitable system improvements where appropriate.

Making Better Connections Study

The 2023 Making Better Connections Study examined aligning the transit system design with post pandemic travel patterns, improving customer experience, and growing ridership. This was accomplished by:

- Improving service in the central urban core areas, such as Anaheim, Garden Grove, and Santa Ana.

- Improving service in the peripheral suburban areas of the County where lower ridership and frequencies are experienced, designing trips to pulse or be timed at existing transit hubs, such as the Brea Mall and Laguna Hills Transportation Center, to improve transfer wait times.
- Increasing service frequency and span, especially in the midday and weekend time periods.

The plan restores service to pre-pandemic levels equating to 390 weekday bus trips (13 percent above 2021 service levels) and 275 weekend bus trips (five percent and nine percent above 2021 service levels for Saturdays and Sundays, respectively). These adjustments allow for more frequent service, better connections, and more hours of service for 89 percent of OC Bus riders. The remaining ten percent of riders will experience no changes and less than one percent of riders will be located more than one-half mile from a bus stop.

To ensure that the plan meets current available resources and demand, OCTA adopted a phasing plan to implement improvements, which coincide with OCTA's quarterly Service Changes.

2024 OC Transit Vision

The 2024 OC Transit Vision is a 30-year plan to enhance and expand public transit service in Orange County. It is an effort by OCTA to be more responsive and proactive in addressing the changing transit market. The plan identifies near-term, mid-term, and long-term projects and programs that can make transit a more compelling travel option for Orange County residents and visitors. This is the second OC Transit Vision which builds upon the goals and objectives laid out in 2018.

The 2024 OC Transit Vision includes recommendations for fixed-route bus service, paratransit, OC Vanpool, and first/last mile considerations, among others. It also provides policy guidance to cities, developers, and other stakeholders to incorporate transit-oriented development into their planning processes.

Performance Measures

The following section outlines OCTA's transit performance measures for vehicle load, vehicle headway, on-time performance, and service accessibility. These performance measures are used to evaluate the effectiveness of transit service provided by OCTA. OC ACCESS, OCTA's complementary paratransit service, is not reported separately as it functions as an extension of the fixed-route network.

Performance Measure 1: Vehicle Load

Vehicle load refers to the maximum number of passengers allowed on a service vehicle, expressed as the ratio of passengers to the number of seats on the vehicle and varied by

mode and time of day. OCTA monitors vehicle load to maintain customer safety and comfort.

Performance Measure 2: Vehicle Headway

Vehicle headway is the time interval between vehicles on a route and reflects how long passengers wait for the next vehicle. Headways vary by mode and time of day and are primarily determined by bus ridership and available operational resources. OCTA routinely monitors ridership and headway data by route to identify areas for service improvement, subject to funding availability.

Peak Weekday Vehicle Headways

Service	≤15 Min.	16 – 30 min.	>30 min.	Timed to Metrolink Trains
Local Routes	7	20	7	0
Limited stop/Rapid*	0	4	0	0
Community Routes	0	0	8	0
Circulator Shuttle Routes	1	0	0	0
Rail Feeder Routes	0	0	0	4

**Rapid routes plus their family local routes provide less than 15-minute service headways on their shared alignments.*

Performance Measure 3: On-Time Performance (OTP)

OCTA defines a trip as "on time" if it departs no more than five minutes later than the scheduled time and does not leave early. On-time performance is measured at designated time points. For FY 2024–25, OCTA's systemwide OTP was 78.5 percent.

Performance Measure 4: Service Accessibility

Service accessibility refers to the percentage of the population and employment centers within a half mile of a bus stop. A 2020 review showed that:

- **86.5 percent** of the total population and employment in Orange County are within a half-mile of OCTA bus service.
- **94.9 percent** of population and employment in minority communities (defined as census tracts with ≥53.75 percent minority population) are within a half-mile of service.

Coordination of Transit Service with Other Carriers

OCTA coordinates with several regional and local transit agencies to enhance network connectivity and improve service coverage. Partner agencies include:

- Municipal Providers: City of Irvine, City of Laguna Beach

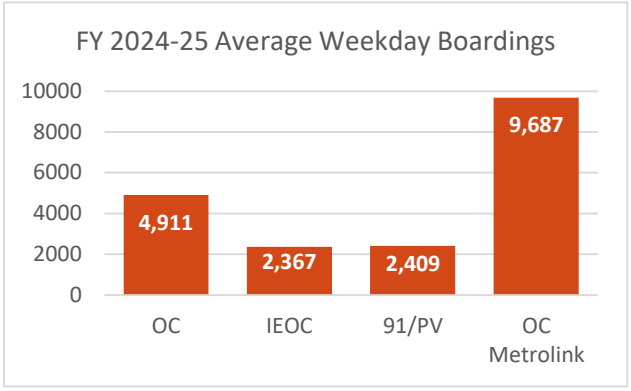
- Regional Operators: Foothill Transit, LA Metro, Long Beach Transit, North County Transit District, Norwalk Transit, Omnitrans, Riverside Transit Agency
- Special Services: Anaheim Transportation Network, charter bus operators, and commuter rail

OCTA also collaborates with cities through programs like Project V to plan and implement community circulators. Additionally, trip planning tools such as Google Transit help riders navigate transfers across systems.

Commuter Rail Service

Metrolink is Southern California's commuter rail system that links residential communities to employment and activity centers. Metrolink is operated by the Southern California Regional Rail Authority (SCRRA), a joint powers authority of five member agencies representing the counties of Los Angeles, Orange, Riverside, San Bernardino, and Ventura.

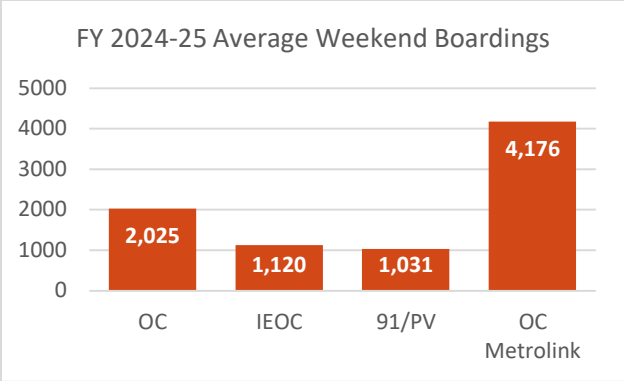
As of 2025, Metrolink provides service on seven routes, covering 538 miles through six counties in Southern California. On an average weekday, there are 134 trains serving an average of 25,337 passengers across 61 stations. Orange County plays an important and growing role within this system.



As one of the five SCRRA member agencies, OCTA administers and funds Orange County's portion of the Metrolink commuter rail system. Orange County's share of Metrolink service covers 68 route miles and sees approximately 9,687 average weekday boardings, an increase of 17 percent compared to FY2023-24, and comprising almost 40 percent of Metrolink's total system-wide boardings. There are 12 stations in Orange County that serve a total of 58 one-way trips each weekday on three lines:

- **Orange County (OC) Line**: Daily service from Los Angeles Union Station to the City of Oceanside;
- **Inland Empire-Orange County (IEOC) Line**: Daily service from San Bernardino and Riverside counties through Orange County to the City of Oceanside; and
- **91 / Perris Valley (91/PV) Line**: Daily service from the South Perris Station through the cities of Riverside and Fullerton to Los Angeles Union Station.

In 2006, Metrolink Weekend service was introduced on the OC and IEOC lines, with increased service during the summer travel season. In July 2014, weekend service was added on the 91/PV Line, providing four trains between Riverside County and Los Angeles Union Station. Weekend ridership varies considerably depending on the season and local events, but generally the OC, IEOC and 91/PV Lines combined carry a total of approximately 4,176 riders per weekend day, an increase of 39 percent from FY2023-24.



It should be noted that Metrolink's train ridership has faced significant challenges in its attempt to regain pre-pandemic levels. A significant number of Metrolink's pre-pandemic weekday riders utilized the train to commute to and from work. Reduced demand for public transportation services due to the pandemic, coupled with a shift in remote work has affected ridership for Metrolink. Strategies to increase ridership are continuing to be evaluated.

OCTA and other local agencies provide free transfers to local bus service to deliver Metrolink passengers to their final destinations. OCTA has four dedicated StationLink bus routes that connect with Orange County Metrolink stations in the cities of Irvine, Orange, Santa Ana, and Tustin. The iShuttle in the City of Irvine has four routes that provide peak hour connections to and from the Tustin and Irvine stations. Anaheim Resort Transportation provides transfers at the Anaheim Regional Transportation Intermodal Center to various destinations. These local transit connections offer Metrolink ticket holders free, easy connections between stations and major employment and activity centers, with schedules designed to meet Metrolink weekday train arrivals and departures.

In addition to Metrolink, Amtrak's Pacific Surfliner provides daily service with 14 trains between Los Angeles Union Station and downtown San Diego as an alternative for commuters. Within Orange County, Amtrak stops are located in the cities of Anaheim, Fullerton, Irvine, San Juan Capistrano, Santa Ana, and at the San Clemente Pier.

Rail Capital Improvements

OCTA and partner agencies, such as Metrolink, are working together to improve transit infrastructure in Orange County by undertaking capital improvement projects.

OC Streetcar

The OC Streetcar, opening in spring 2026, is a 4.15-mile fixed-guideway transit project connecting the Santa Ana Regional Transportation Center with Harbor Boulevard in the City of Garden Grove. Designed as a high-frequency, zero-emission service, the project includes:

- Ten stations;
- Integration with existing OCTA bus service, Amtrak, and Metrolink;
- Multimodal connections supporting active transportation and local circulators.

By connecting major employment, civic, and residential centers, the OC Streetcar will provide a reliable alternative to auto travel along congested arterial corridors. Its role in reducing arterial traffic volumes, enhancing transit frequency, and improving system connectivity aligns directly with CMP priorities.

Southern California Optimized Rail Expansion (SCORE) Program

Metrolink's SCORE program is a region-wide capital improvement initiative designed to increase rail capacity, reliability, and service frequency by 2028. In Orange County, SCORE includes key infrastructure upgrades that directly support CMP goals of congestion reduction and multimodal system performance.

Planned investments include track and signal improvements at Fullerton Junction, a critical rail bottleneck where multiple Metrolink and freight corridors converge. These upgrades will enhance train throughput and reduce conflicts, enabling more consistent service and minimizing delays that can shift commuters back to single-occupancy vehicles.

SCORE also identifies platform and passenger facility improvements at the Orange Transportation Center, supporting higher service frequencies and improved passenger circulation. These upgrades, combined with existing and planned first/last mile connections, expand the effective reach and reliability of Metrolink, reducing pressure on regional highways.

Additional SCORE investments planned in Orange County include the Laguna Niguel to San Juan Capistrano passing siding extension, which will enhance schedule flexibility in a high-demand single-track segment, and station improvements at Tustin and Santa Ana, aimed at improving access, amenities, and boarding efficiency. Signal system upgrades in the Los Alamitos–Seal Beach area will also contribute to safer and more reliable operations where freight and passenger services interface. Collectively, these projects help reduce service disruptions, improve transit reliability, and strengthen commuter rail as a viable alternative to highway travel.

Collectively, SCORE projects in Orange County strengthen the commuter rail network's ability to accommodate more riders, provide a competitive alternative to highway travel, and contribute to a more balanced, multimodal transportation system.

Coastal Rail Resiliency

The Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor along the City of San Clemente's coast is a critical passenger and freight route and a key component of Orange County's multimodal network. In response to repeated closures caused by coastal erosion and bluff instability, OCTA has implemented targeted stabilization measures to restore and protect this vital infrastructure. These efforts include:

- Installation of ground anchors and slope reinforcement to stabilize the trackbed;
- Real-time geotechnical monitoring to manage risk and ensure safe operations;
- Coordination with partner agencies to maintain continuity in regional mobility.

These stabilization actions are essential to preserving transit reliability, minimizing diversion of passengers to the freeway system, and maintaining multimodal system performance, all of which support CMP goals.

To plan for long-term resilience, OCTA has launched the Coastal Rail Resiliency Study, which will evaluate engineering, environmental, and alignment alternatives to improve the sustainability of the corridor and reduce future service interruptions.

Additional Improvements

San Juan Creek Bridge Replacement Project

OCTA, in coordination with Metrolink, is advancing the San Juan Creek Bridge Replacement Project to modernize a critical rail crossing along the LOSSAN corridor in south Orange County. The existing bridge, located near the San Juan Capistrano Metrolink Station, is more than 100 years old and presents structural and operational limitations that constrain service reliability and capacity. The replacement project will provide a new, modern rail bridge designed to current seismic and hydraulic standards, improving long-term safety and climate resiliency.

This project directly supports CMP goals by preserving reliable commuter rail service in a corridor that parallels congested segments of I-5. By reducing the risk of unplanned service disruptions and enabling continued passenger operations during extreme weather or flood events, the project helps maintain a viable transit alternative to highway travel, thereby supporting system performance, regional mobility, and congestion management objectives.

Anaheim Canyon Station (Completed 2023)

This recently completed project supports the CMP by facilitating higher rail throughput and improving the reliability of service. The project included construction of a second track and platform that has increased train handling capacity and reduced schedule conflicts. The project also improved boarding efficiency, Americans with Disabilities Act access, and overall station functionality.

Placentia Metrolink Station – Phased Improvements (In Progress)

The planned Metrolink station in the City of Placentia is intended to enhance transit access and regional connectivity in northern Orange County. While the full station project has encountered development challenges, work is progressing on a key element: a parking structure designed to support future rail service and adjacent multimodal connections.

In the near term, the structure will support CMP goals by serving as a park-and-ride facility that can reduce local roadway congestion, enable carpooling and vanpooling opportunities, and support connections to existing bus services, thereby encouraging mode shift away from single-occupancy vehicle travel.

