

# Engineering Trespassers Out of Rail Corridors

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For Session 3 – Design, Technology and Infrastructure  
Federal Railroad Administration  
2012 ROW Fatality & Trespass Prevention Workshop  
St. Louis, MO

# Outline

- Collision Factors & Pedestrian Behavior
- The Shortest Distance...
- Things Don't Work As Planned
- Pedestrian Safety Requirements
- Strategies and Solutions

# Ped-LRT Collision Factors\*

- Distractions (Cell Phones/Headsets, etc.)
- Not Paying Attention
- Ignoring Audible and/or Visual Warning Devices
- Rushing to Catch Trains or Cross Roadways
- Intoxication
- Trespassing (willful)

\*TCRP Research Results Digest 84

# Pedestrian Behavior

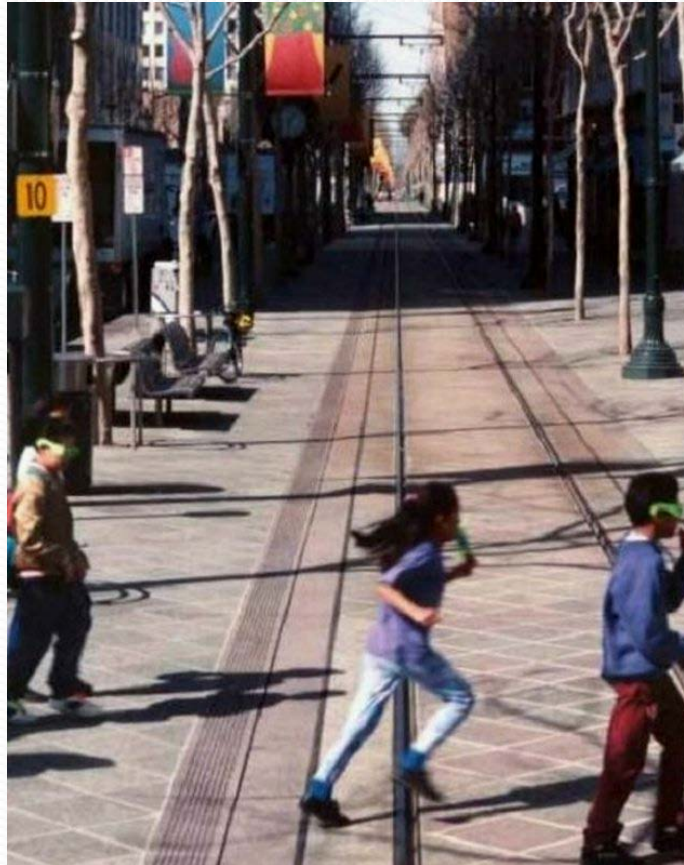
- Pedestrians tend to look down not up



LA Metro Blue Line LRT, Los Angeles, CA

# Pedestrian Behavior

- Pedestrians may lack awareness or be distracted



VTa LRT System, San Jose, CA



# The Shortest Path...

- Pedestrians create their own pathways



UPRR, Pomona, CA



Caltrain, Burlingame, CA

- Pedestrians tend to take the shortest route

# Opposites attract...





# Ad Hoc “Crossing Zone”





# Expect the unexpected...



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# Surprising, at first...

