



Board Report

File #: 2018-0513, File Type: Program

Agenda Number: 9.

REVISED
AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE
NOVEMBER 14, 2018

SUBJECT: SR-710 NORTH CORRIDOR MOBILITY IMPROVEMENTS

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

APPROVE the following actions pertaining to the development and implementation of mobility improvement projects on local arterials and at freeway local interchanges experiencing congestion as a result of the discontinuity of the SR-710 North Freeway:

- A. APPROVE the attached list of eligible Mobility Improvement Projects [MIPs] recommended for funding;
- B. AUTHORIZE programming ~~\$350~~ \$450 million in Measure R funds and \$65 million in State and Federal funds for a total of ~~\$415~~ \$515 million to the SR-710 starting in FY20 for the initial list of MIPs in compliance with the guidelines in the Board Motion 29.1 (Attachment A) to fund new mobility improvement projects consistent with the purpose of the 710 freeway gap closure project to relieve congestion on local streets in the impact area of the SR-710 as depicted in the SR-710 Environmental Document; and
- C. AUTHORIZE programming up to \$45 million in Measure R funds starting in FY20 for the Transportation System Management/Transportation Demand Management (TSM/TDM) projects that are currently listed in the SR-710 North environmental document and will be cleared environmentally upon adoption of the SR-710 North Final Environmental Document to advance to final design and construction.

All future expenditure of funds shall be contingent upon completion of the SR-710 North environmental process and selection of the TSM/TDM Locally-Preferred Alternative as the Preferred Alternative.

FASANA AMENDMENT that Project 1 be included and that \$100 million be set for Project 1 which is the SR-710 North of I-10 Termination Project (I-10 to Valley Boulevard).

SOLIS FRIENDLY AMENDMENT to ensure inclusivity and transparency, stakeholders from the communities directly affected by the SR-710 North Project should be given the opportunity to participate in the next project selection process.

ISSUE

In its May 2017 Directors meeting, Metro Board of Directors adopted the TSM/TDM as the Locally-Preferred Alternative for the SR-710 North Gap Closure Project. Additionally, Chair Fasana and Directors Barger, Solis, Garcetti, and Najarian introduced Motion 29.1 to implement local mobility improvements to alleviate traffic congestion on local arterials in the SR-710 North corridor. Approximately, one billion dollars in local, state and federal funds (Measure R, Regional Improvement Program, Interregional Improvement Program, Regional Surface Transportation Program, and Congestion Mitigation and Air Quality Program funds) are available for the MIPs and TSM/TDM projects pending completion of the SR-710 North environmental process and adoption of the Locally-Preferred TSM/TDM Alternative as the Preferred Alternative.

Staff in collaboration with local agencies along the corridor started the process of identifying and qualifying projects and, upon Board approval, will begin programming the eligible projects in FY 2019 -20 and in future years.

BACKGROUND

The SR-710 North Project Approval and Environmental Document (PAED) process identified options to alleviate traffic congestion in the corridor resulting from the absence of a portion of the SR-710 and freeway linkage between the I-10 and I-210.

Alternatives including No-Build, TSM/TDM, Bus Rapid Transit, Light Rail Transit, and a freeway tunnel were studied. Current and potential future traffic impacts and the anticipated benefits of each alternative considered and studied were discussed with the impacted communities and stakeholders, and feedback was documented/incorporated.

In its May 2017 meeting, Metro Board of Directors adopted the TSM/TDM as the Locally-Preferred Alternative and directed staff to identify additional mobility improvements beyond the TSM/TDM projects listed in the environmental document that could improve the traffic flow along the SR-710 corridor between I-10 and I-210 as well as similar projects in the adjacent areas in the City and County of Los Angeles.

DISCUSSION

Since the May 2017 Board meeting, staff has been in contact with the local jurisdictions to develop a list of eligible projects for early investment and implementation. As shown in REVISED Attachments B1 and B2, to date 170 projects with a total estimated construction cost of ~~more than \$1.2~~ \$1.3 billion have been submitted by local jurisdictions to Metro for funding. Based on staff's initial evaluation, ~~50~~ 51 eligible projects totaling ~~\$414.4~~ \$514.4 million were qualified (REVISED Attachment C) and are being presented herewith for Board approval and programming/funding.

Project descriptions for the initial list of MIPs recommended for funding are shown in **REVISED** Attachment D.

In the evaluation process, projects submitted by local agencies were packaged in two groups:

Group A: Projects that would relieve congestion and improve mobility on local streets and at the freeway local interchanges affected by the absence of the SR-710 North Freeway. Eligible projects were selected based on the current level of traffic impact, the anticipated future traffic conditions, potential benefits gained by implementation of the proposed project(s), and a nexus to the SR-710 freeway gap.

Group A Projects were qualified based on project descriptions and justifications provided by the project sponsors. Final eligibility will be determined upon review of supporting documents and final scopes to be provided by the project sponsors prior to initiation of funding agreements.

Group A Projects were further categorized into eight types:

1. Local Street/Road and Freeway Local Interchange Mobility and Operational Improvement Projects
2. Local Street Intersection Improvement Projects (Spot Improvements)
3. Intelligent Transportation System [ITS] Improvement Projects
4. Transit Projects
5. Active Transportation Projects
6. Maintenance/Rehabilitation Projects
7. Studies
8. Parking Structures to remove street parking on key arterials and substantially increase roadway throughput capacity along the north-south and the connecting east-west arterials affected by the absence of the SR-710 freeway.

Requests for funds for active transportation projects, maintenance/rehabilitation projects and general studies submitted by local agencies were not considered for funding at this time. Parking facilities were considered as a substitute for on-street parking along major streets with high traffic volumes to release additional throughput capacity to improve mobility in the area. Funding new parking facilities will be proportional to the street mobility benefits gained.

MIPs listed in **REVISED** Attachment C is conceptually approved based on the information and anticipated benefits presented by project sponsors. Staff, in collaboration with project sponsors, will validate the information prior to programming the MIPs.

Group B: Projects that will be funded by the proceeds from the sale of State-owned properties under the SR-710 North Rehabilitation Account (710 North Rehab Account), in accordance with Government Code 54237.7 and subject to all requirements governing the use of those funds. As noted in the legislation, projects located in Pasadena, South Pasadena, Alhambra, La Canada Flintridge, and the 90032 Postal Zip Code are eligible for funding. Group B projects may include, but are not limited to, sound walls; transit and rail capital improvements;

bikeways; pedestrian improvements; signal synchronization; dedicated left- and right-turn lanes at intersections; and major street resurfacing, rehabilitation, and reconstruction.

The sale of the State-owned properties will be conducted in three phases. As of the date of this report, sale of those properties has started. Proceeds from the sales will be assigned to eligible projects by the California Transportation Commission (CTC). Metro will periodically submit lists of eligible local projects to CTC for funding. The guidelines for this process will be developed.

In anticipation of the approval of the SR-710 Final Environmental Document by Caltrans by November 2018, Board's approval of recommendations requested in this Board report will allow the staff to continue discussions with local agencies, refine the scopes of approved eligible projects and start programming those projects in FY 2019-20 and beyond.

Staff will also continue to work with local agencies to identify more eligible mobility improvement projects for funding.

DETERMINATION OF SAFETY IMPACT

The proposed action has no known adverse impact on the safety of Metro's patrons and employees or users of the facility. Caltrans and local safety standards will be adhered to in the design of the proposed improvements.

FINANCIAL IMPACT

A total of ~~\$445~~ \$515 million in local, state and federal funds will be programmed in FY20 (~~\$40M~~ \$50M), FY21 (~~\$85M~~ \$105M), FY22 (~~\$165M~~ \$205M) and FY23 (~~\$125M~~ \$155M) to fund the initial list of the MIPs shown in REVISED Attachment C. Preliminary cash flow projections are shown in REVISED Attachment E based on assumptions as of September 21, 2018, subject to further determination of the scope of work and the schedule of projects.

A total of \$45 million in local Measure R funds will be programmed in FY20 (\$5M), FY21 (\$10M), FY22 (\$20M), and FY23 (\$10M) to fund the SR-710 North TSM/TDM Projects currently listed in the SR-710 North environmental document.

For FY 19, \$2,100,000 was budgeted in Highway Program Cost Center 4730, under 710 North Early Action Project No. 460315, Task No. 01 in Account 50316 (Professional Services). Since this is a multi-year project, the Project Manager, the Cost Center Manager, and the Senior Executive Officer, Program Management - Highway Program will be responsible for budgeting the remaining costs of the Project in future fiscal years.