Chapter 4: Transportation Demand Management (TDM)

TDM strategies are intended to reduce the number of single-occupant vehicle trips, promote the use of transit and active transportation options, decrease overall trip lengths, and improve air quality. The adoption of a TDM ordinance was required from every local jurisdiction for Orange County's 1991 CMP. The adoption of these ordinances is no longer a statutory requirement; however, OCTA continues to encourage local jurisdictions to maintain these ordinances.

TDM Ordinances

The model TDM ordinance, prepared by OCTA, promotes carpools, vanpools, alternate work hours, park and ride facilities, teleworking, and other traffic reduction strategies. OCTA updated the model ordinance in 2001 to reflect the adoption of Rule 2202 by the SCAQMD, which requires employers with 250 or more employees at a worksite to develop an emission reduction program.

Principal provisions of the TDM model ordinance are as follows:

- Applies to non-residential development proposals expected to generate more than 250 employees;
- Contains a methodology for determining projected employment;
- Includes development standards that apply to proposals that exceed the employment threshold;
- Presents optional provisions for implementing operational TDM programs and strategies that target the property owner or employer;
- Contains implementation and annual monitoring provisions; and
- Includes enforcement and penalty provisions.

Several jurisdictions have adopted strategies that go beyond the provisions contained in the model TDM ordinance, such as:

- Encouraging employers to establish and help subsidize telecommuting, providing monetary incentives for ridesharing, and implement alternative work hour programs;
- Proposing that new development projects establish and/or participate in Transportation Management Associations (TMAs);
- Implementing bus loading facilities at worksites;
- Implementing pedestrian facilities such as sidewalks and pedestrian grade separations over arterial streets to connect worksites to shopping, eating, recreation, parking, or transit facilities; and
- Participating in the development of remote parking facilities and shuttles.

TDM Strategies

OCTA developed a countywide TDM Strategic Plan in Spring 2025 that serves as a resource to encourage coordinated efforts on advancing TDM objectives. The plan includes a "Toolbox" of TDM strategies that address Orange County's unique transportation needs accompanied by an Action Plan detailing steps needed to deliver each TDM strategy.

In addition to the transit services discussed in Chapter 3, the following TDM services and programs also help to manage demand on the multimodal system.

OCTA Vanpool Program

The OC Vanpool Program provides subsidies to help commuters in Orange County form shared vanpools to work. Coordinated with regional rideshare providers, OCTA offers a monthly financial incentive to reduce leasing costs and encourage participation. By reducing single-occupant vehicle trips during peak hours, the program directly supports CMP congestion mitigation and VMT reduction goals. Program data also provides valuable insight into regional travel behavior.

Mobility Hubs

OCTA completed the Orange County Mobility Hubs Strategy in the fall of 2022. While not yet implemented in Orange County, mobility hubs are identifiable places that facilitate travel by co-locating transportation modes and amenities. These can include shared electric-bikes, electric-scooters, ride sharing, and public transportation services, amongst others. Mobility hubs reduce automobile dependency, enhance active transportation, and create a more desirable experience for all public transit passengers.

TMAs

TMAs are local partnerships between employers, developers, and agencies that implement customized TDM programs within business districts or high-employment areas. OCTA coordinates with TMAs like Spectrumotion in Irvine and the Anaheim Transportation Network, which offer rideshare support, shuttle coordination, and commuter outreach. TMAs advance CMP goals by reducing drive-alone rates and improving commute efficiency in targeted areas.

Park-and-Ride Lots

Orange County has a network of 16 park-and-ride lots, which serve as transfer points for carpools, vanpools, and transit connections. These facilities help reduce freeway congestion by offering travelers convenient options to park and switch to higher-occupancy modes. As key components of the CMP's travel demand strategy, park-and-ride lots support regional carpooling, transit use, and VMT reduction.

Parking Cash-Out Programs

Parking cash-out programs are employer-funded programs that provide cash incentives to employees who do not drive to work. The most effective programs provide an incentive equal to the full cost of employee parking. The intent is to reduce single-occupant vehicle commute trips and emissions by offering employees a cash incentive for not driving and parking their personal automobile.

Guaranteed Ride Home Program

OCTA offers a Guaranteed Ride Home (GRH) Program for employees who use alternative commuting methods. The program reimburses occasional emergency rides (e.g., via taxi or rideshare). This encourages commuter participation in TDM programs by reducing barriers to ridesharing and transit use, thereby supporting congestion reduction objectives.

Active Transportation

OCTA supports active transportation as a key strategy to reduce vehicle trips, improve multimodal system performance, and enhance first/last mile access. Through countywide

planning efforts like OC Active and regional initiatives such as OC Loops and OC Connect, OCTA works with local jurisdictions to expand safe, connected pedestrian and bicycle infrastructure. These projects improve access to transit, employment centers, and schools, enabling more people to shift from single-occupancy vehicles to active modes of travel.

To support safe adoption, OCTA implements educational programs including Safe Routes to School and the E-Bike Safety Action Plan. These efforts not only help reduce peak-hour congestion but also improve air quality and system efficiency. By promoting walking and biking as viable alternatives to car travel, OCTA's active transportation initiatives and coordination with local jurisdictions directly advance CMP goals related to congestion management, system performance, and sustainable mobility.

Additionally, OCTA provides bicycle racks, parking, and bicycle lockers at transit stations, and the racks on OCTA buses carry approximately 5,000 bicycles per day. Metrolink trains also have special bicycle cars with room to secure up to 18 bicycles.

Motorist Aid and Traffic Information System (511)

Orange County's 511 service is a one-stop source for up-to-the-minute travel information, advisories, and trip planning information. Traffic and transit updates are provided via the free Go511 application, calling 511, or visiting Go511.com.

The 511 Motorist Aid and Travelers' Information System helps commuters outsmart traffic by providing real-time traffic speeds, congestion alerts, and incident updates. The system offers access to live freeway cameras and roadwork advisories, as well as a trip planner for bus and rail services. Users can view scheduled departures for more than 70 transit agencies across Southern California. Additional features include carpool and ride-matching information, park-and-ride lot locations, airport information, bike resources, and local weather conditions to support informed and multimodal trip planning.

Freeway Construction Mitigation

OCTA and Caltrans developed a comprehensive public outreach program for commuters impacted by construction projects and improvements on Orange County freeways. The outreach program alleviates traffic congestion during freeway construction by providing up-to-date ramp, lane, and bridge closure information as well as suggestions for alternate routes and travel modes.

Outreach efforts include public workshops, open houses, fast fax construction alerts, flyers, and newsletters, as well as other materials and presentation events. Also, OCTA's website (www.octa.net), and the Orange County Freeway Construction Helpline (1-800 724-0353), make detour and closure information available. In addition, most jurisdictions implement traffic management plans to alleviate roadway congestion during construction.

Chapter 5: Land-Use Impact Analysis

The CMP Traffic Impact Analysis (TIA) measures the impacts of proposed development projects on the CMPHS. Orange County's jurisdictions are allowed to select either the process outlined in the CMP TIA guidelines (Appendix B-1), or their previously existing traffic-environmental analysis process, so long as consistency is maintained with the CMP TIA Guidelines.

It should also be noted that the transportation impact analysis required for the CEQA no longer considers vehicle delay, such as the LOS metric used for CMP analysis. Instead CEQA guidance recommends analyzing vehicle miles traveled, or VMT. However, specifically for CMP purposes, Orange County jurisdictions must still use a process consistent with the CMP TIA guidelines for monitoring and maintaining the performance of the CMPHS, in addition to any other analyses used for CEQA purposes. The selected TIA process must be consistently applied to all development projects meeting the adopted trip generation thresholds. Traffic impact analysis focuses on:

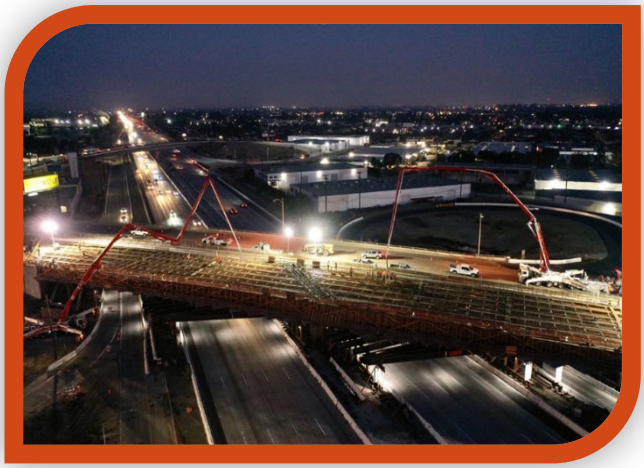
- Identifying CMPHS impacts that could result from trips generated by the proposed project;
- Assessing feasible mitigation strategies capable of reducing the identified impacts, thereby maintaining the LOS standard; and,
- Utilizing existing environmental processes and inter jurisdictional forums to conduct cooperative, interjurisdictional discussion when proposed CMP mitigation strategies include modifications to roadway networks beyond the lead jurisdiction's boundaries; and/or, when a proposed development will increase traffic at CMPHS locations outside the jurisdiction's boundaries.

OCTA does allow exemptions from this requirement for selected categories of development projects, consistent with state legislation (see Appendix B-2 for a listing of exempt projects).

Chapter 6: Capital Improvement Program

A capital improvement program (CIP) is a seven-year plan of projects and programs that must be adopted by each Orange County jurisdiction and integrated into a countywide CIP by OCTA as part of the CMP requirements. It includes projects that often maintain or improve traffic conditions on the CMPHS and adjacent facilities. In addition to traditional capital projects, which preserve investments in existing facilities, the CIP may include projects that increase the capacity of the multimodal system and provide air quality benefits, such as active transportation projects.

The CIP projects can be used to mitigate transportation impacts identified in the Land-Use Impact Analysis component of the CMP, and preserve and maintain CMPHS infrastructure. Many types of CIP projects have been submitted by local jurisdictions in the past, including roadway and intersection improvements, signal coordination projects, and roadway resurfacing projects.



Each Orange County jurisdiction's CIP is included in Appendix E, which is published separately and provided on OCTA's website at https://www.octa.net/programs-projects/programs/plans-and-studies/congestion-management-program/. All projects in the CIP that are state or federally funded, or that are considered regional significant, are included in the Orange County portion of the Federal Transportation Improvement Program (FTIP). These projects are consistent with the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), which are prepared and adopted by SCAG.

Projects that significantly increase single occupant vehicle (SOV) capacity in the region are monitored and regulated by the federal government and should be developed in a manner consistent with the federal Congestion Management Process. In carrying out this process, SCAG identifies SOV capacity increasing projects in the FTIP that are at least one mile in length. These projects, if at least partially funded by federal sources, require the lead agency to document and demonstrate the consideration of alternative Transportation Systems Management/TDM strategies during the alternatives analysis. Those that are considered safety, operational, or bottleneck improvements are exempt from this process.

Lastly, based upon a resolution by the California Transportation Commission (G-17-22), the M2 program of projects is being included in the 2025 CMP (by reference) to satisfy the CMP requirement of this resolution. For a listing of the M2 program of projects, please see Appendix F.

Chapter 7: CMP Conformance

As Orange County's CMA, OCTA is statutorily required to monitor the implementation of all elements of the CMP and biennially determine conformance. In so doing, OCTA consults with local jurisdictions to determine their conformance with the CMP by monitoring the following:

- Consistency with LOS standards;
- Adoption of CIPs;
- Adoption and implementation of a traffic impact analysis (TIA) program that is consistent with the CMP TIA guidelines; and
- Adoption and implementation of deficiency plans, as needed.

OCTA gathers local traffic data to determine the LOS at intersections throughout the CMPHS, as discussed in Chapter 2. In addition, local jurisdictions complete checklists, developed by OCTA, to document their conformance with the legislative requirements of the CMP (Appendix D).

Based on the LOS data and the completed CMP checklists, the following determinations were made:

LOS

The LOS data, prepared by OCTA, was provided to local jurisdictions for verification. The data shows that all local jurisdictions are compliant with the established LOS standards.

CIP

All local jurisdictions submitted adopted seven-year CIPs. The CIPs included projects to maintain or improve the traffic LOS on the CMPHS, or adjacent facilities which benefit the CMPHS.

Land-Use Coordination

All local jurisdictions have adopted CMP TIA processes, consistent with the CMP TIA guidelines, for analyzing the impacts of land-use decisions on the CMPHS. All local jurisdictions have applied their TIA processes to development projects that met the CMP

minimum threshold of 2,400 or more daily trips (1,600 or more trips per day for development projects that will directly access the CMPHS).

Deficiency Plans

Based on the data exhibited in Figure 3, all non-exempt intersections on the CMP highway system were found in compliance with LOS requirements. Therefore, no deficiency plans were required for the 2025 CMP.

Based on the findings noted above, all jurisdictions are in compliance with the CMP.

Regional Consistency

To ensure consistency between CMPs within the SCAG region, OCTA submits each biennial update of the Orange County CMP to SCAG. As the regional agency, SCAG evaluates consistency with the RTP/SCS and with the CMPs of adjoining counties, and incorporates the program into the FTIP, once consistency is determined.

