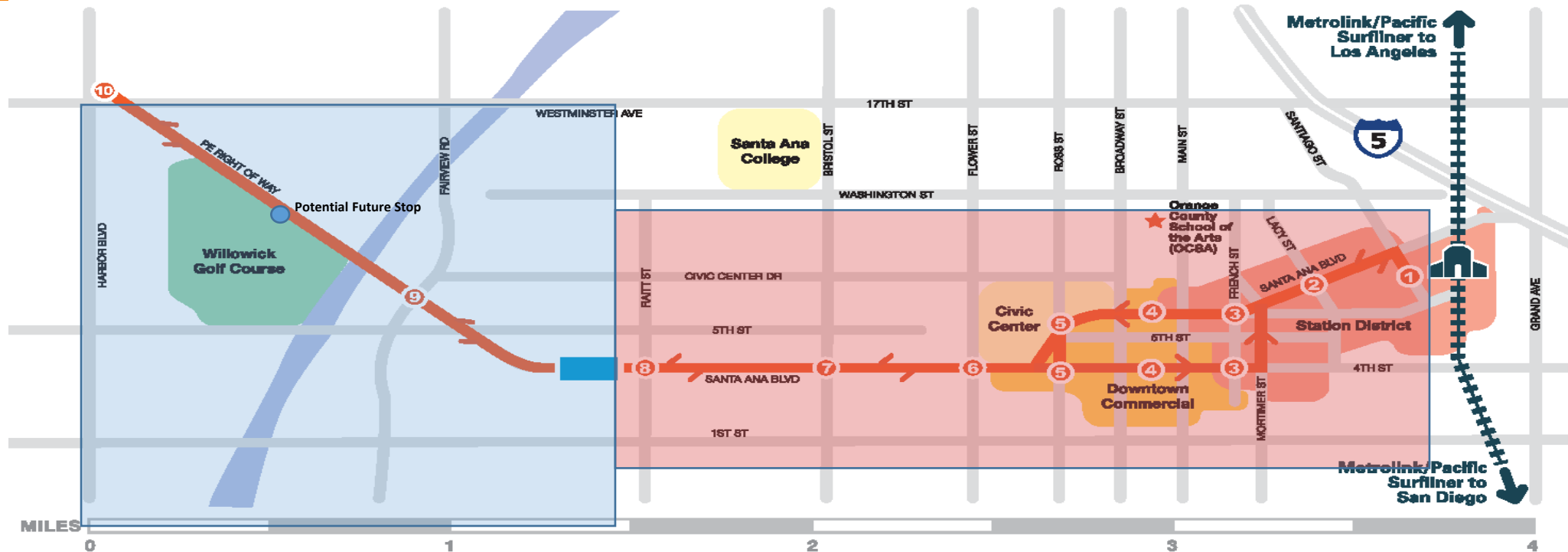


# **OC Streetcar Project Quarterly Update**

# Agenda

1. Project Alignment Features
2. Status of Construction
3. Upcoming Construction Milestones
4. Project Challenges
5. Status of Vehicle Production
6. Outreach

# OC Streetcar Features



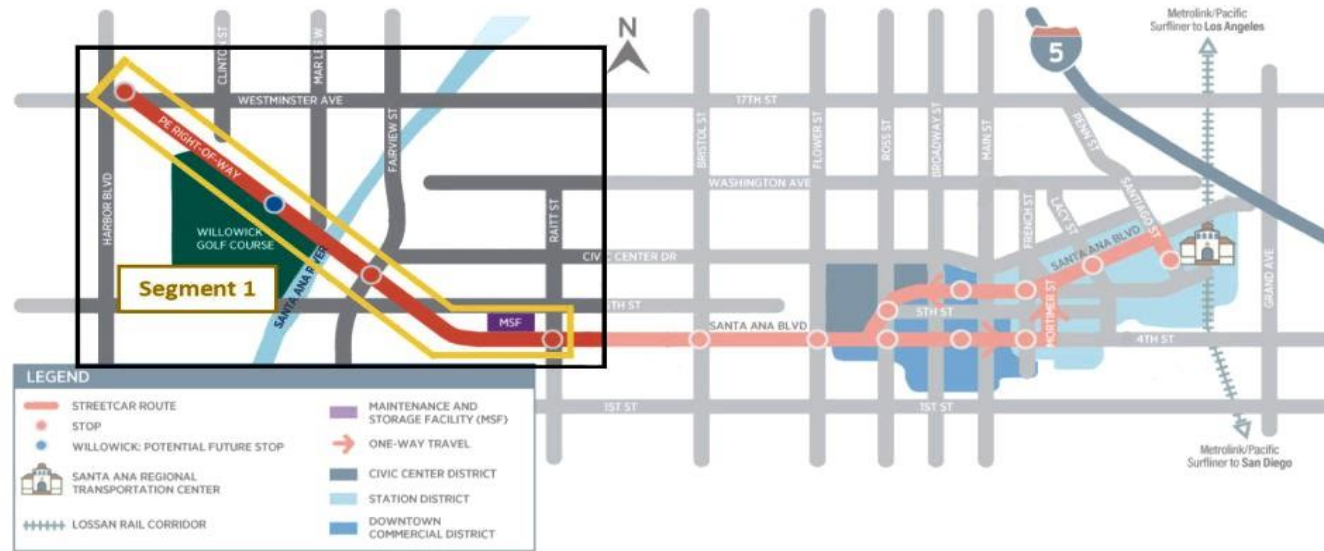
## Pacific Electric Right-of-Way (PEROW)