Impact to Budget

The source of funds will be Measure R Highway Capital (20%) Funds, State Funds (Interregional Improvement Program and Regional Improvement Program funds), and Federal Funds (Regional Surface Transportation Program and Congestion Mitigation and Air Quality Program funds). These funds are not eligible for bus and rail operation and capital expenditures.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The MIPs attached herein reflect priorities identified by local agencies affected by the absence of the SR-710 between I-10 and I-210 to reduce congestion and improve mobility on their streets and at the freeway local interchanges.

Working collectively with project sponsors to implement the MIPs is consistent with Goal No. 1 (provide high-quality mobility option that enable people to spend less time traveling) and Goal No. 4 (transform LA County through regional collaboration) of the Metro Strategic Plan.

ALTERNATIVES CONSIDERED

In addition to the initial list of eligible projects recommended in REVISED Attachment C of this Board report, the Board may choose to fund other projects submitted by the local jurisdictions that are not yet approved by staff. This alternative is not recommended at this time due to inconsistency with the Board's intention to prioritize investment in projects that have a direct nexus to the SR-710 gap and can considerably improve the traffic flow on the impacted city streets and at the freeway local interchanges and improve mobility in the SR-710 corridor.

The Board may also choose to relax the project eligibility requirements to allow funding for more transportation projects. This option is not recommended either as staff is working with the local jurisdictions to reevaluate, re-scope, and combine some of the projects not yet deemed eligible to create more eligible projects to fund.

It is critical that unspent funds for the SR-710 project be allocated to projects with verifiable congestion reduction/mobility improvement benefits.

NEXT STEPS

Upon Board approval, project sponsors will be notified of the Board's decision. Staff will continue to communicate and work with project sponsors to identify more eligible projects

Programmed funds will be made available to project sponsors upon approval of the final environmental document and adoption of the TSM/TDM as the Preferred Alternative, and absence of any legal prohibition affecting the development and implementation of the MIPs and TSM/TDM projects. Project readiness will also be a factor in funding schedules.

Staff will provide an update to the Board in six months.

ATTACHMENTS

Attachment A - State Route 710 North May 25, 2017 Board Motion (Item 29.1;
File #2017-0358)

REVISED Attachment B1 - Mobility Improvement Projects - Project Sponsor Submittals

REVISED Attachment B2 - Mobility Improvement Projects - Summary of Project
Sponsor Submittals

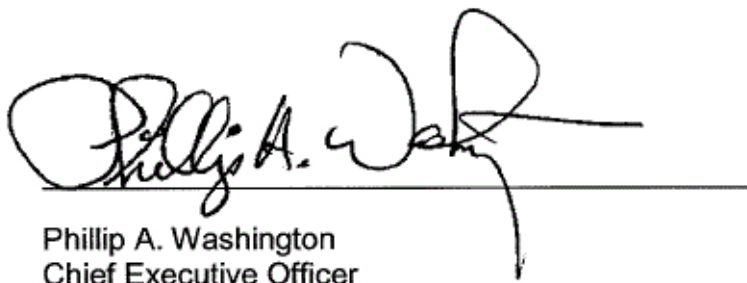
REVISED Attachment C - Mobility Improvement Projects - Recommended For Funding

REVISED Attachment D - Mobility Improvement Projects - Descriptions

REVISED Attachment E - Mobility Improvement Projects - Cash Flow Projections

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Board Report

File #:2017-0358, File Type:Motion / Motion
Response

Agenda Number:29.1

**REVISED
REGULAR BOARD MEETING
MAY 25, 2017**

Motion by:

FASANA, BARGER, SOLIS, GARCETTI and NAJARIAN

May 25, 2017

Relating to Item 29; File ID 2017-0097: SR-710 North

The Expenditure Plan for Measure R, approved by voters in 2008, included \$780 million assigned to the San Gabriel Valley sub-region for the SR-710 North project, under the Highway Capital Subfund. The estimated \$3+ billion (in 2014\$) that will be required to pay for design and construction of a single bore freeway tunnel is not available and the BRT and LRT alternatives may not produce the expected traffic impact mitigation.

CONSIDER Revised Motion by Fasana, Barger, Solis, Garcetti and Najarian that to implement mobility improvements that are fundable with existing resources and bring some relief to affected corridor cities, the Metro Board:

- A. **SUPPORT** adoption of the Transportation System Management/Transportation Demand Management Alternative as the Locally Preferred Alternative (LPA) and defer a decision on any other alternative for future consideration by the Board until the community collectively agrees on the value of that investment and funds are identified to implement a project. This decision and the Board's vote will allow for timely implementation of cost-effective transportation improvements that would include the projects that have support by affected jurisdictions on the TSM/TDM list in the EIS/EIR as well as additional improvement projects that can promote capacity enhancements and operational improvements consistent with the Purpose and Need statement of the project in communities along the corridor. The new Measure R and Government Code 54237.7 projects, described in this motion, that are not included in the environmental document will undergo their own environmental process and clearance as necessary.
- B. **ALLOCATE** \$105 million of Measure R funds available for the "Interstate 710 North Gap Closure (tunnel) Project" for development and implementation of TSM/TDM projects listed in the EIS/EIR.
- C. **ALLOCATE** remaining Measure R funds available for the "Interstate 710 North Gap Closure

(tunnel) Project” for new mobility improvement projects within the San Gabriel Valley sub-region, if consistent with the purpose and need of the Gap Closure Project to relieve congestion on local streets along the SR-710 alignment between I-10 and I-210, with highest priority for projects proximate to I-10. Newly proposed projects not included in the environmental document will undergo their own environmental process and clearance as necessary. Other funding dedicated to this project, including Regional Surface Transportation, Congestion Mitigation and Air Quality, and Regional Improvement Program funds, shall be allocated for use in the Central sub-region, including Unincorporated East Los Angeles. Funds shall be prioritized for multi-modal and safety enhancement projects within the SR-710 North Study Area. To ensure equitable cashflow, these funds shall be scheduled proportionally to Measure R funding in the next Long Range Transportation Plan update.

- D. CONSULT WITH affected jurisdictions and Caltrans and report back to the Metro Board within 90 days on a procedure to initiate the identification of projects to be funded through the SR-710 Rehabilitation Account, as prescribed in Government Code 54237.7. Such projects are to be located in Pasadena, South Pasadena, Alhambra, La Cañada Flintridge, and the 90032 postal ZIP Code, and may include, but are not limited to: sound walls; transit and rail capital improvements; bikeways; pedestrian improvements; signal synchronization; left turn signals; and major street resurfacing, rehabilitation, and reconstruction. Metro shall be responsible for submitting the list of projects to the California Transportation Commission (CTC) who will have the final authority to approve those projects.
- E. ENCOURAGE the corridor cities, Caltrans, and Metro to collectively pursue policies and actions that would promote smart and functional land use, reduce automobile dependency, encourage multi-modal trips, improve traffic operations, and maximize the use of the latest available technologies to enhance the performance of the existing transportation system to minimize impacts of the regional traffic on the communities along the SR-710 corridor.
- F. ENCOURAGE Caltrans, working with Metro and affected jurisdictions, to identify corrective measures to contain the regional traffic on the freeway system and minimize impacts on the local street network in the SR-710 corridor.
- G. DIRECT the Metro staff to work with Caltrans, the corridor cities, and other affected jurisdictions to identify and pursue the new Measure R and the Government Code 54237.7 projects referenced in this motion.
- H. REPORT BACK to the Board when Caltrans selects the Preferred Alternative.

