



Board Report

File #: 2023-0509, **File Type:** Oral Report / Presentation

Agenda Number: 7.

**MEASURE M INDEPENDENT TAXPAYERS OVERSIGHT COMMITTEE
SEPTEMBER 13, 2023**

**SUBJECT: ORAL REPORT ON TRANSIT AND COMPLETE STREETS & HIGHWAYS
PROJECTS**

ACTION: RECEIVE ORAL REPORT

RECOMMENDATION

RECEIVE oral report on Transit and Complete Streets & Highways Projects.

Prepared by: Julie Owen, Senior Executive Officer, Project Management Oversight, (213) 922-7313
Allison Yoh, Executive Officer, Countywide Planning & Development, (213) 922-4812
David Mieger, Senior Executive Officer, Countywide Planning & Development, (213)
922-3040
Nelli Derderian, Director, Complete Streets & Highways, (213) 418-3246
Avital Barnea, Senior Executive Officer, Countywide Planning & Development, (213)
922-4812
Ray Sosa, Deputy Chief Planning and Development Officer, (213) 547-4274

Reviewed by: Jim de la Loza, Chief Planning Officer, (213) 922-2920
Sameh Ghaly, Chief Program Management Officer (Interim), (213) 922- 7382

ATTACHMENTS

- Attachment A - Program Management Update
- Attachment B - Transit Planning Update
- Attachment C - Complete Streets & Highways Update



Program Management

Quarterly Major Project Status Report



Julie Owen
Senior Executive Officer Project Management Oversight

Measure M Committee
September 13, 2023

Gold Line Foothill Extension Phase 2B

BUDGET					
		Approved LOP*	Previous Period	Current Forecast	
		\$1,533M	1,533M	\$1,533M	
	Variance from Approved LOP:		\$0M (0%)	\$0M (0%)	
Variance from Revised Budget:			\$0		

* At time of the award of contract – Board Approval (June 2017)

SCHEDULE			Revenue Operation		
	Original	Approved Rebaseline	Previous Period	Current Forecast*	
	January 2025	N/A	Winter 2025	Fall 2024	
	Variance from Original:		-2d (.10%)	-35d (1.83%)	
Variance from Revised Schedule:		+0d (0%)	-33d (1.73%)		

* Current Forecast is Authority's April 2023 Schedule Update



Gold Line Foothill Extension Phase 2B

Safety

- Project Hours: 1,237,316
Recordable Injury Rate: 0.3 vs. the National Average: 2.4.

Updates (Metro Gold Line Foothill Extension Authority)

The design and construction of the 9.1-mile, 4 station light rail extension project is progressing.

- **Overall Project Progress is 70% complete.**
- Completed construction of Route 66, and 210 and 57 freeway pier protection
- Freight track relocation completed
- All 4 LRT bridges completed
- CPUC has approved all 49 grade crossings to date (up to Montclair)
- Work at 29 of 37 grade crossings from Glendora to Pomona completed
- Major grade crossing work/long-term closures completed
- All 8 TPSS's have been installed

- **Construction Continues as follows:**
- LRT track installation (nearly complete)
- MSE retaining walls and sound wall fencing throughout the project
- 4 new stations: Glendora, San Dimas, La Verne, and Pomona
 - Started the installation of architectural elements at Glendora station
- LRT train control, OCS poles and wire installation



Equity

- 25% of the project is located within or adjacent to Equity Focus Communities.



Glendora Station – Communication Bungalow



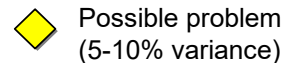
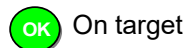
Airport Metro Connector (AMC) Project

BUDGET				
		Approved LOP*	Previous Period	Current Forecast
		\$898.6M	\$898.6M	\$898.6M
	Variance from Approved LOP:		\$0M (0%)	\$0M (0%) 
	Variance from Revised Budget:			\$0 

* Approved April 2021 Board

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	Fall 2024	N/A	Fall 2024	Fall 2024
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:			N/A 

* Current Forecast is Metro's April 2023 Schedule Update



Significant Impact
(over 10% variance)

Airport Metro Connector (AMC) Project

Safety

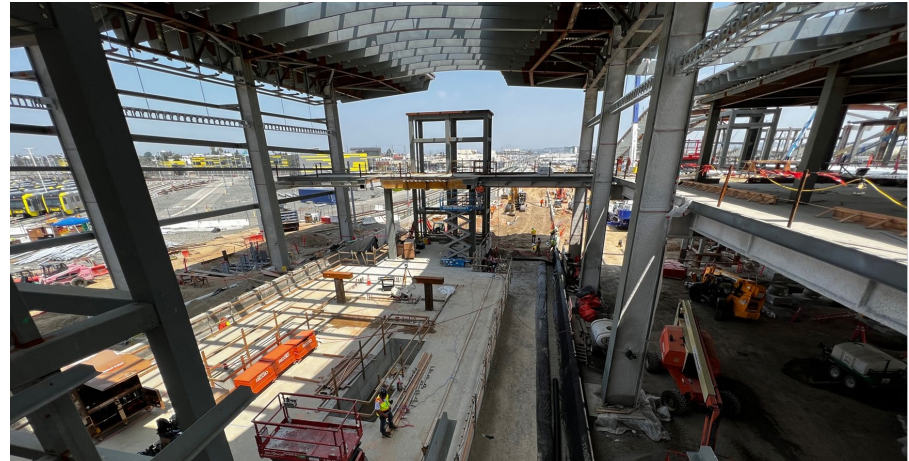
Project Hours: 436,882; Recordable Injury Rate: 2.29 vs. The National Average: 2.4.

Updates

- **Overall project progress is 64% complete.**
- Primary Station Construction at 46% completion
 - Steel structure and metal decking is complete at the Rail Platform, Main hub and Bike Hub areas. Bus Plaza steel is at 90% completion.
 - Rail Platform structural slab has been completed. Track work beginning with installation of ballast system.
 - Structural slab at Main Hub is nearly complete.
 - Roofing and ceiling utilities is ongoing above the Rail Platform and Main Hub areas.
 - LADWP underground infrastructure on Arbor Vitae has been completed with minor work remaining on Aviation Blvd.

Equity

- 100% of the project is located within or adjacent to Equity Focus Communities.



Rail Platform Area





Main Hub Area with Customer Service Kiosk to the left







July 2023 Measure M Committee

Westside Purple Line Extension – Section 3

BUDGET	FFGA	Approved LOP*	Previous Period**	Current Forecast**
	\$3,599 M	\$3,224 M	\$3,277 M	\$3,277 M
	Variance from Approved LOP:		+\$53M (1.6%)	+\$53M (1.6%) 
	Variance from Revised Budget:			\$0 

* At time of the award of contract – Board Approval February 2019

** Excludes finance costs. In June 2023, the Board approved \$53M LOP increase for Concurrent Non-Full Funding Grant Agreement (Non-FFGA) activities.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	March 2027	N/A	Spring 2027	Fall 2027
	Variance from Original:		+181d (5.4%) 	+223d (6.65%) 
Variance from Revised Schedule:		TBD 	TBD 	

* Contract schedule is forecasting a slippage to the contractual milestones.

