## Project Challenges

- Train schedule could not be interrupted. Trains were running on the adjacent track.
- Voids underneath the slabs caused flexing of the track when traffic passed.
- Water was being ejected onto the tracks when trains crossed.
- Work had to be completed during peak of winter.

## Solution

- Mount production units and gear on Hi-Rail equipment.
- Inject URETEK polyurethane from surface through the 2' thick concrete into the void areas between tunneled bedrock & sleeper slab, filling the voids as it displaced the water trapped under the slabs.

## Support

- Specifications developed
- Technicians Safety Certified by Amtrak.
- Pre-construction meeting with Amtrak operations and engineering personnel.
- All equipment and polymer met Amtrak quality and safety standards.

## Outcome

- **No Downtime for Amtrak:** All trains ran on schedule.
- **Job Performed Safely and Quickly:** Even though nighttime temperatures were in the 20’s and it never got over the mid 40’s during the day, URETEK was able to complete the project in less than half of the scheduled duration.