

# Sound Transit: East Link Project Update

## Joint Transportation Committee

### June 18th, 2008



Connecting downtown Seattle, Mercer Island, Bellevue and Redmond via I-90

# ST Participation with the I-90 Independent Review Team

- Regular Coordination
  - Weekly conference calls
  - Three meetings in Seattle
- ST/WSDOT responded to requests in IRT letter of April 24, 2008
- ST advanced engineering/analysis as necessary to support the IRT review

# Expansion Joint

- Rail expansion joint/track bridge must accommodate same movements as traffic expansion joint
  - longitudinal expansion
  - vertical rotation
  - horizontal rotation

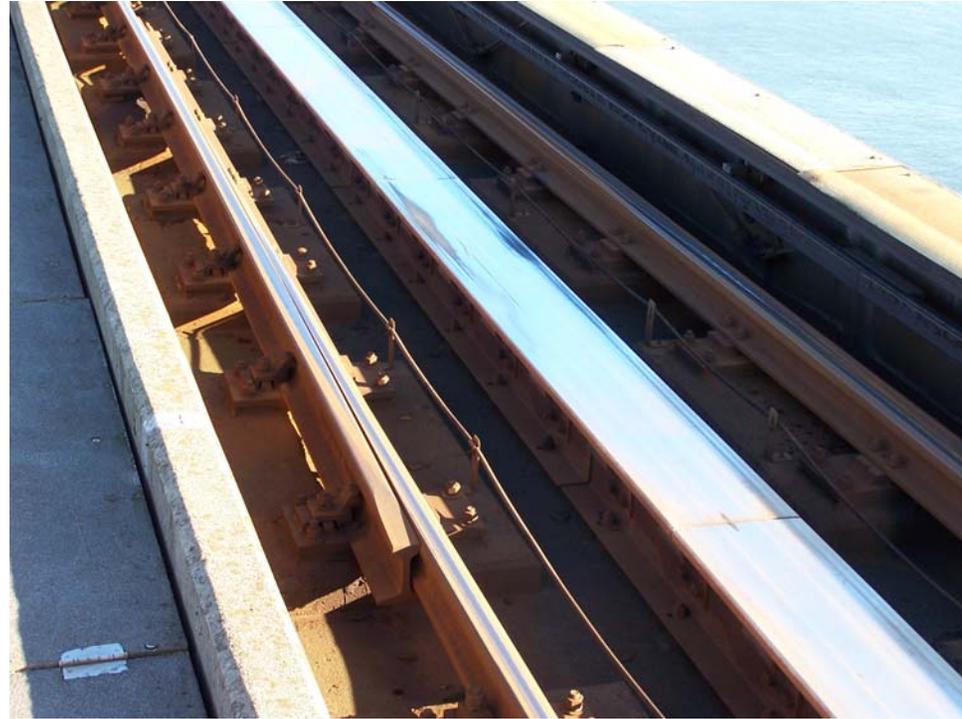
I-90 Traffic Expansion Joint



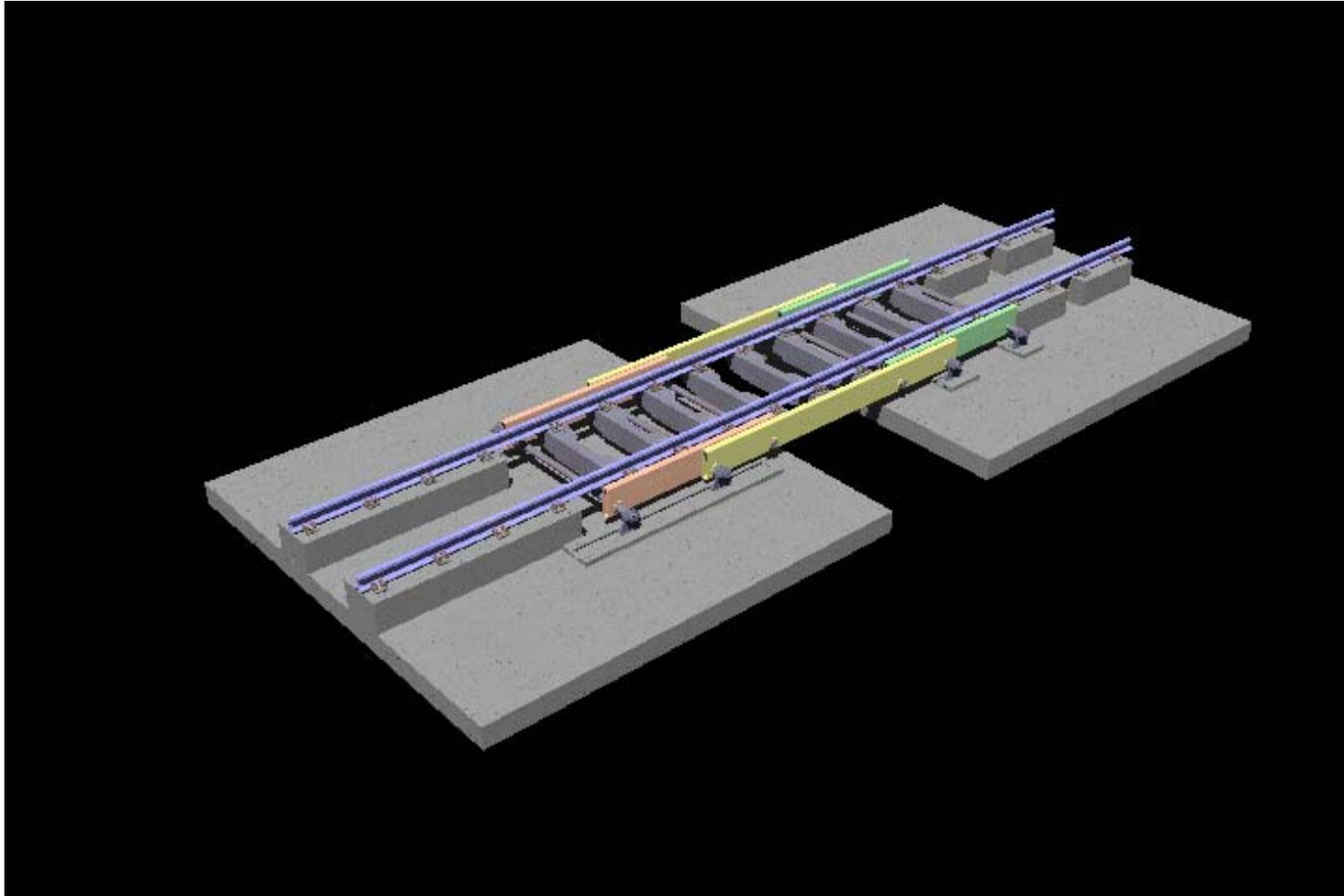
# Trackwork Examples from Vancouver

Longitudinal Expansion

Vertical Rotation



# I-90 Track Bridge



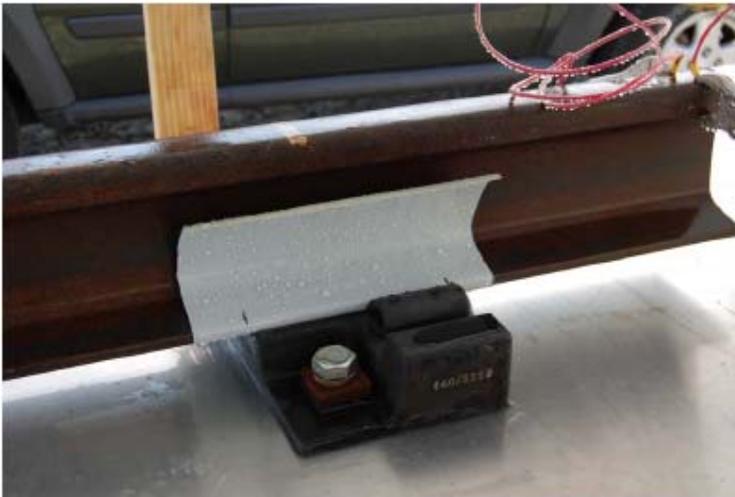
# Work Advanced for the IRT

- Passenger Comfort Analysis
  - Verified passenger experience will be within accepted criteria
- Next Steps
  - IRT confirms ST2 Expert Review panel recommendation for developing a prototype
  - Staff will further develop plans for early final design and prototyping and be ready to implement upon funding availability