**MOBILITY IMPROVEMENT PROJECTS
PROJECT SPONSOR SUBMITTALS**

ID#	PROJECT SPONSOR	PROJECT NAME	COST ESTIMATE
PROJECT TYPE 1: Local Street/Road and Freeway Local Interchange Mobility and Operational Improvement Projects			
1	Alhambra	SR-710 north of I-10 Termination Project [I-10 to Valley Boulevard] I-10/SR-710 Interchange Reconfiguration Project	TBD <u>\$100,000,000</u>
2	Alhambra	I-10/Fremont Avenue On and Off Ramp Reconfiguration Project	\$20,000,000
3	Alhambra	I-10/Atlantic Blvd On and Off Ramp Reconfiguration Project	\$20,000,000
4	Alhambra	I-10/Garfield Avenue On and Off Ramp Reconfiguration Project	\$20,000,000
5	Alhambra	I-10/New Avenue On and Off Ramp Reconfiguration Project	\$10,000,000
6	Los Angeles City	Soto Street Bridge Widening Project [Valley Boulevard and UPRR]	\$4,000,000
7	Los Angeles City	Soto Street Widening Project [Multnomah Street to Mission Road]	\$26,330,000
8	Los Angeles City	Huntington Drive Transportation System & Mobility Improvements	\$25,000,000
9	Los Angeles County	Road Projects on Floral Drive	\$7,500,000
10	Los Angeles County	Road Projects on Cesar Chavez [at 12 intersections]	\$11,000,000
11	Los Angeles County	Road Projects on Whittier [at 24 intersections]	\$15,000,000
12	Los Angeles County	Road Projects on Eastern [at 16 intersections]	\$12,300,000
13	Los Angeles County	Road Projects on Olympic [at 25 intersections]	\$12,000,000
14	Los Angeles County	Road Projects on Atlantic [at 11 intersections]	\$12,000,000
15	Los Angeles County	Community Traffic Calming Measures	\$120,000
16	Monterey Park	Ramona Road Capacity Improvements [710 off s/o I-10 freeway]	\$2,400,000
17	Monterey Park	Corporate Center [CC] Drive Rehab	\$1,200,000
18	Monterey Park	Ramona Road Rehab – CC Drive to easterly city limits	\$1,100,000
19	Monterey Park	Ramona Road Rehab – CC Drive to westerly city limits	\$1,500,000
20	Monterey Park	Monterey Pass Road Widening [Floral to Fremont/Garvey fork]	\$30,000,000
21	Monterey Park	Garvey Avenue Capacity Improvement [Atlantic to New]	\$26,300,000
22	Monterey Park	Garfield Capacity Improvements [Hillman to Hilliard]	\$700,000
23	Monterey Park	Atlantic Capacity Improvements [Hillman to Garvey]	\$1,900,000
24	Pasadena	I-210 Connected Corridors Expansion	\$5,000,000
25	Pasadena	210 Ramp Modifications/Operational Street Improvements	\$50,000,000
26	Pasadena	Pasadena Avenue/St. Johns Avenue Complete Streets	\$15,000,000
27	Pasadena	Allen Avenue Complete Streets	\$1,500,000
28	Pasadena	Hill Avenue Complete Streets	\$1,500,000
29	Pasadena	Avenue 64 Complete Streets	\$2,000,000
30	Pasadena	Gold Line Grade Separation at California Boulevard	\$105,000,000
31	Rosemead	Rosemead Boulevard and Glendon Way Improvements	\$2,500,000
32	San Gabriel	I-10/ San Gabriel Boulevard Improvements [Reversible Lane between I-10 and Valley Boulevard]	\$700,000
33	San Gabriel	Del Mar Avenue /I-10 Improvements [Reversible Lanes between I-10 and Valley Boulevard]	\$1,300,000
34	San Gabriel	New Avenue/ I-10 Improvements [Signal @ Saxton and Reversible Lane from I-10 to Valley Boulevard]	\$1,300,000
35	San Gabriel	East Broadway Street Intersection Improvements [2 intersections -San Gabriel Boulevard and Walnut Grove Avenue]	\$6,000,000
36	South Pasadena	Regional Traffic Corridor Improvements [Fremont Avenue/ Huntington Drive/Fair Oaks Avenue]	\$10,000,000

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

**MOBILITY IMPROVEMENT PROJECTS
PROJECT SPONSOR SUBMITTALS**

ID#	PROJECT SPONSOR	PROJECT NAME	COST ESTIMATE
37	South Pasadena	SR-110/Fair Oaks Avenue Interchange Modifications	\$38,000,000
38	South Pasadena	Additional Operational Improvements	TBD
39	South Pasadena	Traffic Calming/Speed Management	TBD
40	South Pasadena	Remaining Funding	TBD
SUBTOTAL			\$500,150,000 \$600,150,000
PROJECT TYPE 2: Local Street Intersection Improvement Projects			
1	Los Angeles City	Cesar Chavez Ave/Lorena St./Indiana St - Roundabout	\$8,000,000
2	San Gabriel	Mission Road and Junipero Sierra Drive Intersection Improvements	\$1,100,000
3	San Gabriel	Del Mar Avenue/Mission Road/El Monte Street Reconfiguration	\$1,100,000
4	San Gabriel	Valley Boulevard and New Avenue Intersection Improvements	\$3,200,000
5	San Gabriel	Mission Drive and Las Tunas Drive Intersection Improvements	\$3,300,000
6	San Gabriel	San Gabriel Boulevard and Valley Boulevard Intersection Improvements	\$4,400,000
7	San Gabriel	San Gabriel Boulevard and Marshall Street Intersection Realignment	\$4,900,000
8	San Gabriel	Valley Boulevard and Del Mar Avenue Intersection Improvements	\$5,500,000
9	San Gabriel	San Gabriel Boulevard and Las Tunas Drive Intersection Improvements	\$6,000,000
10	San Gabriel	Mission Road and Ramona Street Intersection Improvements	\$400,000
11	San Gabriel	Valley Boulevard and Abbot Avenue Intersection Improvements	\$971,000
12	San Gabriel	Walnut Grove Avenue and Las Tunas Drive Intersection Improvements	\$1,100,000
13	San Gabriel	Walnut Grove and Grand Avenue Intersection Improvements	\$1,100,000
14	San Marino	Huntington Drive Intersection Capacity Improvements [4 intersections from Atlantic Boulevard to San Gabriel Boulevard]	\$12,000,000
15	San Marino	Huntington Drive Capacity Enhancements [Segments between Virginia Road and Sunnyslope Drive]	\$6,000,000
16	San Marino	Sierra Madre Boulevard Corridor Capacity Improvements [between Huntington Drive and Del Mar Boulevard]	\$4,000,000
SUBTOTAL			\$63,071,000
Project Type 3: Intelligent Transportation System [ITS] Projects			
1	Alhambra	Garfield Avenue Traffic Signal Synchronization Project [Huntington Drive to I-10 Freeway]	\$2,000,000
2	Alhambra	Fremont Avenue Traffic Signal Synchronization Project [Northerly City Limit to Montezuma/I-10 Freeway]	\$1,500,000
3	Los Angeles City	ITS & Technology - Traffic Signal Upgrades in El Sereno	\$10,000,000
4	Los Angeles City	Modal Connectivity - EV Car Share [Northeast LA]	\$5,000,000
5	Los Angeles City	Soto Street & Marengo Street Traffic Signal Enhancements	\$2,000,000
6	Pasadena	Gold Line At-Grade Crossing Enhancements	\$1,000,000
7	Pasadena	Pedestrian and Bicyclist Automated Data Collection	\$1,400,000
8	Pasadena	High Resolution Traffic Signal Data – Citywide	\$8,500,000
9	Pasadena	Walnut Street Corridor Upgrades	\$2,000,000

