





Update on the Interstate 405 Improvement Project Alternatives, Business Models, and Delivery Options

### Overview

#### I-405 Draft EIR / EIS released soon — Three build alternatives

Alternative 1 - Adds one GP\* lane each direction from I-605 to Euclid Street

Alternative 2 - Adds two GP\* lanes each direction from I-605 to Euclid Street

Alternatives 1 and 2

CYPRESS

ANAMENTOS

STANTON

GARDEN GROVE

SEAL BEACH

WESTININSTER

SANTIA ANA

\* GP = General Purpose Lane

Alternative 3 - Adds one GP lane to Euclid Street and one express lane each direction from I-605 to SR-73; express lane combines with existing HOV\*\* lane to make a 2-lane (each direction) express facility (HOV3+)



\*\* HOV = High Occupancy Vehicle

## Measure M2 Board Workshop

- Confirmed we have financial capacity to deliver M2
- Showed I-405 in context of overall M2 program
- M2 includes \$600M line item for I-405
- Discussed financial methods for delivering I-405

#### I-405 includes three alternatives with estimated costs:

- Alternative 1 \$1.3B
- Alternative 2 \$1.4B
- Alternative 3 \$1.7B



# I-405 – Existing Conditions



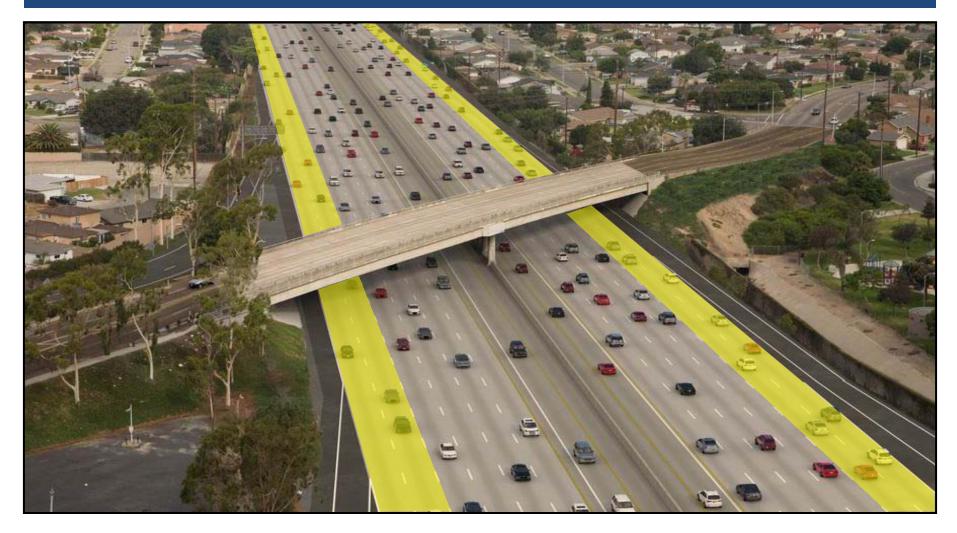
I-405 looking northwest at Springdale Street overcrossing

## I-405 Improvement Project - Alternative 1



Adds one GP lane in each direction I-605 to Euclid Street

## I-405 Improvement Project - Alternative 2



## I-405 Improvement Project - Alternative 3



Adds one GP lane and an express lane which, combined with existing HOV lane, operates as an express facility like the 91 Express Lanes – extends from I-605 to SR-73

# I-405 Delivery Approaches

### Depending on alternative selected, could use:

- Traditional design-bid-build
- Design-build
- Design-build-finance
- Design-build-finance-operate-maintain

### Alternative 1

- Delivers M2 Project K
- M2 Project K is one GP lane in each direction
- Cost estimate is \$1.3B\*
  - \$600M available from M2 Project K line item
  - Funding need is \$700M\*\*
- Requires design-build legislation
- No revenue potential