The project team is identifying opportunities to mitigate and is monitoring potential impacts. Staff will provide periodic updates to the Board.



Westside Purple Line Extension – Section 3

Safety

Project Hours: 2,614,618 Recordable Injury Rate: 1.45 vs. The National Average: 2.4.

- C1151: Project Hours: 1,419,127; Recordable Injury Rate: 2.68.
- C1152: Project Hours: 1,195,491.; Recordable Injury Rate: 0.0.
- **Updates**

▪ **Overall Project Progress is 49% complete.**

▪ **Final design progress is 97% complete.**

▪ Tunnels

- Both Tunnel Boring Machines (TBMs) completed mining in April and are parked 2 ft behind the Constellation Station West End wall;
- Excavation for one out of 14 cross passages has started.

▪ Westwood/UCLA Station

- Excavation is about 26% complete. Walers and struts continue to be installed at level 2; 17% of walers and 9% struts have been installed. Utility support work ongoing and approximately 52% complete.

▪ Westwood/VA Hospital Station

- Excavation is about 24% complete. Walers and struts continue to be installed at levels 1 and 2; 27% of walers and 20% of struts have been installed. Tieback installation is 6% complete.
- The VA steam tunnel relocation work continues; Mechanical, Electrical, and Plumbing fit-out inside the steam tunnel (90% complete).
- Backfilling around the steam tunnel vaults remains at 93%.

Equity

- 1 of 2 stations (50%) are within or adjacent to Equity Focus Communities.



Westwood/UCLA Station: Excavation at Wilshire Blvd





Westwood/VA Station: Tiebacks Installation– North & West Walls





July 2023 Measure M Committee

I-5 North County Enhancements

BUDGET				
		Approved LOP*	Previous Period	Current Forecast
		\$679.3M	\$679.3M	\$679.3M
	Variance from Approved LOP:		\$0M (0%)	\$0M (0%) 
Variance from Revised Budget:			\$0 	

* At time of the award of contract - Board Approval (March 2021)

SCHEDULE			Substantial Completion	
	Original	Approved Rebaseline	Previous Period	Current Forecast**
	July 2016	N/A	Summer 2026	Summer 2026
	Variance from Original:		+0d (0%)	+0d (0%) 
Variance from Revised Schedule:			N/A 	

** The Contractor's last Update shows minor slippage, but Metro has not accepted the Critical Path and expects this slippage to be corrected



I-5 North County Enhancements

Safety

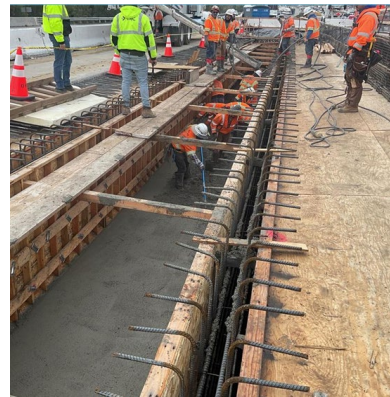
Project Hours: 304,633; Recordable Injury Rate: 1.34 vs.
The National Average: 2.4.

Updates

- **Overall Project progress is 25% complete.**
- Construction Stage 1, Phase 1 & 2 on-going:
 - Partial Demo/Pile Driving/Footing, Abutment/Bent, Soffit & Stem and Lost Deck Construction on several bridges.
 - Retaining Walls, Drainage, Barrier/Roadway Demo, Excavation, and Base Placement.
 - Construction of new Weldon Canyon Bridge
- Project Team continues to coordinate with stakeholders: Caltrans, Federal Highway Administration (FHWA), City of Santa Clarita, Los Angeles County, CHP, NPS, CDFW, and other local stakeholders.

Equity

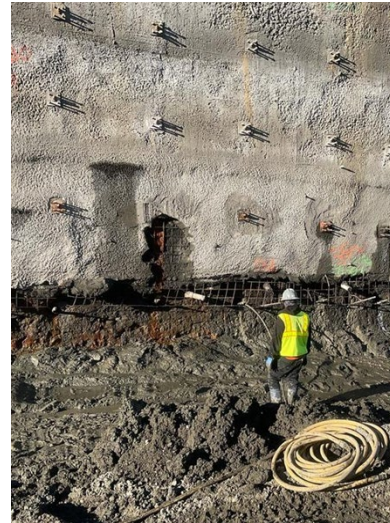
- This project is not located within or adjacent to Equity Focus Communities.



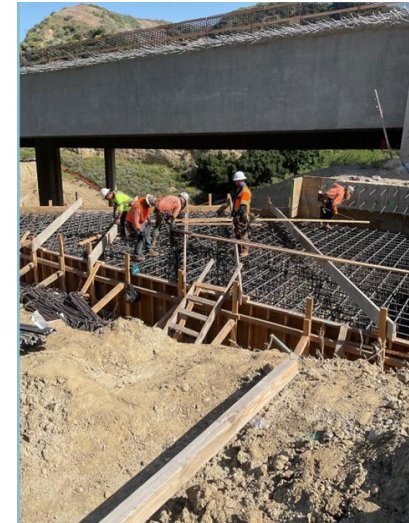
Soffit pour at Butte Canyon bridge



On-site concrete batch plant



Grouting at Retaining Wall 2461
after March rain storm



Placing rebar at of Gavin Canyon
Bridge





July 2023 Measure M Committee



Projects without Life of Project (LOP) Budget

- **105 Express Lanes**
- **G Line BRT Improvements Project**
- **East San Fernando Valley Transit Corridor**



105 Express Lanes

BUDGET				
		Approved Budget to Date	Previous Period	Current Forecast
	Pre-Construction	\$119.4 M	\$119.4 M	\$119.4 M
	Project	\$119.4 M	\$780M - \$1B	\$780M - \$1B
	Variance from Approved Pre-Construction Budget:		\$0M (0%)	\$0M (0%) 
	Variance from Approved LOP:		N/A	N/A
Variance from Revised Budget:			N/A 	

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast
	N/A	N/A	Spring 2028	Spring 2028
	Variance from Original:		+0d (0%)	+0d (0%) 
Variance from Revised Schedule:		N/A	N/A 	



105 Express Lanes

Safety

Project Construction Hours: 0; Recordable Injury Rate: N/A vs. The National Average: 2.4.

Updates

- **Design is 64% complete**
- **Program Management**
 - Time extension request for SB 1 funding allocation submitted to Caltrans
 - Traffic and Revenue Study in progress
- **Design**
 - Segment 1 design 100% completed in April and Segments 2 and 3 design 35% complete
 - Dominquez Channel easement and rental agreement adopted by LA County Board
- **Construction Manager/General Contractor (CMGC)**
 - Segment 1 100% Opinion of Probable Construction Cost (OPCC) in progress
 - Interface meetings with WSAB and Metro MOW in progress
- **Roadside Toll Collection System (RTCS)**
 - Infrastructure Design Document (IDD) submitted in March
 - Major submittal review underway
 - Requirements Traceability Matrix (RTM) review sessions in progress

Equity

- 70% of the project is within or adjacent to Equity Focus Communities.



