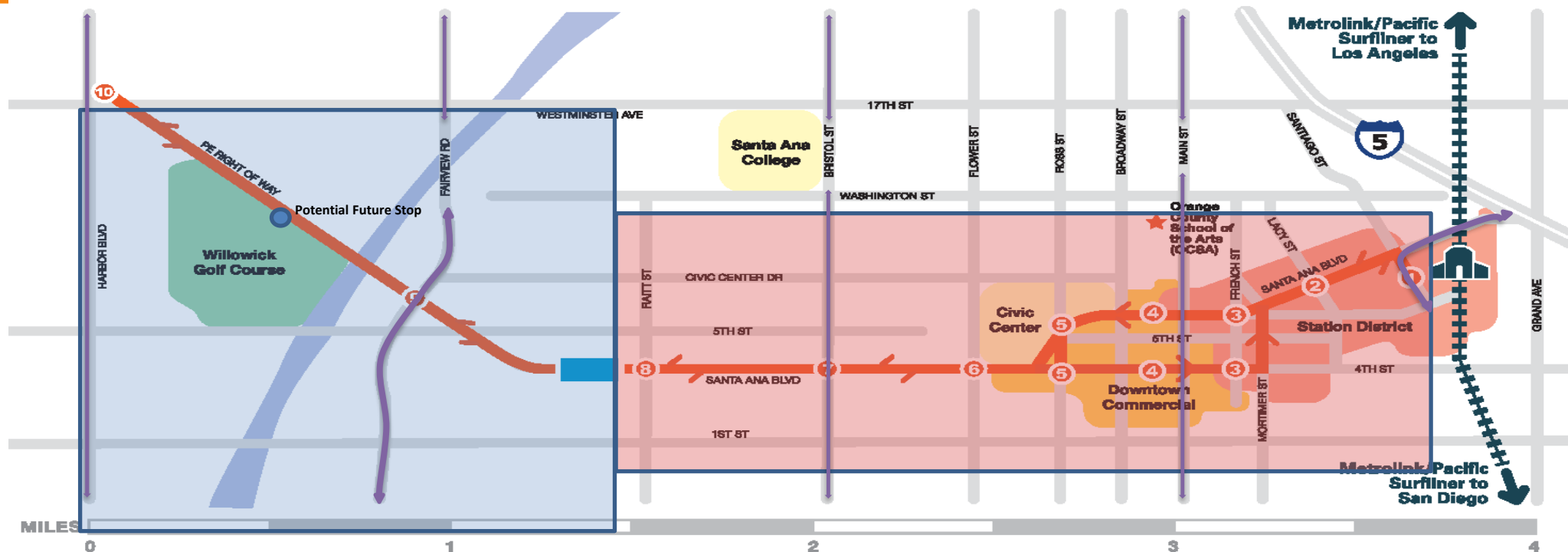


OC Streetcar Cost and Schedule Update

Taxpayer Oversight Committee

February 8, 2022

Features



Pacific Electric Right-of-Way (PEROW)

- Dedicated right-of-way owned by the Orange County Transportation Authority (OCTA)
- Double-Track, Ties, and Ballast
- Two Bridges-Westminster Avenue and Santa Ana River
- Two-Gated Crossings-Fairview Street and 5th Street
- Maintenance facility for eight cars west of Raitt Street
- Center Platforms
- Two-Wire Overhead Catenary System (OCS)

STREET RUNNING

- Traffic Signal Priority
- One-Way Couplet Downtown
 - 4th Street Eastbound, Santa Ana Boulevard Westbound
- Embedded Track (Block Rail)
- Side Platforms (except Santa Ana Regional Transportation Center)
- Protected bike lane on Santa Ana Boulevard
- One-Wire OCS with underground feeder

Construction Status

Construction

- 62.7% complete
- Embedded track installation in city streets
 - WB track complete in Segments 2 & 3 (Ross intersection 40% complete) (Raitt Street to French Street)
 - Segment 4 to begin after Ross intersection
 - Working on WB station platforms before shifting traffic to install EB track
- Installation of OCS & traffic signal pole foundations
 - 75 % of all OCS Foundations complete
 - 34% of OCS poles installed
 - 27% traffic signal foundations complete due to utility conflicts
- MSF
 - Structural steel expected to go up late February

- Santa Ana River & Westminster Bridges
 - Direct fixation track installation is beginning



Vehicle Status

Vehicles

- Eight Siemens S700 modern streetcar vehicles are in production in Sacramento, CA
- Production is 52.4% complete
 - Cars 1-7 are undergoing final equipping of remaining vehicle component and detail cleaning.
 - Car 8 is in final assembly and then will proceed to static and dynamic testing
 - Negotiations underway with Siemens for storage of vehicles until infrastructure is complete to accept and test the vehicles



Background of Project Challenges

- Unknown utility conflicts and unsuitable subgrade conditions within city streets
- Extensive amount of contaminated and hazardous soil in the Pacific Electric Right-of-Way, city streets, and at the MSF site
- Unforeseen conditions at the MSF
- Unanticipated design revisions
- Contractor non-compliance with construction quality requirements and quality control plans
- Extensive number of change requests and requests for information and submittals

