

Capital Programming Update Project Descriptions

Interstate 5 (I-5) Improvement Project from Yale Avenue to State Route 55 (SR-55) (Segment 2)

This project will add one mixed-flow lane in both the northbound and southbound directions from the SR-55 on-ramp to Yale Avenue in the City of Irvine. The additional lanes will reduce corridor traffic congestion, reduce hours of travel, improve traffic operations and improve access to high-occupancy vehicle lanes. This is Segment 2 of Project B in the Measure M2 (M2) Ordinance.

This project is currently funded through the design phase with \$17.425 million of STBG and M2 funds. Staff is recommending funding the ROW phase with \$17.500 million in STBG funds, \$0.851 million in repurposed earmarks (detailed below) and \$5.575 million in M2 freeway funds, resulting in a total of \$41.351 million of programmed funding for the design and ROW phases. Utilizing federal funds for portions of the project will allow the Orange County Transportation Authority (OCTA) to benefit from the lower indirect cost-rate proposal for oversight work carried out by the California Department of Transportation (Caltrans). Staff will return to the Board of Directors (Board) for recommendations for the construction phase at a future date.

The Federal Highways Administration (FHWA) and Caltrans have identified the following three state earmarks from Orange County with unspent funding remaining available to be repurposed to other projects:

- State Route 91 (SR-91) Congestion Relief Project - \$0.237 million (no obligation activity),
- Image-based toll collection system project - \$0.188 million (original project completed), and
- State College/ BNSF Railway Company (BNSF) grade separation - \$0.426 million (original project completed).

Total amount available for repurposing is \$0.851 million. Use of these funds is contingent on approval by FHWA and Caltrans.

These proposed funding actions are summarized in the table below:

Existing Funding (in 000s)	STBG	M2	Total
PA&ED	\$ 3,527		\$ 3,527
PS&E	\$ 11,500	\$ 2,398	\$ 13,898
ROW	TBD	TBD	TBD
CON	TBD	TBD	TBD
TOTAL	\$ 15,027	\$ 2,398	\$ 17,425

PA&ED - Project approval and environmental document
 PS&E - Plans, specifications, and estimates
 STGB - Surface Transportation Block Grant

ROW – Right-of-way
 CON – Construction

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Proposed Funding (in 000s)	STBG	Federal Demo	M2	Total
PA&ED	\$ 3,527			\$ 3,527
PS&E	\$ 11,500		\$ 2,398	\$ 13,898
ROW	\$ 17,500	\$851	\$ 5,575	\$ 23,926
CON	TBD	TBD	TBD	TBD
TOTAL	\$ 32,527	\$851	\$ 7,973	\$ 41,351
CHANGE	\$ 17,500	\$851	\$ 5,575	\$ 23,926

Federal Demo - Federal Demonstration

SR-55 Improvement Project from I-5 to SR-91

This project will add one general purpose lane in each direction between State Route 22 (SR-22) and I-5 and provide operational improvement between SR-22 and SR-91 (Project F). The objective of the proposed project is to reduce traffic congestion, improve mobility, and improve traffic operations in the study area.

The environmental phase of the project is fully funded with \$5 million of STBG funds. The design phase is currently funded with \$8.921 million of M2 funds, and OCTA staff is proposing \$2.641 million in available federal HIP funds and an additional \$3.359 million in STBG for the PS&E phase. These federal funds have become available for use on projects due to recent adjustments to the obligation authority plan and will replace \$3.921 million in local M2 funds. The total project funding increases by \$2.079 million to \$16 million, and changes are summarized below. Staff will return to the Board with recommendations for the ROW and construction phases at a future date.

Existing Funding (in 000s)	STBG	M2	HIP	Total
PA&ED	\$ 5,000			\$ 5,000
PS&E		\$ 8,921		\$ 8,921
ROW	TBD	TBD	TBD	TBD
CON	TBD	TBD	TBD	TBD
TOTAL	\$ 5,000	\$ 8,921		\$ 13,921

Proposed Funding (in 000s)	STBG	M2	HIP	Total
PA&ED	\$ 5,000			\$ 5,000
PS&E	\$ 3,359	\$ 5,000	\$ 2,641	\$ 11,000
ROW	TBD	TBD	TBD	TBD
CON	TBD	TBD	TBD	TBD
TOTAL	\$ 8,359	\$ 5,000	\$ 2,641	\$ 16,000
CHANGE	\$ 3,359	(\$3,921)	\$ 2,641	\$ 2,079

HIP - Highway Infrastructure Program

SR-55 Improvement from I-405 to I-5

The SR-55 Improvement Project from I-405 to I-5 is a critical M2 freeway project which will add a general purpose, high-occupancy vehicle, and auxiliary lanes in both directions between I-405 and I-5 (Project F). The SR-55 Project is expected to significantly improve mobility and increase access to jobs, healthcare facilities, John Wayne Airport, and the various educational facilities in and around Orange County.