Traffic on 105 Freeway Westbound





The Project Map





July 2023 Measure M Committee

G Line BRT Improvements Project

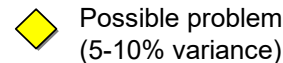
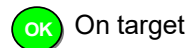
BUDGET	Approved Budget to Date			Previous Period	Current Forecast
	Pre-Construction	\$149.7M		\$149.7M	\$149.7M
	Project	\$149.7M		N/A	\$392-511M
	Variance from Approved Pre-Construction Budget:			\$0M (0%)	\$0M (0%) 
	Variance from Approved LOP:			N/A	N/A
	Variance from Revised Budget:				\$0M 

* Project will work within the annual budget constraints until LOP is established.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	N/A	N/A	N/A	December 2026
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:			N/A 

* Current Forecast is Metro's Internal Schedule, Baseline schedule is not yet approved at time of update.

**Approved Budget only includes the Pre-Construction Budget. The project will be requesting LOP budget upon award of the PDB Contract Phase 2.



Significant Impact (over 10% variance)

G Line BRT Improvements Project

Safety

Project Construction Hours: 0; Recordable Injury Rate: N/A vs. National Average: 2.4.

Updates

- **Design is 30% complete**
- **Progressive Design Build Contract**
 - 30% design complete for Grade Separations and Bike Path Improvements key elements. 30% design under review for Stormwater Capture key element
 - 30% Milestone OPCC under development
 - Technology Evaluation for Gated Intersections complete, proceeding into Proof of Concept phase with recommended cloud tech solution for gate activation
 - Geotech Investigations and Potholing, and Survey underway
- **Utility Owner-performed AURs**
 - Sepulveda – removal of poles and overhead wires pending PDB contractor installation of new power service
 - Vesper – DWP crews completed cable pulling in August, Charter construction start pending City permit approval
 - Sylmar – DWP undergrounding near completion. Charter planning to vacate line
- **Property Acquisitions**
 - Eight acquisitions underway
 - Offers presented to owners between 3/31/22, and 5/24/22
 - Board adopted Resolution of Necessity for all properties in Aug '22

Equity



- 11 of 17 stations (65%) are within or adjacent to Equity Focus Communities.




Potholing at Van Nuys Blvd



East San Fernando Valley Transit Corridor

BUDGET	Approved Budget to Date			Previous Period	Current Forecast
	Pre-Construction	\$496.9M	\$496.9M	\$496.9M	\$496.9M
	Project	\$496.9M	N/A	\$2,810M - \$3,576M	
	Variance from Approved Pre-Construction Budget:		\$0M (0%)	\$0M (0%)	
	Variance from Approved LOP:		N/A	N/A	
	Variance from Revised Budget:			\$0M	

***Approved Budget only includes the Pre-Construction Budget.*

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	N/A	N/A	N/A	2030
	Variance from Original:		+0d (0%)	+0d (0%)
Variance from Revised Schedule:			N/A	

** Current schedule forecast reflects Metro's Draft Baseline Schedule. Approval is pending.*



East San Fernando Valley Transit Corridor

Safety

Project Hours*: 0; Recordable Injury Rate: N/A vs. The National Average: 2.4. *AUA inaugurations on February 16, 2023.

Updates

- **Design is 30% complete for systems, stations, utilities and MSF; 60% complete for guideway and civil.**
 - **Advancing utility composite plans to 60% and AUA 2-8 to 100% complete.**
 - **Construction Management Support Services Contract**
 - Notice to Proceed (NTP) given to Arcadis / Mott MacDonald (AMM) Joint Venture November 4, 2022. Staff augmentation progressing.
 - **Maintenance and Storage Facility (Solar Energy & Storage)**
 - NTP on December 7, 2022 to PCS Energy LLC for the Public-private partnership (P3) Contract. Contractor interfacing with SFTC.
 - **Advance Utility Adjustment (AUA) Contract DWP Design 1**
 - NTP on December 1, 2022 to W.A. Rasic Construction Company, Inc.
 - Excavations and placement of 3 of 4 vaults completed, construction of duct banks underway, adjustment of gas line underway.
 - **Progressive Design Build Contract**
 - NTP on April 14, 2023 to San Fernando Transit Constructors (SFTC).
 - Estimating efforts underway to develop OPC for base design.
 - **Property Appraisals underway**
 - Appraisals commenced in January/February 2023.
 - Formal acquisitions anticipated to commence in July/August 2023.
 - CEQA addendum of the priority parcels is expected by July 2023 and NEPA reevaluation approval expected by November 2023.
 - **Light Rail Vehicle (LRV) Acquisition**
 - A contract is being developed by Metro VCM for a consulting firm to support LRV procurement.
- Equity**
- 100% of the project is within or adjacent to Equity Focus Communities.



Installation of 1 of 4 vaults by W.A. Rasic on Van Nuys Blvd, between Vanowen and Vose.



Installation of a 4" gas main by SCG on Van Nuys Blvd, just south of Saticoy.



July 2023 Measure M Committee

Measure M Independent Taxpayer Oversight Committee

Transit Projects Update

Allison Yoh, Executive Officer
September 13, 2023

Measure M Transit Projects



> Major Pillar Projects

- A) West Santa Ana Branch
- B) Eastside Transit Corridor Phase 2
- C) Sepulveda Transit Corridor
- D) C (Green) Line Extension to Torrance

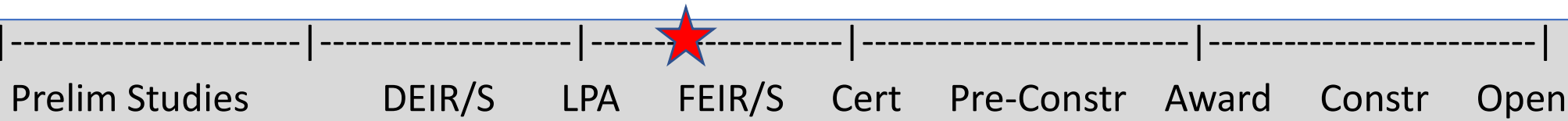
> Other Projects in Planning

- Vermont Transit Corridor
- K Line Northern Extension

> Projects Transitioning

- NoHo to Pasadena BRT to Program Management
- North San Fernando Valley BRT to Service Development Planning