FIGURE 5: Summary of Conformance

Jurisdiction	Capital Improvement Program	Deficiency Plan	Land Use	Level of Service	2025 Compliance
Aliso Viejo *	Yes	N/A	Yes	N/A	Yes
Anaheim	Yes	N/A	Yes	Yes	Yes
Brea	Yes	N/A	Yes	Yes	Yes
Buena Park	Yes	N/A	Yes	Yes	Yes
Costa Mesa	Yes	N/A	Yes	Yes	Yes
Cypress	Yes	N/A	Yes	Yes	Yes
Dana Point	Yes	N/A	Yes	Yes	Yes
Fountain Valley *	Yes	N/A	Yes	N/A	Yes
Fullerton	Yes	N/A	Yes	Yes	Yes
Garden Grove	Yes	N/A	Yes	Yes	Yes
Huntington Beach	Yes	N/A	Yes	Yes	Yes
Irvine	Yes	N/A	Yes	Yes	Yes
La Habra	Yes	N/A	Yes	Yes	Yes
La Palma*	Yes	N/A	Yes	N/A	Yes
Laguna Beach	Yes	N/A	Yes	Yes	Yes
Laguna Hills	Yes	N/A	Yes	Yes	Yes
Laguna Niguel	Yes	N/A	Yes	Yes	Yes
Laguna Woods	Yes	N/A	Yes	Yes	Yes
Lake Forest	Yes	N/A	Yes	Yes	Yes
Los Alamitos	Yes	N/A	Yes	Yes	Yes
Mission Viejo	Yes	N/A	Yes	Yes	Yes
Newport Beach	Yes	N/A	Yes	Yes	Yes
Orange	Yes	N/A	Yes	Yes	Yes
Placentia	Yes	N/A	Yes	Yes	Yes
Rancho Santa Margarita *	Yes	N/A	Yes	N/A	Yes
San Clemente *	Yes	N/A	Yes	N/A	Yes
San Juan Capistrano	Yes	N/A	Yes	Yes	Yes
Santa Ana	Yes	N/A	Yes	Yes	Yes
Seal Beach *	Yes	N/A	Yes	N/A	Yes
Stanton	Yes	N/A	Yes	Yes	Yes
Tustin	Yes	N/A	Yes	Yes	Yes
Villa Park *	Yes	N/A	Yes	N/A	Yes
Westminster	Yes	N/A	Yes	Yes	Yes
Yorba Linda *	Yes	N/A	Yes	N/A	Yes
County *	Yes	N/A	Yes	N/A	Yes

*No CMP intersections within jurisdiction

Appendix A: Freeway Mobility Performance Reports

The following appendix includes Caltrans' Quarterly Mobility Performance Reports from 2024 and 2025, comparing VMT, vehicle hours of delay, and other performance measures.

Additional Quarterly Mobility Performance Reports can be found on Caltrans' website: dot.ca.gov/programs/traffic-operations/mpr/quarterly

District 12
Mobility Performance Report

2024 1st Quarter

DEPARTMENT OF TRANSPORTATION

April 29, 2024

District 12 Traffic Operations Northwest

2024 1st Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 12 (Orange County) is located in southern California and is adjacent to District 7 (Los Angeles), District 8 (San Bernardino), and District 11 (San Diego). As of April 1, 2020, the total population in Orange County was 3,010,232. Orange County encompasses 794 square miles, and includes 34 cities, and 17 State highway routes. The county has 1,059 lane miles of general purpose lanes and 226 lane miles of High-Occupancy Vehicle (HOV) lanes, which is one of California's largest HOV lane networks. Orange County is the third most populous county in California, the sixth-most populous in the United States, and more populous than twenty-one U.S. states. Its county seat is Santa Ana. It is the second most densely populated county in the state.

The Mobility Performance quarterly analysis compares information from the most recent quarter and the previous 4 quarters, involving the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- Detector Health

This information is based on data collected every day of the quarter, twenty-four hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The Mobility Performance Report uses congestion at two speed thresholds: delay from vehicles traveling below 35 MPH and delay from vehicles traveling

below 60 MPH. The 35 MPH limit represents severe congestion while the 60 MPH limit represents light and heavy congestion. These thresholds/limits are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

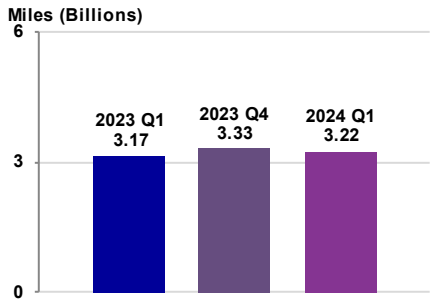
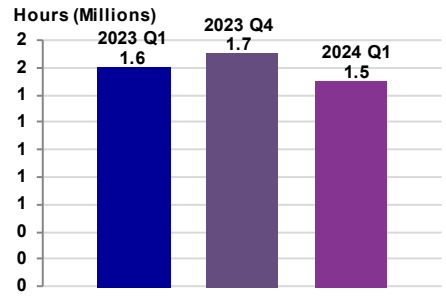
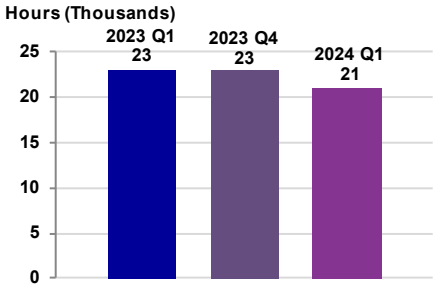
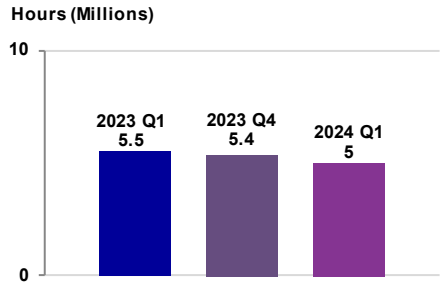
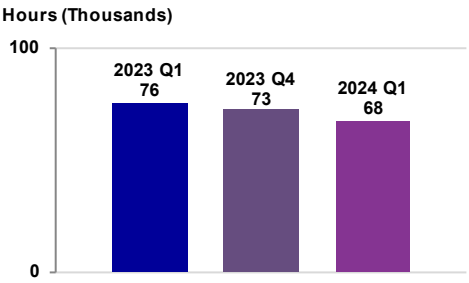
In the 1st quarter of 2024, total delay equaled to 1.5 million vehicle hours of delay (VHD) at the 35 MPH speed threshold and 5 million VHD at 60 MPH threshold. Compared to the previous quarter, there was a 12 percent decrease in 35 MPH VHD and 7.4 percent decrease in 60 MPH VHD.

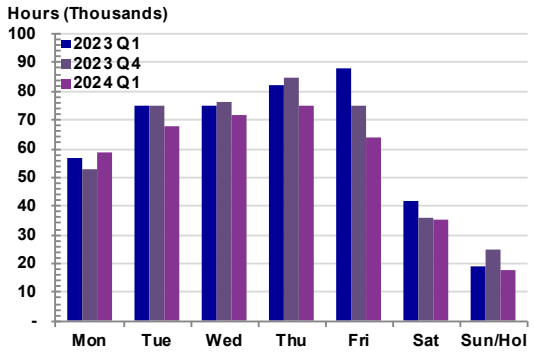
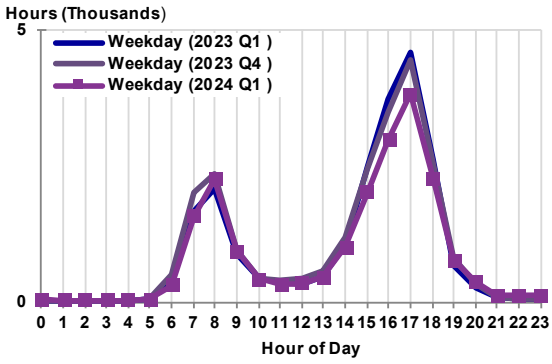
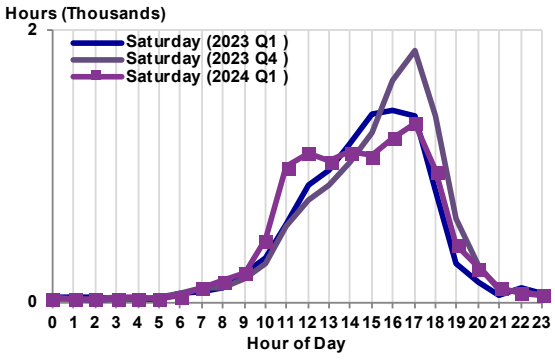
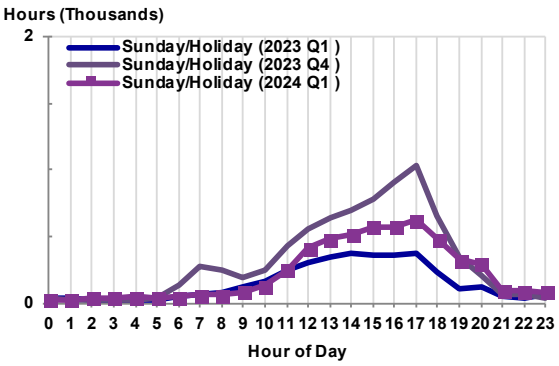
The average weekday VHD experienced in this quarter was approximately 21 thousand VHD at 35 MPH and 68 thousand VHD at 60 MPH. Compared to the previous quarter, there was 11.8 percent decrease in 35 MPH VHD and 7 percent decrease in 60 mph VHD.

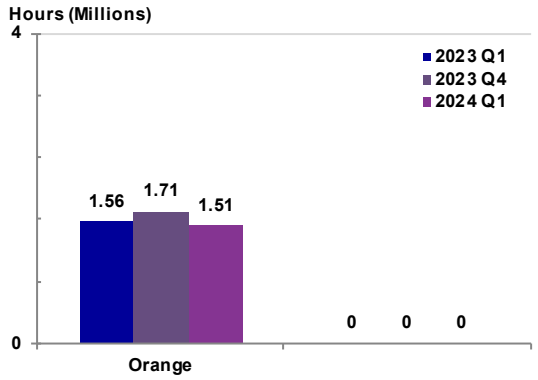
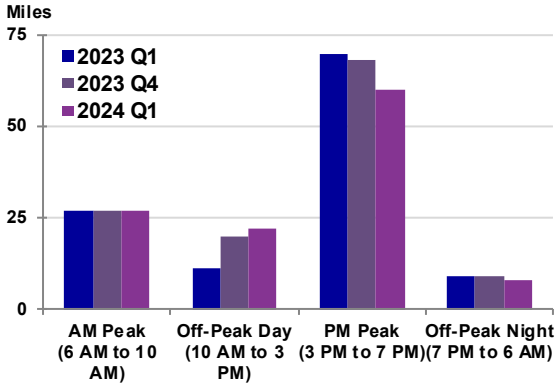
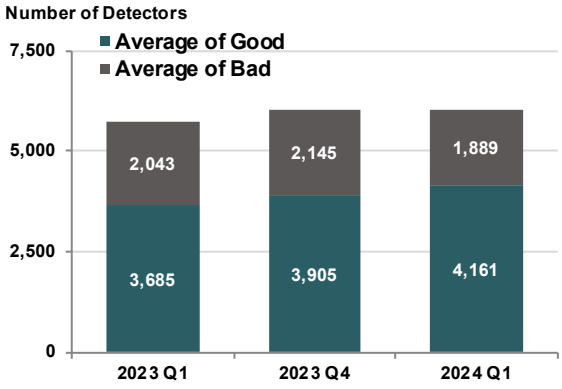
Top 10 Bottlenecks for the 1st Quarter of 2024

Co	Shift	Fwy	Dir	Name	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
Ora	PM	SR55	N	TAFT	15.78	15.8	33.82	-117.83	59	3.14	44,939	12,870
Ora	PM	SR57	N	TONNER	11.27	22	33.94	-117.88	61	1.24	38,213	13,845
Ora	AM	I5	S	MAIN 1	105.19	33	33.77	-117.87	62	1.05	30,944	9,435
Ora	AM	I5	S	LA PALMA	113.17	40.98	33.85	-117.96	58	1.39	30,735	6,490
Ora	AM	I405	S	HARBOR 1	10.97	11.2	33.69	-117.92	48	1.96	27,088	4,720
Ora	PM	SR91	E	LAKEVIEW1	28.45	R10.08	33.85	-117.81	57	3.09	24,848	13,005
Ora	PM	I405	N	BROOKHUR2	13.74	13.97	33.71	-117.96	60	1.42	22,147	10,200
Ora	PM	I5	N	CULVER 1	98.82	R26.56	33.71	-117.78	62	2.11	21,103	11,730
Ora	PM	SR55	N	N-O E WARNER MVDS	8.56	R8.563	33.72	-117.84	60	2.02	20,934	4,760
Ora	AM	I405	S	WARNER	14.49	14.72	33.71	-117.97	56	1.07	19,361	7,535

2024 Q1 Quarterly Mobility Statistics

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		1.6%	-3.4%
Total Vehicle Hours of Delay (VHD) at 35 mph		-3.5%	-12%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		-8.6%	-11.8%
Total Vehicle Hours of Delay (VHD) at 60 mph		-9.1%	-7.4%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		-10.6%	-7%

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Friday -26.8%	Largest Magnitude Decrease over last quarter Thursday -12.8%
		Largest Magnitude Increase over one year ago Monday 2.7%	Largest Magnitude Increase over last quarter Monday 10.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 5 PM -16.3%	Largest Magnitude Weekday Decrease over last quarter 5 PM -13.9%
		Largest Magnitude Weekday Increase over one year ago 8 AM 8.4%	Largest Magnitude Weekday Increase over last quarter 11 PM 113.2%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 3 PM -22.1%	Largest Magnitude Saturday Decrease over last quarter 5 PM -28.4%
		Largest Magnitude Saturday Increase over one year ago 11 AM 71.9%	Largest Magnitude Saturday Increase over last quarter 11 AM 79.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 9 AM -35.5%	Largest Magnitude Sun./Holiday Decrease over last quarter 5 PM -40.3%
		Largest Magnitude Sun./Holiday Increase over one year ago 6 PM 96.8%	Largest Magnitude Sun./Holiday Increase over last quarter 8 PM 38.3%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago Orange -3.5%	Largest Magnitude Decrease over last quarter Orange -12%
		Largest Magnitude Increase over one year ago –	Largest Magnitude Increase over last quarter –
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago PM Peak -14%	Largest Magnitude Decrease over last quarter PM Peak -12.6%
		Largest Magnitude Increase over one year ago Off-Peak Day 92.8%	Largest Magnitude Increase over last quarter Off-Peak Day 5.9%
Average Number of Good and Bad Detectors		Change in Good over one year ago 13%	Change in Good over last quarter 7%
		Change in Bad over one year ago -8%	Change in Bad over last quarter -12%

Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2024 Q1-2023 Q1		Difference 2024 Q1-2023 Q4		Rank		
Route	County	2023 Q1	2023 Q4	2024 Q1	Absolute	Percentage	Absolute	Percentage	2023 Q1	2023 Q4	2024 Q1
I405	Orange	303,029	395,101	402,228	99,199	32.7%	7,127	1.8%	3	2	1
I5	Orange	420,637	424,171	346,063	-74,574	-17.7%	-78,109	-18.4%	1	1	2
SR91	Orange	380,644	335,903	280,152	-100,491	-26.4%	-55,750	-16.6%	2	3	3
SR55	Orange	194,124	218,522	217,800	23,676	12.2%	-722	-0.3%	4	4	4
SR57	Orange	170,253	193,305	159,496	-10,757	-6.3%	-33,809	-17.5%	5	5	5
SR22	Orange	62,374	78,028	60,819	-1,555	-2.5%	-17,210	-22.1%	6	6	6
SR73	Orange	8,407	18,697	15,760	7,354	87.5%	-2,937	-15.7%	8	9	7
I605	Orange	2,183	27,056	15,560	13,377	612.7%	-11,497	-42.5%	9	7	8
SR241	Orange	20,098	22,686	9,480	-10,618	-52.8%	-13,206	-58.2%	7	8	9
SR133	Orange	1,038	1,343	1,455	417	40.1%	111	8.3%	11	10	10
SR261	Orange	1,299	158	73	-1,226	-94.4%	-85	-53.9%	10	11	11
SR74	Orange	5	5	5	0	0.0%	0	0.0%	12	12	12
SR142	Orange	3	3	3	0	0.0%	0	0.0%	13	13	13
SR1	Orange	0	0	0	0		0				
TOTALS		**1,564,092**	**1,714,979**	**1,508,893**	**-55,199**	**-3.5%**	**-206,085**	**-12.0%**			

District 12
Mobility Performance Report

2025 1st Quarter

DEPARTMENT OF TRANSPORTATION

April 30, 2025

District 12 Traffic Operations Northwest

2025 1st Quarter

EXECUTIVE SUMMARY

Overview

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The Mobility Performance quarterly analysis compares information from the most recent quarter and the previous 4 quarters, involving the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
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This information is based on data collected every day of the quarter, twenty-four hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The Mobility Performance Report uses congestion at two speed thresholds: delay from vehicles traveling below 35 MPH and delay from vehicles traveling

below 60 MPH. The 35 MPH limit represents severe congestion while the 60 MPH limit represents light and heavy congestion. These thresholds/limits are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

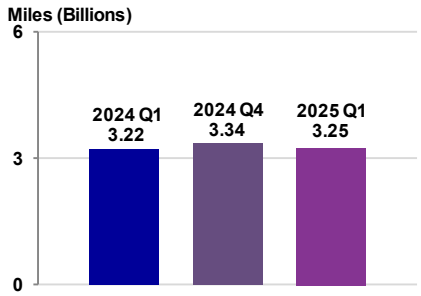
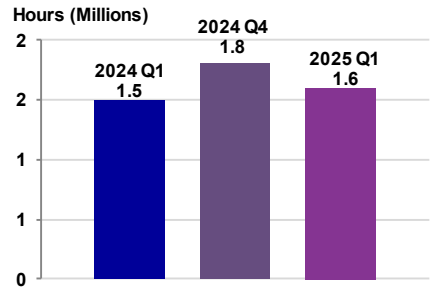
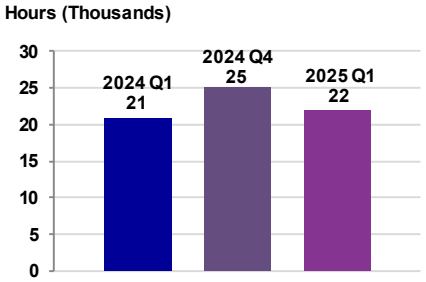
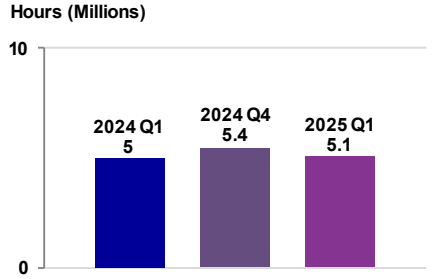
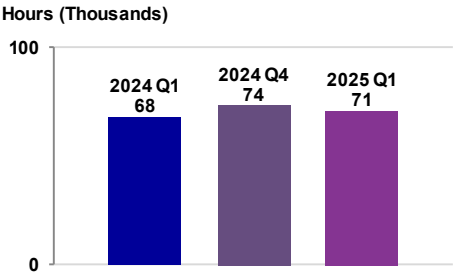
In the 1st quarter of 2025, total delay equaled to 1.6 million vehicle hours of delay (VHD) at the 35 MPH speed threshold and 5.1 million VHD at 60 MPH threshold. Compared to the previous quarter, there was a 11.2 percent decrease in 35 MPH VHD and 5.5 percent decrease in 60 MPH VHD

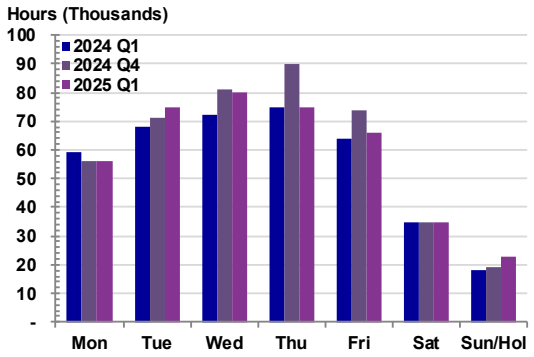
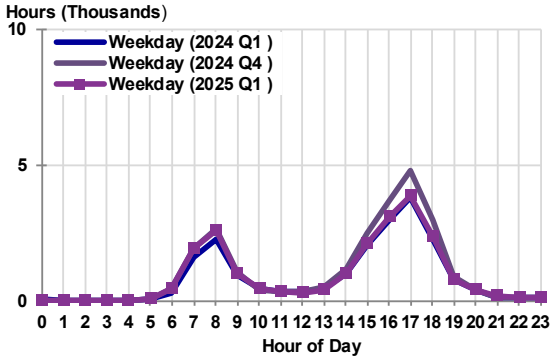
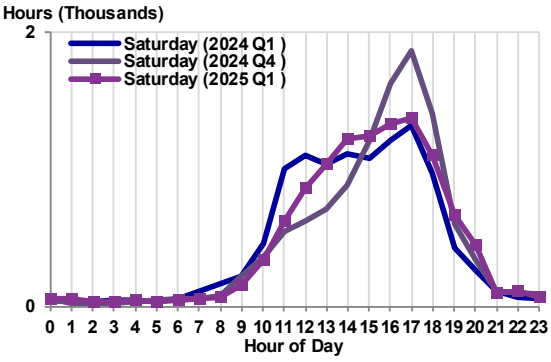
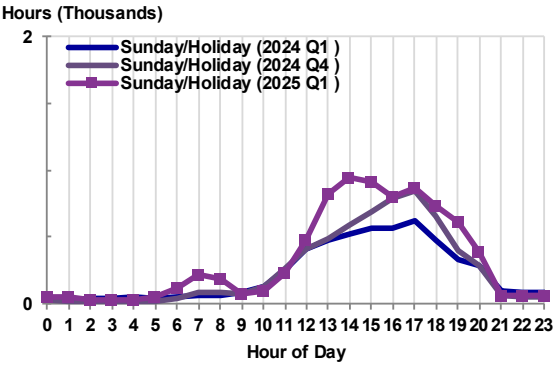
The average weekday VHD experienced in this quarter was approximately 22 thousand VHD at 35 MPH and 71 thousand VHD at 60 MPH. Compared to the previous quarter, there was 12.2 percent decrease in 35 MPH VHD and 4.1 percent decrease in 60 mph VHD.

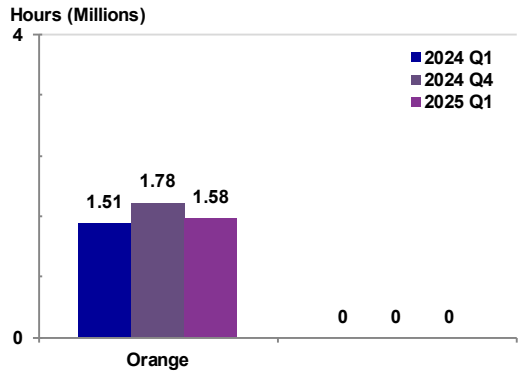
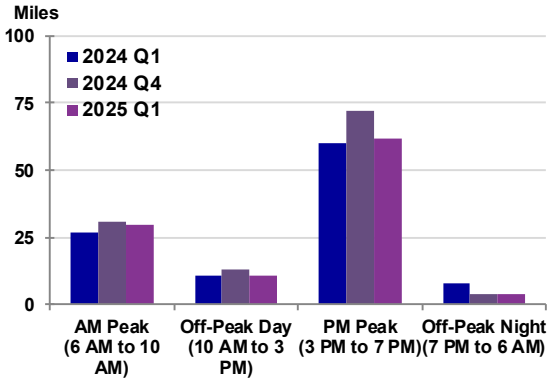
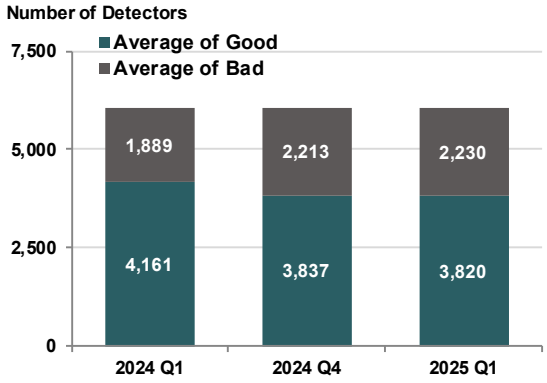
Top 10 Bottlenecks for the 1st Quarter of 2025

Co	Shift	Fwy	Dir	Name	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
Ora	PM	SR55	N	TAFT	15.78	15.8	33.82	-117.83	60	3.19	58,994	14,705
Ora	PM	SR55	N	NEWPORT AVE OR MVDS	9.76	R9.755	33.73	-117.83	59	1.72	38,707	10,725
Ora	PM	I405	N	BROOKHUR2	13.74	13.97	33.71	-117.96	61	1.66	35,168	11,665
Ora	AM	I5	S	MAIN 1	105.19	33	33.77	-117.87	58	1.11	34,787	9,945
Ora	AM	I405	S	HARBOR 1	10.97	11.2	33.69	-117.92	44	2.03	27,573	4,215
Ora	PM	SR55	N	LINCOLN 2	17.10	17.12	33.84	-117.83	48	2.06	26,950	8,690
Ora	PM	I5	S	RED ROBIN	91.53	19.33	33.62	-117.71	57	1.10	24,222	8,835
Ora	AM	I405	S	WARNER	14.49	14.72	33.71	-117.97	54	1.32	23,679	8,175
Ora	PM	I5	N	CULVER 1	98.82	R26.56	33.71	-117.78	43	2.03	21,879	9,495
Ora	PM	I5	N	YALE	98.06	R25.8	33.70	-117.77	55	0.82	20,143	7,255

2025 Q1 Quarterly Mobility Statistics

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		1%	-2.7%
Total Vehicle Hours of Delay (VHD) at 35 mph		4.9%	-11.2%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		5.3%	-12.2%
Total Vehicle Hours of Delay (VHD) at 60 mph		2.2%	-5.5%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		4%	-4.7%

Measure	Graph	Percentage Change		
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter	
		Monday -5.3%	Thursday -16.6%	
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter	
		Wednesday 11.1%	Sun/Hol 19.3%	
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter	
		12 PM -20.6%	5 PM -19.5%	
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter	
		7 AM 23.5%	9 PM 33.7%	
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter	
		11 AM -38.3%	5 PM -26.5%	
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter	
		7 PM 57%	2 PM 38.8%	
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter	
		10 AM -25.5%	11 AM -12.4%	
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter	
		2 PM 81.5%	2 PM 62%	

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago –	Largest Magnitude Decrease over last quarter Orange -11.2%
		Largest Magnitude Increase over one year ago Orange 4.9%	Largest Magnitude Increase over last quarter –
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago Off-Peak Night -51.6%	Largest Magnitude Decrease over last quarter PM Peak -14.2%
		Largest Magnitude Increase over one year ago AM Peak 11.3%	Largest Magnitude Increase over last quarter Off-Peak Night 4.8%
Average Number of Good and Bad Detectors		Change in Good over one year ago -8%	Change in Good over last quarter 0%
		Change in Bad over one year ago 18%	Change in Bad over last quarter 1%

Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2025 Q1-2024 Q1		Difference 2025 Q1-2024 Q4		Rank		
		2024 Q1	2024 Q4	2025 Q1	Absolute	Percentage	Absolute	Percentage	2024 Q1	2024 Q4	2025 Q1
I405	Orange	402,228	476,511	393,993	-8,235	-2.0%	-82,518	-17.3%	1	1	1
I5	Orange	346,063	429,484	368,277	22,215	6.4%	-61,207	-14.3%	2	2	2
SR55	Orange	217,800	277,698	281,089	63,289	29.1%	3,391	1.2%	4	3	3
SR91	Orange	280,152	262,799	278,663	-1,490	-0.5%	15,864	6.0%	3	4	4
SR57	Orange	159,496	180,345	153,339	-6,157	-3.9%	-27,007	-15.0%	5	5	5
SR22	Orange	60,819	78,656	49,711	-11,108	-18.3%	-28,945	-36.8%	6	6	6
SR73	Orange	15,760	43,194	28,700	12,939	82.1%	-14,494	-33.6%	7	7	7
I605	Orange	15,560	28,303	17,001	1,441	9.3%	-11,302	-39.9%	8	8	8
SR241	Orange	9,480	448	6,186	-3,294	-34.7%	5,737	1279.5%	9	10	9
SR133	Orange	1,455	4,074	5,232	3,777	259.6%	1,158	28.4%	10	9	10
SR261	Orange	73	106	61	-12	-16.3%	-45	-42.4%	11	11	11
SR74	Orange	5	5	5	0	0.0%	0	0.0%	12	12	12
SR142	Orange	3	3	3	0	0.0%	0	0.0%	13	13	13
SR1	Orange	0	0	0	0		0				
TOTALS		**1,508,893**	**1,781,626**	**1,582,260**	**73,366**	**4.9%**	**-199,367**	**-0.03%**			

Appendix B-1: Meeting CMP Traffic Impact Analysis Requirements

Meeting CMP Traffic Impact Analysis Requirements

AN OPTIONAL GUIDANCE FOR LOCAL JURISDICTIONS

Prepared for:

Orange County Environmental Management Agency
Orange County Transportation Commission
Orange County Transit District
League of Cities, Orange County Division
Transportation Corridor Agencies

Prepared by:

Kimley-Horn and Associates, Inc.
and
The Planning Center

June 11, 1991

CMP-TIA REQUIREMENTS

Requirements of CMP legislation

- Analyze impacts of land-use decisions on CMP Highway System.
- Estimate costs associated with mitigation of impacts on CMP Highway System.
- Exclude costs associated with mitigating the impacts of interregional travel.
- Allow credits against mitigation costs for local public and private contributions to improvements to the CMP Highway System.
  - For toll road facilities, allow credits only for local public and private contributions which will not be reimbursed from toll revenues or other state or federal sources.
- Report annually on actions taken to adopt and implement a program to analyze the impacts of land-use decisions on the CMP Highway System and to estimate the costs of mitigating those impacts.

Year One Goal

- Identify the impacts of development anticipated to occur over the next 7 years on the CMP Highway System and the projected costs of mitigating those impacts.

Actions Required of Local Jurisdictions

- A TIA will be required for CMP purposes for all proposed developments generating 2,400 or more daily trips. For developments which will directly access the CMP Highway System, the threshold for requiring a TIA should be reduced to 1,600 or more trips per day.
- Document procedures used to identify and analyze traffic impacts of new development on CMP Highway System. This documentation should include the following:
  - Identification of type of development proposals which are subject to a traffic impact analysis (TIA);
  - Description of required or acceptable TIA methodology; and
  - Description of inter-jurisdictional coordination process used when impacts cross local agency boundaries.
- Document procedures/standards used to determine the costs of mitigation requirements for impacts of new development on CMP Highway System.
- Document methodology and procedures for determining applicable credits against mitigation costs including allowable credits associated with contributions to toll road facilities.

SECTION 1 – INTRODUCTION

Purpose

State legislation creating the CMP requires that the program contain a process to analyze the impacts of land-use decisions by local governments on the regional transportation system. Once impacts of a land-use decision are identified, the CMP also requires that the costs to mitigate the impacts be determined.

For CMP purposes, the regional transportation system is defined by the legislation as all state highways and principal arterials at a minimum. This system is referred to as the CMP Highway System. The identification and analysis of impacts along with estimated mitigation costs are determined with respect to this CMP Highway System.

The objectives of this report are to:

- Provide guidance to local agencies in conducting traffic impact analyses.
- Assist local agencies in maintaining eligibility for funds through documentation of CMP compliance.
- Make available minimum standards for jurisdictions wishing to use them for identifying and analyzing impacts on CMP Highway System.
- Establish CMP documentation requirements for those jurisdictions which elect to use their own TIA methodology.
- Establish a baseline from which TIA standardization may evolve as experience is gained in the CMP process.
- Cause the analysis of impacts on the CMP Highway System to be integrated into the local agency development review process.
- Provide a method for determining the costs associated with mitigating development impacts.
- Provide a framework for facilitating coordination between agencies when appropriate.

Background

Through a coordinated effort among local jurisdictions, public agencies, business and community groups, Orange County has developed a CMP framework in response to the requirements of Assembly Bill 1791. This framework is contained in the CMP Preparation Manual which was issued in January 1991 as a joint publication of the following agencies:

- County of Orange
- Orange County Division, League of California Cities
- Orange County Transportation Commission
- Orange County Transit District
- Transportation Corridor Agencies

The CMP Manual describes the CMP Program requirements for each component prescribed by the CMP provision of AB 1791. The components include one entitled Land-Use Coordination, which sets forth the basic requirements for the assessment, mitigation, and monitoring of traffic impacts to the CMP Highway System which are attributable to development projects.

Consolidation of Remaining Issues

This report is intended to present a useful reference in addressing the remaining issues associated with the identification and treatment of development impacts on the CMP Highway System. It is desirable that a standardized approach be utilized for determining which projects require analysis and in carrying out the resulting traffic impact analysis (TIA). It is also desirable that a reasonably uniform approach be utilized in determining appropriate mitigation strategies and estimating the associated costs.

TIA Survey History

In 1989, Kimley-Horn and Associates, Inc. conducted a survey of TIA procedures being used at the time by local jurisdictions within Orange County. The survey revealed that although there were some commonalities, there was considerable variation in approach, scope, evaluation methodology, and project disposition.

As part of the CMP process, it was determined that the identification of TIA elements which can or should be standardized should be accomplished. Additional documentation of cost estimating practices and the development of standardized costs and estimating procedures will be valuable in achieving desired consistency among jurisdictions.

To accomplish these objectives, Kimley-Horn's previous TIA survey was updated, and additional information was solicited from each local agency within Orange County. The information was obtained through telephone interviews with City Engineers and Planners after they had an opportunity to examine the survey questionnaire which was mailed to them in advance of the interview. The information obtained was used in preparing the methodology recommendations contained in this report. A summary of the updated survey results is provided in the Appendix.

Relationships with Other Components

In addition to being an integral part of the Land-Use Coordination component of the CMP, the traffic impact analysis requirements also relate to all other CMP components to a greater or lesser degree. These components include the following:

- Modeling
- Level of Service
- Transit Standards
- Traffic Demand Management

- Deficiency Plans
- Capital Improvement Program

The Land-Use Coordination section in Chapter 3 of the CMP Preparation Manual dated January 1991 contains a detailed description of each of the component linkages listed above.

SECTION 2- REQUIREMENTS OF CMP LEGISLATION

The complete text of CMP legislation is contained in Appendix A to the Preparation Manual for the CMP for Orange County dated January 1991. For ease of reference, the requirements of this legislation related to analysis of the impacts of land-use decisions made by local jurisdictions are summarized as follows:

- Analyze impacts of land-use decisions on CMP Highway System.
- Estimate costs associated with mitigation of impacts on CMP Highway System.
- Exclude costs associated with mitigating the impacts of interregional travel.
- Allow credits against mitigation costs for local public and private contributions to improvements to the CMP Highway System.
    - For toll road facilities, allow credits only for local public and private contributions which will not be reimbursed from toll revenues or other state or federal sources.
- Report annually on actions taken to adopt and implement a program to analyze the impacts of land-use decisions on the CMP Highway System and to estimate the costs of mitigating those impacts.

SECTION 3 - ACTIONS REQUIRED OF LOCAL AGENCIES

The provisions of CMP legislation, as summarized in the preceding section, impose a requirement on local jurisdictions to carry out certain actions to demonstrate their compliance with the CMP program. This compliance will maintain eligibility to receive state gas tax funds made available by the voter approved Proposition 111. The actions and documentation requirements related to the identification and analysis of traffic impacts include the following:

- A TIA will be required for CMP purposes for all proposed developments generating 2,400 or more daily trips. For developments which will directly access the CMP Highway System, the threshold for requiring a TIA should be reduced to 1,600 or more trips per day.
- Document procedures used to identify and analyze traffic impacts of new development on CMP Highway System. This documentation should include the following:
    - Identification of type of development proposals which are subject to a

traffic impact analysis (TIA);

- Description of required or acceptable TIA methodology; and
- Description of inter-jurisdictional coordination process used when impacts cross local agency boundaries.

- Document procedures/standards used to determine the costs of mitigation requirements for impacts of new development on CMP Highway System.
- Document methodology and procedures for determining applicable credits against mitigation costs, including allowable credits associated with contributions to toll road facilities.
- Establish annual monitoring and reporting process to summarize activities performed in analyzing the impacts of land-use decisions on the CMP Highway System and in estimating the associated mitigation costs. Procedures for incorporating mitigation measures into the Capital Improvement Program should also be established.
- For the first year, local jurisdictions may assume that all interregional travel occurs on the freeway system, or they may develop an analysis methodology to determine the amount of interregional travel occurring on arterials which are part of the CMP Highway System. During the first year, TIAs need to analyze only the impacts to arterial portions of the CMP Highway System.

SECTION 4 - CMP TRAFFIC IMPACT ANALYSIS METHODOLOGY

To ensure that the CMP Program meets its objectives of linking land-use decisions with the adequate evaluation of impacts related to those decisions, traffic impact analyses must often be undertaken. There are a few essential elements which should be included in traffic impact analyses (TIA) used to support the program. Many local jurisdictions already employ development review processes which will be adequate for addressing CMP requirements. For those jurisdictions wishing technical guidance in carrying out the analysis of traffic impacts on the CMP Highway System, this section offers an appropriate TIA methodology.

PROJECTS REQUIRING TIA ANALYSIS

All development in Orange County will use the CMP Network to a greater or lesser extent from time to time. The seven-year capital improvement program, together with deficiency plans to respond to deficiencies which cannot be resolved in the 7-year timeframe, are developed in response to anticipated growth in travel within a jurisdiction. Thus, a certain level of travel growth is addressed in the normal planning process, and it is not necessary to evaluate relatively small projects with a TIA or to rely on TIAs as the primary means of identifying needed CMP Highway System improvements. Furthermore, County voters have approved a sales tax increase which will fund major improvements to the transit and highway systems serving the County.

Many jurisdictions will require an EIR for a proposed development project. When required, the EIR should include steps necessary to incorporate the required CMP analysis. Most or all of the TIA elements described in this section would normally be incorporated into the typical EIR traffic analysis.

Certain development projects not requiring an EIR should still be evaluated through a TIA process due to their land-use type, intensity, proximity to the CMP network, and/or duration of development timeframe. In other words, developments which will significantly alter the anticipated demand on a CMP roadway should be evaluated through a TIA approach.

At the present time, there is a wide-ranging approach to determining which projects will require a TIA. In some jurisdictions, there are formal guidelines, while in others it depends primarily on the judgment of a member of staff relative to the probable significance of the project's impact on the surrounding road system.

The OCTC TIA guidelines recommended defining three percent of the level of service standard as significant impact. This seems reasonable for application for CMP purposes. Thus, project impacts of three percent or less can be mitigated by impact fees or other revenues. Projects with the potential to create an impact of more than three percent of Level of Service E capacity will require TIAs. On this basis, it is recommended that all development projects which generate more than 2,400 daily trips be subject to a TIA for CMP evaluation. For projects which will directly access or be near a CMP Highway System link, a reduced threshold of 1,600 trips/day would be appropriate. Appendix B provides background information of the derivation of these threshold values.

TIA PROCESS

There are several essential elements in the TIA process itself. It is desirable that all elements be evaluated within an acceptable range of criteria to assure the objectives of the CMP process and to maintain a reasonable degree of equity from jurisdiction to jurisdiction. It is recognized, however, that for certain elements, some variations relating to professional judgment and local criteria and characteristics are necessary and appropriate to the process. These factors have been fully considered in developing the descriptions of the following elements:

- Evaluation of existing conditions
- Trip generation
- Internal capture and passer-by traffic
- Trip distribution and assignment
- Radius of development influence
- Background traffic
- Capacity analysis methodology

- Impact costs/mitigation

Evaluation of Existing Conditions

To evaluate the relative impacts of a proposed development, determine CMP Highway System status, and define appropriate mitigation for new impacts, it is necessary to understand the existing conditions on the affected roadway network. Evaluation of existing conditions is common to nearly all jurisdictions in Orange County. Given that most jurisdictions use link and intersection capacity analysis techniques compatible with the techniques identified in the level-of-service component, no changes in existing local jurisdiction procedures should be necessary in connection with the CMP Program.

Trip Generation

At the foundation of traffic impact analyses is the quantification of trip generation. Use of the ITE Trip Generation Manual is common throughout Orange County. In addition, other widely accepted practices are being used when appropriate to supplement the lit data. These practices include the use of acceptable rates published by local agencies and surveys conducted at similar sites, subject to approval of the reviewing agency. Given the uniformity of practice in Orange County to date, no major adjustments in this procedure should be required. It would be desirable, however, to establish a central library for reporting the results of special trip generation studies and to make these results available to all other jurisdictions who request them.