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

**MOBILITY IMPROVEMENT PROJECTS
PROJECT SPONSOR SUBMITTALS**

ID#	PROJECT SPONSOR	PROJECT NAME	COST ESTIMATE
10	San Gabriel	Adaptive/Traffic Responsive Signal Control Project [on Valley Boulevard and San Gabriel Boulevard]	\$3,130,000
11-14	Los Angeles County	Atlantic Boulevard Traffic Corridor Improvement Project (N-S)	\$3,700,000
15-16	Los Angeles County	Beverly Boulevard Traffic Corridor Improvement Project (E-W)	\$110,000
17-19	Los Angeles County	Cesar Chaves Avenue Traffic Corridor Improvement Project (E-W)	\$5,000,000
20-21	Los Angeles County	City Terrace Drive Traffic Corridor Improvement Project (E-W)	\$800,000
22-27	Los Angeles County	Eastern Avenue Traffic Corridor Improvement Project (N-S)	\$1,900,000
28-29	Los Angeles County	Floral Drive Traffic Corridor Improvement Project (E-W)	\$250,000
30-33	Los Angeles County	Ford Boulevard Traffic Corridor Improvement Project (N-S)	\$2,300,000
34-35	Los Angeles County	Indiana Street Traffic Corridor Improvement Project (N-S)	\$110,000
36-38	Los Angeles County	Garfield Avenue Traffic Corridor Improvement Project (N-S)	\$337,000
39-43	Los Angeles County	Arizona Avenue/Monterey Pass Road/Fremont Avenue Traffic Corridor Improvement Project (N-S)	\$7,000,000
44-45	Los Angeles County	Olympic Boulevard Traffic Corridor Improvement Project (E-W)	\$2,500,000
46-47	Los Angeles County	Union Pacific Avenue Traffic Corridor Improvement Project (E-W)	\$170,000
48	Los Angeles County	Whittier Boulevard Traffic Corridor Improvement Project (E-W)	\$2,000,000
49-52	Los Angeles County	1 st Street Traffic Corridor Improvement Project (E-W)	\$5,800,000
53-55	Los Angeles County	3 rd Street/Pomona Boulevard Traffic Corridor Improvement Project	\$400,000
56	Los Angeles County	County-wide Improvements	\$450,000
57	Los Angeles County	Traffic Signal Control Intersection Upgrade Project	\$30,000
58	Rosemead	Traffic Signal Improvements	\$3,500,000
59	Rosemead	Valley Boulevard Corridor Improvements	\$6,500,000
60	Rosemead	Garvey Avenue Corridor Improvements	\$6,500,000
61	Rosemead	Walnut Grove Avenue Corridor Improvements	\$2,500,000
62	Rosemead	San Gabriel Boulevard Corridor Improvements	\$2,500,000
63	Rosemead	Del Mar Boulevard Corridor Improvements	\$2,500,000
64	Rosemead	Temple City Boulevard Corridor Improvements	\$1,500,000
65	San Marino	Huntington Drive Traffic Signal Synchronization Project	\$7,000,000
66	San Marino	San Gabriel Boulevard Traffic Signal Synchronization Project	\$3,000,000
SUBTOTAL			\$104,887,000
PROJECT TYPE 4: Transit Projects			
1	Alhambra	Metrolink Gold Line Shuttle Service Project	TBD
2	Los Angeles City	Modal Connectivity - First/Last Mile Improvements [Northeast LA]	\$20,000,000
3	Los Angeles City	DASH El Sereno / City Terrace Community Route Improvements	\$6,500,000
4	Los Angeles City	DASH Highland Park / Eagle Rock Community Route Improvements	\$6,000,000
5	Los Angeles City	Eastern Avenue Multi-Modal Transportation Improvements	\$15,000,000
6	Los Angeles City	Eagle Rock Boulevard Multi-Modal Transportation Improvements	\$15,000,000
7	Los Angeles City	Huntington Drive Bus Rapid Transit [BRT]	\$35,000,000
8	Los Angeles City	Valley Boulevard Bus Rapid Transit [BRT]	\$21,500,000
9	Los Angeles County	El Sol Shuttle Service [w/Zero Emissions (ZE) Vehicles]	\$30,000,000
10	Los Angeles County	Upgrade Existing El Sol Shuttle buses to ZE vehicles	\$26,000,000
11	Los Angeles County	El Sol Free Riding Program	\$300,000

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

**MOBILITY IMPROVEMENT PROJECTS
PROJECT SPONSOR SUBMITTALS**

ID#	PROJECT SPONSOR	PROJECT NAME	COST ESTIMATE
12	Los Angeles County	Wellness Shuttle Route	\$11,000,000
13	Los Angeles County	El Sol Shuttle Service Connected Vehicle	\$2,400,000
14	Pasadena	Rapid Bus Improvements	\$10,000,000
15	Pasadena	Rose Bowl Shuttles	\$400,000
16	Pasadena	Student Transit Passes	\$200,000
17	Pasadena	Electric Transit Vehicles	\$28,000,000
18	Pasadena	Short Range Transit Plan	\$9,000,000
19	Pasadena	Transportation Operations and Maintenance Facility	\$33,000,000
20	San Gabriel	Transit Service to Light Rail	\$500,000
21	San Gabriel	Local Circulator Bus Service	\$1,000,000
22	San Gabriel	First-mile/last mile improvements	\$2,000,000
23	San Gabriel	Valley Boulevard Corridor Bus Rapid Transit [BRT]	\$59,100,000
24	San Gabriel	Multimodal Transit Center and Parking Structure	\$24,000,000
SUBTOTAL			\$355,900,000 \$335,900,000
PROJECT TYPE 5: Active Transportation Projects			
1	Alhambra	Bike Plan Implementation Project [Citywide]	\$500,000
2	Los Angeles City	Modal Connectivity - Bike Share [Northeast LA]	\$3,000,000
3	Los Angeles City	El Sereno ATP and Transit-Connectivity Enhancements	\$10,000,000
4	Los Angeles County	East Los Angeles Bike Share	\$600,000
5	Pasadena	Bicycle Transportation Action Plan Projects	\$5,000,000
6	Pasadena	The Arroyo Link - Bicycle	\$2,000,000
7	Pasadena	Bikeshare Expansion	\$400,000
8	Pasadena	Mobility Hubs	\$10,000,000
9	San Gabriel	Citywide Bicycle Facilities	\$35,000,000
10	San Marino	Del Mar Avenue Complete Street Improvements	\$2,000,000
11	San Marino	Huntington Drive Complete Street Improvements	\$2,000,000
SUBTOTAL			\$70,500,000
PROJECT TYPE 6: Maintenance/Rehabilitation Projects			
1	Alhambra	Railroad Channel/Trench Bridge Rehabilitation Project [Mission Road/Marengo Avenue]	\$2,400,000
2	Alhambra	Railroad Channel/Trench Bridge Rehabilitation Project [Mission Road/Margaruerita Avenue]	\$2,300,000
3	Alhambra	Railroad Channel/Trench Bridge Rehabilitation Project [Mission Road/Atlantic Boulevard]	\$3,200,000
4	Alhambra	Railroad Channel/Trench Bridge Rehabilitation Project [Mission Road/6 th Street]	\$2,000,000
5	Alhambra	Railroad Channel/Trench Bridge Rehabilitation Project [Mission Road/4 th Street]	\$2,000,000
6	Alhambra	Railroad Channel/Trench Bridge Rehabilitation Project [Mission Road/Garfield Avenue]	\$3,100,000
7	Alhambra	Railroad Channel/Trench Bridge Rehabilitation Project [Mission Road/Chapel Avenue]	\$2,600,000

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

MOBILITY IMPROVEMENT PROJECTS
PROJECT SPONSOR SUBMITTALS

ID#	PROJECT SPONSOR	PROJECT NAME	COST ESTIMATE
8	Alhambra	Front Street Safety Wall Barrier [Fremont Avenue to 6 th Street]	\$5,700,000
SUBTOTAL			\$23,300,000
PROJECT TYPE 7: Studies			
1	Los Angeles County	Community Wide Capacity Improvement Study	\$3,000,000
2	Los Angeles County	Intersection Improvement Study [Atlantic, Eastern Telegraph]	\$5,000,000
SUBTOTAL			\$8,000,000
PROJECT TYPE 8: Parking Structures			
1	Los Angeles County	200 Space Parking Structure/Transit Plaza	\$12,000,000
2	Monterey Park	3 - Parking Structures on Garvey	\$60,000,000
3	Rosemead	1 - Parking Structure on Garvey	\$20,000,000
SUBTOTAL			\$92,000,000
TOTAL			\$1,217,808,000 <u>\$1,297,808,000</u>

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

**MOBILITY IMPROVEMENT PROJECTS
SUMMARY OF PROJECT SPONSOR SUBMITTALS**

		PROJECT SPONSOR									Project Type Value	
		Alhambra	Los Angeles City	Los Angeles County	Monterey Park	Pasadena	Rosemead	San Gabriel	San Marino	South Pasadena		TOTAL
PROJECT TYPES	1- Local Street/Road Improvements, Freeway Local Interchange Mobility and Operational Improvements	5	3	7	8	7	1	4		5	40	\$500,150,000 <u>\$600,150,000</u>
	2- Intersection Improvement Projects		1					12	3		16	\$63,071,000
	3- Intelligent Transportation Systems (ITS) Projects	2	3	47		4	7	1	2		66	\$104,887,000
	4- Transit Projects	1	7	5		6		5			24	\$355,900,000 <u>\$335,900,000</u>
	5- Active Transportation Projects	1	2	1		4		1	2		11	\$70,500,000
	6- Maintenance/ Rehabilitation Projects	8									8	\$23,300,000
	7- Studies			2							2	\$8,000,000
	8- Parking Structures			1	1		1				3	\$92,000,000
TOTAL		17	16	63	9	21	9	23	7	5	170	\$1,217,808,000 <u>\$1,297,808,000</u>