- 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 5<sup>th</sup> 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
  - 4<sup>th</sup> 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—Segment 1



- PEROW

- Sticks of rail delivered and are welded into strings.
- Drainage improvements completed.
- Installation of OCS pole foundations and communication duct banks.
- Construction of Fairview station platform.

# Westminster Bridge



- Falsework was stripped from the cast-in-place Westminster Avenue Bridge.
- Retaining walls supporting the bridge were completed.
- Median is being reconstructed.



# Santa Ana River Bridge



- Falsework for the Santa Ana River Bridge pier caps was removed.
- Retaining walls supporting approaches to the bridge were completed and soundwalls were constructed.

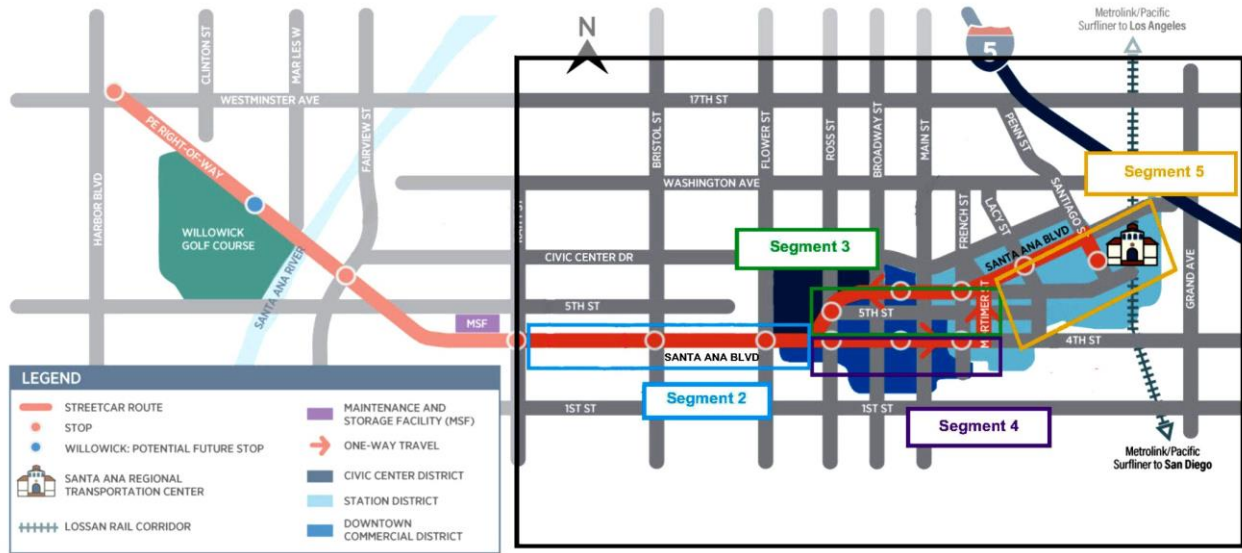
# Maintenance and Storage Facility (MSF)



- Wheel truing pit area was released back to the contractor after archeological work was completed to confirm there are no additional cultural resources.
- Work continued on the west half of the MSF building floor slabs, and on the car wash foundation and slab, and new utility services to the facility.