## Field Test Report

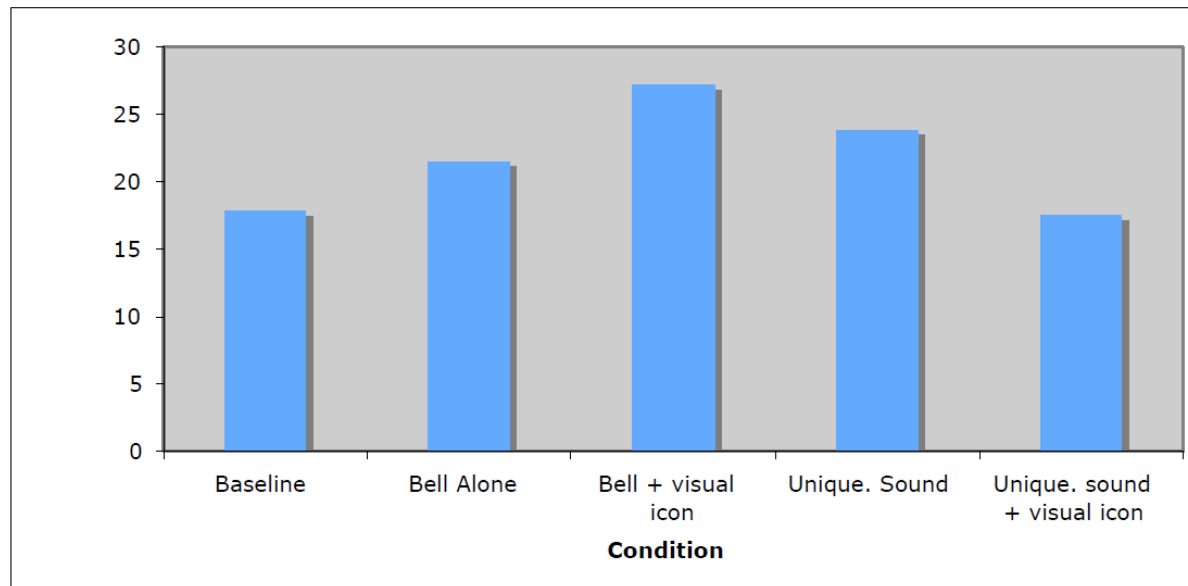
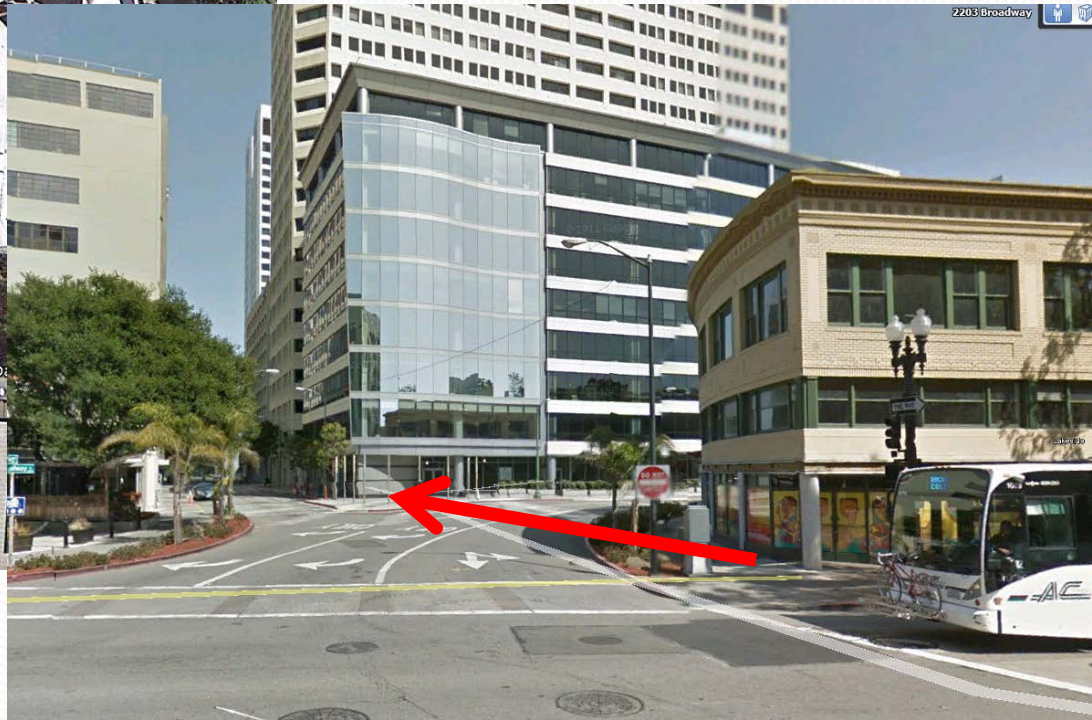
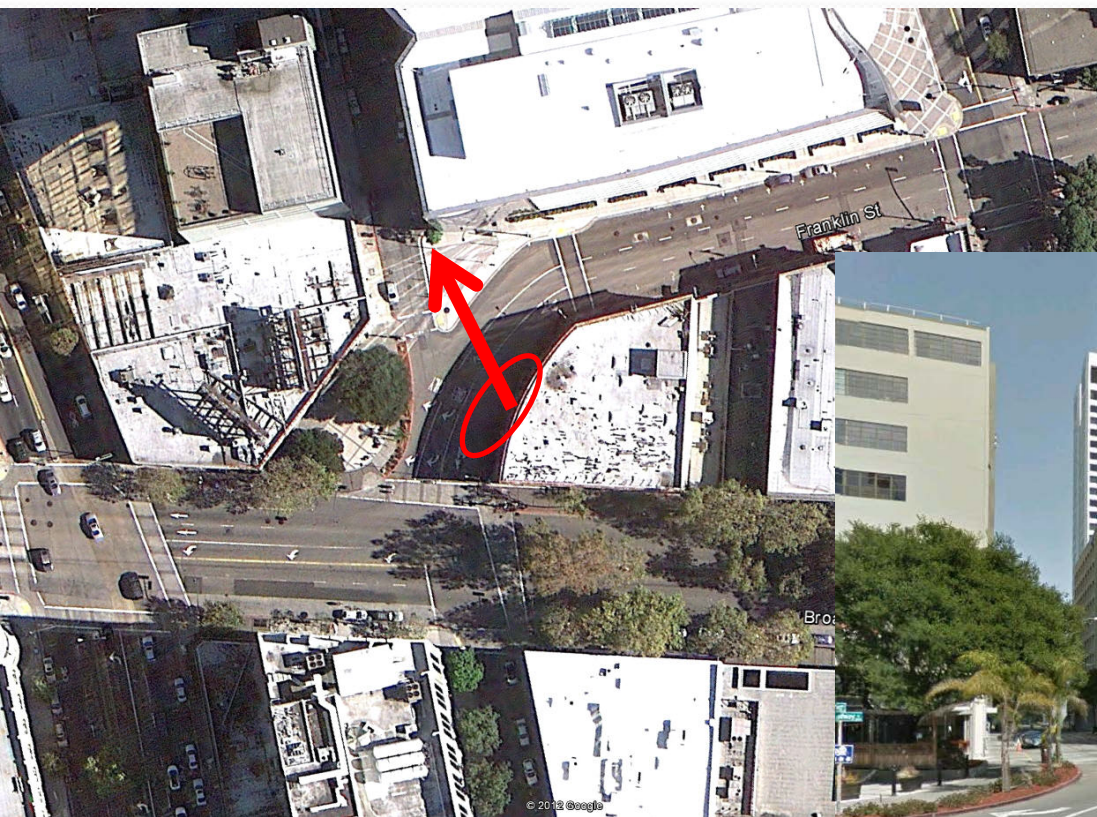