West Santa Ana Branch Transit Corridor



Current Phase	Most Recent Cost Estimate
EIR/EIS	\$7.1B (YOES) - IOS

Recent Activities

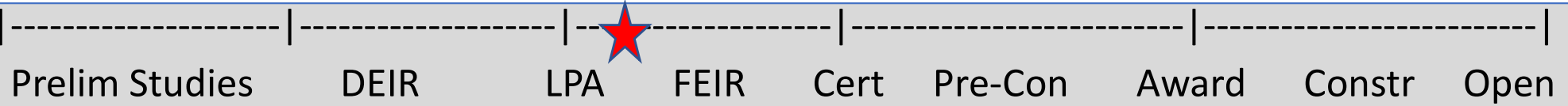
- Utility potholing work is 50% complete
- Two procurements underway: Program Management Support Services, Advanced Design (in blackout)
- Public/stakeholder outreach meetings in Paramount, Bell, Artesia, Cerritos and virtual (June)
- Technical memos & EIS/R Chapters prepared and with FTA and Army Corps of Engineers for review
- Ongoing work with UPRR/Ports on MOU

Next Actions

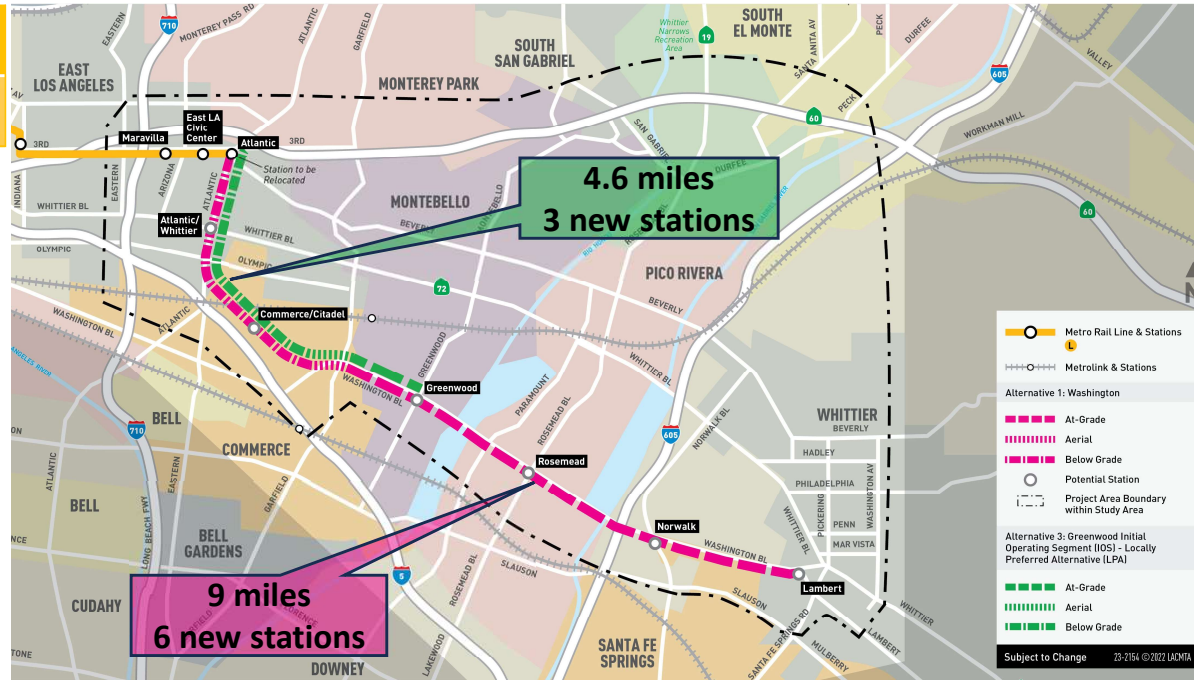
- Fall 2023: First Admin Draft of Final EIS/EIR to FTA
- Fall 2023 (tent.): Board action on contract awards
- Spring 2024 (tent.): Board certification of Final EIR
- Summer 2024 (tent.): FTA Record of Decision



Eastside Transit Corridor Phase 2



Current Phase	Most Recent Cost Estimate
EIR/EIS	\$7.9B (YOES\$, 2031\$) – IOS



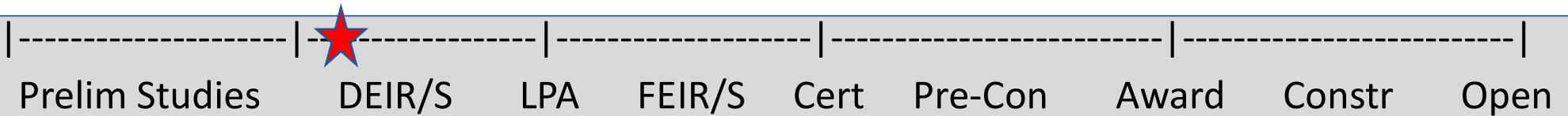
Recent Activities

- Awarded \$35M from State TIRCP
- Arranging community tours for Fall 2023
- Ongoing NEPA coordination w. FTA
- Preparing for future entry into Project Development phase
- Developing Cooperative Agreement with cities and County Counsel
- FLM planning underway (existing conditions, developing walk audits)

Next Actions

- Engineering field work along the alignment (Summer 2023)
- Community Rail Tours and FLM Walk Audits anticipated in Fall 2023 (tentative)
- FTA to determine the appropriate level of NEPA documentation, in coordination with Metro
- Complete Delivery Selection Process (Fall 2023), exploring strategies to advance construction
- CEQA anticipated in Winter 2023/2024

Sepulveda Transit Corridor



Current Phase

EIR/EIS

Most Recent Cost Estimate

\$5.7B (2015\$)

Recent Activities

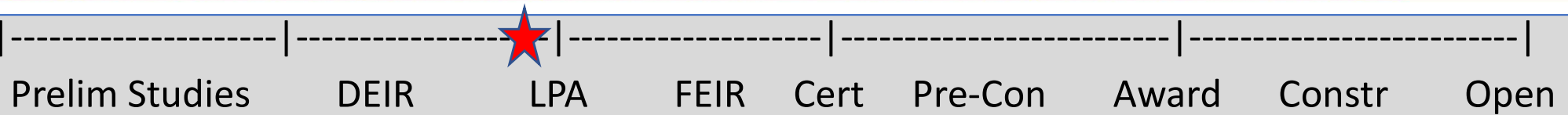
- Ongoing fieldwork
- Continued engagement with adjacent projects and with third party agencies
- Planning and Environmental Linkages (PEL) meetings with agencies

Next Actions

- Continue to develop designs and prepare environmental technical studies
- Preparing for next round of community meetings



