9 ACTION PLAN AND NEXT STEPS

Implementing the recommendations of the OC Transit Vision will require concerted effort and resources from OCTA. While many of the projects identified in this plan will take years to come to fruition, there are steps that OCTA can take immediately to begin moving the vision to reality. This chapter outlines a phasing strategy, costs, and funding sources for implementing the OC Transit Vision.

PHASING STRATEGY

The phasing strategy shown in Figure 9-1 and described below addresses recommendations described in Chapters 5, 6, and 7 of the OC Transit Vision. Note that recommendations in some areas, such as paratransit, are not included here as they should be further defined through future processes.

Short-Term Recommendations (2018-2022)

Implement OC Flex Microtransit Pilot in Bolsa-Dorado and Aliso-Mission Zones (2018)

In summer 2018, OCTA will pilot OC Flex service, allowing customers to request shared on-demand rides by smartphone app or phone call. Two pilot zones, each approximately six square miles, have been identified around the Goldenwest Transportation Center and the Laguna Niguel/Mission Viejo Metrolink station. During operating hours, customers can be picked up or dropped off anywhere within these zones by branded OCTA vans. If successful, OCTA could expand OC Flex to additional areas where existing bus service is unproductive or nonexistent.

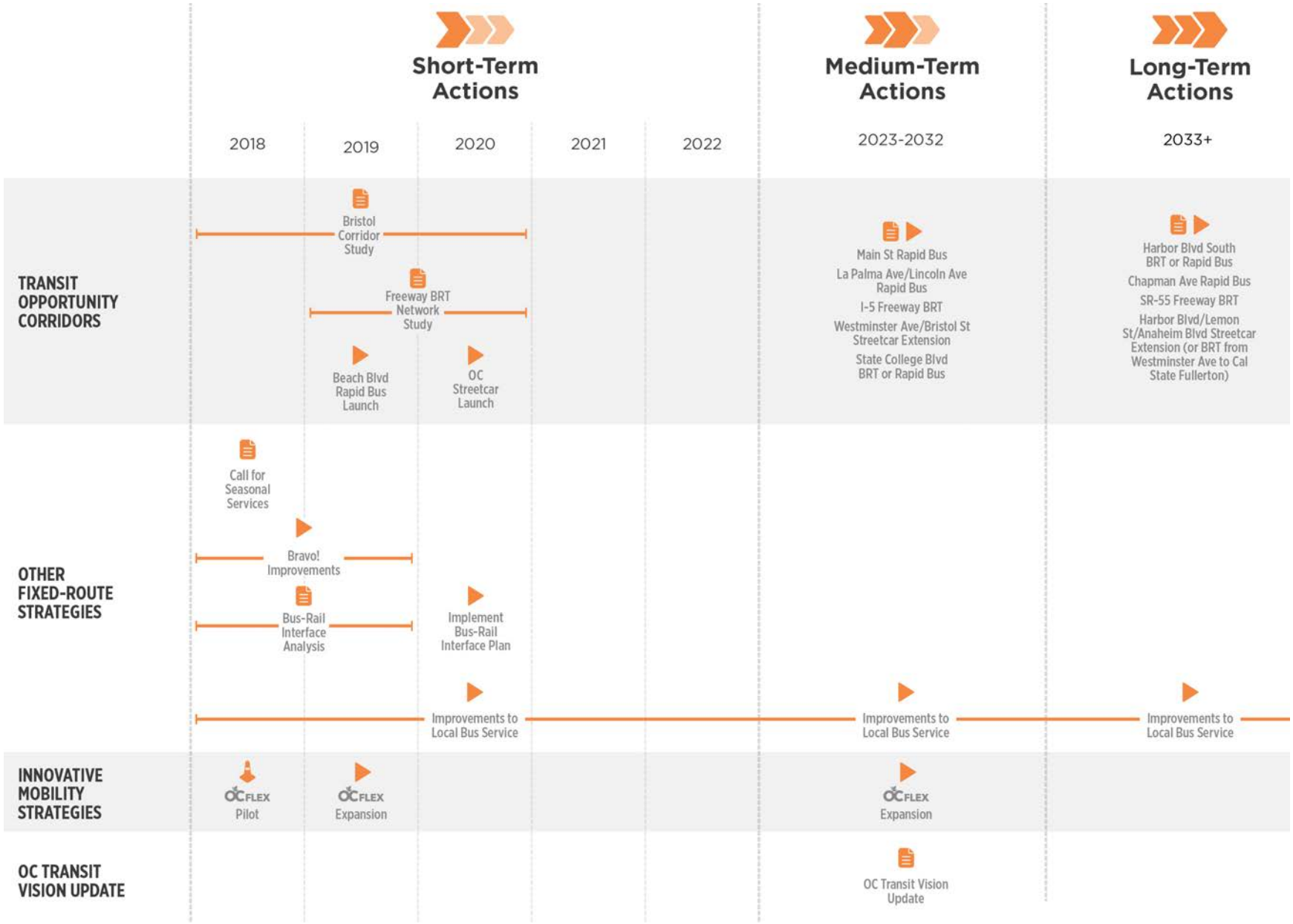
Issue Project V Call for Seasonal and Special Event Services (2018)