<sup>\*</sup> Cost estimates assume design-build delivery model

<sup>\*\*</sup> Potential to be funded from M2 Freeway Program as proposed in Draft M2020 Plan

### Alternative 2

- Delivers M2 Project K
- Builds one additional GP lane in each direction beyond M2 Project K
- Cost estimate is \$1.4B\*
  - \$600M available from M2 Project K revenues
  - Funding need is \$800M\*\*
- Requires design-build legislation
- No revenue potential

Cost estimates assume design-build delivery model

<sup>\*\*</sup> Potential to be funded from M2 Freeway Program as proposed in Draft M2020 Plan

### Alternative 3

- Delivers M2 Project K
- Builds capacity beyond M2 Project K and increases throughput
- Three delivery options analyzed
- Requires design-build and tolling authority
- Cost estimate is ~ \$1.7B\*
  - \$600M available from M2 Project K revenues
  - Funding need depends on delivery option
- Revenue available from tolls



<sup>\*</sup> Cost estimate varies depending on financing option

## Stantec Traffic and Revenue (T&R)

### T&R Phase II assumptions:

- New GP lanes to Euclid Street and new express lanes from I-605 to SR-73
- Direct express connection to SR-73
- Two intermediate access points
- 91 Express Lanes toll policy
  - Uses congestion management pricing by adjusting tolls up or down depending on traffic volume
  - HOV3+ rides free most hours (except super peak when they pay half price)







# I-405 Improvement Project Alternative 3 Delivery Options

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## Alternative 3, Delivery Option 1

- Option 1: Self-Finance
  - Design-build
  - 91 Express Lanes operating model

- SF
- Same toll and non-toll revenue structure
- OCTA responsible for operations and maintenance (O&M)
- OCTA retains toll revenue and revenue risk and control of toll structure
- Minority equity investment potential (Hybrid)

## Alternative 3, Delivery Option 2

- Option 2: Availability Payment (AP) Contract
  - Design-Build-Finance-Operate-Maintain (DBFOM)
  - OCTA makes "performance based" payments to private contractor regardless of toll revenue
  - Contractor responsible for DBFOM
  - OCTA retains revenue risk and control of toll structure



## Alternative 3, Delivery Option 3

- Option 3: Public-Private-Partnership (P3) Concession
  - Concessionaire's responsibility:
    - Design-Build-Finance-Operate-Maintain
  - Concessionaire retains revenue and revenue risk
  - Must negotiate toll policy



### Self-Finance Characteristics

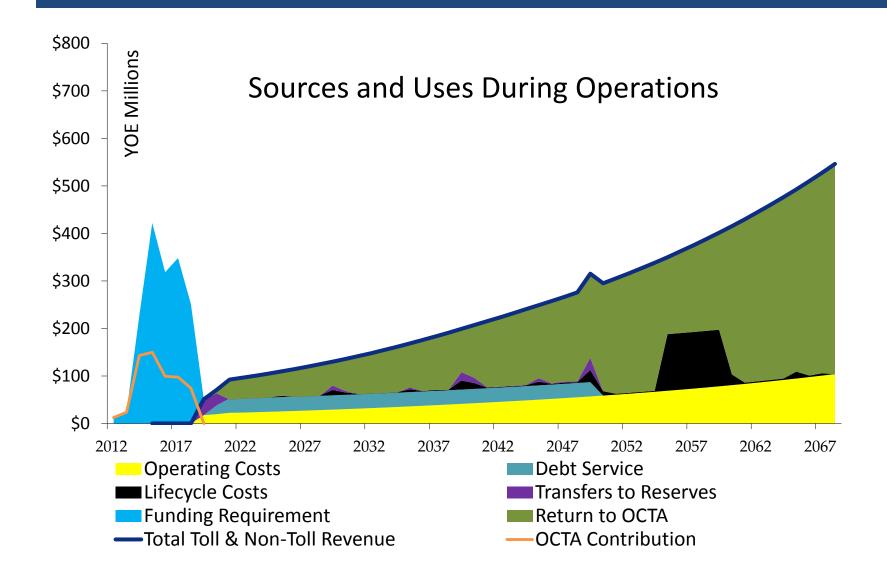
- Upfront needs include \$1.4B (M2 and external funds)
- Non-recourse toll bonds for early construction ~ \$300M\*
  - Likely BBB- or BBB rating
  - Assumes level debt structure
  - Requires 1.75x debt coverage ratio
  - Requires capitalized interest
- Uses 91 Express Lanes toll structure,
   non-toll revenue and operating cost model
- Generates \$2.8B net revenue by 2048\*\*