C (Green) Line Extension to Torrance



Current Phase

EIR/EIS

Most Recent Cost Estimate

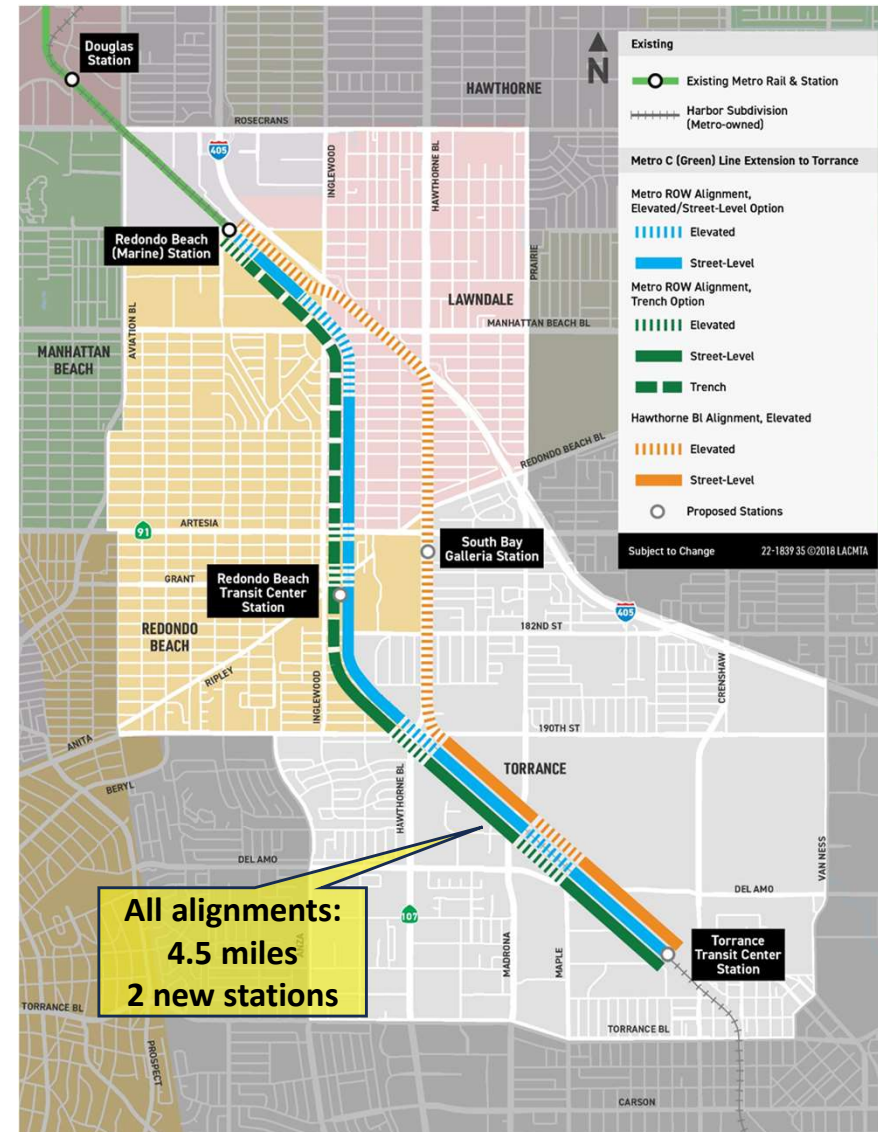
\$891M (2015\$)

Recent Activities

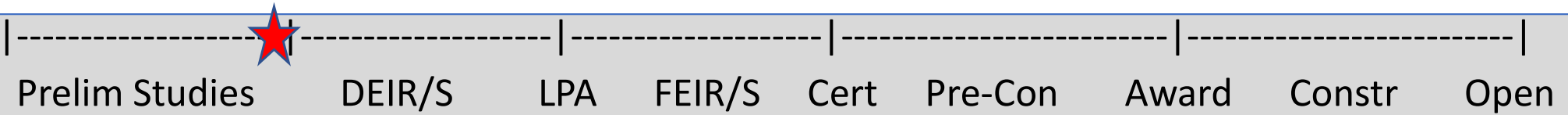
- Completed community poll on project awareness and levels of support
- Selection of K Line operations to Redondo Beach
- Additional engineering work
- Continued coordination with BNSF
- Continuing to review public comments and brief on responses

Next Actions

- Continue to identify and develop staff recommendation of Preferred Alternative based on project objectives, findings, community concerns
- Summer 2023: Briefing elected officials, cities
- Fall 2023: Board selection of Preferred Alternative



Vermont Transit Corridor



Current Phase

Preliminary Studies

Most Recent Cost Estimate

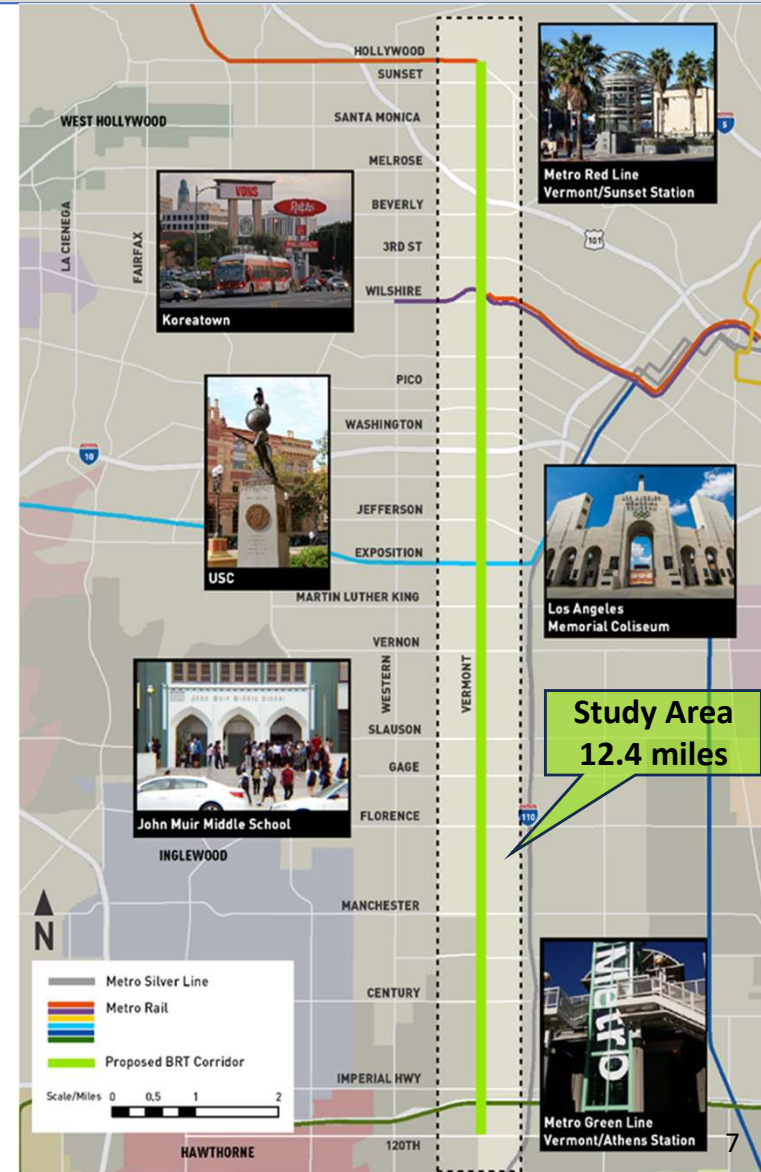
\$425M (2015\$)