This project is nearing completion of PS&E and is expected to be advertised for construction in the December 2021 timeframe. Additional funding is needed to complete PS&E phase. Staff estimates that an additional \$1.72 million is needed to address

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additional roadway design, survey, utility and ROW coordination, engineering reports modifications, environmental services, and OCTA labor costs. A complementary staff report to amend the existing design services contract will be presented at the same Board meeting and provide more detail on the need for the additional funding. This adjustment changes the total project cost estimate from \$504 million to \$505.720 million and is proposed to be funded with M2 Freeway Program funds.

Existing Funding (in 000s)	CMAQ	STIP	STBG	SHOPP	M2	TCEP	LPP-C	TOTAL
PA&ED				\$200	\$6,308			\$6,508
PS&E			\$18,500	\$3,500	\$4,700			\$26,700
ROW	\$41,500		\$97,100	\$25,400	\$20,200			\$184,200
CON	\$3,400	\$80,000		\$12,800	\$50,392	\$115,000	\$25,000	\$286,592
TOTAL	\$44,900	\$80,000	\$115,600	\$41,900	\$81,600	\$115,000	\$25,000	\$504,000

Proposed Funding (in 000s)	CMAQ	STIP	STBG	SHOPP	M2	TCEP	LPP-C	TOTAL
PA&ED				\$200	\$6,308			\$6,508
PS&E			\$18,500	\$3,500	\$6,420			\$28,420
ROW	\$41,500		\$97,100	\$25,400	\$20,200			\$184,200
CON	\$3,400	\$80,000		\$12,800	\$50,392	\$115,000	\$25,000	\$286,592
TOTAL	\$44,900	\$80,000	\$115,600	\$41,900	\$83,320	\$115,000	\$25,000	\$505,720
CHANGE					\$1,720			\$1,720

CMAQ - Congestion Mitigation and Air Quality Improvement
 SHOPP - State Highway Operation and Protection Program
 LPP-C - Local Partnership Program-Competitive

STIP - State Transportation Improvement Program
 TCEP - Trade Corridor Enhancement Program

I-5 Improvement Project from Avenida Pico to San Diego County Line

The I-5 Improvement Project from the San Diego/Orange County line to Avenida Pico project proposes to add a high-occupancy vehicle lane in each direction on the I-5, reestablish existing auxiliary lanes, widen existing undercrossings, and replace existing overcrossings.

The PSR was funded with \$0.450 million in CMAQ funds and \$0.121 million in STBG funds that were provided to Caltrans. The Board approved \$5.5 million in STBG funds for the project approval and environmental document phase for the project which entered the environmental phase in March 2021. While drafting the cooperative agreement with Caltrans, additional project risks and OCTA costs related to outreach were identified, necessitating an increase in the project budget. This increase adjusts the cost estimate for the environmental phase from \$5.5 million to \$6.407 million. The PA&ED phase is Staff is recommending an increase in the STBG funds for this phase by \$0.907 million, resulting in a total project cost of \$6.978 million. Staff will return to the Board with recommendations for the ROW and construction phases at a future date.

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Existing Funding (in 000s)	CMAQ	STBG	Total
PSR	\$ 450	\$ 121	\$ 571
PA&ED		\$ 5,500	\$ 5,500
ROW	TBD	TBD	TBD
CON	TBD	TBD	TBD
TOTAL	\$ 450	\$ 5,621	\$ 6,071

PSR – Project Study Report

Proposed Funding (in 000s)	CMAQ	STBG	Total
PSR	\$ 450	\$ 121	\$ 571
PA&ED		\$ 6,407	\$ 6,407
ROW	TBD	TBD	TBD
CON	TBD	TBD	TBD
TOTAL	\$ 450	\$ 6,528	\$ 6,978
CHANGE		\$ 907	\$ 907

OC Bridges

OCTA in coordination with the cities of Anaheim, Fullerton, and Placentia, initiated the OC Bridges Railroad Grade Separation Program (OC Bridges Program) in 2007. The OC Bridges Program included undercrossings at Placentia Avenue and Kraemer Boulevard as well as overcrossings at Orangethorpe Avenue, Tustin Avenue/ Rose Drive, and Lakeview Avenue completed by OCTA. The City of Fullerton implemented undercrossings at State College Boulevard and Raymond Avenue.