OC Transit Vision outreach identified a desire for more specialized fixed-route services, such as the increasingly popular OC Fair service. Additionally, while many community shuttle services funded under the Measure M2 Project V program have struggled to attract riders, seasonal services have proven popular. A Project V call-for-projects in 2018 should focus on additional seasonal and special event services that reduce local congestion.

Develop and Implement Strategies for Incremental Improvements to Existing and Future Rapid Bus (Bravo!) Routes (2018-2019)

Several lower-cost operational upgrades can improve the speed of existing and future Bravo! routes. These include off-vehicle fare collection, all-door boarding, and transit signal priority. OCTA staff will work with local jurisdictions, beginning on Harbor Boulevard and Beach Boulevard, to pilot select improvements. In addition, many bus stops along these corridors may qualify for Measure M Project W funding to improve passenger amenities such as customer information, bus shelters, and seating.

Figure 9-1 OC Transit Vision Recommendations Phasing



Analyze Regional Bus-Rail Connections as Part of Upcoming Los Angeles–Orange County Transportation Study (2018-2019)

As Los Angeles County builds out its Metro Rail system over the next 40 years, Orange County should continue to explore ways to integrate with lines terminating near the county border. The OC Transit Vision analyzed connections to these corridors within Orange County; however, they did not score well enough to recommend short- or medium-term improvements. A broader analysis of these connections should be included in an upcoming joint transportation study between the two counties.

Conduct Transit Corridor Study of Bristol Street from Initial OC Streetcar Alignment to South Coast Metro Area (2018-2020)

As OCTA completes the Central Harbor Transit Study, it is logical to study the next most viable alignment for streetcar or bus rapid transit (BRT). Based on initial ridership modeling, Bristol Street shows the greatest potential. Staff will present study-area limits and a project scope to the OCTA Board prior to proceeding with any study.

Implement Beach Boulevard Rapid Bus (2019)

The OCTA Board approved Bravo! service on Beach Boulevard in 2016, pending availability of necessary resources. OCTA staff has identified grant funding to purchase additional buses and operating resources to implement the service by 2019. A consultant is currently studying the feasibility of transit signal priority in this corridor to further improve transit speed and reliability.

Expand OC Flex (2019, pending successful pilot)

OCTA staff will provide the Board with updates on the OC Flex pilot project. If the service meets its performance criteria, the service could be expanded to two additional zones.

Conduct Freeway BRT Network Study (2019-2020)

Freeway BRT is a new mode for Orange County, and one that has varied widely in its implementation elsewhere. Rather than advance individual projects, OCTA will conduct a network study of potential Freeway BRT corridors, including I-5, SR-55, and others (such as I-405). This study would identify the most promising corridors and begin to shape Freeway BRT's infrastructure and operational characteristics. This work could be included as part of a larger study examining managed lanes throughout the county.

Begin Operations of Initial OC Streetcar Service and Implement Bus-Rail Interface Plan (2020)

The initial segment of the OC Streetcar is scheduled to open in December 2020. A bus-rail interface plan was developed to complement the streetcar service by making changes to alignments, frequencies, and service hours of connecting routes.

Improve Service on Major, Local, and Community routes to meet Transit Investment Framework Guidelines (ongoing, as resources are available)

The OC Transit Vision includes a Transit Investment Framework that OCTA should use to prioritize changes to routes not recommended for rapid bus, BRT, or streetcar upgrades. As funding is available beyond the resources needed to implement the other recommendations in the OC Transit Vision, service on these routes should be improved to meet the service span and frequency standards contained in the framework.

Mid-Term Recommendations (2023-2032)

Update OC Transit Vision (2023)

The OC Transit Vision—and the existing Transit Opportunity Corridor recommendations—will be updated to incorporate new studies or changes in travel demand. This update will also recommend additional corridor studies.