Recent Activities

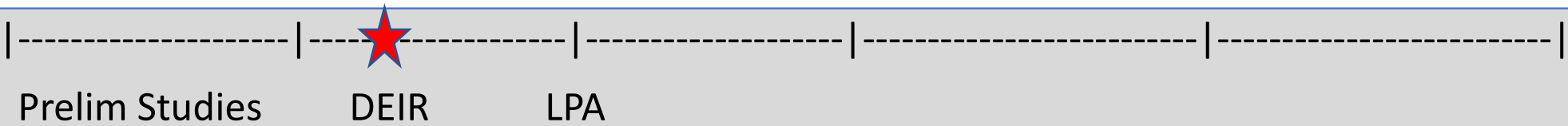
- Active procurement underway for environmental services (RFP released February 2023)
- Beginning coordination with Service Planning on near-term bus service improvements

Next Actions

- Fall 2023: Anticipated procurement for communications/outreach services
- Fall 2023: Anticipated Notice of Intent to Award for environmental services, and Board action on contract award



K Line (Crenshaw) Northern Extension



Current Phase Most Recent Cost Estimate

EIR/EIS

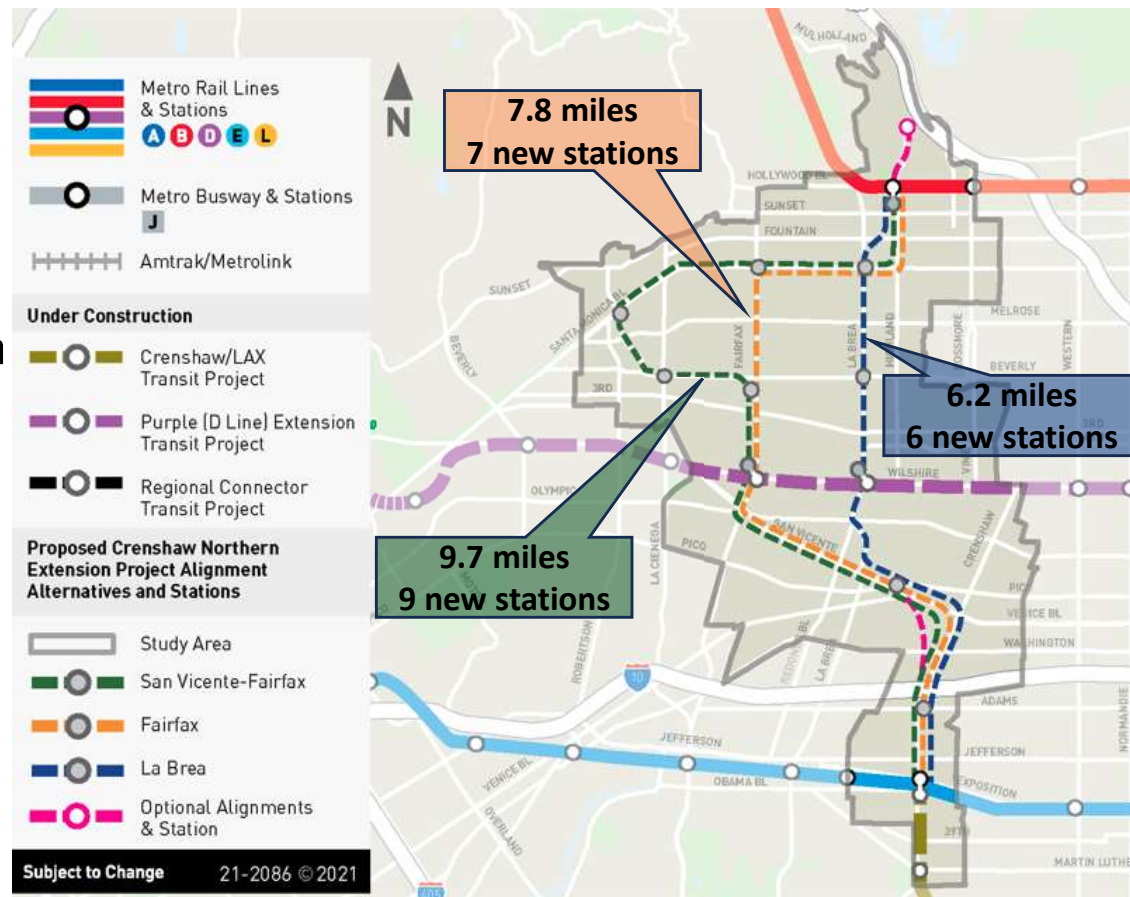
\$2.24B (2015\$)

Recent Activities

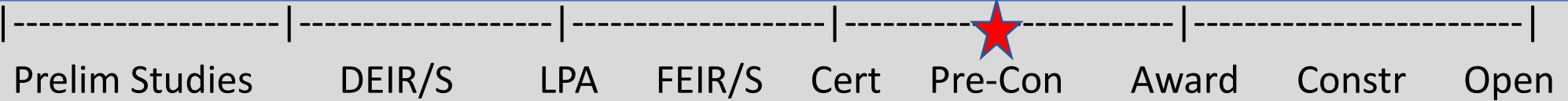
- Travel demand forecasting, environmental analysis in preparation of Draft EIR
- Advancing environmental work & prepare technical reports
- Refine DEIR engineering concepts for three alternatives

Next Actions

- Develop the Comparison of Alternatives framework
- Late Summer 2023 (anticipated): Community meetings on three alignments



North Hollywood to Pasadena BRT



Current Phase	Most Recent Cost Estimate
Pre-Construction	\$263M - \$386M (2015\$) - Capital



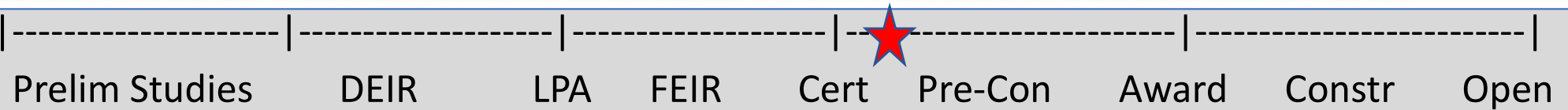
Recent Activities

- Design of station kit of parts
- Development of BRT service plan and frequencies
- Identification of project delivery method

Next Actions

- Summer/Fall 2023 – Release RFP for technical services to develop First/Last Mile Plan
- Summer/Fall 2023 - Prepare and release RFP for project management support services and final design (transition to Program Management)

North San Fernando Valley BRT Improvements



Current Phase	Most Recent Cost Estimate
Pre-Construction	\$180M (2015\$)

