OC Streetcar Project Update

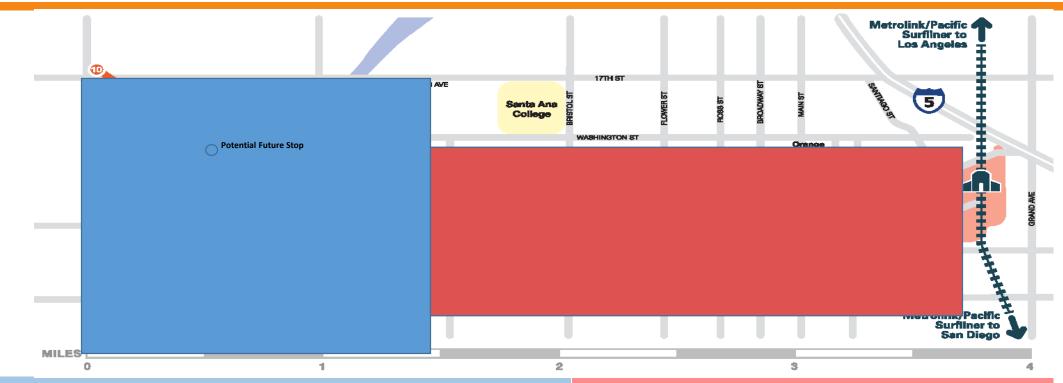


Background

- Measure M2 Project S Transit Extensions to Metrolink approved by the Orange County voters in November 2006
- Key Project implementation dates:

Key Milestone	Date	Contract Execution Amount (in Millions)
Vehicle Contract Award	March 2018	\$51.52
Construction Contract Award	September 2018	\$220.53
Full Funding Grant Agreement Executed	November 2018	\$148.96

OC Streetcar Features



Pacific Electric Right-of-Way (ROW)

- Dedicated ROW owned by the Orange County Transportation Authority (OCTA)
- Double-Track, Ties, and Ballast
- Two Bridges-Westminster and Santa Ana River
- Two Gated Crossings-Fairview 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

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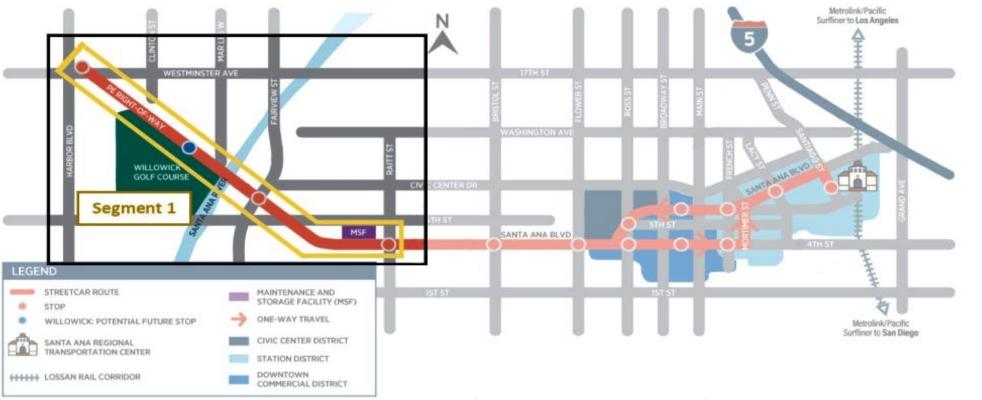
- Embedded Track (Block Rail)
- Side Platforms (except Santa Ana Regional Transportation Center)
- Protected bike lane on Santa Ana Boulevard
- One-Wire OCS with underground feeder

Santa Ana River Bridge



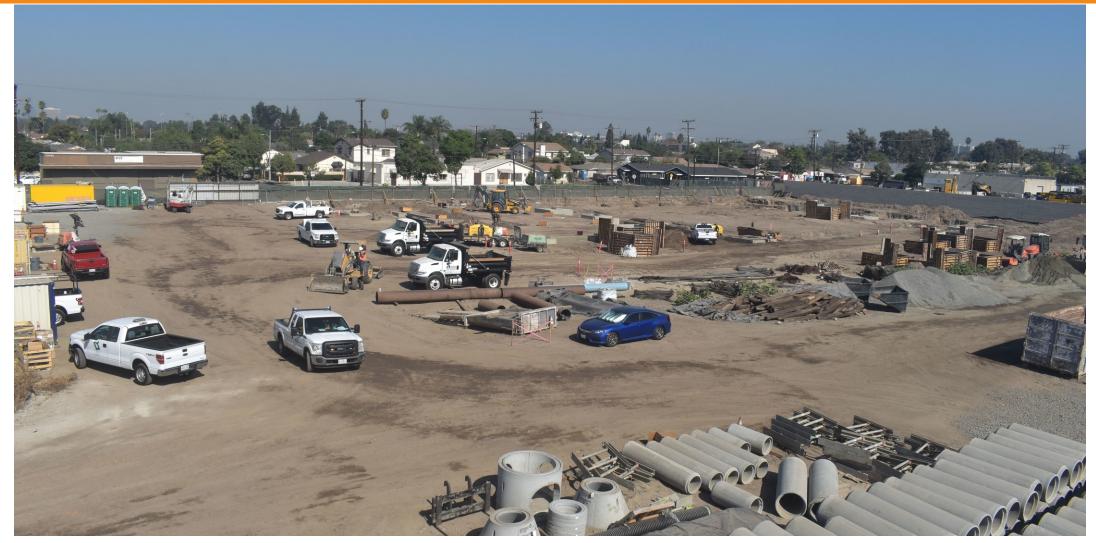
 Foundations and pier walls for the new bridge across the Santa Ana River were completed