Mid-Term Service Recommendations

The following list includes transit projects that may be implemented in the mid-term based on project development and funding availability:

- Main Street rapid bus
- OC Flex expansion
- La Palma Avenue/Lincoln Avenue rapid bus
- I-5 Freeway BRT
- Westminster Avenue/Bristol Street streetcar extension or BRT from Goldenwest Transportation Center to UC Irvine
- State College Boulevard BRT or rapid bus

Long-Term Recommendations (2033+)

Based on project development and performance, these services are recommended for long-term implementation if funding is available:

- Harbor Boulevard/Lemon Street/Anaheim Boulevard streetcar extension, or BRT from Westminster Avenue to Cal State Fullerton
- Harbor Boulevard South BRT or rapid bus
- McFadden Avenue/Bolsa Street rapid bus
- Chapman Avenue rapid bus
- SR-55 Freeway BRT

COSTS

Following are estimated capital costs for the Transit Opportunity Corridor (TOC) projects and estimated changes in annual revenue hours required to operate services in each TOC (including changes to existing services in the corridor).

Capital Costs

Capital costs for TOC projects were estimated based on unit (primarily per-mile) costs specific to each mode. For streetcar, BRT, and rapid bus, per-mile costs were derived from alternatives in OCTA's Central Harbor Boulevard Transit Corridor Study. For Freeway BRT, costs could vary dramatically depending on project design, so a "high" per-mile cost was estimated based on the Los Angeles County Metro North Hollywood-Pasadena BRT project freeway BRT alternative, and a "low" cost was estimated based on projected vehicle requirements (including spares) and costs. Costs by mode (year 2017 dollars) are shown in Figure 9-2.

Figure 9-2 Estimated Capital Cost per Mile, by Mode (Year 2017 Dollars)

Mode	Cost
Streetcar	$52,730,000 per mile
BRT	$12,250,000 per mile
Rapid Bus	$3,400,000 per mile
Freeway BRT (high)	$11,500,000 per mile
Freeway BRT (low)	$915,000 per vehicle

Based on the unit costs above, capital costs were estimated for each TOC project (Figure 9-3 and Figure 9-4). These estimates are conceptual—based solely on mode and, in most cases, project length—and would be refined through project development and design. For TOCs in which two potential modes were identified (e.g., streetcar or bus rapid transit in the North Harbor/Santa Ana corridor), the more expensive mode served as the basis for the cost estimate.

Figure 9-3 Estimated Capital Cost per TOC Arterial Project (Year 2017 Dollars)

TOC Project	One-Way Miles	Cost
North Harbor/Santa Ana Streetcar	10.32	$540,000,000
Westminster/Bristol Streetcar	18.89	$1,000,000,000
Harbor BRT	10.39	$130,000,000
State College BRT	12.08	$150,000,000
Beach Rapid Bus	16.32	$55,000,000
Main Rapid Bus	9.92	$34,000,000
La Palma/Lincoln Rapid Bus	14.44	$49,000,000
Chapman Rapid Bus	10.78	$37,000,000
McFadden/Bolsa Rapid Bus	12.30	$42,000,000

Figure 9-4 Estimated Capital Cost per TOC Freeway BRT Project (Year 2017 Dollars)

TOC Project	Units	Cost
"High" Estimate		
I-5 Freeway BRT	34.52 one-way miles	$400,000,000
SR-55 Freeway BRT	15.10 one-way miles	$170,000,000
"Low" Estimate		
I-5 Freeway BRT	14 vehicles	$12,810,000
SR-55 Freeway BRT	9 vehicles	$8,235,000

The total estimated cost of the TOC projects listed above is approximately $2.1-2.6 billion (in year 2017 dollars).

In addition to the TOCs, the Metrolink improvements described in Chapter 5 would have significant capital costs. However, these would largely be funded by others and are therefore not included here.

Operating Costs

To estimate changes in operating costs associated with Vision Plan recommendations, annual revenue hours required to operate each service were estimated based on conceptual service plans for TOC lines, implementation of OC Flex service, and changes to existing services required to meet Transit Investment Framework standards. Arterial TOC services were assumed to operate every 10 minutes during the peak period and every 15 minutes through the day (weekday midday, or base period), while freeway BRT services would operate every 15 minutes during the peak and every 30 minutes throughout the day. "Complementary" existing local services would be retained but reduced somewhat—generally to every 20 minutes in the peak and 30 minutes off-peak—and "redundant" limited-stop services would be eliminated.

Estimated changes in annual revenue service hours by mode and by milestone year (i.e., the end of the short-, medium-, and long-term phases) are shown in Figure 9-5. This table includes both fixed-route and general-public demand-response (OC Flex) services as well as both arterial and freeway services in the BRT category.