**MOBILITY IMPROVEMENT PROJECTS
RECOMMENDED FOR FUNDING**

ID#	PROJECT SPONSOR	PROJECT NAME	COST ESTIMATE¹
PROJECT TYPE 1: Local Street/Road and Freeway Local Interchange Mobility and Operational Improvement Projects			
1	Alhambra	I-10/SR-710 Interchange Reconfiguration Project	\$100,000,000
2	Alhambra	I-10/Fremont Avenue On and Off Ramp Reconfiguration Project	\$20,000,000
3	Alhambra	I-10/ Atlantic Blvd On and Off Ramp Reconfiguration Project	\$20,000,000
4	Alhambra	I-10/ Garfield Avenue On and Off Ramp Reconfiguration Project	\$20,000,000
6	Los Angeles City	Soto Street Bridge Widening Project [Valley Boulevard and UPRR]	\$4,000,000
7	Los Angeles City	Soto Street Widening Project [Multnomah Street to Mission Road]	\$26,330,000
16	Monterey Park	Ramona Road Capacity Improvements [710 off s/o I-10 Freeway]	\$2,400,000
21	Monterey Park	Garvey Avenue Capacity Improvements [Atlantic to New]	\$26,300,000
22	Monterey Park	Garfield Avenue Capacity Improvements [Hillman to Hilliard]	\$700,000
23	Monterey Park	Atlantic Avenue Capacity Improvements [Hillman to Garvey]	\$1,900,000
30	Pasadena	Gold Line Grade Separation at California Boulevard	\$105,000,000
32	San Gabriel	I-10/San Gabriel Boulevard Improvements [Reversible Lane between I-10 and Valley Boulevard]	\$700,000
36	South Pasadena	Regional Traffic Corridor Improvements [Fremont, Huntington, Fair Oaks]	\$10,000,000
37	South Pasadena	SR-110/Fair Oaks Ave Interchange Modifications ²	\$38,000,000
TYPE 1 SUBTOTAL [1314 PROJECTS]			\$275,330,000 <u>\$375,330,000</u>
PROJECT TYPE 2: Local Street Intersection Improvement Projects			
1	Los Angeles City	Cesar Chavez Avenue/Lorena Street/Indiana Street Roundabout	\$8,000,000
4	San Gabriel	Valley Boulevard and New Avenue Intersection Improvements	\$3,200,000
5	San Gabriel	Mission Drive and Las Tunas Drive Intersection Improvements	\$3,300,000
14	San Marino	Huntington Drive Intersection Capacity Improvements [4 intersections from Atlantic Boulevard to San Gabriel Boulevard]	\$12,000,000
15	San Marino	Huntington Drive Capacity Enhancements [segments between Virginia Road and Sunnyslope Drive]	\$6,000,000
16	San Marino	Sierra Madre Boulevard Corridor Capacity Improvements [between Huntington Drive and Del Mar Boulevard]	\$4,000,000
TYPE 2 SUBTOTAL [6 PROJECTS]			\$36,500,000
PROJECT TYPE 3: Intelligent Transportation Systems [ITS] Projects			
1	Alhambra	Garfield Avenue Traffic Signal Synchronization Project [Huntington Drive to I-10 Freeway]	\$2,000,000
2	Alhambra	Fremont Avenue Traffic Signal Synchronization Project [Northerly City Limit to Montezuma/I-10 Freeway]	\$1,500,000
3	Los Angeles City	ITS & Technology - Traffic Signal Upgrades in El Sereno [Huntington Drive, Eastern Avenue and Valley Boulevard]	\$10,000,000
10	San Gabriel	Adaptive/Traffic Responsive Signal Control Project [on Valley Boulevard and San Gabriel Boulevard]	\$3,130,000
11-14	Los Angeles County ³	Atlantic Boulevard Traffic Corridor Improvement Project (N-S)	\$3,700,000
39-43	Los Angeles County ³	Arizona Avenue/Monterey Pass Road/Fremont Avenue Traffic Corridor Improvement Project (N-S)	\$7,000,000

¹ All project cost estimates are subject to reevaluation based on more detailed scopes of work.

² This project is listed as one of TSM/TDM projects in the SR 710 North Draft EIR/EIS.

³ Los Angeles County traffic corridor improvement project limits and descriptions are shown in REVISED Attachment D.

**MOBILITY IMPROVEMENT PROJECTS
RECOMMENDED FOR FUNDING**

ID#	PROJECT SPONSOR	PROJECT NAME	COST ESTIMATE¹
57	Los Angeles County ³	Traffic Signal Control Intersection Upgrade Project [3 intersections]	\$30,000
30-33	Los Angeles County ³	Ford Boulevard Traffic Corridor Improvement Project (N-S)	\$2,300,000
22-27	Los Angeles County ³	Eastern Avenue Traffic Corridor Improvement Project (N-S)	\$1,900,000
20-21	Los Angeles County ³	City Terrace Drive Traffic Corridor Improvement Project (E-W)	\$800,000
28-29	Los Angeles County ³	Floral Drive Traffic Corridor Improvement Project (E-W)	\$250,000
65	San Marino	Huntington Drive Traffic Signal Synchronization Project [11 intersections between Atlantic and Rosemead Boulevards]	\$7,000,000
66	San Marino	San Gabriel Boulevard Traffic Signal Synchronization Project [7 intersections between Longden Drive and Colorado Boulevard]	\$3,000,000
TYPE 3 SUBTOTAL [30 PROJECTS]			\$42,610,000
PROJECT TYPE 8: Parking Structures			
2	Monterey Park	3 - Parking Structures on Garvey	\$60,000,000
TYPE 8 SUBTOTAL [1 PROJECT]			\$60,000,000
TOTAL RECOMMENDED FOR FUNDING [50 <u>51</u> PROJECTS]			\$414,440,000 <u>\$514,440,000</u>

¹ All project cost estimates are subject to reevaluation based on more detailed scopes of work.

² This project is listed as one of TSM/TDM projects in the SR 710 North Draft EIR/EIS.

³ Los Angeles County traffic corridor improvement project limits and descriptions are shown in REVISED Attachment D.

MOBILITY IMPROVEMENT PROJECTS
DESCRIPTIONS

PROJECT TYPE 1: Local Street/Road and Freeway Local Interchange Mobility and Operational Improvement Projects

[Project ID #1] Alhambra – I-10/SR-710 Interchange Reconfiguration Project: Reconfigure the I-10/SR-710 Interchange to provide a two-lane connector [eastbound and westbound] from I-10 to the campus of Cal State Los Angeles pending completion of supporting traffic studies, environmental document(s) and final design.

Cost Estimate: \$100,000,000

[Project ID #2] Alhambra – I-10/Fremont Avenue On and Off Ramp Reconfiguration Project: Reconfigure existing westbound on and off ramps at the I-10/Fremont Avenue local interchange to increase capacity and storage; improve mobility by directing vehicles to Fremont Avenue, while also protecting adjacent residential neighborhoods and Fremont Elementary School; and remove and/or relocate the soundwall at Elm/Hellman/Ramona. Also, reconfigure existing eastbound on and off ramps at I-10 at Fremont/Montezuma to increase capacity and storage; improve mobility; and reduce the potential for freeway traffic backing onto traffic through lanes on major arterials.

Cost Estimate: \$20,000,000

[Project ID#3] Alhambra – I-10/Atlantic Boulevard On and Off Ramp Reconfiguration Project: Reconfigure existing eastbound and westbound on and off ramps at the I-10/Atlantic Boulevard local interchange to increase capacity and storage; improve mobility; and reduce the potential for freeway traffic backing onto traffic through lanes on major arterials.

Cost Estimate: \$20,000,000

[Project ID# 4] Alhambra – I-10/Garfield Avenue On and Off Ramp Reconfiguration Project: Reconfigure existing eastbound and westbound on and off ramps at the I-10/Garfield Avenue local interchange to increase capacity and storage; improve mobility; and reduce the potential for freeway traffic backing onto traffic through lanes on major arterials.

Cost Estimate: \$20,000,000

[Project ID# 6] Los Angeles City – Soto Street Bridge Widening Project: Widen the Soto Street bridge that extends over Valley Boulevard and UPRR [including roadway approaches to the bridge] to connect to roadway widening to the north [from Multnomah Street to Mission Road - Project ID#7]. The project also includes adding a left turn only lane at the intersection Soto and Alcazar; and improving/upgrading the signals at Soto Street north leading to south to Valley Boulevard. Traffic studies indicate Soto Street experiences significant traffic congestion and delay resulting from traffic diverted from other roadways.

Cost Estimate: \$4,000,000

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

MOBILITY IMPROVEMENT PROJECTS
DESCRIPTIONS

[Project ID# 7] Los Angeles City – Soto Street Widening Project: Widen Soto Street from three lanes to four lanes from Multnomah Street to Mission Road by adding an additional through lane in the southbound direction to increase the capacity, reduce delay and improve mobility. The project also includes improving/upgrading the signals and lighting at the intersection of Soto and Multnomah. Traffic studies indicate Soto Street experiences significant traffic congestion and delay resulting from traffic diverted from other roadways.

