

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

**Rail Safety Division
Rail Transit Safety Branch**

**Resolution ST-255
October 9, 2025**

R E S O L U T I O N

RESOLUTION ST-255 GRANTING APPROVAL OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM SAFETY CERTIFICATION PLAN FOR ITS ORANGE LINE IMPROVEMENT PROJECT PHASES 1 AND 2 SIGNAL SYSTEM AND OPERATIONAL IMPROVEMENT PROGRAM.

PROPOSED OUTCOME:

- Approval of the San Diego Metropolitan Transit System San Diego Trolley Safety Certification Plan for the Orange Line Signal System and Operational Improvement Program.

SAFETY CONSIDERATIONS:

- The Safety Certification Plan describes the organizational authority, responsibilities, and the certification activities, processes, and documentation requirements for assuring the safety of the project as it is implemented by the agency and its contractors.

ESTIMATED COST:

- There are no costs associated with this resolution.
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SUMMARY

This Resolution grants the request of the San Diego Metropolitan Transit System for approval of the Safety Certification Plan for the Orange Line Phases 1 and 2 Signal System and Operational Improvement Program. The project will replace and upgrade certain current components and technology along the rail line, as well as add certain facilities to increase operational flexibility of the line.

PROJECT DESCRIPTION

The project location is on the existing San Diego Metropolitan Transit System (SDMTS) Trolley Orange line between the Massachusetts Station in the City of Lemon Grove and El Cajon Station in the City of El Cajon. The new systems and equipment will be installed on the existing operating trolley line with limited passenger service interruption throughout construction, installation, and testing. To meet this requirement, the project has been divided into seven distinct segments along the 8-mile alignment.

The scope of the Orange Line Improvements – Phases 1 & 2 project consists of the following work:

Trackwork

- Installation of two (2) #11 single crossovers
- Conversion of one (1) existing manual #10 crossover to power operated turnouts
- Conversion of one (1) existing manual #10 turnout to power operated turnout
- Replacement of nine (9) M23 power switch machines and associated special track work
- Replacement of Baltimore Junction Diamond Track
- Installation of bonded rail plugs on tangent and curved track

Overhead Catenary System (OCS)

- OCS installation to support two (2) new #11 single crossovers

Signal and Communications

- Interlocking and Automatic Block System (ABS) replacement of existing relay logic locations, install and commission vital microprocessor control systems to support bidirectional running
- Rail Crossing warning device and train detection and crossing warning system replacement
- Installation of twenty-nine (29) train control/crossing instrument enclosures for the crossings along the right-of-way
- Installation of underground infrastructure, ducts, vaults and pull boxes
- Installation of impedance bonds, associated wiring, and track connections
- Modification of existing overhead aerial fiber optic cables to support vital and non-vital applications

- Establishment of new or conversion of existing commercial power meter services

The Safety Certification Plan (SCP) objectives are to verify prior to commencing trolley operations controlled by the new systems and equipment, through specific processes and documentation specified by the SCP are accomplished for the following certifiable elements.

- Design Criteria Conformance;
- Construction Specification Conformance;
- Safety-Related Integrated Testing Conformance;
- Hazard (Risk) Resolution Conformance;
- System Dynamic Test Conformance;
- Clearance Conformance;
- Configuration (As-Built Drawings) Conformance;
- Operations and Maintenance Manuals Conformance;
- Rules and Procedures Conformance;
- Training Conformance;

BACKGROUND

Commission General Order 164-F, *Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems, Section 11, Requirements for Safety Certification Plan*, requires that each Rail Transit Agency (RTA) prepare a project-specific Safety Certification Plan (SCP) for each major project and ensure that all entities involved in design, construction, operation, and maintenance of the project comply with the safety certification process.

The purpose of the SCP is to describe organizational authority and responsibilities, safety certification activities and processes, and documentation requirements and responsibilities. The SCP lists safety critical items and activities that require verification such as safety equipment functionality testing and safety related operational and/or maintenance training. The SCP also includes consideration of security-related issues and the security of the completed project into RTA's existing system. A safety certification verification report (SCVR) is issued by RTA at project completion, as verification of SCP compliance. The SCVR must be approved by CPUC staff (Staff) before the project can be placed in service. Staff approval is granted by the Rail Safety Division Director based on Staff's recommendations after evaluation of the SCVR.

