SFMTA

# Eureka Compromise Joint Replacement Project

## Summary of Work

# Agenda

I. Project Background

II. Scope of Work

III. Construction

    A. Constraints and challenges

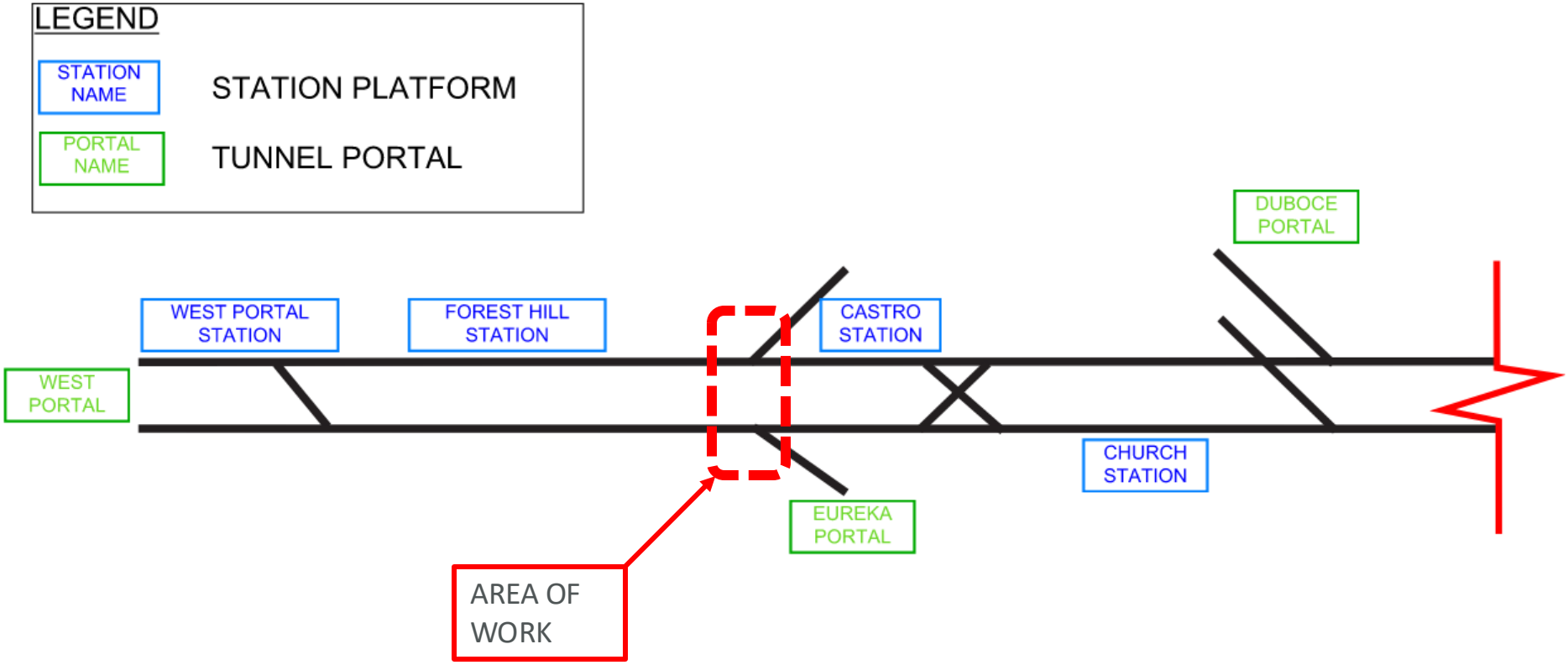
    B. Completed Work

IV. Post Construction Observation

V. Questions

# Project Background

Location: Eureka Shoofly Area (Formerly Eureka Station)