These seven grade separations have been completed and the approved overall funding plan is reflected in the table is provided below, and individual project changes discussed below that.

Existing Funding (in 000s)	M2	Surplus Property & Utilities	Other Local	TCRP/ OCCUT	PTMISEA	TCIF	TSSSDRA	Federal	Total
TOTAL	\$149,418	\$20,374	\$21,495	\$ 8,960	\$ 95,346	\$148,639	\$ 9,388	\$214,080	\$ 667,700

OCCUT - Orange County Unified Transportation Trust

PTMISEA - Public Transportation Modernization, Improvement, and Service Enhancement

TCIF - Trade Corridor Improvement Funds

TSSSDRA - Transit System Safety, Security, and Disaster Response Account

Proposed Funding (in 000s)	M2	Surplus Property & Utilities	Other Local	TCRP/ OCCUT	PTMISEA	TCIF	TSSSDRA	Federal	Total
TOTAL	\$152,625	\$20,374	\$21,564	\$ 8,960	\$ 95,477	\$148,463	\$ 9,388	\$209,700	\$ 666,551
Change	\$3,207		\$69		\$131	(\$176)		(\$4,380)	(\$1,149)

Raymond Avenue Grade Separation

The project was completed May 14, 2018, and includes construction of a vehicular underpass on Raymond Avenue at the BNSF railroad crossing, between Walnut Avenue and Ash Avenue in the City of Fullerton. The project lowered Raymond Avenue under Valencia Drive. Two bridge structures were constructed, one for the railroad and one for vehicular traffic. The project includes connector roads on the west side of Raymond Avenue to provide access to Valencia Drive and Truslow Avenue.

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The total project cost is reduced from \$126.317 million to \$125.419 million and was supported through State Proposition 1B TCIF, PTMISEA, and TSSSDRA funds, M2, a portion of surplus property and rental income, BNSF, and MWD funds. The \$0.898 million in savings for this project are credited to M2 which reduces the need for additional M2 to support the ineligible CMAQ in the overall program and helped offset the loss of \$0.176 million in TCIF funds in the Lakeview Avenue Grade Separation project as noted below.

Existing Funding (in 000s)	M2	Surplus Property	BNSF	MWD	Prop 1B PTMISEA	TCIF	Prop 1B TSSSDRA	Total
Design	\$ 5,229							\$ 5,229
ROW	\$ 7,611				\$ 25,172			\$ 32,783
CON	\$ 10,562	\$ 5,216	\$ 700	\$ 1,648	\$ 52,376	\$ 10,400	\$ 7,403	\$ 88,305
TOTAL	\$ 23,402	\$ 5,216	\$ 700	\$ 1,648	\$ 77,548	\$ 10,400	\$ 7,403	\$ 126,317

MWD – Metropolitan Water District

Prop 1B – Proposition 1B

Proposed Funding (in 000s)	M2	Surplus Property	BNSF	MWD	Prop 1B PTMISEA	TCIF	Prop 1B TSSSDRA	Total
Design	\$ 5,407							\$ 5,407
ROW	\$ 7,008				\$ 25,172			\$ 32,180
CON	\$ 9,958	\$ 5,216	\$ 700	\$ 1,648	\$ 52,507	\$ 10,400	\$ 7,403	\$ 87,832
TOTAL	\$ 22,373	\$ 5,216	\$ 700	\$ 1,648	\$ 77,679	\$ 10,400	\$ 7,403	\$ 125,419
Change*	(\$ 1,029)				\$ 131			(\$ 898)

*Increases in funding under \$250,000 or reductions in funding do not require Board of Directors' approval

State College Boulevard Grade Separation

The project was completed March 8, 2018 and constructed a grade separation on State College Boulevard at the BNSF railroad tracks from Santa Fe Avenue at the northerly terminus and approximately 700 feet south of Valencia Drive at the southerly terminus in the City of Fullerton. The grade separation provides an underpass for vehicular traffic on State College Boulevard and lowered State College Boulevard below the BNSF mainline rail lines. A rail bridge was constructed for the two existing mainline tracks with space for a third track.