Recent Activities

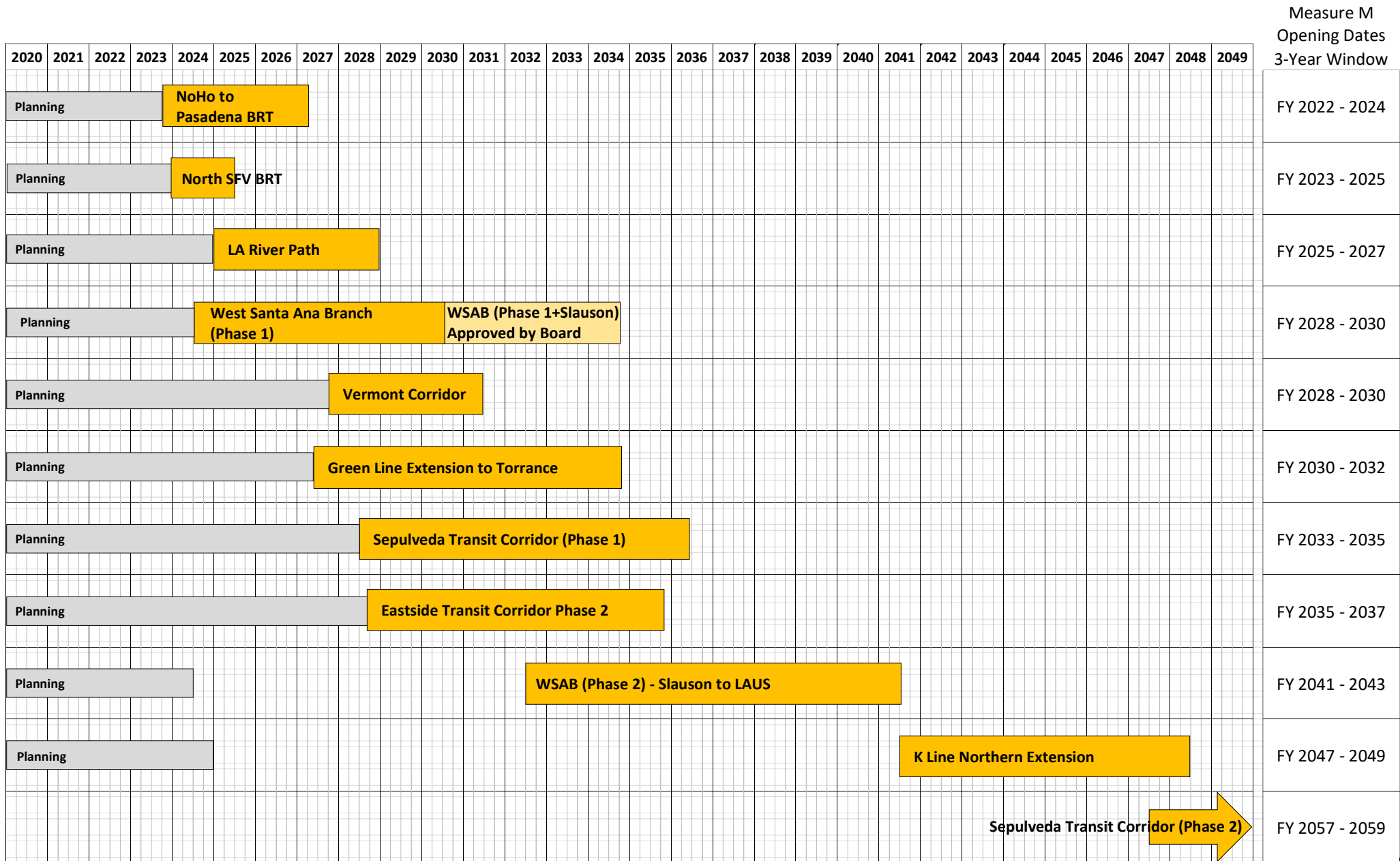
- Developed design of bus bulbs at select locations
- Initiated procurement of battery electric buses and charging infrastructure under Metro Operations
- Continuing to engage key stakeholders

Next Actions

- Initiate design of peak period bus only lanes
- Continue coordination with Streets LA on bus shelter implementation
- Continue transition of Project Implementation to Metro Service Development
- Continue key stakeholder engagement



Measure M Expenditure Plan Groundbreaking to Opening Dates



Measure M Independent Taxpayer Oversight Committee

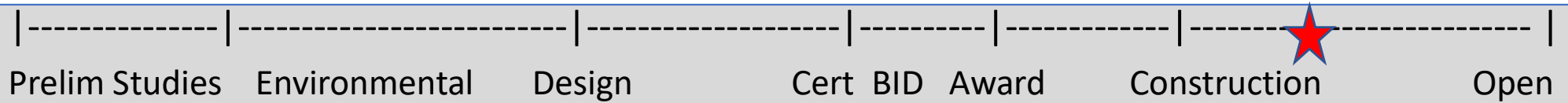
Complete Streets & Highway Project Updates

Nelli Derderian

Director, Finance & Administration

September 13, 2023

SR-71 Gap from I-10 to Rio Rancho Road (Southern Segment)



Current Phase	Phase Budget	Phase Spent To Date
Construction	\$148.10M	\$56.19M

Purpose and Scope Expenditures as of 06/30/23

- **Caltrans-managed** project adding HOV lane between Mission Blvd & San Bernardino County Line.

Multimodal Elements

- N/A

Status

- Construction is 45% complete with anticipated completion by end of 2024.
- TCEP* funding 20-month time extension to be requested to cover construction schedule delays.

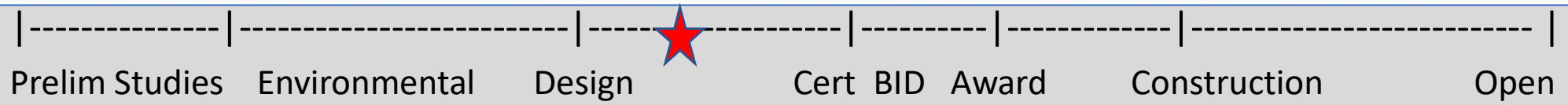
Challenges

- Construction schedule delays related to soil cohesion testing needed for soil nail retaining wall construction.
- Resolving any outstanding claims.



* TCEP – Trade Corridor Enhancement Program State grant

SR-71 Gap from I-10 to Rio Rancho Road (Northern Segment)



Current Phase	Phase Budget	Phase Spent To Date
Design	\$40.40M	\$23.0M

Expenditures as of 06/30/23

Purpose and Scope

- **Caltrans-managed** project to add 1 HOV lane in each direction and upgrade segment from an expressway to a freeway with 2 mixed flow lanes.

Multimodal Elements

- Upgrade current pedestrian bridge to comply with current ADA requirements.
- Adding HOV lanes will facilitate carpools and vanpools and encourage transit (bus) usage.

Status

- Environmental Document completed in May 2013.
- Right of Way acquisition is complete except for railroad easements.
- Design phase projected to finish in Summer 2025.
- Target construction start date in Fall 2026.
- Pursuing Mega* and INFRA** grant opportunities to close the funding gap.
- Expenditures to date are from State and Federal funds.