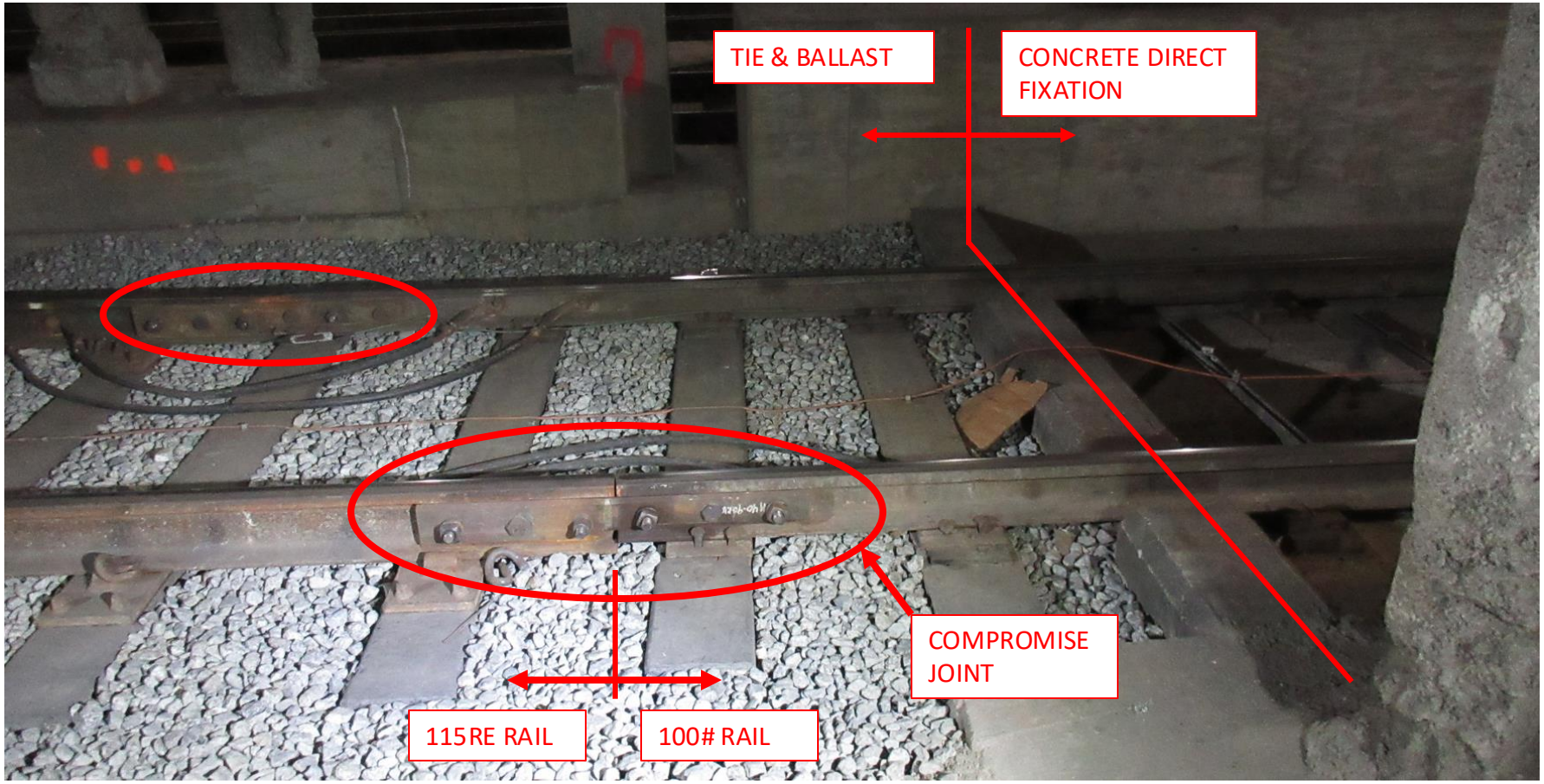
# Project Background

Surface Portal Entrance

# Project Background

Transitions:

1. Tie & Ballast and Concrete Direct Fixation Support
2. 115RE and 100# Rail



# Project Background

Concrete Direct Fixation

# Project Background

Movement of Rails

# Project Background

Cracked Compromise Joint

# Scope of Work

I. Install new compromise joints on concrete direct fixation
    A. Cut existing 100# rails and remove
    B. New fasteners for 115RE rail in concrete direct fixation

II. Install new 115RE rail
    A. Weld new 115RE rails to existing

III. Improve stability at tie & ballast
    A. Add ballast as needed and tamp

# Construction

Constraints/Challenges:

I. Coordination

II. Egress/Ingress
    A. Materials and Equipment

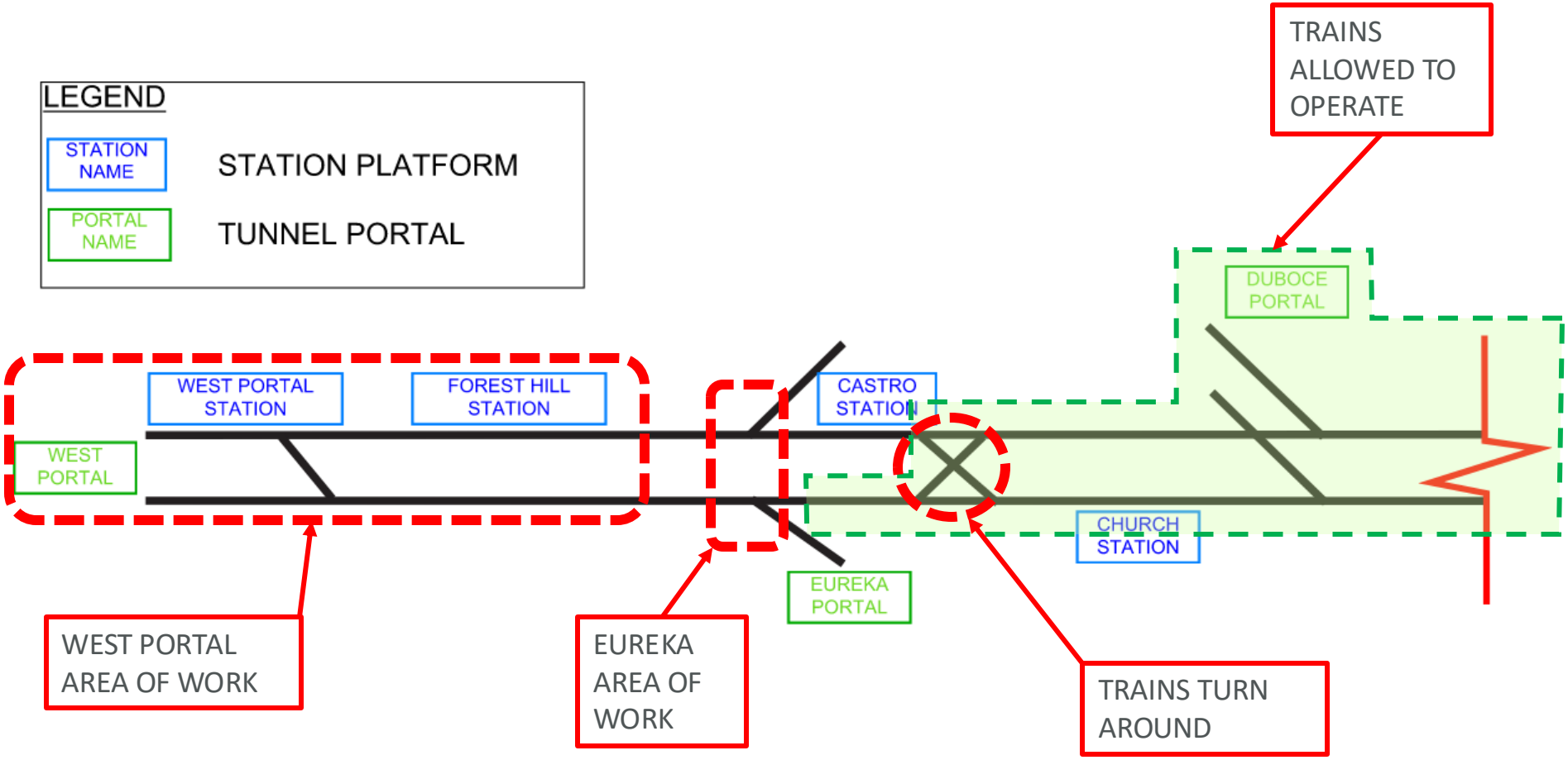
III. Operation of transit outside of work area
    A. Safety
        1. (De-energized OCS)
        2. Barriers
    B. Train turn around