Cost Estimate: \$26,330,000

[Project ID# 16] Monterey Park – Ramona Road Capacity Improvements: Increase storage along northbound I-710 off-ramp to Ramona Road/Corporate Center Drive [including improvements to Corporate Center Drive]. Evaluate alternative off-ramp configurations to Corporate Center Drive and eastbound Ramona Road to improve traffic operations along northbound I-710 approaching the I-10 interchange.

Cost Estimate: \$2,400,000

[Project ID# 21] Monterey Park – Garvey Avenue Capacity Improvements: Widen Garvey Avenue to add one lane in each direction to achieve a 6-lane arterial [3 lanes in each direction and a center turn lane. [Garvey Avenue is a main route for traffic south of I-10 accessing north-south arterials that lead to the cities of Alhambra, South Pasadena and Pasadena.]

Cost Estimate: \$26,300,000

[Project ID# 22] Monterey Park – Garfield Avenue Capacity Improvement: On Garfield Avenue, from Hellman to Hilliard, widen existing street (within existing right-of-way) and remove existing on-street parking to add a 3rd southbound lane and a continuous center turn lane providing 3 southbound lanes, 2 northbound lanes and a continuous 10 foot center turn lane. [Garfield Avenue has a nexus to the I-710 North project since it is a north-south arterial parallel to I-710 and this segment of Garfield provides direct access to I-10.]

Cost Estimate: \$700,000

[Project ID# 23] Monterey Park – Atlantic Avenue Capacity Improvements: On Atlantic Avenue, from Hellman to Garvey, add a 3rd southbound lane and a 3rd northbound lane and remove existing on-street parking. Atlantic Avenue has a nexus to the I-710 North project since it is a north-south arterial parallel to I-710 and this segment of Atlantic provides direct access to I-10.

Cost Estimate: \$1,900,000

[Project ID# 30] Pasadena – Gold Line Grade Separation: Grade-separate the at-grade Gold Line crossing at California Boulevard. This segment of the Gold Line intersects California Boulevard, an east-west arterial street with high traffic volumes, resulting in substantial delay and congestion. This at-grade crossing also contributes to a lack of pedestrian and bicycle connectivity between neighborhoods east and west of the Gold Line. This project has a nexus to the I-710 North project since this at-grade crossing is in close proximity to the I-710 “Gap”

MOBILITY IMPROVEMENT PROJECTS
DESCRIPTIONS

and grade-separating California Boulevard at the Gold Line will greatly improve traffic flow not only in the east-west direction but also in the north-south direction.

Cost Estimate: \$105,000,000

[Project ID# 32] San Gabriel – I-10/San Gabriel Boulevard Improvements: On San Gabriel Boulevard, add reversible lanes between Valley Boulevard and the I-10 freeway and restrict all left turn lanes between Valley Boulevard and Marshall Street to add capacity in the peak direction and improve mobility. San Gabriel Boulevard is a primary arterial that carries significant regional and local traffic. The segment of San Gabriel Boulevard from the I-10 freeway to Valley Boulevard experienced 37 accidents in the past three years.

Cost Estimate: \$698,000

[Project ID# 36] South Pasadena – Regional Traffic Corridor Improvements: Along Fremont, Huntington and Fair Oaks, implement upgraded traffic control measures and synchronize signals throughout each of these major arterial corridors. Restripe Fremont Avenue to increase capacity and improve operations by removing existing on-street parking, extending merge lanes, and re-designating certain movements. On Huntington Drive, between Fremont Avenue and Fair Oaks Avenue, add a second northbound left-turn lane and adjust signal timing accordingly. Extend northbound Fair Oaks Ave left-turn pocket at Monterey Rd. Remove bulb outs and replace with right-turn pockets on Fair Oaks Ave at Monterey, El Centro, Mission and Hope. Improve pedestrian safety by increasing visibility of crosswalks by realigning and/or using continental or ladder striping, widening medians for pedestrian refuge and reconstructing bulb-outs. All three major arterial streets are within the I-710 “Gap”, and Fair Oaks and Fremont are north-south arterials, so these improvements will improve traffic flow within the “Gap” area.

Cost Estimate: \$10,000,000

[Project ID# 37] South Pasadena – SR-110/Fair Oaks Avenue Interchange Modifications: At the interchange construct a new southbound SR-110 "hook" on ramp accessible via eastbound State Street, east of Fair Oaks Avenue; restripe northbound Fair Oaks Avenue between Grevelia Street and State Street to replace northbound left-turn lanes with a right-turn lane continuing onto a new right-turn lane to be built on the south side of State Street; and remove the existing traffic island at the current SR-110 on-ramp. On northbound Fair Oaks Avenue [between Hope Street and Grevelia Street] remove the existing bulb out in order to provide a shared through and right-turn lane, and replace the left-turn lane with a through lane. On southbound Fair Oaks Avenue [north of the existing southbound on-ramp] extend the existing right-turn lane to north of Oaklawn Street (this requires removal of the bulb out north of Mound Street); truncate Grevelia Street between Fair Oaks Avenue and Mount Avenue [access to the adjacent Shakers Restaurant parking lot would be retained via Fair Oaks Avenue]; widen northbound SR-110 off-ramp and restripe for two left-turn lanes, one through lane, and one right-turn lane; add a second right-turn lane on westbound Grevelia Street at Fair Oaks Avenue; construct a new southbound SR-110 "hook" on ramp accessible via eastbound State Street, east

3

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

MOBILITY IMPROVEMENT PROJECTS
DESCRIPTIONS

of Fair Oaks Avenue; remove bulb out on northbound Fair Oaks Avenue prior to the Orchard Supply Hardware shopping center driveway; and relocated current bus stop to the far side of intersection.

Cost Estimate: \$38,000,000

PROJECT TYPE 2: Local Street Intersection Improvement Projects

[Project ID# 1] Los Angeles City - Cesar Chavez Avenue/Lorena Street/Indiana Street

Roundabout: Reconstruct the existing 5-legged intersection into a modern roundabout with a center median to improve mobility and safety. [This intersection operates at a Level of Service F with approximately 33,000 vehicles per average weekday.]

Cost Estimate: \$8,000,000

[Project ID# 4] San Gabriel - Valley Boulevard and New Avenue Intersection Improvements:

Widen the intersection of Valley Boulevard and New Avenue; add a southbound right turn lane; eastbound and westbound right pockets; and widen Valley Boulevard by narrowing sidewalks to 8 feet to improve mobility and reduce delay. Valley Boulevard and New Avenue are primary arterials. This intersection currently operates at a Level of Service F.

Cost Estimate: \$3,200,000

[Project ID# 5] San Gabriel – Mission Drive and Las Tunas Drive Intersection Improvements:

Widen the intersection of Mission Drive and Las Tunas Drive; add a southbound right turn lane by changing the current southbound through right turn lane into a through lane; and add a protected left turn phase along Main Street and Las Tunas Drive approaches to improve mobility. Mission Drive and Las Tunas Drive are secondary and major arterials, respectively. The intersection currently operates at Level of Service B and is projected to operate at Level of Service C by 2045 without planned improvements.

Cost Estimate: \$3,300,000

[Project ID# 14] San Marino – Huntington Drive Intersection Capacity Improvements:

Four (4) intersections [Atlantic Boulevard, Oak Knoll Drive, San Marino Avenue and San Gabriel] will be modified [add dedicated right turn lanes; left turn lanes; and on-street parking modifications] to improve traffic circulation, reduce congestion and enhance safety. The Huntington Drive improvements will alleviate the discernible impact of heavy congestion, delay, noise and pollution caused by the lack of the SR 710 connector between Interstate 10 and Interstate 210 and the regional traffic spillover of vehicles traveling from SR 710 to avoid Interstate 10. Conversely the same vehicles sidestep the morning congestion toward downtown Los Angeles by traversing westbound Huntington Drive. All traffic crosses San Marino on the City's sole major east/west arterial from Alhambra/South Pasadena through San Marino into East San Gabriel.

Cost Estimate: \$12,000,000

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

MOBILITY IMPROVEMENT PROJECTS
DESCRIPTIONS

[Project ID# 15] San Marino – Huntington Drive Capacity Enhancements: On segments between Virginia Road and Sunnyslope Drive, widen eastbound Huntington Drive and construct one additional lane along Huntington Drive to increase capacity. The Huntington Drive improvements will alleviate the discernible impact of heavy congestion, delay, noise and pollution caused by the lack of the SR 710 connector between Interstate 10 and Interstate 210 and the regional traffic spillover of vehicles traveling from SR 710 to avoid Interstate 10. Conversely the same vehicles evade the morning congestion toward downtown Los Angeles by traversing westbound Huntington Drive. All traffic crosses San Marino on the City’s sole major east/west arterial from Alhambra/South Pasadena through San Marino into East San Gabriel.