The total project cost is reduced from \$99.631 million to \$99.380 million and was supported through M2 Regional Capacity Program, BNSF, city funds, OCSD, TCIF, TSSSDRA, STBG, CMAQ, and Federal Demo funds. The \$0.251 million in savings for this project are credited to the reduction in CMAQ which reduces the need for additional M2 to support the ineligible CMAQ in the overall program

Existing Funding (in 000s)	M2	BNSF	City of Fullerton	OCSD	TCIF	TSSSDRA	STBG/CMAQ	Federal Demo	Total
Design	\$ 3,080		\$ 1,925	\$ 170					\$ 5,175
ROW			\$ 4,412				\$ 19,032	\$ 10,823	\$ 34,267
CON	\$ 8,320	\$ 1,100	\$ 121	\$ 3,290	\$ 32,800	\$ 1,985	\$ 12,509	\$ 64	\$ 60,189
TOTAL	\$ 11,400	\$ 1,100	\$ 6,458	\$ 3,460	\$ 32,800	\$ 1,985	\$ 31,541	\$ 10,887	\$ 99,631

OCSD - Orange County Sanitation District

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Proposed Funding (in 000s)	M2	BNSF	City of Fullerton	OCSD	TCIF	TSSSDRA	STBG/CMAQ	Federal Demo	Total
Design	\$ 3,568		\$ 1,925	\$ 170					\$ 5,663
ROW	\$ 4,437		\$ 4,412				\$ 14,715	\$ 10,823	\$ 34,387
CON	\$ 7,455	\$1,147	\$ 121	\$3,312	\$ 32,800	\$ 1,985	\$ 12,446	\$ 64	\$ 59,330
TOTAL	\$15,460	\$1,147	\$ 6,458	\$3,482	\$ 32,800	\$ 1,985	\$ 27,161	\$ 10,887	\$ 99,380
Change*	\$4,060	\$ 47		\$ 22			(\$4,380)		(\$251)

*Increases in funding under \$250,000 or reductions in funding do not require Board of Directors' approval

Lakeview Avenue Grade Separation

The project was completed June 5, 2017 and raised Lakeview Avenue 24 feet above the BNSF mainline tracks between Orchard Drive to the north and Eisenhower Circle to the south in the cities of Anaheim and Placentia. A bridge was constructed that spans over Orangethorpe Avenue, the BNSF, and Orange County Flood Control ROW. A modified loop type connector road was also constructed to move vehicles from Lakeview Avenue back to Orangethorpe Avenue. Improvements to adjoining streets and commercial driveways were also part of the project.

The total project cost remains at \$110.702 million and was supported through M2 Regional Capacity Program, BNSF, city funds, OCSD, TCIF, TSSSDRA, STBG, CMAQ, and Federal Demo funds. There was \$0.176 million in TCIF funds that were unable to be reimbursed through the State. M2 savings from the Raymond Avenue Grade Separation were used in place of the TCIF funds for this project.

Existing Funding (in 000s)	M2	Federalized Portion of Surplus Property	Utility Relocation Reimbursement	BNSF	TCIF	STBG/CMAQ	Federal Demo	Total
Design	\$6,832					\$631		\$ 7,463
ROW	\$1,289	\$10,164	\$1,047	\$1,619		\$34,317		\$ 48,436
CON	\$13,495	\$1,925			\$27,520	\$2,154	\$9,709	\$ 54,803
TOTAL	\$21,616	\$12,089	\$1,047	\$1,619	\$27,520	\$37,102	\$9,709	\$110,702

Proposed Funding (in 000s)	M2	Federalized Portion of Surplus Property	Utility Relocation Reimbursement	BNSF	TCIF	STBG	Federal Demo	Total
Design	\$6,832					\$631		\$ 7,463
ROW	\$1,289	\$10,164	\$1,047	\$1,619		\$34,317		\$ 48,436
CON	\$13,671	\$1,925			\$27,344	\$2,154	\$9,709	\$ 54,803
TOTAL	\$21,792	\$12,089	\$1,047	\$1,619	\$27,344	\$37,102	\$9,709	\$110,702
Change*	\$ 176				(\$176)			

*Increases in funding under \$250,000 or reductions in funding do not require Board of Directors' approval

173 Bus Repowers

OCTA operates a fleet of 173 New Flyer Xcelsior compressed natural gas-powered buses, model year 2016, that are due for midlife overhaul maintenance, which includes engine replacement. The proposed replacement Cummins Engines have been certified

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by the California Air Resources Board as a near-zero-emission engine, which will further decrease the emissions profile of the entire bus fleet. Of the 173 engines, 16 will be for 60-foot buses and 157 will be for 40-foot buses.

This project is proposed to be fully funded with \$12.526 million of CMAQ funding.