IV. Another concurrent project in tunnel

V. Train testing

# Construction

Transit Operation during construction



# Construction

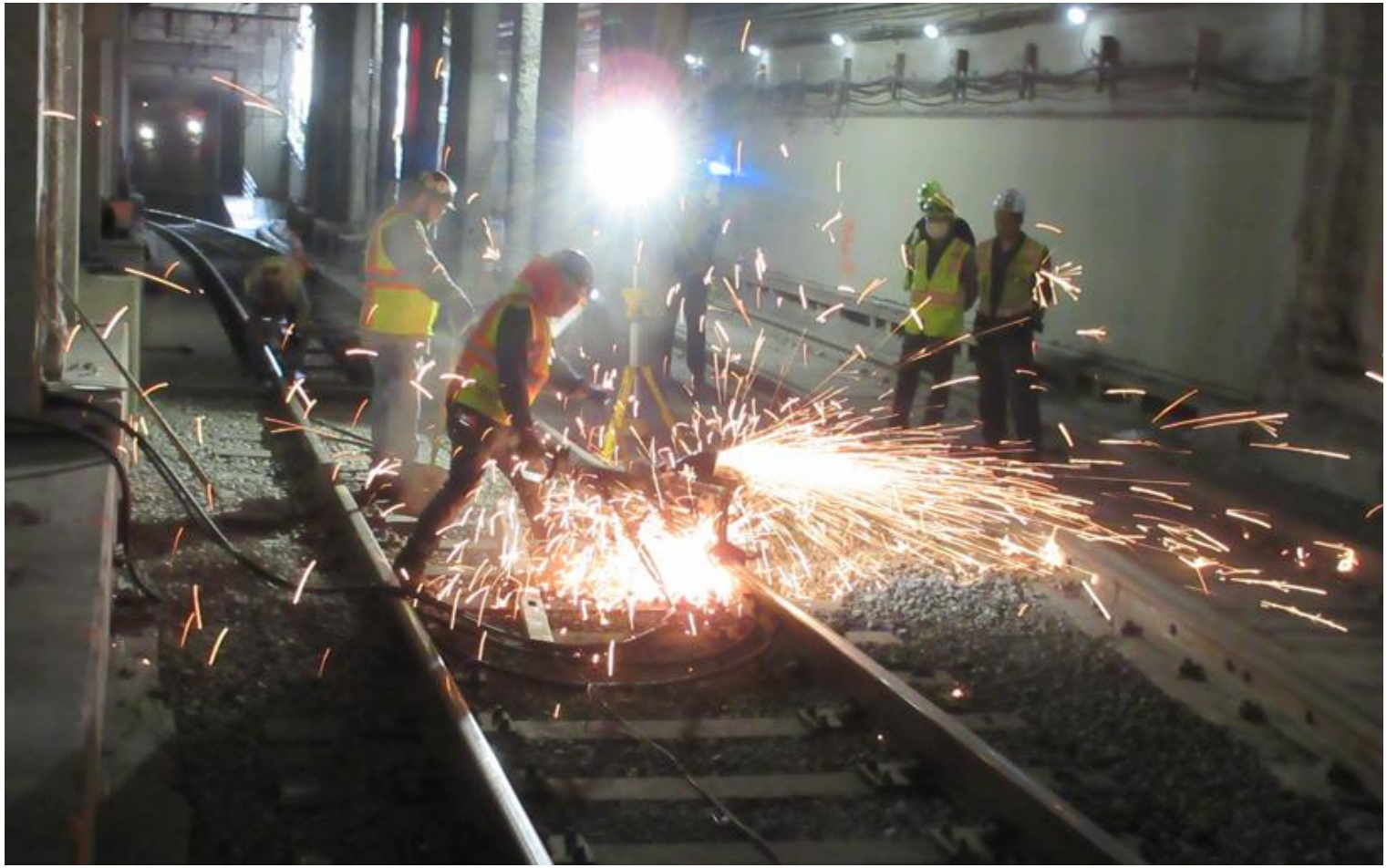
Equipment

# Construction

Ingress/Egress into tunnel

# Construction

Cutting Rail