Internal Capture and Passer-by Traffic

Techniques for identifying the internal relationship of travel within mixed-use developments and the degree to which development captures passer-by trips as opposed to creating new trips are being applied by approximately 2/3 of the local jurisdictions within Orange County. The use of guidelines in the ITE Trip Generation Manual and appropriate professional judgment are the predominant techniques employed. To supplement the guidance available through ITE documentation, local jurisdictions are encouraged to undertake additional studies to document rates applicable within their jurisdiction. The determination of applicable rates should be undertaken by experienced transportation engineering professionals with thorough documentation of the methodology, data, and assumptions used. It is recommended that those jurisdictions which do not currently allow these adjustments establish revised TIA procedures incorporating this element. As with trip generation data, a central library would be desirable for reporting of data and analyses performed locally related to determination of appropriate factors.

Trip Distribution and Assignment

Several appropriate distribution and assignment techniques are used in Orange County, depending on the size of the development and the duration of buildout. Manual and computer modeling approaches are used as appropriate. Manual methods based on the best socio-economic information available to the agency and applicant should be acceptable except when a development's size makes a modeling approach more appropriate. Sources of this information include demographic surveys, market analyses, and previous studies.

Radius of Development Influence

There are numerous ways to identify the study area to be evaluated in a TIA. These include both qualitative and quantitative approaches. One of the most effective ways is through the determination of the quantity of project traffic on CMP roadway links compared to a selected level of impact. The goal of a quantitative approach is to ensure that all elements of the CMP network are addressed in a comparable manner from jurisdiction to jurisdiction. This is important due to the potential for overlapping impacts among jurisdictions. It is also important to maintain flexibility within a quantitative process to allow transportation professionals at local jurisdictions to add areas to the study which are of specific concern. It is not intended that CMP practices should restrict this aspect of each agency's existing TIA process.

It is recommended that the study area for CMP Highway System links be defined by a measure of significant impact on the roadway links. As a starting point, it is proposed that the measure be three percent of existing roadway capacity. Thus, when a traffic impact analysis is being done it would require the inclusion of CMP roadway links that are impacted by 3 percent or more of their LOS E capacity. If a TIA is required only for CMP purposes, the study area would end when traffic falls below three percent of capacity on individual roadway links. If the TIA is also required for other purposes, additional analysis can be required by the local jurisdiction based on engineering judgment or local regulation as applicable.

Background Traffic

For a reasonable assessment of the level of service on the CMP network, it is necessary to not only identify the proposed development impact, but also the other traffic which can be expected to occur during the development of the project. There are numerous methods of evaluating background traffic. The implications of these alternative methods are that certain methodologies may result in deficiencies, while other methodologies may find acceptable operating conditions.

The cost to mitigate impacts of a land-use decision is unrelated to background traffic. Rather, it is related to the cost of replacing the capacity which is consumed by the proposed development. However, it is necessary to understand background traffic to evaluate level of service. Background traffic is composed of existing traffic demands and growth from new development, which will occur over a specific period of time. Both the existing and the growth elements of background traffic contain sub-elements. These include traffic which is generated within Orange County, that which begins and/or ends within the County, and interregional traffic which has neither end in Orange County. CMP legislation stipulates that interregional traffic will not be considered in CMP evaluations with respect to LOS compliance or determining costs of mitigation.

Given that the CMP process is new, there is no existing practice of separating interregional traffic from locally generated traffic. Until a procedure for identifying interregional traffic is developed, local jurisdictions may assume that all interregional traffic occurs on the freeway system. Initially, TIAs required for CMP purposes need only analyze the impacts to arterial portions of the CMP Highway System.

Local governments in Orange County are generally consistent in their approach to background traffic. There are three major approaches used. The first is to use historical growth factors which are applied to existing traffic volumes to project future demands. The second is to aggregate the impacts of specific individual projects which have been approved or planned but not built to identify the total approved background traffic on the study area roadway system. A third method is to use computer modeling to identify total traffic demands which represent both background traffic and project impact traffic. For the present CMP program, it is recommended that the discretion for the appropriate process lie within the local jurisdiction, however, the method to be used in the jurisdiction should be clearly defined in the agency's TIA rules and procedures. In addition, it is recommended that all jurisdictions create a listing of approved development projects and a map showing their locations which would be updated frequently and be available to other jurisdictions on request. The listing should include information related to type and size of land-use and phasing for each project.

It is appropriate to periodically update long range forecasts based on development approvals and anticipated development growth in the region and plan a transportation system which will provide the necessary level of service for this amount of development. When a development proposal significantly alters this long-term plan, it will be necessary to address the aggregate of all approved development to assure that there is a long-term solution. However, from a TIA perspective, it is reasonable and practical to consider only that development traffic which can be expected to exist at the time of buildout of a new development proposal. For CMP purposes, background traffic should be limited to that traffic which is generated by development which will exist at the time of buildout of a proposed development. CEQA requirements may dictate that other background traffic scenarios be analyzed as well.

Capacity Analysis Methodology

Once the projected traffic demands are known, it is necessary to evaluate these demands relative to available and planned roadway capacity. The methodology used in capacity determination in Orange County is relatively uniform. Additionally, the level of service (LOS) component of the CMP Program has identified specific criteria which are to be used in determining level-of-service on the CMP Highway System.

Impact Costs/Mitigation

This element is at the heart of the CMP process; that is to identify the costs of mitigating a land development decision on the CMP System.

The current practice throughout Orange County requires mitigation only when the level-of-service standard is exceeded. However, some jurisdictions require regular impact mitigation fees and phasing road improvements with development. The growth management requirement of the sales tax Measure M2 mandates a traffic phasing program. Often, mitigation is equated to construction of roadway improvements to maintain an acceptable level-of-service and/or to maintain the existing level-of-service. In some instances, a pay-and-go mitigation approach is allowed. This means that new development may pay its fair share and go forward, and the provision of improvements remains the responsibility for the local jurisdiction.

To assess responsibility for impacts, there are a variety of approaches. One approach is to consider impact traffic as a percentage of total traffic. Impact traffic may also be taken as a percentage of existing capacity. Another common approach is to use the net impact of development as a percentage of total future traffic demand.

Since CMP legislation requires the identification of costs of land-use decisions and impacts across jurisdictional lines, it is desirable that the CMP program have a consistent method for identifying the costs of development impacts. On the other hand, a wide variety of mitigations can occur from jurisdiction to jurisdiction.

It is recommended that the impact costs be calculated as the total of new development traffic on a roadway link requiring improvement divided by the capacity of the improvement times the cost of the improvement. This can be expressed in a formula as follows:

$$\textbf{Impact Cost} = \frac{\text{Development Traffic}}{\text{Capacity of Improvement}} \times \text{Improvement Cost}$$

Improvements to be included in the cost analysis should be those identified in the jurisdiction's adopted Circulation Element and any additional improvements identified in the development TIA. The total impact cost for a development would be the sum of costs for all significantly impacted links. Funds collected from these assessments could be aggregated and applied to specific projects on an annual basis in accordance with locally established priorities. If project impacts extend across jurisdictional boundaries, the impact costs calculated for significantly impacted links in an adjacent jurisdiction should be allocated to that jurisdiction for use in its program of prioritized improvements.

Through this process, progress can be achieved in implementing system improvements without having to wait for 100% of the funds to be collected for each individual improvement. In theory, all required improvements will be accomplished over time as new developments are approved which will generate traffic to utilize available and planned system capacity. The costs should be based on recent unit cost experience in Orange County and may include planning, permitting, preliminary engineering, design, right-of-way, construction, landscaping, construction inspection, and, if applicable, financing costs.

There are two approaches to mitigation. One is traffic reduction, and the other is to build improvements to accommodate the new traffic. Traffic reduction through transportation demand ordinances or other regulations which will reduce impacts can be calculated in the same way a development impact would be calculated. But in this case, it would be taken as a credit or a reduction in impact. Mitigation techniques such as TDM or phasing or reduction in project intensity merely reduce for a new development the amount of impact which must be mitigated and are changes which should occur prior to the calculation of project impact costs. A monitoring program should be established to confirm that anticipated reductions are realized.

To comply with the CMP process, a local jurisdiction should accomplish two things. First, it should demonstrate that it is analyzing and mitigating the impact of new development on the CMP Highway System. Second, it should maintain the level-of-service standards or adopt a deficiency plan Consistent with CMP legislation. To demonstrate the mitigation which has been undertaken, the local jurisdiction should maintain a record of the cumulative impact cost of all development approvals and the cumulative mitigation value of improvements provided by the local jurisdiction. These could be construction programs or credits from a TDM ordinance or other traffic reduction measures. It is then only necessary to show on an annual basis that the total improvement costs plus traffic reduction credits are equal to or greater than the total impact cost of new development approvals to prove mitigation compliance.

The maintenance of level-of-service would come through implementation of improvements contained in the 7-year capital improvements element, Measure M2 and state-funded improvements, additional improvements which may be made in conjunction with development approvals, and from deficiency plans which may be required from time to time. From a TIA perspective, it would be necessary to document the following:

a. the level of service on the CMP network at buildout of the proposed development will be: 1) level of service “E” or better, or 2) will not result in a cumulative increase of more than 0.10 in V/C ratio if the established LOS standard is worse than LOS E.

b. a deficiency plan exists to address the links for which level-of-service is not provided, and

c. a deficiency plan will be developed for a new link when a deficiency occurs.

DOCUMENTATION OF RULES AND PROCEDURES

To assure a clear understanding of the TIA procedures which are necessary to support a viable CMP program, it is recommended that a set of rules and procedures be established by each local jurisdiction. Ideally, these rules and procedures would cover the requirements for the full TIA analysis and would include minimum requirements for the CMP process. Local jurisdictions which prefer not to adopt separate CMP TIA standards could implement standards for CMP requirements within a TIA and maintain their existing approach for all other aspects of their existing TIA process. The following is a summary of the elements which should be included in CMP procedures documentation and the methodologies applicable to each element:

1. **Thresholds for Requiring a TIA for CMP** - Projects with the potential to create an impact of more than 3% of LOS "E" capacity on CMP Highway system links should require a TIA. All projects generating 2,400 or more daily trips should require a TM for CMP evaluation. If a project has direct access to a CMP link, this threshold should be reduced to 1,600 or more daily trips. A TIA should not be required again if one has already been performed for the project as part of an earlier development approval which takes the impact on the CMP Highway System into account.
2. **Existing Conditions Evaluation** - Identify current level-of-service on CMP roadways and intersections where the proposed development traffic will contribute to 3 percent of the existing capacity. Use procedures defined in the level-of-service component for evaluation of level of service.
3. **Trip Generation** - ITE trip generation rates or studies from other agencies and locally approved studies for specific land uses.
4. **Internal Capture and Passerby Traffic** - Justification for internal capture should be included in the discussion. Passerby traffic should be calculated based upon ITE data or approved special studies.
5. **Distribution and Assignment** - Basis for trip distribution should be discussed and should be linked to demographic or market data in the area. Quantitative and/or qualitative information can be used depending on the size of the proposed development. As the size of the project increases, there should be a tendency to use a detailed quantitative approach for trip distribution. Trip assignment should be based on existing and projected travel patterns and the future roadway network and its travel time characteristics.
6. **Radius of Impact/Project Influence** - The analysis should identify the traffic assignment on all CMP roadway links until the impact becomes less than 3 percent of level of service E capacity.
7. **Background Traffic** - Total traffic which is expected to occur at buildout of the proposed development should be identified.
8. **Impact Assessment Period** - This should be the buildout timeframe of the proposed development.
9. **Capacity Analysis Methodology** - The methodology should be consistent with that specified in the level-of-service component of the CMP Program.
10. **Improvement Costs** - The cost of roadway improvements should include all costs of implementation including studies, design, right-of-way, construction, construction inspection, and financing costs, if applicable.
11. **Impact Costs and Mitigation** - The project impact divided by the capacity of a roadway improvement multiplied by the cost of the improvement should be identified for each significantly impacted CMP link and summed for the study area.

12. **Projected Level-of-Service** - The TIA should document that the projected level-of-service on all CMP links in the study area will be at Level-of-Service "E" or the existing level-of-service, whichever is less, or that a deficiency plan exists or will be developed to address specific links or intersections.

SECTION 5 – APPENDICES

Appendix A – Summary of TIA Update Survey Results (Available Upon Request)

Appendix B – Deviation of Thresholds for Projects Requiring TIA Analysis

APPENDIX B

DERIVATION OF THRESHOLDS FOR PROJECTS REQUIRING TRAFFIC IMPACT ANALYSIS

The TIA process recommendation is to require a TIA for any project generating 2,400 or more daily trips. This number is based on the desire to analyze any impacts which will be 3% or more of the existing capacity. Since most of the CMP Highway System will be four lanes or more, the capacity used to derive the threshold is a generalized capacity of 40,000 vehicles/day. The calculations are as follows:

40,000 veh./day x 3% = 1,200 veh./day

Assuming 50/50 distribution of project traffic on a CMP link

1,200 x 2 = 2,400 veh./day total generation

As can be seen, a project which will generate 2,400 trips/day will have an expected maximum link impact on the CMP system of 1,200 trips/day based on a reasonably balanced distribution of project traffic. On a peak-hour basis, the 3% level of impact would be 120 peak-hour trips. For intersections, a 3% level of impact applied to the sum of critical volume (1,700 veh./hr.) would be 51 vehicles per hour.