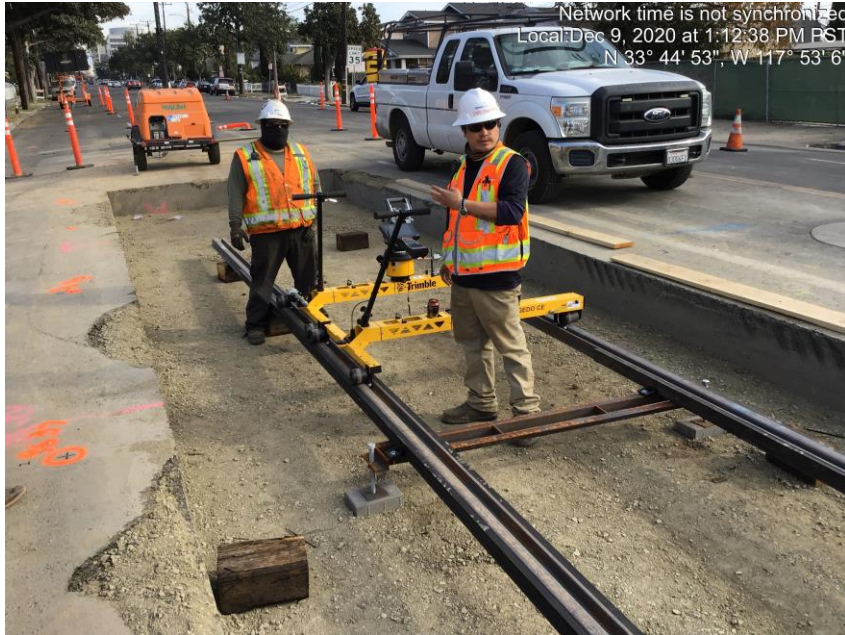
# Construction—Segments 2 Through 5



- Wet utility relocation and installation is complete.
- Installation of OCS, traffic signal, and streetlight pole foundations is ongoing.
- Contractor encountered and remediated railroad ties from the former Pacific Electric Railway, contaminated soil, and unsuitable subgrade conditions on Santa Ana Boulevard between Raitt Street and Bristol Street.
- Embedded track was installed across Bristol Street in December 2020 and track installation is proceeding west towards Raitt Street in 300-foot segments.
- Embedded track excavation work proceeded on Santa Ana Boulevard between Parton Street and Mortimer Street.



# Track Installation at Bristol Intersection



# Upcoming Construction Milestones

- Continued installation of:
  - In-street embedded track and PEROW ballasted track
  - OCS and traffic signal pole foundations
- Continued construction of MSF slabs and walls
- Construction of station stop platforms
- Delivery of traction power sub-stations

# Project Challenges

- Higher than anticipated number of unforeseen conditions encountered by construction contractor are resulting in numerous change orders
  - Unknown utilities in city streets
    - Unmapped and/or abandoned utilities
    - Hand-excavating locations of pole foundations to minimize risks
  - Contaminated soils and materials
    - PEROW, City of Santa Ana streets, and at MSF
    - Not identified during design phase testing
  - Other unknown conditions
    - Areas of thicker pavement and unsuitable subgrade in city streets
    - Abandoned well, underground storage tank, and cultural resource discovery at the MSF



# Project Challenges

- Work effort and approach have resulted in additional challenges to OCTA management and workflow
  - Quality
    - Quality control effort and compliance with quality requirements is requiring more extensive OCTA oversight for acceptance, and in some cases rework.
  - Request For Information (RFI)
    - Extensive number of RFIs submitted by Walsh including suggestions, confirmation requests, questions, and to document potential changes, regardless of size and rather than addressing changes in the field.
    - Often require multi-disciplinary reviews and responses, and/or approval from third parties.

# Project Challenges

- Higher than anticipated number of contract change orders and additional resources required from OCTA
  - Results in project contingency drawdown faster than originally forecast at this stage of completion
  - To address the declining contingency, an updated comprehensive risk analysis was conducted
    - Cost to complete
    - Schedule for completion
    - Contingency levels necessary to address outstanding risks
- Currently under review by the Federal Transit Administration and their consultant team.
- Recommendations to be presented to Board of Directors for consideration in February 2021.