Figure 9-5 Estimated Annual Revenue Service Hours by Mode and Milestone Year

Year	Mode					Total
	Rapid Bus	BRT	Other Bus	Streetcar	OC Flex	
2016	40,334	--	1,576,551	--	--	1,616,885
2022	139,730	--	1,695,768	30,496	24,000	1,750,264
2032	250,575	95,825	1,788,863	121,026	36,000	1,945,889
2040	357,815	169,725	1,900,602	160,780	36,000	2,097,382

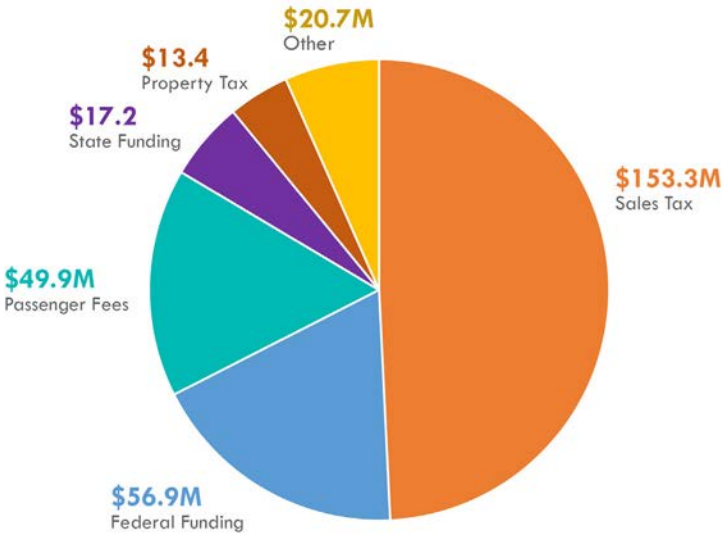
In total, the OC Transit Vision recommendations are projected to increase the number of annual revenue service hours required to operate all fixed-route and general-public demand-response services by approximately 30 percent by 2040.

Costs to operate accessible services (ACCESS paratransit and related services), meanwhile, will be dependent on the success of measures to maintain high-quality service while containing costs.

FUNDING

Many of the less-costly recommendations in this report, such as the OC Flex pilot program and expanded seasonal and special-event services, could be funded using existing OCTA sources such as the Measure M county sales tax (existing sources of OCTA revenue are shown in Figure 9-6, and Measure M funding categories are shown in Figure 9-7). However, the more expensive recommendations—large capital projects such as those proposed for the Transit Opportunity Corridors—would require a mix of sources likely including federal funds such as those used for the OC Streetcar project. In many cases, partnerships with other agencies (and in some cases, private partners) will be needed.

Figure 9-6 OCTA Bus and Paratransit Revenues (2016)



One important consideration in discussing funding options is the reliability of different funding sources for transportation projects. Many funding sources are formula-based, while other competitive grant programs are merit-based or discretionary. Funding sources for transit have proven volatile in recent years, particularly at the federal and state levels as old sources have been eliminated or reduced while new sources have been introduced.

The sections below identify potential funding sources for transit projects and match these sources to the projects and programs recommended as part of the OC Transit Vision.

Transit Capital and Operating Funding Sources

A list of potential funding sources to implement the OC Transit Vision recommendations is provided below. A comprehensive description of these funding sources is available in the *State of OC Transit* report.

Federal Sources

- The Federal Transit Administration (FTA) Section 5309 Capital Investment Grant (CIG) Program, including:
  - New Starts projects
  - Small Starts projects
  - Core Capacity projects

  - Programs of Interrelated Projects
- FTA Section 5307 Urbanized Area Formula Grants
- FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities funds
- FTA Section 5337 State of Good Repair
- FTA Section 5339 Bus and Bus Facilities
- The Federal Highway Administration (FHWA) Surface Transportation Block Grant Program
- The FHWA Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Transportation Investment Generating Economic Recovery (TIGER)
- The Transportation Infrastructure Finance and Innovation Act (TIFIA)
- The Railroad Rehabilitation and Improvement Financing (RRIF) Program

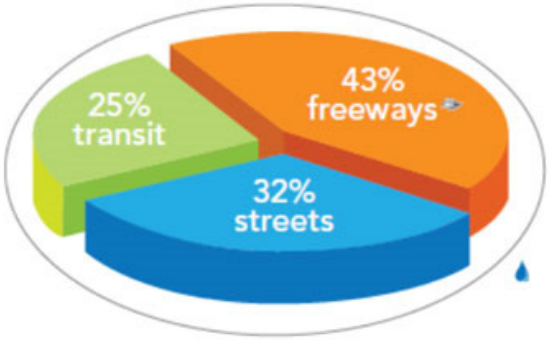
State Sources

- Cap and Trade Funds
- State Infrastructure Bank
- The Transportation Development Act (TDA)
- State Transportation Improvement Program (STIP)
- Senate Bill 1 (SB1) Competitive Grants