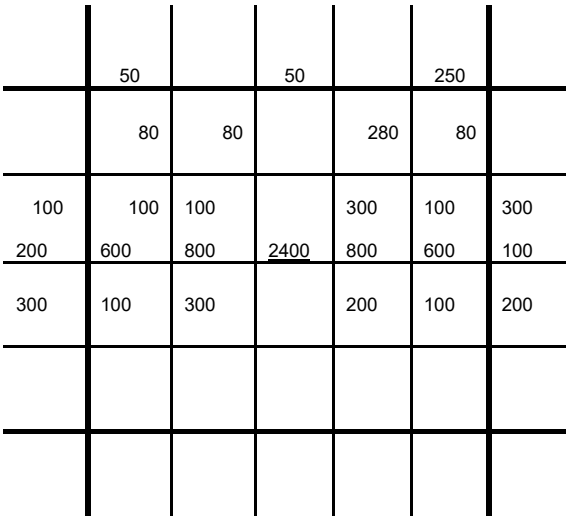
A level of impact below 3% is not recommended because it sets thresholds which are generally too sensitive for the planning and analytical tools available. Minor changes in project assumptions can significantly alter the results of the analysis, resulting in additional unnecessary costs for the developer and additional review time by staff with little benefit. Additionally, a lower threshold of significance will expand the study area, which also increases effort and costs, and increases the probability that the analysis would extend beyond jurisdictional boundaries.

The following illustration shows that the 2,400 trip/day threshold would be expected to produce a 3% impact on the CMP System only when the project has relatively direct access to a CMP link. As a project location moves further off the CMP System, the expected impact is reduced. With a more directional distribution of project traffic a development with direct CMP System access could produce a 3% impact with somewhat lower daily trip generation.

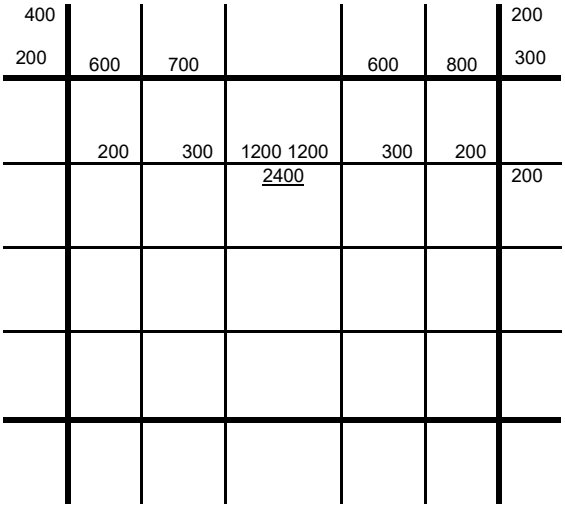
The table included on the following page illustrates the daily trip generation thresholds which would produce various levels of impact on the CMP System for project locations with and without direct access to the system. Based on a 3% impact the trip generation thresholds for requiring a TIA are 1,600 veh./day with direct CMP System access and 2,400 veh./day if a project does not have direct CMP System access.

CMP Highway System Impacts for Development Generating 2,400 trips/day

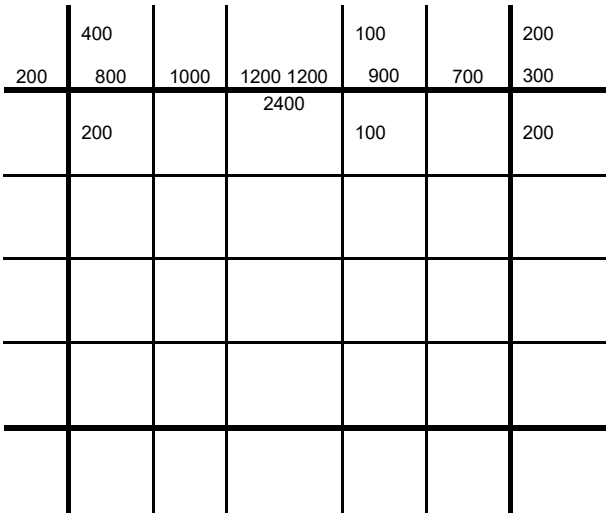
Based on proximity to CMP System



MAXIMUM IMPACT < 1%



MAXIMUM = 1.8%



MAXIMUM = 3%
COULD BE 4.5% WITH 75/25 SPLIT

Alternative Criteria

Assume 75/25 distribution

For direct access to CMP System:
1,200/.75 = 1,600 veh./day

For no direct CMP System Access:
Approximately 1/3 less impact on CMP System
1,600 x 3/2 = 2,400 veh./day

Daily Trip Generation

Significant Impact	Direct Access	No Direct Access
1%	500	800
2%	1,100	1,600
3%	1,600	2,400

Appendix B-2: Traffic Impact Analysis Exempt Projects

Appendix B-2: Traffic Impact Analysis Exempt Projects

Projects exempt from the requirements of a mandatory CMP Traffic Impact Analysis are listed below. This list is not meant to be all-inclusive. Any inquiries regarding additional exemptions shall be transmitted in writing to the Orange County Transportation Authority, attention CMP Program Manager.

Project Not Requiring a CMP TIA Analysis:

1. Applicants for subsequent development permits (i.e., conditional use permits, subdivision maps, site plans, etc.) for entitlement specified in and granted in a development agreement entered into prior to July 10, 1989.[1]
2. Any development application generating vehicular trips below the Average Daily Trip (ADT) threshold for CMP Traffic Impact Analysis, specifically, any project generating less than 2,400 ADT total, or any project generating less than 1,600 ADT directly onto the CMPHS. [1, 2]
3. Final tract and parcel maps. [1, 2, 3]
4. Issuance of building permits. [1, 2, 3]
5. Issuance of certificates of use and occupancy. [1, 2, 3]
6. Minor modifications to approved developments where the location and intensity of project uses have been approved through previous and separate local government actions prior to January 1, 1992. [1, 2, 3]

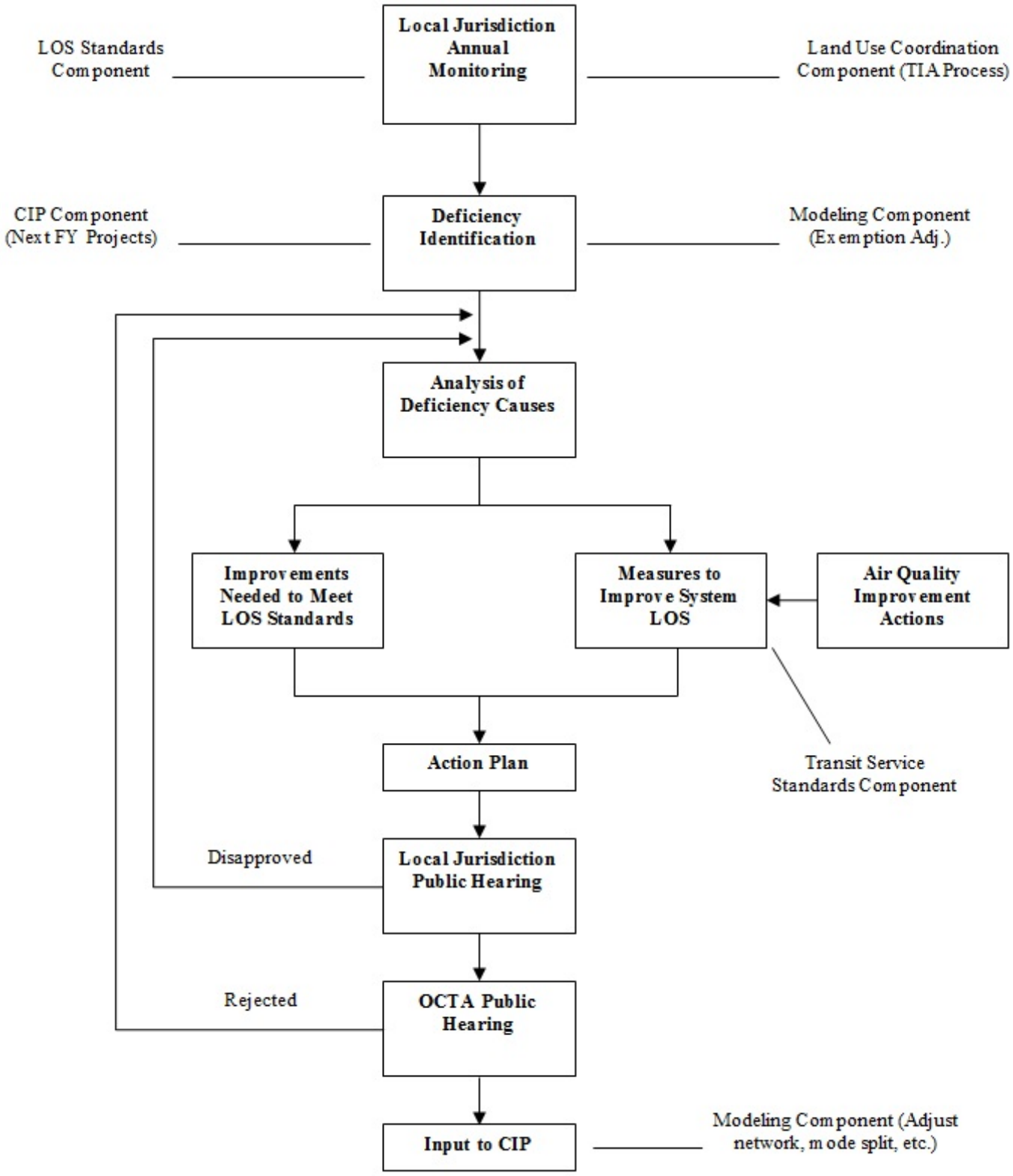
[1] Vehicular trips generated by CMP TIA-exempt development applications shall not be factored out in any traffic analyses or levels of service calculations for the CMPHS.

[2] Exemption from conduction a CMP TIA shall not be considered an exemption from such projects' participation in approved, transportation fee programs established by the local jurisdiction.

[3] A CMP TIA is not required for these projects only in those instances where development approvals granting entitlement for the project sites were granted prior to the effective date of CMP TIA requirements (i.e., January 1992).

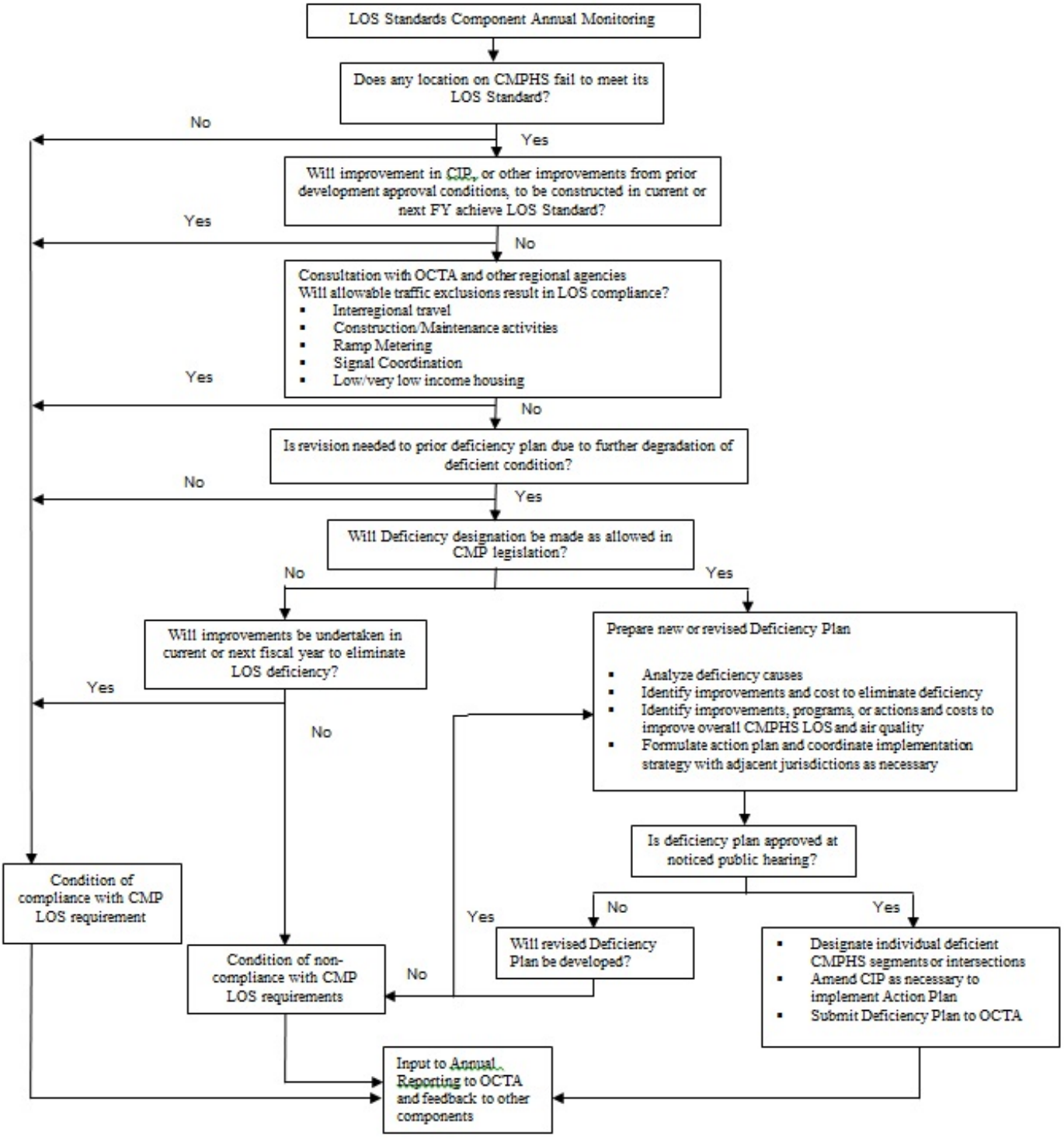
Appendix C-1: CMP Deficiency Plan Flow Chart

APPENDIX C-1: CMP Deficiency Plan Flow Chart



Appendix C-2: Deficiency Plan Decision Flow Chart

APPENDIX C-2: Deficiency Plan Decision Flow Chart



Appendix D: CMP Monitoring Checklist

Jurisdiction:	Choose an item.