# Vehicles

- The first four of the eight S-700 Streetcar vehicles are near completion in that the cars have been assembled, trucks assemblies installed, interior equipping of the seats, flooring, doors and electrical systems. The four vehicles are currently undergoing static and dynamic testing to verify component and system functionality.
- The remaining four vehicles, cars five to eight, are in various stages of production, including interior equipping, final assembly, and sub-floor installation.
- Final design review of remaining vehicle components, including the energy absorbing bumper, emergency battery drive, and flange lube system.
- Ongoing coordination with Conduent and Siemens Mobility, Inc., on computer-aided dispatch and automated vehicle location design specifications.





# Vehicles





# Outreach

- Santa Ana Business Associations
- Rail Pull Milestone
- Virtual Open House
- Eat Shop Play

# WEEKLY DIGITAL PROGRAM LINE UP

## MONTHLY PROGRAMMING LAST SATURDAYS

# SATURDAY FOR KIDS

LIVE 9:30AM PDT



## SATURDAYS FOR KIDS JOCYLYN & BRIANA

APRIL-OCT Saturday For Kids Showcase  
<https://www.facebook.com/thescience/videos/ga8r78ou4594t6>



**SCIENCE**

A science activity you can track on  Try the density experiment at home.  
18 weeks ago · 2 views



**SCIENCE**

We made squishy eggs on Saturday  Fun morning bonding time!  
21 weeks ago · 3 views



**SATURDAY FOR KIDS**

Jocelyn Argente's Video  
21 weeks ago · 3 views



**SATURDAY FOR KIDS**

STARTING SOON!



**SCIENCE**



**SATURDAY FOR KIDS**

STARTING SOON!

SANTA ANA BUSINESS COUNCIL

**THE HOT HOUR**  
with Maria @hahothourla

**HIGHLIGHTS FROM 2ND QUARTER**

Our new show follows Maria "The Hot Tortilla" as she explores downtown gems, interviews business owners and artists and exposes the spicy flavor that makes DTSa the "Tajin of Orange County."

**The Hot Hour Show**

Maria's show is an incredible romp through downtown style, food and community.

**How does The Hot Hour content help downtown businesses?**

Businesses are featured on the event including Loose Leaf Boba, Slushcutf, Frida Cinema, El Indio Botanias y Cervezas and Native Harvest Farmers Market, La Michoacana Express, Elite Fitness Gym Downtown, Ninos Bridal Couture, Santos Pizza, The Blue Lot and 45M. The content is engaging with our online audience and tempers our commercial voice with cool, community content. In addition, we promote take-out/dining options while you enjoy the show.

# EAT SHOP PLAY

## DOWNTOWN SANTA ANA

**OC STREETCAR** **OC TA**

### March - Mid December 2020

OC's Eat Shop Play (ESP) program supports local businesses located along the future OC Streetcar route. Benefits to businesses include social media ads, e-newsletter features, web profiles and more. Participation is free. Businesses located along the future OC Streetcar route are eligible to sign up for marketing assistance at [ocna.net/OCStreetcar](http://ocna.net/OCStreetcar).

#### 103 Social Media Posts in English and Spanish

- Facebook: 36
- Instagram: 34
- Twitter: 33

#### 87 Social Media Ads in English and Spanish

- Facebook: 45
- Instagram: 42

Total Reach: **1,880,962**

#### 47 Walking Map Listings

#### 1 Feature Video

- Door-to-door outreach
- Outreach calls
- Newsletters
- Website invitation led to

#### 48 Participating Businesses

Eat: 24 Shop: 13 Play: 4 Other: 7

#### 16 Bi-weekly ESP e-newsletters with 148 Business Features

Business Features were included in:

- Business Spotlights
- Takeout Tuesday
- Dining Options

#### 19 Community Corner Features promoting what is happening in the community

#### 18 ESP Program Features in the OC Streetcar Construction Newsletter

#### Bus Ads coming 2021

# Virtual Community Open House

## OC STREETCAR CONSTRUCTION UPDATES

**December 17,  
5:30 - 6:30 p.m.**

**CLICK HERE  
TO JOIN THE  
MEETING**

**OR CALL 1-669-900-6833  
TO ACCESS THE MEETING**

Please visit <https://bit.ly/39fAYID> at 5:30 p.m. on December 17 to join the virtual open house. The virtual open house will be held in both English and Spanish.

Call 1-669-900-6833 (Meeting ID: 823 6402 2263#) if you prefer to join the meeting by phone.



OC Streetcar  
**Track Installation**  
Has Started!

[Click to watch the video premiere of this exciting milestone](#)



Join the OCTA Board of Directors, the City of Santa Ana and the project's community partners in celebrating this major OC Streetcar project milestone.