Challenges

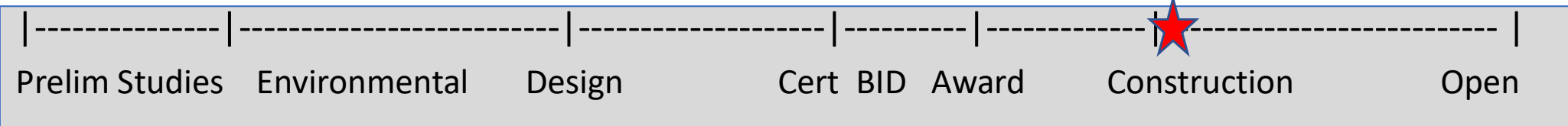
- Utility & railroad coordination causing schedule delays.
- Funding shortfall of more than \$114 million expected.



* Mega — National Infrastructure Project Assistance Federal grant
 ** INFRA – Infrastructure for Rebuilding America Federal grant



SR-57/SR-60 Interchange Improvements



Current Phase	Phase Budget	Phase Spent To Date
Construction	\$296.4M	\$6.0M

Expenditures as of 06/30/23

Purpose and Scope

- Major operational/safety improvements including grade-separation of Grand Ave eastbound off-ramp.
- **Construction led by the San Gabriel Valley COG** with Metro and Caltrans oversight.

Multimodal Elements

- Project includes improvements to local bridge, sidewalk and bicycle facilities.

Status

- Project consists of \$217M in TCEP* and \$27M in INFRA** construction funds.
- Property mitigation activity is progressing as scheduled.
- **Groundbreaking held on June 30, 2023.**
- Construction completion projected in Summer 2028.

Challenges

- Closing final cost negotiations on required Right of Way.



* TCEP – Trade Corridor Enhancement Program State grant
 ** INFRA – Infrastructure for Rebuilding America Federal grant

I-405 South Bay Curve Improvements

Southbound Auxiliary Lanes; I-105 to Artesia



Purpose and Scope

- Improve safety and operations by reducing freeway conflicts at high congestion on/off ramp locations.
- Northbound and Southbound Auxiliary lane improvements between freeway on/off ramps within Caltrans Right of Way.
- **Metro leading design phase.**

Multimodal Elements

- High visibility crosswalks;
- Pedestrian flashing beacons;
- Pedestrian and cyclist signage.

Status

- Environmental Document completed in June 2020.
- 65% design plans submitted to Caltrans in Spring 2023.
- Anticipating 95% design submittal by Spring 2024.

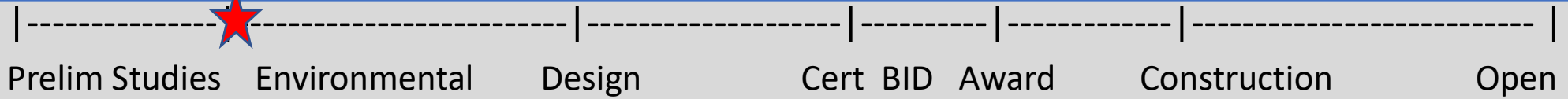
Challenges

- Construction phase is not fully funded.



I-405 South Bay Curve Improvements

I-110 to Wilmington – Auxiliary Lanes



Purpose and Scope

- Improve freeway operations and safety.
- Spans across both directions of I-405 through construction of auxiliary lanes between on- and off-ramps to improve merging and diverging vehicle movements.
- **Metro leading environmental phase.**

Multimodal Elements

- Project will include ramp termini improvements (high visibility crosswalks, leading pedestrian intervals, bike boxes, etc.).
- May include other pedestrian/bicycle and transit stop improvements in collaboration with City of Carson.

Status

- Environmental phase projected to start in Summer 2023.
- Project being scoped in collaboration with City of Carson and Caltrans in accordance with Objectives for Multi-Modal Highway Investment.

Challenges

- VMT analysis and identification of potential mitigation may need to be conducted.
- Construction phase is not fully funded.



SR-14 Improvements – North County



Purpose and Scope

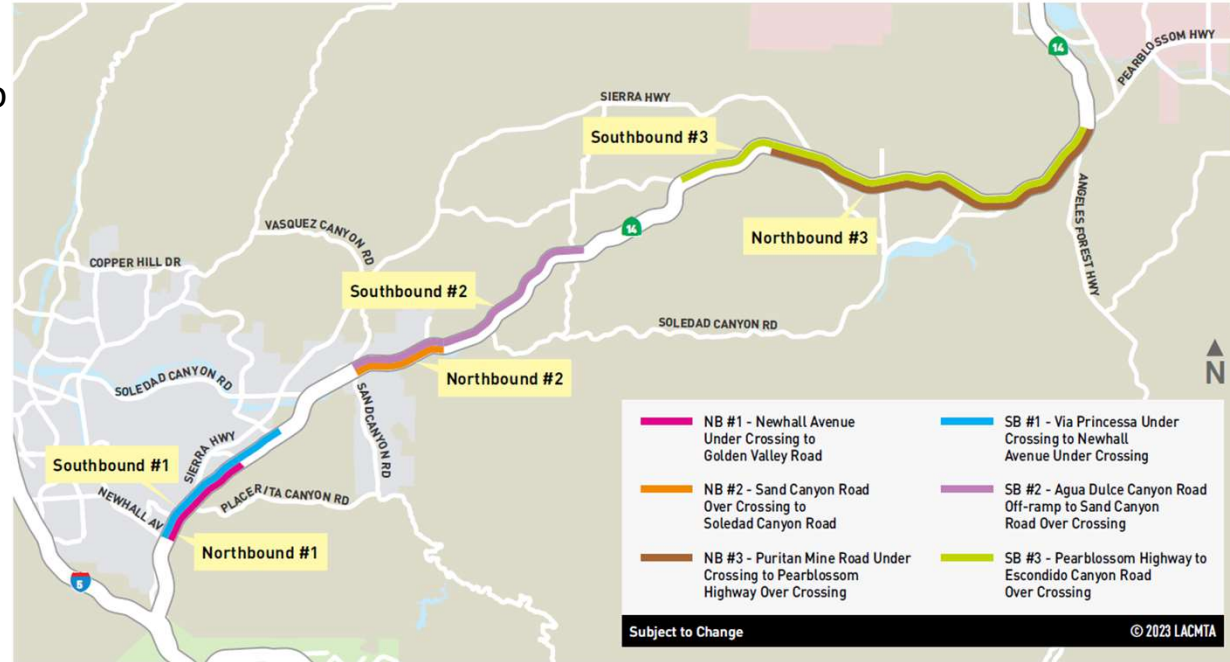
- Project Limits - Newhall Ave undercrossing to Pearblossom Highway.
- Address traffic safety concerns (higher than state average incident rates).
- Improvements may include lane additions (where there are gaps), realigning ramps, widening structures, constructing retaining walls and modifying drainage.
- **Metro leading environmental phase.**

Multimodal Elements

- Environmental document will evaluate a broad range of alternatives that will be inclusive of multimodal elements (e.g., commuter rail, bike, ped improvements).

Status

- Environmental phase projected to start in Summer 2023.



Challenges

- VMT analysis and identification of potential mitigation may need to be conducted.