

# Amtrak Support Projects



# Key Support Projects



## PTC Mitigation

- Switch Monitoring, Block System

## Burlington Work

- Layover Track, Station Platform

## Brush Removal

- Increase Safety, Enhance Visibility

## Slurry Injection

- Reduce Slow Orders, Improve On-time Performance





# PTC Mitigation

- OVER TWO YEARS SPENT WORKING WITH AMTRAK AND THE FRA
- DEVELOPED THE ETHAN ALLEN EXTENSION OPERATING PLAN (PTCIP)
- FORTY-TWO SWITCH MONITORS AND POINT CLAMPS INSTALLED
- TWENTY-SIX WAYSIDE INDICATORS INSTALLED





# PTC Mitigation

WAYSIDE INDICATOR



# Burlington Yard

MULTIPLE TRACKS MOVED  
TO ACCOMMODATE THE  
AMTRAK LAYOVER SIDING





# Burlington Yard

MULTIPLE SWITCHES  
MOVED OR REPLACED





# Burlington Yard

OVER ONE MILE OF TRACK SURFACED





# Burlington Platform

MAIN TRACK MOVED EAST  
TO ACCOMMODATE THE  
BIKE PATH AND THE NEW  
AMTRAK PLATFORM





# Brush Removal

ENTIRE CORRIDOR FROM  
RUTLAND TO BURLINGTON  
CLEARED





# Brush Removal

SIGNIFICANT SAFETY  
IMPROVEMENT







# Slurry Injection

OVER EIGHT THOUSAND  
FEET OF TRACK  
STABILIZED