Construction—Segment 1



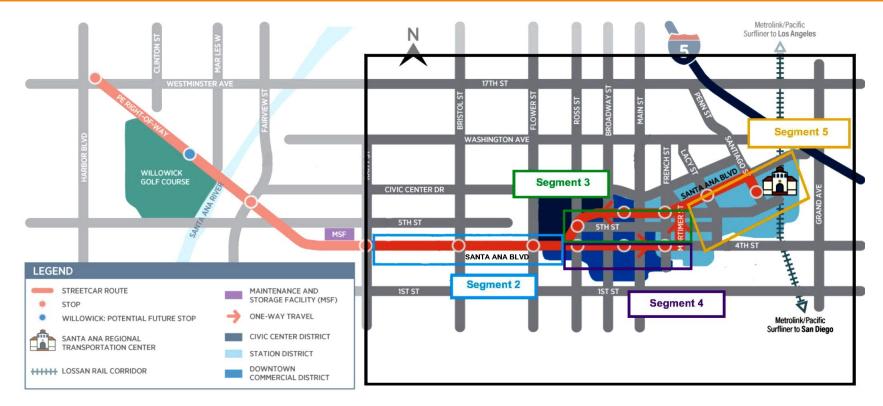
- Foundations for the bridge abutments for the bridge over Westminster Avenue have been installed
- Drainage systems are being installed in preparation for the installation of ballasted track in the Pacific Electric Right-of-Way (PE ROW)
- Removal and disposal of contaminated materials within the PE ROW is underway

Maintenance and Storage Facility (MSF)



Grading for the MSF building foundation is ongoing, foundations are being poured, and utility duct work for the plumbing, drainage, and electrical systems is being installed

Construction—Segments 2 through 5



- Wet utilities are being relocated by the streetcar construction contractor: water, sewer, and storm drain
 - Sewer relocation on Santa Ana Boulevard from Raitt Street to Bristol Street is complete
 - Trenchless sewer replacement work on 4th Street is complete
 - Installing sewer lines, waterlines, and storm drains in preparation for track installation late this year

Third-Party Utility Relocations

- Most third-party utility relocations are complete
- Remaining work includes:
 - Southern California Gas working downtown and east of downtown on Santa Ana Boulevard
 - A few communications facilities requiring relocation
 - Southern California Edison removal of underground vaults on Santa Ana Boulevard
 - AT&T has one final relocation to be scheduled in January 2020 after a sewer line has been relocated



Outreach

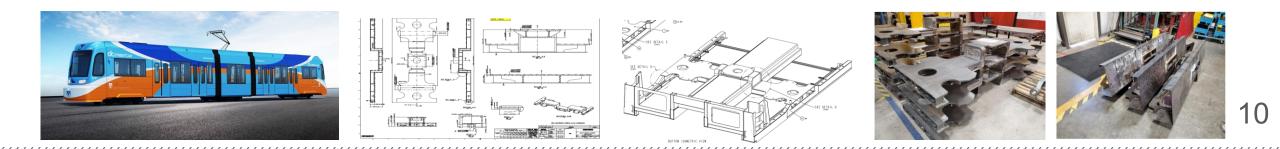
- OCTA installed 20 A-frame posters alerting the public that businesses are open during construction
- Biweekly Construction News emails
 - Segment by Segment details of construction activities
 - Distributed 2,000+ recipients
- Trenchless Sewer Replacement on 4th Street
 - o Bilingual door hanger
 - Outreach staff on-site during initial hours of pipe installation to answer questions and concerns
- OCTA outreach staff works proactively with City of Santa Ana representatives to monitor community events in the downtown area to assure the contractor is aware and can coordinate activities accordingly



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Vehicles

- Final design review commenced for the vehicles
- Vehicle production began in September 2019
 - The vehicle girder and car shell are the first components to be fabricated for the streetcars and will be completed for the first vehicle in December 2019
- Coordination was initiated between Conduent, OCTA, and Siemens in identifying the space requirements of the Computer Aided Dispatch and Automated Vehicle Location equipment on the vehicle
- Coordination continues between OCTA, Siemens, and Walsh Construction Company II, LLC in the development of the Wheel to Rail Interface Plan that details the integration of the vehicle with the project infrastructure and track tolerance



Other key OC Streetcar updates

- Receipt of letter from Representative Peter DeFazio (D-OR), Chairman of the House Transportation and Infrastructure Committee (Committee) regarding implementation of Capital Investment Grant Program
- Operations and Maintenance (O&M) request for proposals. Proposals received July 24, 2019 and currently under review
- Award of O&M contract is anticipated for first quarter 2020
- Ongoing coordination with the Federal Transit Administration, City of Santa Ana, City of Garden Grove, Orange County Fire Authority, Orange County Flood Control District, and OC Parks