Regional, County and Local Sources

- SCAG Sustainability Planning Grants
- Measure M County Sales Tax
- Parcel Taxes
- Motor Vehicle Fuel/Gas Taxes
- Vehicle Registration Fees and Excise Taxes
- Real Estate Transaction Fees
- Community Facilities District
- Developer Fees and Agreements
- Real Estate Transfer Fees
- Rental Car and Hotel Taxes
- Commercial Parking Taxes
- Parking Benefit District
- General Obligation Voter-Approved Bonds
- City General Funds
- Other Local Sources, including:
  - Alcoholic Drinks in Bars
  - Payroll Taxes
  - Tolls

Figure 9-7 Measure M Allocations



Private Sources

- Community Benefit District/Business Improvement District (CBD/BID)
- Value Capture
- Naming Rights

Public-Private Sources

- Public-Private Partnerships (P3s)

Potential Funding Sources for OC Transit Vision Recommendations

Transit Opportunity Corridors

In recent years, the primary sources of federal funding available to support major transit capital projects, including rail and bus rapid transit lines, have been the following:

- Federal Transit Administration's (FTA) merit-based Capital Investment Grants Program, including the New Starts and Small Starts programs for larger and smaller projects, respectively;
- U.S. Department of Transportation's (USDOT) discretionary Transportation Investment Generating Economic Recovery (TIGER) program; and
- Federal Highway Administration (FHWA) formula-based Congestion Mitigation and Air Quality (CMAQ) grants distributed to states and localities.

As a point of comparison, nearly half ($148.9 million) the cost of the OC Streetcar project will be covered by a New Starts grant, with a large portion of the remainder coming from state cap-and-trade program and local Measure M sales tax revenues (specifically Measure M's Project S funding category for fixed-guideway projects).

While more expensive rail and BRT projects would likely require federal funding, less-costly rapid bus projects could be funded primarily using state and local sources (see Bravo! Upgrade Strategy below), while freeway BRT improvements could be integrated into larger highway projects with their own distinct funding sources.

One emerging option for funding major transit capital projects—which has been used in other areas, is under consideration in Los Angeles County, and has been used in Orange County for highway projects—is "P3s" or public-private partnerships. P3s can be structured in various ways, but typically reduce up-front cost and risk for public agencies in exchange for longer-term concessions. Some transit projects in other parts of the country, typically streetcar projects, have been partly financed using alternative forms of private financing such as assessment districts and other forms of value capture.

Service Investments

Increasing levels of fixed-route service to meet the Transit Investment Framework guidelines (Ch. 4) would require additional funding from operating-funding sources such as FTA Section 5307 grants and state Transportation Development Act sales tax revenues.

Bravo! Upgrade Strategy

Upgrades to existing and new rapid bus services could be funded with existing sources for transit capital improvements, including sources typically used to purchase new vehicles. FTA Section 5339 funds are one option; state cap-and-trade funds, which may be used for a variety of purposes, are another.

Seasonal and Special Event Services

These projects would be funded primarily using Measure M's Project V funding category for local projects.

LOSSAN/Metrolink Improvements

The regional rail upgrades described in Chapter 6 would be the responsibility of agencies other than OCTA, although Measure M funding could be used for access and other improvements such as grade separations.

OC Flex

Expansion of OCTA's pilot microtransit program could be funded using Measure M Project V funds.

OC Vanpool Expansion

Expansion of the OC Vanpool program could take two forms: 1) an expanded subsidy from existing sources, or 2) *de facto* expansion of the program through expansion of Orange County's HOV/managed land network, which is being funded through non-transit sources.

Paratransit Enhancements

FTA Section 5310 funds are a primary source of funding for paratransit services such as OCTA's ACCESS.

Additional Studies

A number of grant programs are available to support planning efforts, including Southern California Association of Governments (SCAG) Sustainability Planning Grants and Caltrans Transportation Planning Grants (a program funded by Senate Bill 1).

Access Improvements

Multimodal access to transit stops can draw on a variety of funding sources depending on mode, including FWHA Congestion Mitigation and Air Quality (CMAQ) funding, cap-and-trade dollars, and FHWA Surface Transportation Block Grant Program funding.