<sup>\*</sup> Non-recourse bonds are paid solely from express lanes toll revenues.

<sup>\*\*</sup> Does not reflect M2 debt service; revenues are expressed in nominal dollars.

### Self-Finance Cash Flow

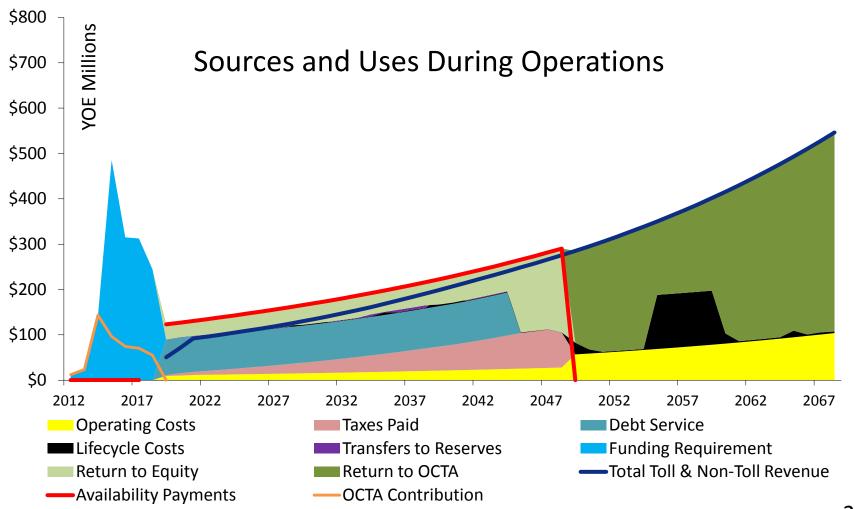


### **AP Contract Characteristics**

- Assumes \$400 million from M2 with \$1.2B from contractor
- Contractor raises 100 percent of design and construction costs
- 30-year AP cost is \$5.8B
  - \$123M in 2018, growing to \$290M in 2048
  - OCTA responsible for any revenue shortfall
  - First year shortfall ~ \$70M
- 30-year toll revenue estimate is \$4.9B
- Net shortfall is \$900M