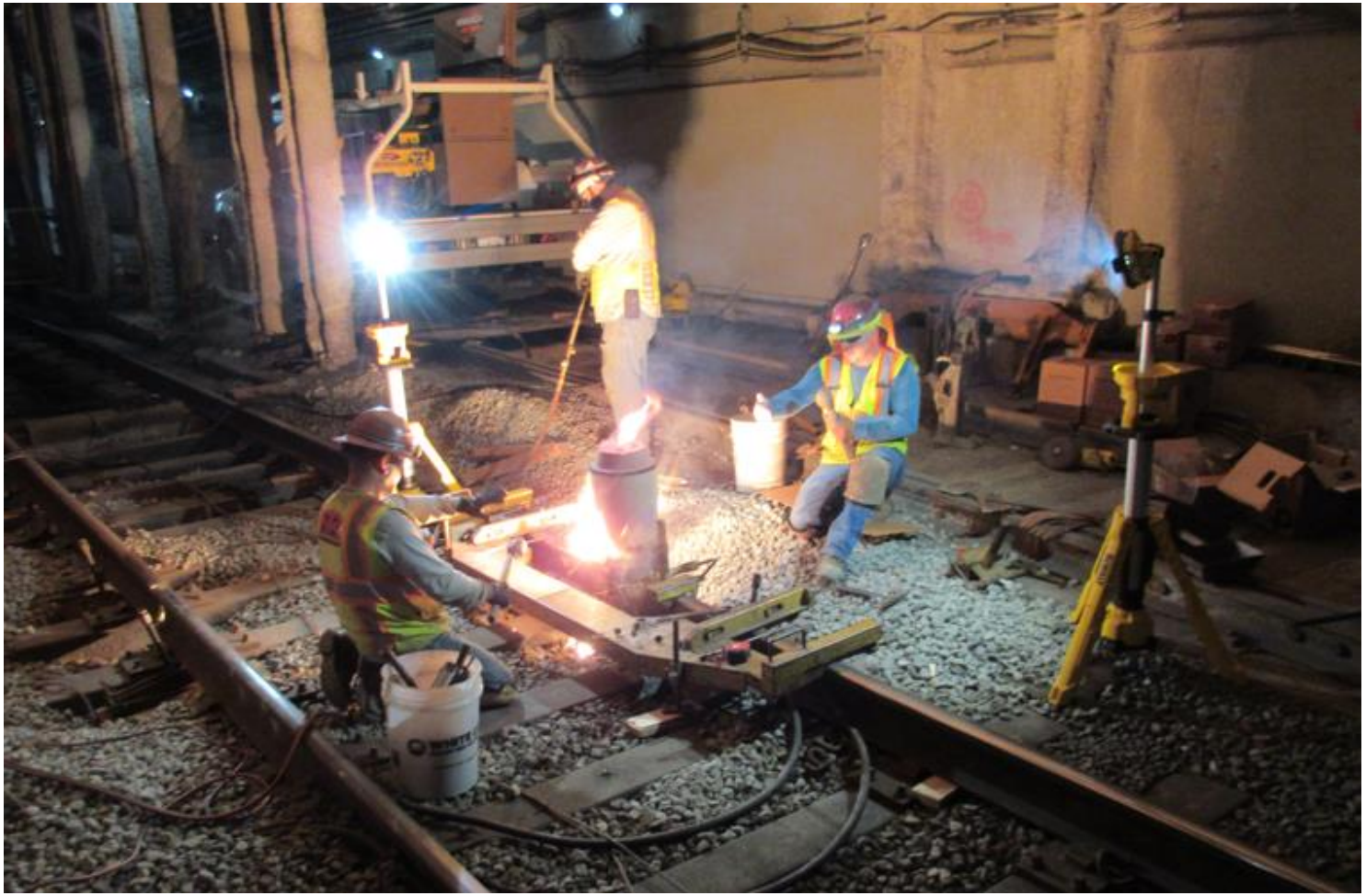


# Construction

Removing/Installing Rail

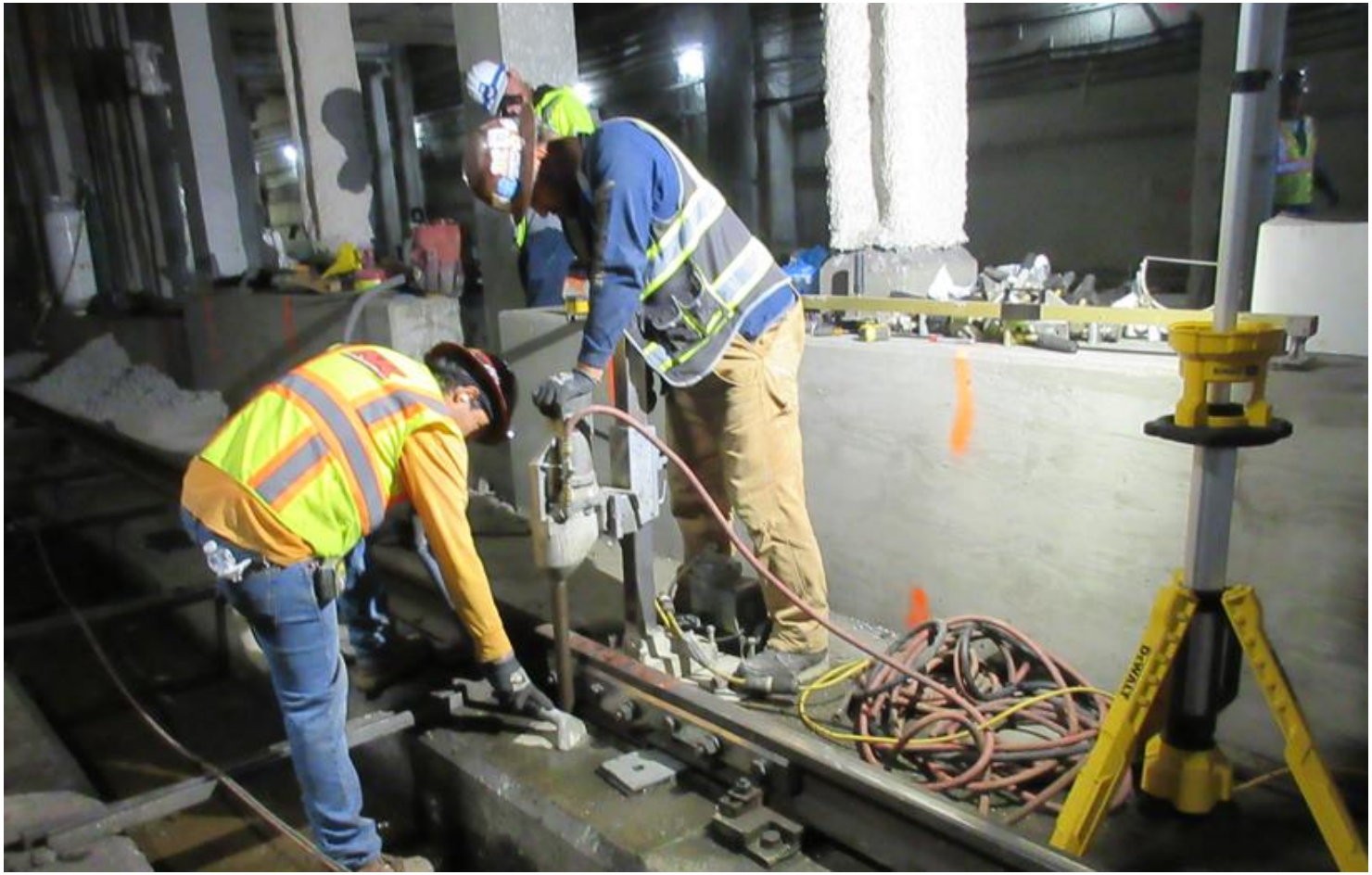
# Construction

Welding Rail



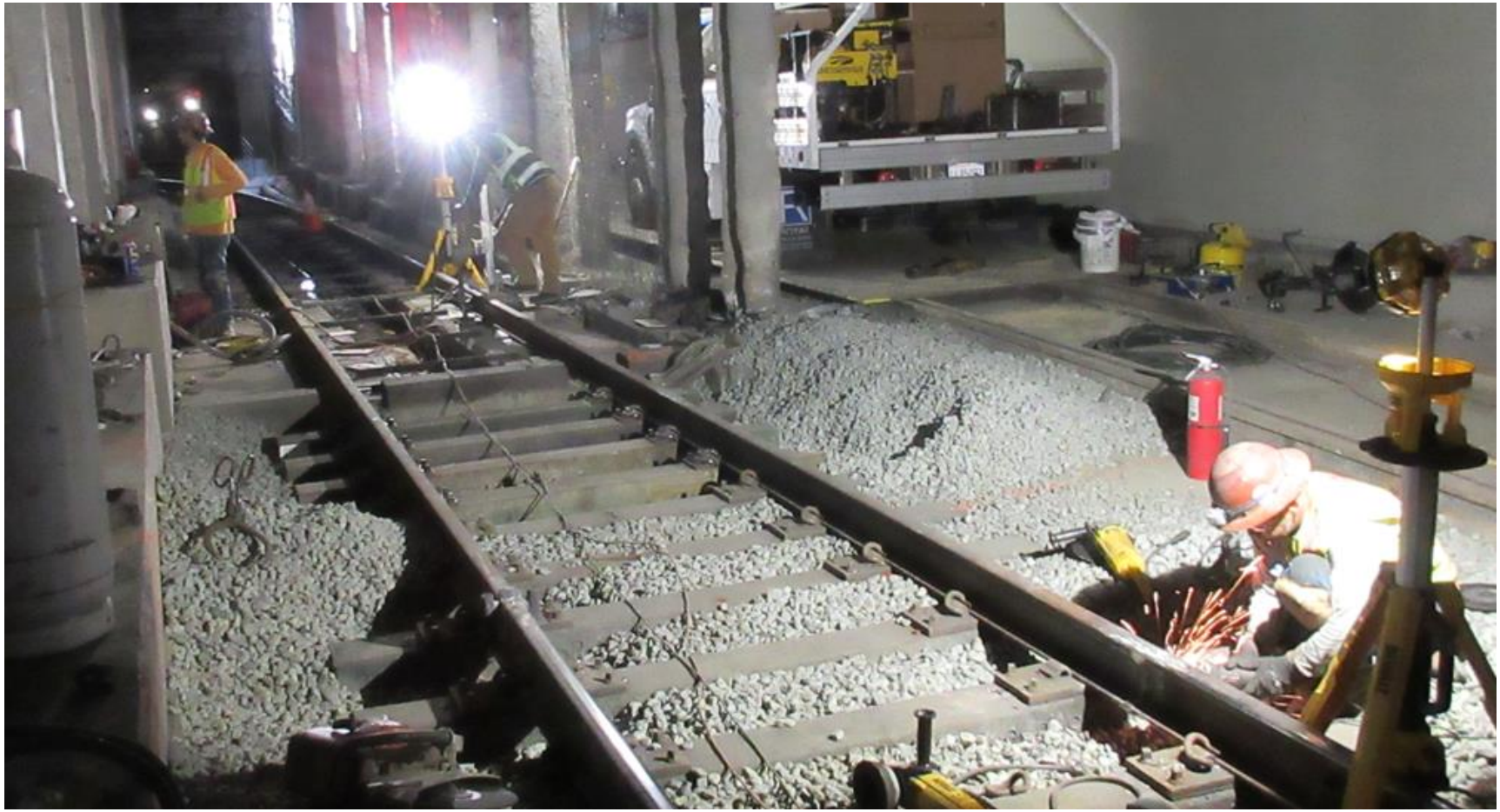
# Construction

Installing New fasteners in concrete