CMP Monitoring Checklist: Level of Service (LOS)				
CMP Checklist		**YES**	**NO**	**N/A**
1.	Check "Yes" if either of the following apply: • There are no CMP intersections in your jurisdiction. • Factoring out statutorily-exempt activities[1], all CMP intersections within your jurisdiction are operating at LOS E (or the baseline level, if worse than E) or better.	☐	☐	
NOTE: ONLY THOSE AGENCIES THAT CHECKED "NO" FOR QUESTION 1 NEED TO ANSWER THE REMAINING QUESTIONS.				
2.	If any, please list those intersections that are not operating at the CMP LOS standards. • _____ • _____ • _____			☐
3.	Will deficient intersections, if any, be improved by mitigation measures to be implemented in the next 18 months or improvements programmed in the first year of any recent funding program (i.e. local jurisdiction CIP, Measure M CIP)?	☐	☐	☐
	a. If not, has a deficiency plan been developed for each intersection that will be operating below the CMP LOS standards?	☐	☐	☐
Additional Comments:				

[1]The following activities are statutorily-exempt from deficiency determinations: interregional travel, traffic generated by the provision of low and very low income housing, construction rehabilitation or maintenance of facilities that impact the system, freeway ramp metering, traffic signal coordination by the state or multi-jurisdictional agencies, traffic generated by high-density residential development within 1/4 mile of a fixed-rail passenger station, traffic generated by mixed-use residential development within 1/4 mile of a fixed-rail passenger station.

CMP Monitoring Checklist: Deficiency Plans				
CMP Checklist		**YES**	**NO**	**N/A**
1.	Check "Yes" if either of the following apply: • There are no CMP intersections in your jurisdiction. • Factoring out statutorily-exempt activities[2], all CMP Highway System (CMPHS) intersections within your jurisdiction are operating at LOS E (or the baseline level, if worse than E) or better.	☐	☐	
NOTE: ONLY THOSE AGENCIES THAT CHECKED "NO" FOR QUESTION 1 NEED TO ANSWER THE REMAINING QUESTIONS.				
2.	If any, please list those intersections found that are not operating at the CMP LOS standards. • _____ • _____ • _____			☐
3.	Are there improvements to bring these intersections to the CMP LOS standard scheduled for completion during the next 18 months or programmed in the first year of the CIP?	☐	☐	☐
NOTE: ONLY THOSE AGENCIES THAT CHECKED "NO" FOR QUESTION 3 NEED TO ANSWER THE REMAINING QUESTIONS.				
4.	Has a deficiency plan or a schedule for preparing a deficiency plan been submitted to OCTA?	☐	☐	☐
5.	Does the deficiency plan fulfill the following statutory requirements? :			
	a. Include an analysis of the causes of the deficiency?	☐	☐	☐
	b. Include a list of improvements necessary to maintain minimum LOS standards on the CMPHS and the estimated costs of the improvements?	☐	☐	☐
	c. Include a list of improvements, programs, or actions, and estimates of their costs, which will improve LOS on the CMPHS and improve air quality?	☐	☐	☐
	i. Do the improvements, programs, or actions meet the criteria established by South Coast Air Quality Management District (SCAQMD) (see the CMP Preparation Manual)?	☐	☐	☐

[2]The following activities are statutorily-exempt from deficiency determinations: interregional travel, traffic generated by the provision of low and very low income housing, construction rehabilitation or maintenance of facilities that impact the system, freeway ramp metering, traffic signal coordination by the state or multi-jurisdictional agencies, traffic generated by high-density residential development within 1/4 mile of a fixed-rail passenger station, traffic generated by mixed-use residential development within 1/4 mile of a fixed-rail passenger station.

CMP Monitoring Checklist: Deficiency Plans (cont.)				
CMP Checklist		**YES**	**NO**	**N/A**
6.	Are the capital improvements identified in the deficiency plan programmed in your seven-year CIP?	☐	☐	☐
7.	Does the deficiency plan include a monitoring program that will ensure its implementation?	☐	☐	☐
8.	Does the deficiency plan include a process to allow some level of development to proceed pending correction of the deficiency?	☐	☐	☐
9.	Has necessary inter-jurisdictional coordination occurred?	☐	☐	☐
10.	Please describe any innovative programs, if any, included in the deficiency plan:			☐
Additional Comments:				

CMP Monitoring Checklist: Land Use Coordination				
CMP Checklist		**YES**	**NO**	**N/A**
1.	Have you maintained the CMP traffic impact analysis (TIA) process you selected for the previous CMP?	☐	☐	
	a. If not, have you submitted the revised TIA approach and methodology to OCTA for review and approval?	☐	☐	☐
2.	Did any development projects require a CMP TIA during this CMP cycle?[3]	☐	☐	
NOTE: ONLY THOSE AGENCIES THAT CHECKED "YES" FOR QUESTION 2 NEED TO ANSWER THE REMAINING QUESTIONS.				
3.	If so, how many?		_____	
4.	Please list any CMPHS links & intersections that were projected to not meet the CMP LOS standards (indicate whether any are outside of your jurisdiction). • _____ • _____ • _____			☐
	a. Were mitigation measures and costs identified for each and included in your seven-year CIP?	☐	☐	☐
	b. If any impacted links & intersections were outside your jurisdiction, did your agency coordinate with other jurisdictions to develop a mitigation strategy?	☐	☐	☐
5.	If a local traffic model was/will be used, did you follow the data and modeling consistency requirements as described in the CMP Preparation Manual (available online at http://www.octa.net/pdf/cmpprepmanual.pdf)?	☐	☐	☐
Additional Comments:				

[3]Exemptions include: any development generating less than 2,400 daily trips, any development generating less than 1,600 daily trips (if it directly accesses a CMP highway), final tract and parcel maps, issuance of building permits, issuance of certificate of use and occupancy, and minor modifications to approved developments where the location and intensity of project uses have been approved through previous and separate local government actions prior to January 1, 1992.

CMP Monitoring Checklist: Capital Improvement Program (CIP)				
CMP Checklist		**YES**	**NO**	**N/A**
1.	Did you submit a seven-year CIP to OCTA by June 30?	☐	☐	☐
2.	Does the CIP include projects to maintain or improve the performance of the CMPHS (including capacity expansion, safety, maintenance, and rehabilitation)?	☐	☐	☐
3.	Is it consistent with air quality mitigation measures for transportation- related vehicle emissions?	☐	☐	☐
4.	Was the OC Fundtracker CIP provided by the OCTA used to prepare the CIP?	☐	☐	☐
Additional Comments:				

OPTIONAL - CMP Monitoring Checklist: Federal Congestion Management				
CMP Checklist		**YES**	**NO**	**N/A**
1.	Does any federally funded project in the CIP result in a significant increase in single occupant vehicle (SOV) capacity?	☐	☐	☐
NOTE: ONLY THOSE AGENCIES THAT CHECKED "YES" FOR QUESTION 1 NEED TO ANSWER THE REMAINING QUESTION.				
2.	If so, was the project developed as part of the federal Congestion Management Process, in other words, was there an appropriate analysis of reasonable travel demand reduction and operational strategies?	☐	☐	☐
Additional Comments:				

I certify that the information contained in this checklist is true.

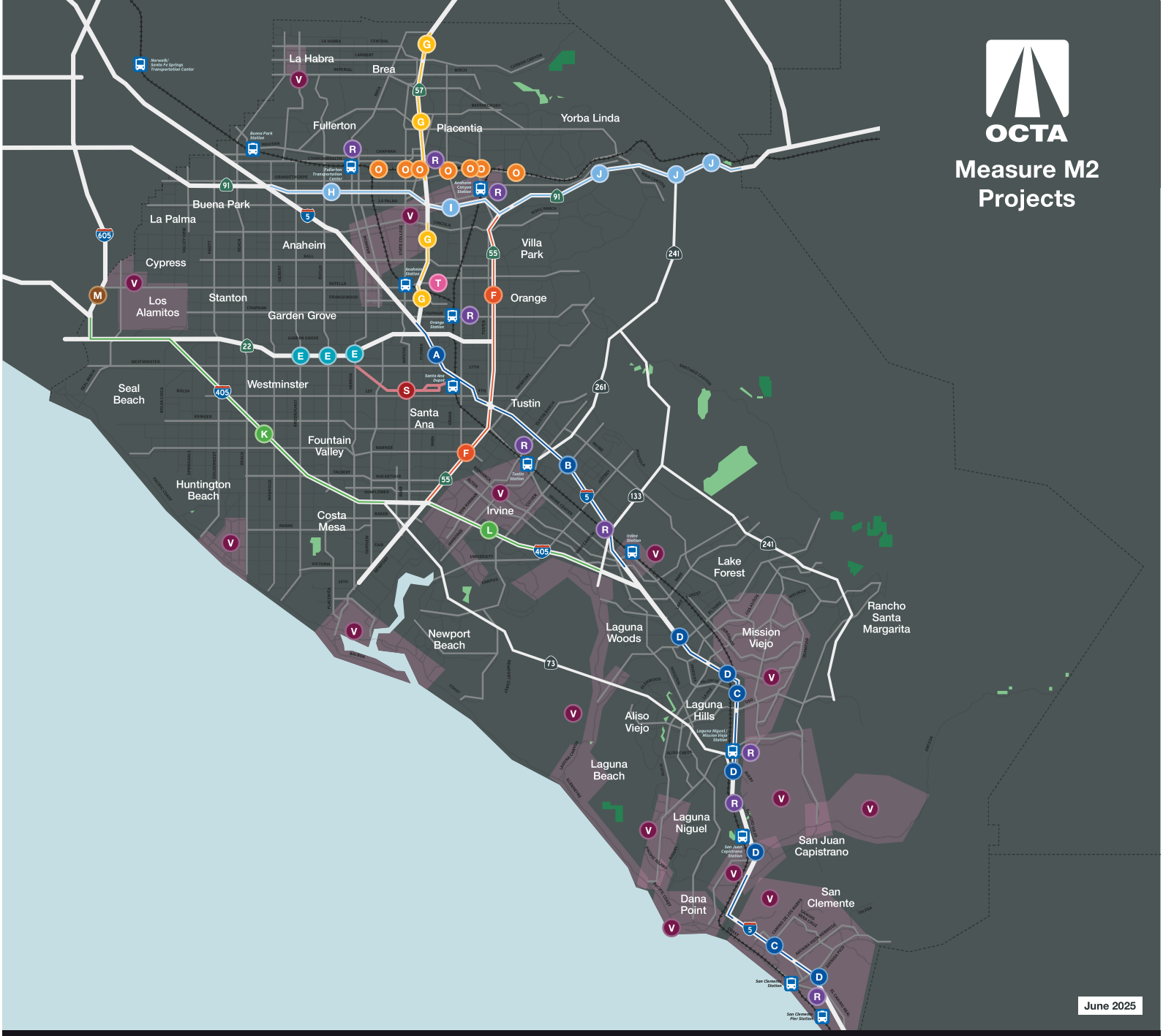
Name (Print)	Title	Signature	Date

Appendix E: Capital Improvement Programs

Available online at:

https://www.octa.net/programs-projects/programs/plans-and-studies/congestion-management-program/

Appendix F: Measure M2 Program of Projects



Freeway Improvement Program

Interstate 5 (I-5) Projects

- A SR-55 to SR-57
- B I-405 to SR-55
- C SR-73 to El Toro Road
- C Avenida Pico to San Juan Creek Road
- D Highway Interchanges

State Route 22 (SR-22) Projects

- E Access Improvements

State Route 55 (SR-55) Projects

- F I-405 to I-5
- F I-5 to SR-91

State Route 57 (SR-57) Projects

- G Northbound, Orangewood Avenue to Katella Avenue
- G Northbound, Katella Avenue to Lincoln Avenue
- G Northbound, Orangethorpe Avenue to Lambert Road
- G Northbound, Lambert Road to Tonner Canyon Road

State Route 91 (SR-91) Projects

- H Westbound, I-5 to SR-57
- I SR-57 to SR-55
- J SR-55 to Riverside County Line

Interstate 405 (I-405) Projects

- K SR-73 to I-605
- L I-5 to SR-55

Interstate 605 (I-605) Projects

- M Katella Avenue Interchange Improvements

Freeway Mitigation Program

- Restoration Projects (Part of Projects A-M)
- Acquisition Projects (Part of Projects A-M)

Streets & Roads

- O Grade Separation Program
- P Signal Synchronization Project Corridors

Rail

- Metrolink Rail Line
- Metrolink Station

Transit Projects

- R Grade Separation and Station Improvement Projects
- S Transit Extensions to Metrolink
- T Metrolink Station Conversion to accept Future High-Speed Rail Systems
- V Community Based Transit/Circulators

Other Projects Not Shown

Project N:
- Freeway Service Patrol

Project O:
- Regional Capacity Program

Project Q:
- Local Fair Share Program

Project R:
- Grade Crossing & Trail Safety Enhancements
- Metrolink Service Expansion Program

Project U:
- Senior Mobility Program
- Senior Non-Emergency Medical Transportation Program
- Fare Stabilization Program

Project W:
- Safe Transit Stops

Project X:
- Environmental Cleanup Program

Appendix G: Orange County Subarea Modeling Guidelines

Note: *The primary purpose of these guidelines is to promote consistency in transportation modeling within Orange County.*

Available online at:

https://www.octa.net/programs-projects/programs/plans-and-studies/congestion-management-program/