On April 11, 2025, MTS submitted their plan titled "Signal System and Operational Improvement Program: Safety Certification Plan for the Orange Line Phases 1 and 2 to staff for review and requested Commission approval to satisfy General Order 164-F, Section 11 requirement.

Staff reviewed and analyzed the content of the SDMTS SCP for the Orange Line Improvement Project – Phase 1 and 2, and found that it met the SCP requirements set forth in General Order 164-F and Rail Transit Safety Branch Program Management Standard Procedures Manual, State Safety and Security Oversight of Rail Fixed Guideway System, Section 9 – Procedure for Safety Certification Plans of Major Projects.

DISCUSSION

The Signal System and Operational Improvement Program: Safety Certification Plan for the Orange Line Phases 1 and 2 is intended to increase headway revenue operations on the existing Orange Line, upgrade the existing Signal System, and include new crossovers. The original Orange Line signal system and controllers are being upgraded with new technology consistent with the SDMTS Blue Line route. That project similarly upgraded SDMTS original first line and was completed 10 years ago.

Resolution ST-130 dated July 28, 2011, approved San Diego Association of Government (SANDAG) Blue Line Signaling and Crossover Project. SANDAG which is the Design and Engineering Division for MTS Projects, was responsible for the safety certification requirements throughout the project. The Blue Line Signaling and Crossover Project consisted of the installation of new interlocked crossovers, interlocking electric existing electric crossovers, signal system revisions, reversed running grade crossings, fiber optic connections for the signal system, new grade crossing mechanisms, new grade crossing equipment cases, replacement of incandescent signal lights with light emitting LED and new relay cases.

Staff inspected the Blue Line Signaling and Crossover Project throughout the design, construction, testing and verified General Order requirements compliance. The Final Safety Certification Verification Report (SCVR) was submitted to Commission Staff for Review and Approval as required by ST-130, and Commission Staff sent a final approval letter dated June 2015 accepting it.

Similarly, Staff will inspect the Orange Line Phases 1 and 2 Signal System and Operational Improvement Program Project throughout the design, construction, and operational and integration testing activities and will verify SCP and General Order compliance as the project progresses.

Staff reviewed the Signal System and Operational Improvement Program: Safety Certification Plan (SCP) for the Orange Line Phases 1 and 2 project in accordance with General Order 164-F Section 11, Requirements for Safety Certification Plan. The SCP meets the requirements set forth in General Order 164-F and Staff recommends that the Commission grant approval of the Signal System and Operational Improvement Program: Safety Certification Plan for the Orange Line Phases 1 and 2 project. In accordance with GO 164-F, once approved by the Commission, Staff will review and approve any future updates and/or revisions to the SCP as the project progresses.

NOTICE

On September 2, 2025, this Resolution was published on the Commission's Daily Calendar.

COMMENTS

On August 29, 2025, the draft resolution of the Rail Safety Division (RSD) was mailed in accordance with Section 311 of the Public Utilities Code and Rule 14.2(d)(1) of the Commission's Rules of Practice and Procedure. No comments were received.

FINDINGS

1. On April 11, 2025, SDMTS submitted its "Signal System and Operational Improvement Program: Safety Certification Plan for the Orange Line Phases 1 and 2" to staff for review and Commission approval.
2. The Signal System and Operational Improvement Program: Safety Certification Plan for the Orange Line Phases 1 and 2 is intended to increase headway revenue operations on the existing Orange Line, upgrade the existing Signal System, and include new crossovers. The original Orange Line signal system and controllers are being upgraded with new technology consistent with the SDMTS Blue Line route.
3. The scope of the project will include improvements to trackwork, overhead catenary system (OCS), and signal and communications systems.
4. Staff reviewed the SCP and found it to be in accordance with General Order 164F.