Cost Estimate: \$6,000,000

[Project ID# 16] San Marino – Sierra Madre Boulevard Corridor Capacity Improvements: Between Huntington Drive and Del Mar Boulevard, install left turn pockets to reduce congestion and improve intersection design at Euston Road. Install warning signs for speed reduction and install adaptive signal control technology (real-time traffic control). Improve motorist and pedestrian safety by installing larger signal heads and other related improvements at California Boulevard. The Sierra Madre Boulevard improvements will alleviate the discernible impact of heavy congestion, delay, noise and pollution caused by regional traffic spillover of vehicles (due to the lack of the SR 710 connection) traveling from Interstate 10 to Interstate 210 and avoid Interstate 710 north through Pasadena. Conversely the same vehicles circumvent the morning congestion toward downtown Los Angeles by traversing south along Sierra Madre Boulevard. This traffic crosses San Marino on the City’s sole major north/south arterial from Pasadena into San Marino.

Cost Estimate: \$4,000,000

PROJECT TYPE 3: Intelligent Transportation Systems [ITS] Projects

[Project ID# 1] Alhambra –Garfield Avenue Traffic Signal Synchronization Project: On Garfield Avenue, from Huntington Drive to I-10 Freeway [18 intersections], install new signal controllers, signal control firmware, system detection, communications, and additional signal hardware to improve corridor operations and conform with updated signal control standards and requirements to improve arterial operations.

Cost Estimate: \$2,000,000

[Project ID# 2] Alhambra –Fremont Avenue Traffic Signal Synchronization Project : On Fremont Avenue, from the northerly city limit to Montezuma/I-10 Freeway [11 intersections], install new signal controllers, signal control firmware, system detection, communications, and additional signal hardware to improve corridor operations and conform with updated signal control standards and requirements to improve arterial operations.

Cost Estimate: \$1,500,000

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

MOBILITY IMPROVEMENT PROJECTS
DESCRIPTIONS

[Project ID# 3] Los Angeles City -ITS & Technology and Traffic Signal Upgrades: Includes implementing ITS technologies and upgrading traffic signals at Huntington Drive, Eastern Avenue and Valley Boulevard in El Sereno to improve mobility. Work includes installing vehicle loops detectors along Huntington Dr, Eastern Ave, and Valley Blvd; installing CCTV cameras at the intersections of Valley Blvd and the 710 freeway ramps; upgrade existing signals to add left turn phasing; upgrade all existing and new pedestrian crossings to pedestrian activated crosswalks with actuated signals; installing new crosswalks, signals and left-turn arrows, as necessary.

Corridor Cost Estimate: \$10,000,000

[Project ID# 10] San Gabriel- Adaptive/Traffic Responsive Signal Control Project: Implement adaptive traffic/responsive signal control along Valley Boulevard and San Gabriel Boulevard to allow higher green time during peak hours favoring the peak directional flow of traffic. These improvements will reduce corridor queuing and travel time and ensure corridor capacity is optimized.

Cost Estimate: \$3,130,000

[Project ID#s 11-14] Los Angeles County - Atlantic Boulevard Traffic Corridor Improvement Project (N-S): Consists of 4 projects that include upgrading 2070 controllers with next generation firmware; installing closed-circuit television cameras; implementing coordinated traffic signal timing; and safety improvements at Olympic Blvd to improve traffic flow and overall mobility within the corridor.

Project ID# 11: Upgrade 2070 controllers with next generation firmware from Pomona Boulevard to Telegraph Road.

Project ID# 12: Install Closed-Circuit Television (CCTV) Cameras at Olympic Boulevard at Telegraph Road/Ferguson Drive, Whittier Boulevard and Pomona Boulevard.

Project ID# 13: Install traffic signal timing from Pomona Boulevard to Telegraph Road.

Project ID# 14: Highway Safety Improvement Project [Atlantic and Olympic Boulevards].

Corridor Cost Estimate: \$3,700,000

[Project ID#s 39-43] Los Angeles County - Arizona Avenue/Monterey Pass Road/Fremont Avenue Traffic Corridor Improvement Project (N-S): Consists of 5 projects that include upgrading 2070 controllers with next generation firmware; installing closed-circuit television cameras; installing fiber optics to connect East Los Angeles to the Los Angeles County Traffic Management Center; implementing coordinated traffic signal timing; and safety enhancements at 1st Street to improve traffic flow and overall mobility within the corridor.

Project ID# 39: Upgrade 2070 controllers with next generation firmware from Floral Drive to Telegraph Road.

Project ID# 40: Install Closed-Circuit Television Cameras (CCTV Cameras) at 1st Street, 3rd Street and Cesar Chavez Avenue.

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

MOBILITY IMPROVEMENT PROJECTS
DESCRIPTIONS

Project ID# 41: Install Fiber Optics from Floral Drive to 1st Street and from Civic Center to Telegraph Road.

Project ID# 42: Install traffic signal timing from Floral Drive to Telegraph Road.

Project ID #43: Highway Safety Improvement Project [Mednik Avenue at 1st Street].

Corridor Cost Estimate: \$7,000,000

[Project ID# 57] Los Angeles County -Traffic Signal Control Intersection Upgrade Project:

Includes upgrading 2070 controllers with next generation firmware at intersection [Hazard Avenue at Fairmount Street; State University Drive at Campus Road; and Medford Street at Herbert Avenue] to improve intersection operations, traffic flow and mobility.

Cost Estimate: \$30,000

[Project ID#s 30-33] Los Angeles County - Ford Boulevard Traffic Corridor Improvement Project

(N-S): Consists of 4 projects that include upgrading 2070 controllers with next generation firmware; installing closed-circuit television cameras; installing fiber optics; and implementing coordinated traffic signal timing to improve traffic flow and overall mobility within the corridor.

Project ID# 30: Upgrade 2070 controllers with next generation firmware from Floral Drive to Olympic Boulevard.

Project ID# 31: Install Closed-Circuit Television (CCTV) Cameras at Cesar Chavez Avenue and at 3rd Street.

Project ID# 32: Install fiber optics from Floral Drive to 3rd Street.

Project ID# 33: Install traffic signal timing from Floral Drive to Olympic Boulevard [from Floral Drive to 3rd Street, and from Whittier to Olympic Boulevards].

Corridor Cost Estimate: \$2,300,000

[Project ID#s 22-27] Los Angeles County - Eastern Avenue Traffic Corridor Improvement

Project (N-S): Consists of 6 projects that include installing wireless communications; upgrading 2070 controllers with next generation firmware; installing closed-circuit television cameras; installing fiber optics; and safety improvements at Olympic Boulevard and Whittier Boulevard to improve traffic flow and overall mobility within the corridor.

Project ID# 22: Provide wireless communication at State University Drive/Eastern Avenue/Medford Street from Herbert Avenue to Campus Road.

Project ID# 23: Upgrade 2070 controllers with next generation firmware from Medford Street to Telegraph Road.

Project ID# 24: Install Closed-Circuit Television (CCTV) Cameras at 1st Street, 3rd Street, Cesar Chavez Avenue, Olympic Boulevard, Ramona Boulevard, Paseo Rancho/University Drive and Whittier Boulevard.

Project ID# 25: Install fiber optics from 3rd Street to Telegraph Road.

Project ID# 26: Highway Safety Improvement Project [Eastern Avenue at Olympic Boulevard].

Project ID# 27: Highway Safety Improvement Project [Eastern Avenue at Whittier Boulevard].

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

MOBILITY IMPROVEMENT PROJECTS
DESCRIPTIONS

Corridor Cost Estimate: \$1,900,000

[Project ID#s 20-21] Los Angeles County - City Terrace Drive Traffic Corridor Improvement

Project (E-W): Consists of 2 projects that include upgrading 2070 controllers with next generation firmware and installing fiber optics to improve traffic flow and overall mobility.

Project ID# 20: Upgrade 2070 controllers with next generation firmware from Hicks Avenue to Eastern Avenue.

Project ID# 21: Install fiber optics from Hicks Avenue to Eastern Avenue.

Corridor Cost Estimate: \$800,000

[Project ID#s 28 and 29] Los Angeles County - Floral Drive Traffic Corridor Improvement

Project (E-W): Consists of 2 projects that include upgrading 2070 controllers with next generation firmware and installing fiber optics to improve traffic flow and overall mobility within the corridor

Project ID# 28: Upgrade 2070 controllers with next generation firmware from Eastern Avenue to Mednik Avenue/Monterey Pass Road.