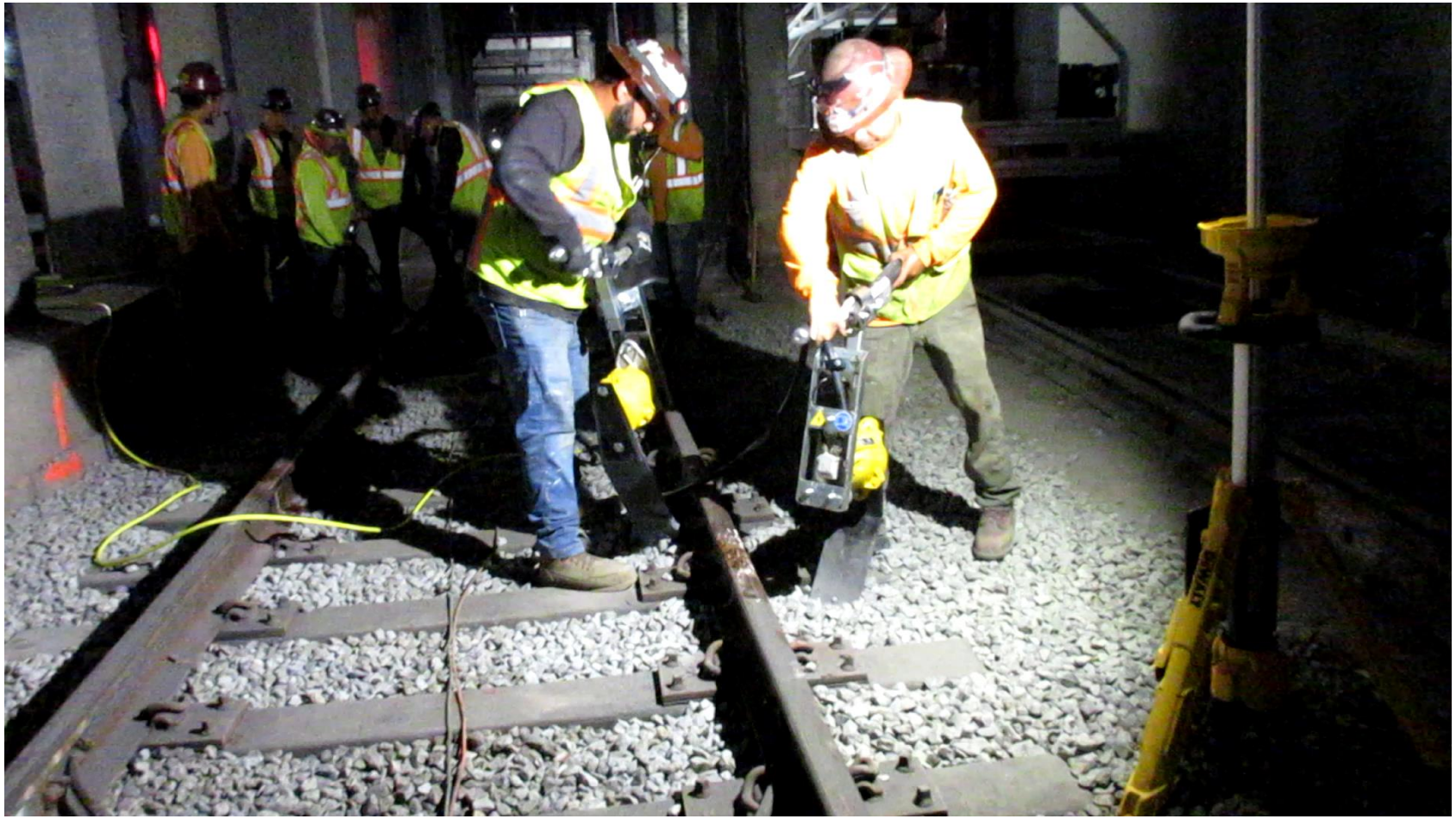
# Construction

Installing New ties/fasteners and ballast



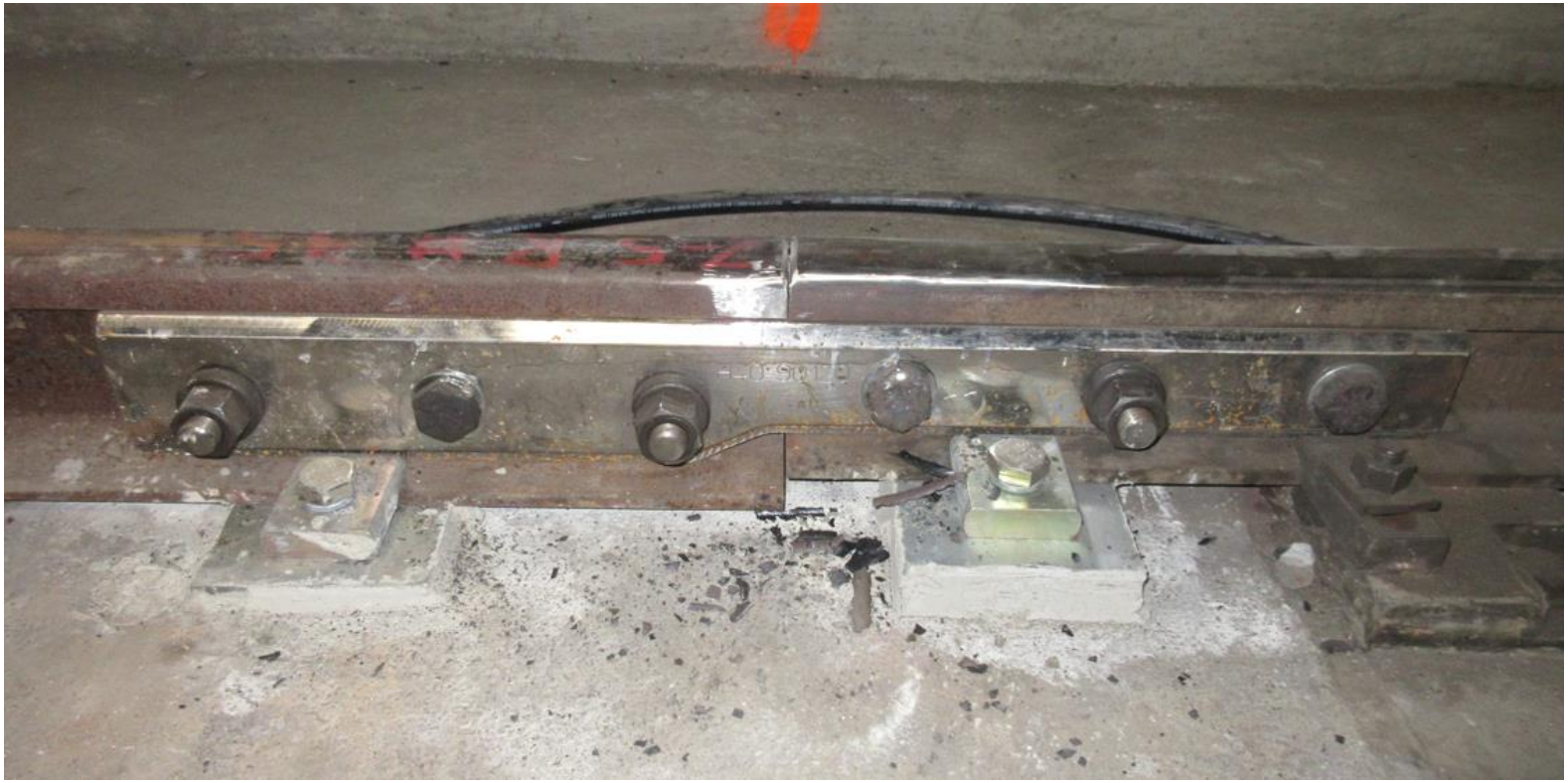
# Construction

Tamp Ballast



# Construction

New Compromise Joint



# Construction

Train Test

# Construction

Post Construction

I. Survey/gauge check

II. Reinstall ATCS and other equipment

III. Train Test Criteria:

    A. Manual

        1. 5 and 10 mph in forward and reverse

    B. Automatic Mode (~30 to 35 mph) in forward and reverse

IV. Observed:

    A. Repaired tie ballast area

    B. New compromise joint

    C. New fasteners in concrete

# Post Construction Observation

New Compromise Joint

# Post Construction Observation

Ballast Area

# Questions?