# Floating Bridge Stray Current Control

- Three layers of protection
  - High insulating rail fasteners
  - Stray current collector mesh
  - Upgrade anchor cable cathodic protection system to protect the pontoons



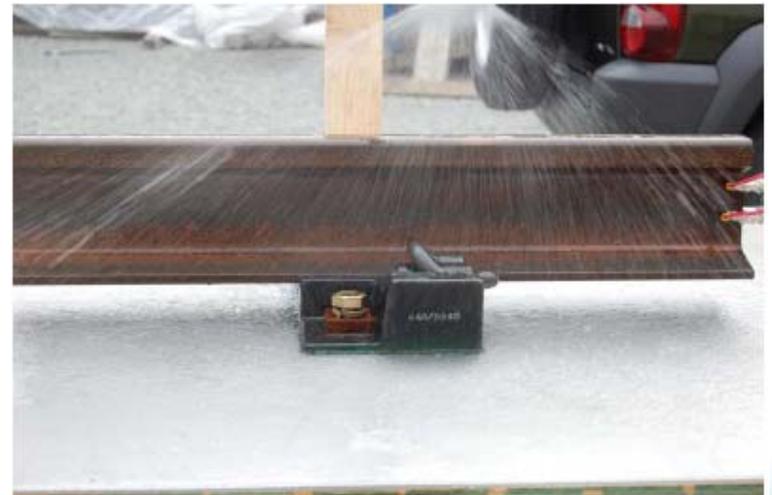
# Stray Current Monitoring

- Continuous remote monitoring
  - Will automatically detect failures in the isolation systems and alert maintenance personnel
  - ST Operations and Maintenance will respond and repair



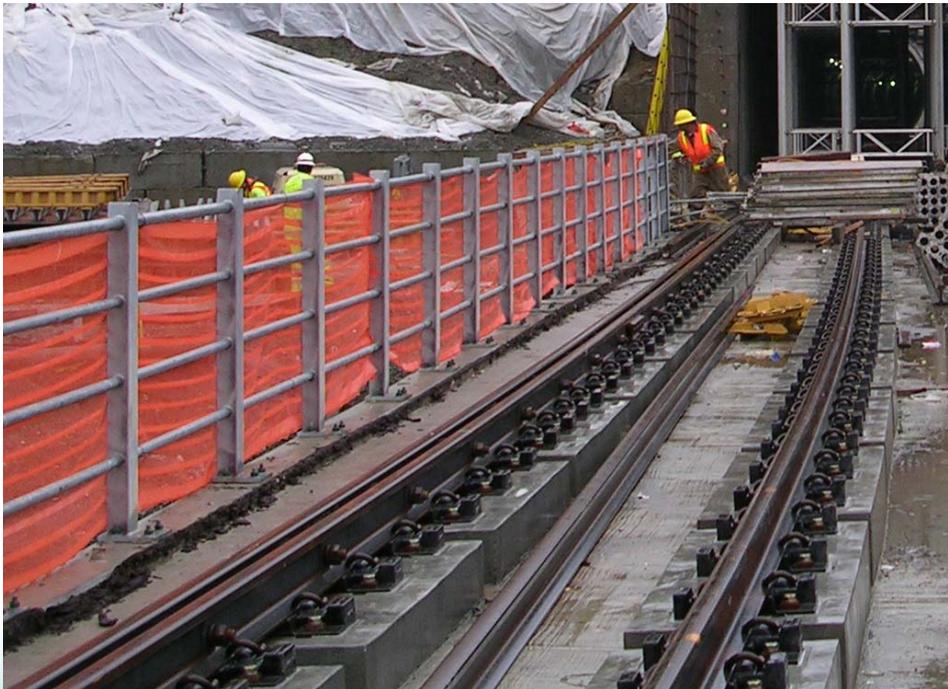
# Stray Current Analysis

- Work Advanced for the IRT
  - Analyzed isolation techniques
  - Built test section to confirm electrical insulation results during wet conditions