# Slurry Injection

REDUCE SLOW ORDERS  
AND INCREASE ON-TIME  
PERFORMANCE





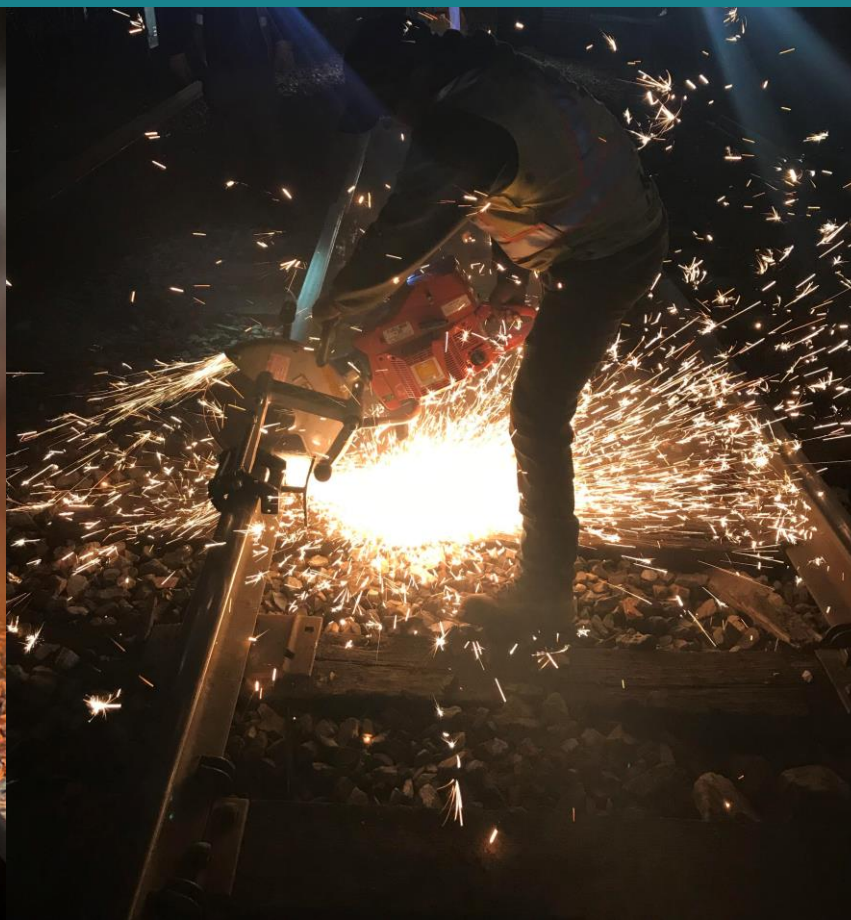
# CWR – Continuous Welded Rail

- MANAGE COMPRESIVE AND TENSILE FORCES
- ONE MILE SECTION WILL CONTRACT ROUGHLY 43” IN THE WINTER
- ONE MILE SECTION WILL EXPAND ROUGHLY 10” IN THE SUMMER
- $G = (105 - RT) \times 0.000078 \times L$ 
  - G = CHANGE IN LENGTH,
  - RT = RAIL TEMPERATURE,
  - L = RELAXED RAIL LENGTH
- FORCES MANAGED WITH ANCHORS, TIES, AND BALLAST





# CWR – Continuous Welded Rail







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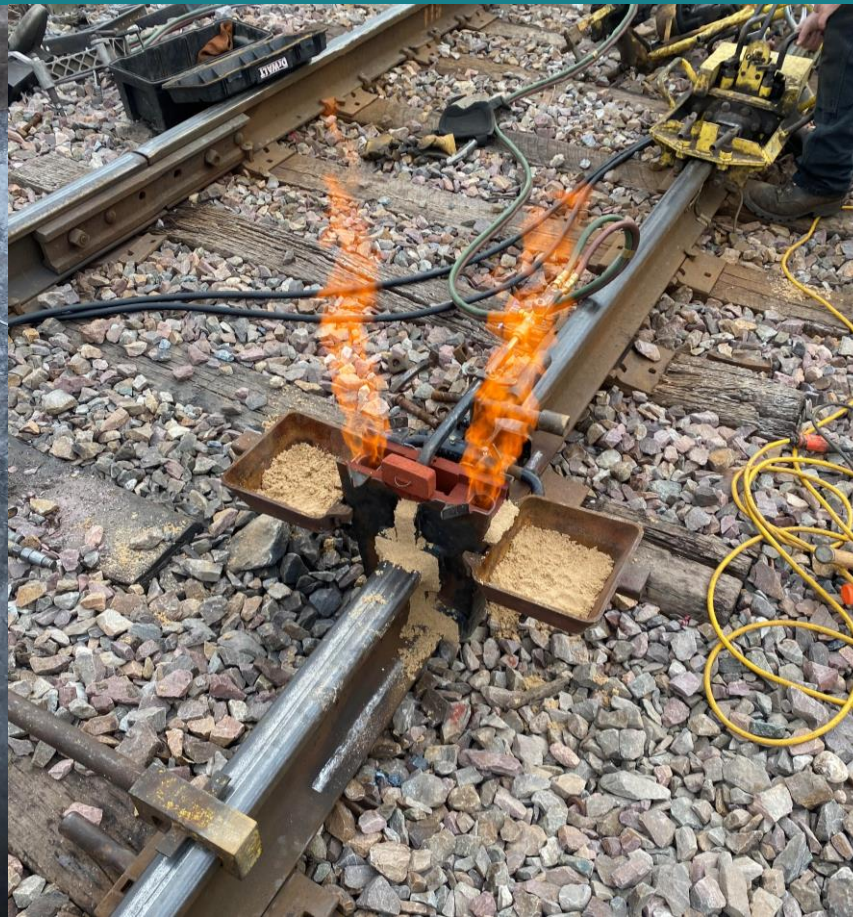
# CWR – Continuous Welded Rail





# Welding

OVER 100 WELDS PERFORMED IN 2022





# Start of Service

JULY 29<sup>TH</sup>, 2022





# Start of Service

JULY 29<sup>TH</sup>, 2022



Norfolk

Standby

2:11 647 Keystone Service

Harrisburg

On Time

2:15 19 Crescent

New Orleans

On Time

2:19 291 Ethan Allen

Burlington

On Time

2:44 649 Keystone Service

Harrisburg

On Time



# Start of Service

JULY 29<sup>TH</sup>, 2022







# Start of Service

JULY 29<sup>TH</sup>, 2022





# Questions