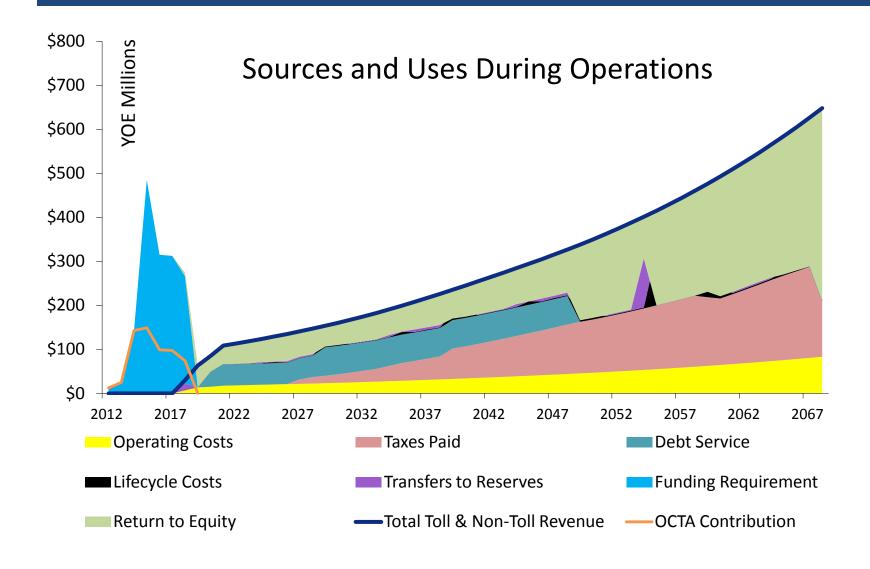
### **AP Cash Flow**



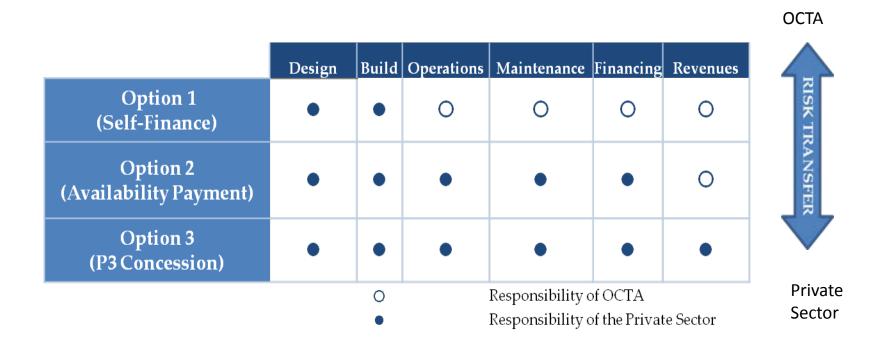
## P3 Concession Characteristics

- Assumes \$600M from M2 and \$800M from concessionaire
- Funding shortfall is \$200M
- 50-year concession
- Concessionaire responsible for construction, financing, O&M, lifecycle costs
- Concessionaire keeps 100 percent of revenue and assumes
   100 percent of revenue risk
- Assumes 20 percent higher T&R as compared with Stantec forecast

### P3 Concession Cash Flows



## Risk Transfer by Delivery Method



# Alternative 3 Options Comparison (In Billions \$)

Column	<b>A</b> (A=B+C+D)	В	С	D	Е	F	G	<b>H</b> (E-F-G=H)
Delivery Options	Total I-405 Project Cost	M2 Assumption	Debt/Funds Available for Construction	Funds Needed	Toll Revenue Estimate	Total O&M and lifecycle	Toll Road Debt Cost/AP Payments	Net Toll Revenue to OCTA (30 Years)
SF	\$1.7	\$0.6	\$0.3 (toll bonds)	\$0.8	\$4.9 (30 yrs)	\$1.2	\$0.9	\$2.8+
AP	\$1.6*	\$0.4**	\$1.2 (AP funds)	\$0.0	\$4.9 (30 yrs)	N/A	\$5.8	(\$0.9)
<b>P3</b>	\$1.6*	\$0.6	\$0.8 (concession)	\$0.2	N/A (concession)	N/A	N/A	\$0

- \* Estimates for AP and P3 reflects fewer project contingencies and consultant-provided cost variances
- \*\* Represents support and right-of-way capital costs only
- Does not include debt service on M2 bonds; could be used to repay M2, accelerate toll debt retirement, or other purposes

### Conclusions



Self-finance gives OCTA local control and ownership of excess revenue



AP contract requires payments regardless of toll revenues for 30 years. AP transfers control, OCTA keeps revenue; however, cost is greater than toll revenues and results in a shortfall.



P3 concession transfers control and all toll revenues typically for 50 years

# Next Steps

Description	Dates (2012)		
I-405 DEIR/DEIS Release	May		
I-405 DEIR/DEIS 45-day Public Review	May/June		
I-405 Locally Preferred Alternative Selection	June/July		
M2020 Recommendations and I-405 Delivery Model Selection	July/Aug		
M2020 Plan of Finance	Oct/Nov		