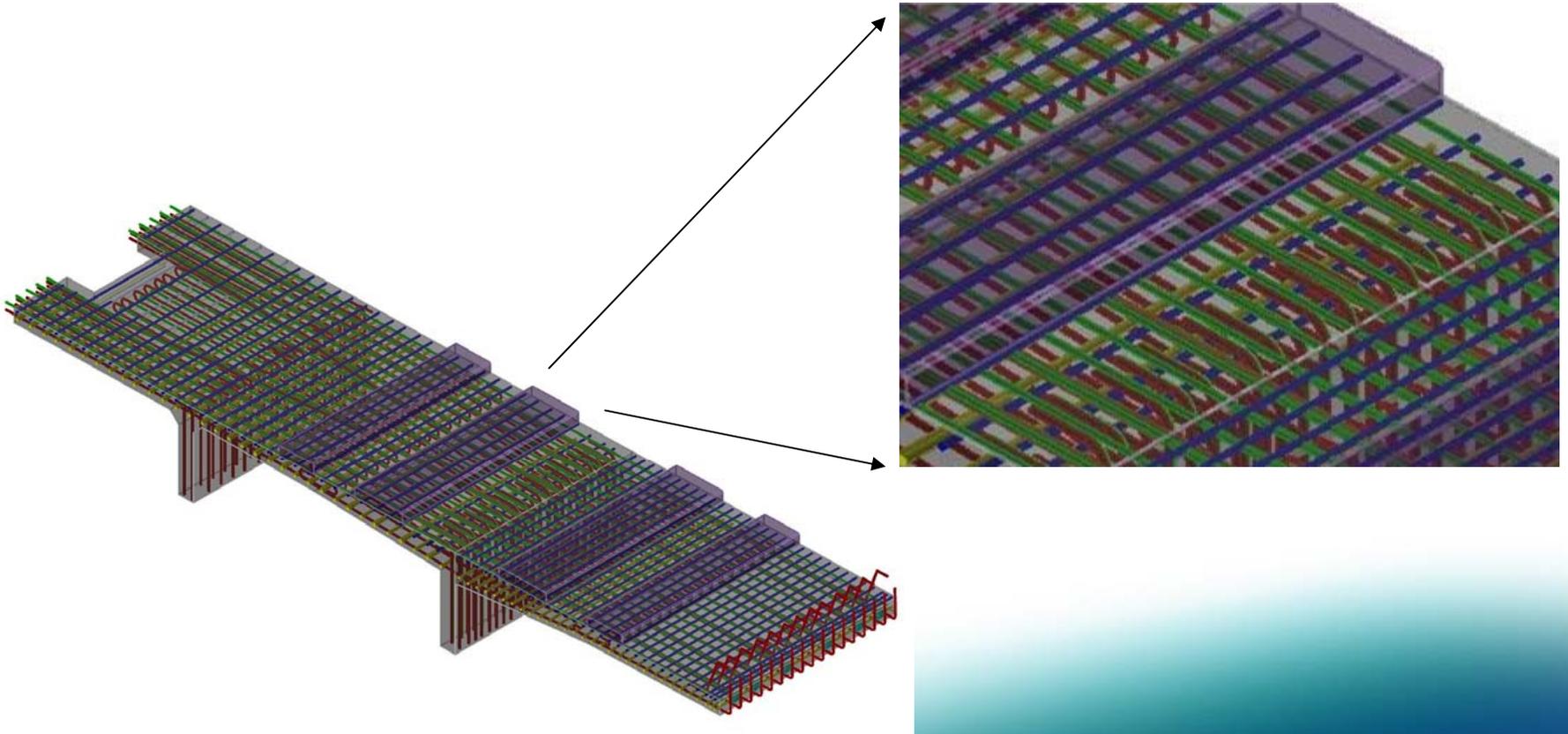
# Light Rail Installation

- Direct fixation rail on plinth blocks
- Plinth blocks attached to bridge deck with dowel rods



# Light Rail Installation

- Bridge deck has a dense fabric of reinforcing steel and post-tensioning cable



# Light Rail Installation

- Locating Steel in the Bridge
  - Ground penetrating radar
  - Pachometer
  - X-ray



# Next Steps

- Complete review process with the IRT
- Develop plans to implement IRT recommendations

*Thanks to the IRT for their Efforts, Expertise and Professionalism*

# Questions?