Project ID# 29: Install fiber optics from Eastern Avenue to Corporate Center Drive and McDonnell Avenue.

Corridor Cost Estimate: \$250,000

[Project ID# 65] San Marino- Huntington Drive Traffic Signal Synchronization Project: On Huntington Drive, between Atlantic Boulevard and Rosemead Boulevard [11 intersections], install adaptive signal control technology (real-time traffic control) with signal synchronization, driver information and changeable message signage.

Cost Estimate: \$7,000,000

[Project ID# 66] San Marino – San Gabriel Boulevard Traffic Signal Synchronization Project: On San Gabriel Boulevard, between Longden Drive and Colorado Boulevard [7 intersections], install adaptive signal control technology (real-time traffic control) with signal synchronization, driver information and changeable message signage.

Cost Estimate: \$3,000,000

PROJECT TYPE 8: Parking Structures

[Project ID# 2] Monterey Park – Three (3) Parking Structures on Garvey Avenue: Construct parking structures after converting two parking lanes to full-time mixed flow lanes when on-street parking is removed on Garvey Avenue to improve mobility.

Cost Estimate: \$60,000,000

NOTE: All project cost estimates are subject to reevaluation based on more detailed scopes of work.

MOBILITY IMPROVEMENT PROJECTS
CASH FLOW PROJECTIONS

REVISED ATTACHMENT E

ID #	Project Sponsor	Project Name	FY20	FY21	FY22	FY23	TOTAL
PROJECT TYPE 1: Local Street/Road and Freeway Local Interchange Mobility and Operational Improvement Projects							
1	Alhambra	I-10/SR-710 Interchange Reconfiguration Project	\$10,000,000	\$20,000,000	\$40,000,000	\$30,000,000	100,000,000
2	Alhambra	I-10/Fremont Avenue On and Off Ramp Reconfiguration	\$2,000,000	\$4,000,000	\$8,000,000	\$6,000,000	\$20,000,000
3	Alhambra	I-10/Atlantic Boulevard On and Off Ramp Reconfiguration	\$2,000,000	\$4,000,000	\$8,000,000	\$6,000,000	\$20,000,000
4	Alhambra	I-10/Garfield Avenue On and Off Ramp Reconfiguration	\$2,000,000	\$4,000,000	\$8,000,000	\$6,000,000	\$20,000,000
6	Los Angeles City	Soto Street Bridge Widening Over Valley Boulevard and UPRR	\$400,000	\$800,000	\$1,600,000	\$1,200,000	\$4,000,000
7	Los Angeles City	Soto Street Widening from Multnomah Street to Mission Road	\$2,633,000	\$5,266,000	\$10,532,000	\$7,899,000	\$26,330,000
16	Monterey Park	Ramona Road Capacity Improvements	\$240,000	\$480,000	\$960,000	\$720,000	\$2,400,000
21	Monterey Park	Garvey Avenue Capacity Improvements	\$2,630,000	\$5,260,000	\$10,520,000	\$7,890,000	\$26,300,000
22	Monterey Park	Garfield Avenue Capacity Improvements	\$70,000	\$140,000	\$280,000	\$210,000	\$700,000
23	Monterey Park	Atlantic Avenue Capacity Improvements	\$190,000	\$380,000	\$760,000	\$570,000	\$1,900,000
30	Pasadena	Gold Line Grade Separation at California Blvd	\$10,500,000	\$21,000,000	\$42,000,000	\$31,500,000	\$105,000,000
32	San Gabriel	I-10/San Gabriel Boulevard Improvements [Reversible Lanes]	\$70,000	\$140,000	\$280,000	\$210,000	\$700,000
36	South Pasadena	Regional Traffic Corridor Improvements [Fremont, Huntington, Fair Oaks]	\$1,000,000	\$2,000,000	\$4,000,000	\$3,000,000	\$10,000,000
37	South Pasadena	SR-110/Fair Oaks Ave Interchange Modifications	\$3,800,000	\$7,600,000	\$15,200,000	\$11,400,000	\$38,000,000
PROJECT TYPE 2: Local Street Intersection Improvement Projects							
1	Los Angeles City	Cesar Chaves Avenue/Lorena Street/Indiana Street Roundabout	\$800,000	\$1,600,000	\$3,200,000	\$2,400,000	\$8,000,000
4	San Gabriel	Valley Boulevard and New Avenue Intersection Improvements	\$320,000	\$640,000	\$1,280,000	\$960,000	\$3,200,000
5	San Gabriel	Mission Drive and Las Tunas Drive Intersection Improvements	\$330,000	\$660,000	\$1,320,000	\$990,000	\$3,300,000
14	San Marino	Huntington Drive Intersection Capacity Improvements	\$1,200,000	\$2,400,000	\$4,800,000	\$3,600,000	\$12,000,000

*Based on assumptions as of September 21, 2018 subject to further determination of scope of work and schedule of projects.

MOBILITY IMPROVEMENT PROJECTS
CASH FLOW PROJECTIONS

REVISED ATTACHMENT E

ID #	Project Sponsor	Project Name	FY20	FY21	FY22	FY23	TOTAL
15	San Marino	Huntington Drive Capacity Enhancements	\$600,000	\$1,200,000	\$2,400,000	\$1,800,000	\$6,000,000
16	San Marino	Sierra Madre Boulevard Corridor Capacity Improvements	\$400,000	\$800,000	\$1,600,000	\$1,200,000	\$4,000,000
PROJECT TYPE 3: Intelligent Transportation Systems [ITS] Projects							
1	Alhambra	Garfield Avenue Traffic Signal Synchronization Project	\$200,000	\$400,000	\$800,000	\$600,000	\$2,000,000
2	Alhambra	Fremont Avenue Traffic Signal Synchronization Project	\$150,000	\$300,000	\$600,000	\$450,000	\$1,500,000
3	Los Angeles City	ITS & Technology - Traffic Signal Upgrades in El Sereno [Huntington Drive, Eastern Avenue and Valley Boulevard	\$1,000,000	\$2,000,000	\$4,000,000	\$3,000,000	\$10,000,000
10	San Gabriel	Adaptive/Traffic Responsive Signal Control Project	\$313,000	\$626,000	\$1,252,000	\$939,000	\$3,130,000
11-14	Los Angeles County	Atlantic Boulevard Traffic Corridor Improvement Project (N-S)	\$370,000	\$740,000	\$1,480,000	\$1,110,000	\$3,700,000
39-43	Los Angeles County	Arizona Avenue/Mednik Pass Road/Fremont Avenue Traffic Corridor Improvement Project	\$700,000	\$1,400,000	\$2,800,000	\$2,100,000	\$7,000,000
57	Los Angeles County	Traffic Signal Control Intersection Upgrade Project [3 Intersections]	\$3,000	\$6,000	\$12,000	\$9,000	\$30,000
30-33	Los Angeles County	Ford Boulevard Traffic Corridor Improvement Project (N-S)	\$230,000	\$460,000	\$920,000	\$690,000	\$2,300,000
22-27	Los Angeles County	Eastern Avenue Traffic Corridor Improvement Project (N-S)	\$190,000	\$380,000	\$760,000	\$570,000	\$1,900,000
20-21	Los Angeles County	City Terrace Drive Traffic Corridor Improvement Project (E-W)	\$80,000	\$160,000	\$320,000	\$240,000	\$800,000
28-29	Los Angeles County	Floral Drive Traffic Corridor Improvement Project (E-W)	\$25,000	\$50,000	\$100,000	\$75,000	\$250,000
65	San Marino	Huntington Drive Traffic Signal Synchronization Program	\$700,000	\$1,400,000	\$2,800,000	\$2,100,000	\$7,000,000
66	San Marino	San Gabriel Boulevard Traffic Signal Synchronization Program	\$300,000	\$600,000	\$1,200,000	\$900,000	\$3,000,000
PROJECT TYPE 8: Parking Structures							
2	Monterey Park	Three (3) Parking Structures on Garvey Avenue	\$6,000,000	\$12,000,000	\$24,000,000	\$18,000,000	\$60,000,000
CASHFLOW TOTAL			\$41,444,000	\$82,888,000	\$165,776,000	\$124,332,000	\$414,440,000
			\$51,444,000	\$102,888,000	\$205,776,000	\$154,332,000	\$514,440,000

*Based on assumptions as of September 21, 2018 subject to further determination of scope of work and schedule of projects.