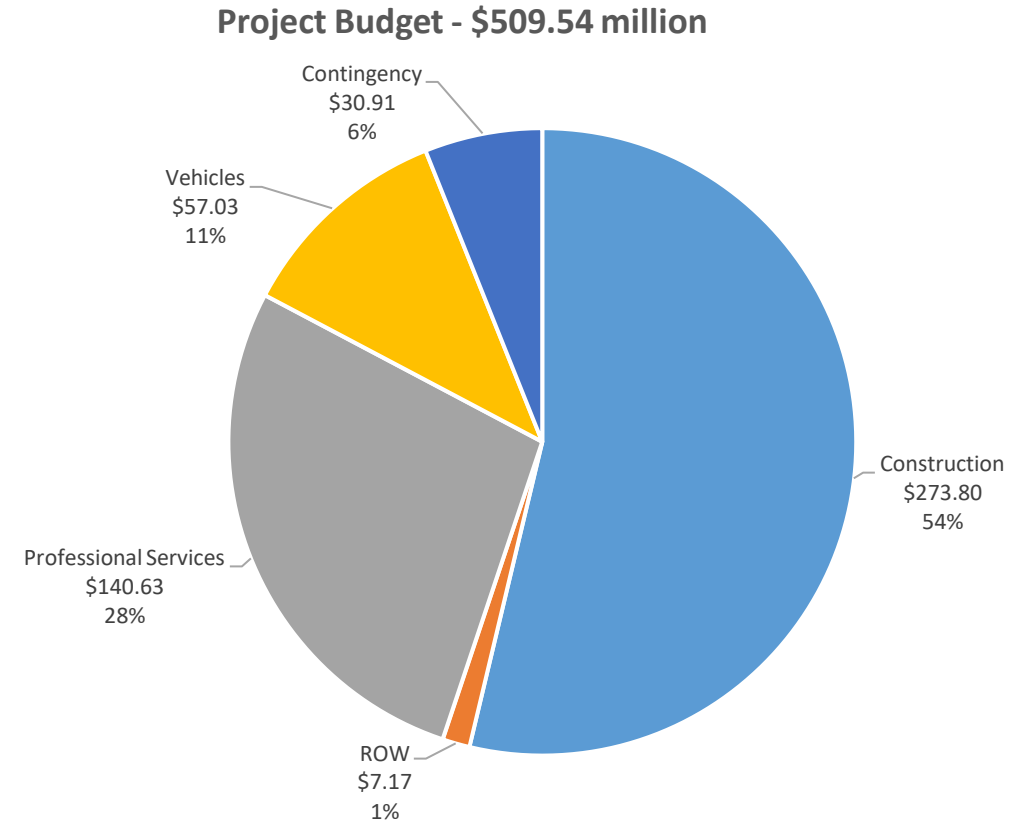
Impacts of Challenges to Cost and Schedule

- Schedule Impacts
 - Extended construction duration
- Costs of Schedule Delay
 - Storage costs for vehicles and equipment
 - Extended performance period for professional services
 - Increased costs to update equipment technology
- Additional Cost Impacts
 - Increased change orders
 - Increased level of oversight for technical and contractual reviews

Proposed Project Budget and Schedule

Based on challenges, contractor progress, and current risks assessed in coordination with the Federal Transit Administration (FTA):

- Anticipated revenue service date is March 2024
- Estimated cost to complete is \$509.54 million
 - Includes \$30.91 million in contingency. This estimate is consistent with FTA's standard percent contingency at current stage of construction.



Project Budget Comparison

Cost Categories	Budget Approved by Board in March 2021	Revised Budget Approved by Board in December 2021	Change Between Revised Budget and March 2021 Budget	% Change	Key Changes
Construction	\$234.28	\$273.80	\$39.52	16.9%	<ul style="list-style-type: none"> • Pending/executed contract change orders through October 2021 • Added/increased costs for MSF/operational equipment, ticket vending machines, spare parts
Right-of-Way	\$8.22	\$7.17	(\$1.05)	-12.8%	<ul style="list-style-type: none"> • Cost savings from SA Recycling Acquisition
Professional services	\$74.94	\$140.63	\$65.69	87.7%	<ul style="list-style-type: none"> • Increased costs for professional services including the extended performance period required with the extended revenue service date of March 2024 plus project close-out (professional services, OCTA staff)
Vehicles	\$52.35	\$57.03	\$4.68	8.9%	<ul style="list-style-type: none"> • Vehicle and spare parts/special tools storage. Addition of computer-aided dispatch/automatic vehicle locator technology
Contingency	\$53.64	\$30.91	(\$22.73)	-42.4%	<ul style="list-style-type: none"> • Current budget contingency has been distributed between all cost categories in cost to complete amount • OCTA estimate is 6.5% of base cost
Total	\$423.43	\$509.54	\$86.11	20.3%	

**Numbers may be slightly off due to rounding

Proposed Funding Sources

Funding Programs (in 1,000's)	Funding Approved March 2021	Funding Need	Recommended Funding
FTA New Starts	\$148,955		\$148,955
FTA Section 5307	\$13,599		\$13,599
Federal Congestion Mitigation and Air Quality Improvement Program (CMAQ)	\$62,412	\$45,720	\$108,132
Federal American Rescue Plan Act (ARP)*		\$9,407	\$9,407
State Transit and Intercity Rail Capital Program	\$25,586		\$25,586
Subtotal State and Federal	\$250,552	\$55,127	\$305,679
Measure M2 (M2) Project S	\$172,886	\$30,975	\$203,861
Total Funding	\$423,438	\$86,102	\$509,540

*Federal ARP funding is an offset to the M2 amount requested

4th Street Construction



Outreach

- Bilingual Door Hanger Notices
- Field Meetings
- Downtown Business Associations
- Eat Shop Play Program

