<u>PROJECT TYPE 1</u>: 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 natential

local interchange to increase capacity and storage; improve mobility; and reduce the potential for freeway traffic backing onto traffic through lanes on major arterials.

or freeway traffic backing onto traffic through failes of major afterials.

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

[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"

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 Freemont 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 Fairs 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 Freemont 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 Fairs 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

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 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

[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

[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 improvement 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.

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

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

<u>Project ID# 13</u>: 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.

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

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

<u>Project ID# 41</u>: 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.

<u>Project ID #43</u>: 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.

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

<u>Project ID# 31</u>: 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.

<u>Project ID# 33</u>: 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.

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

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

<u>Project ID# 24</u>: 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.

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

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

7

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.

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

<u>Project ID# 21</u>: 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

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

<u>Project ID# 29:</u> 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 onstreet parking is removed on Garvey Avenue to improve mobility.

Cost Estimate: \$60,000,000