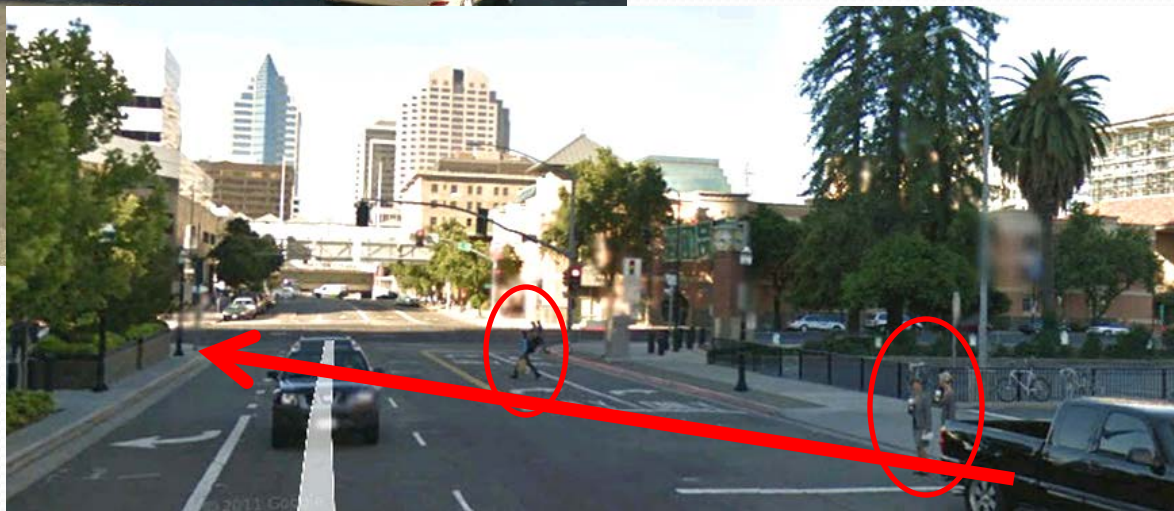
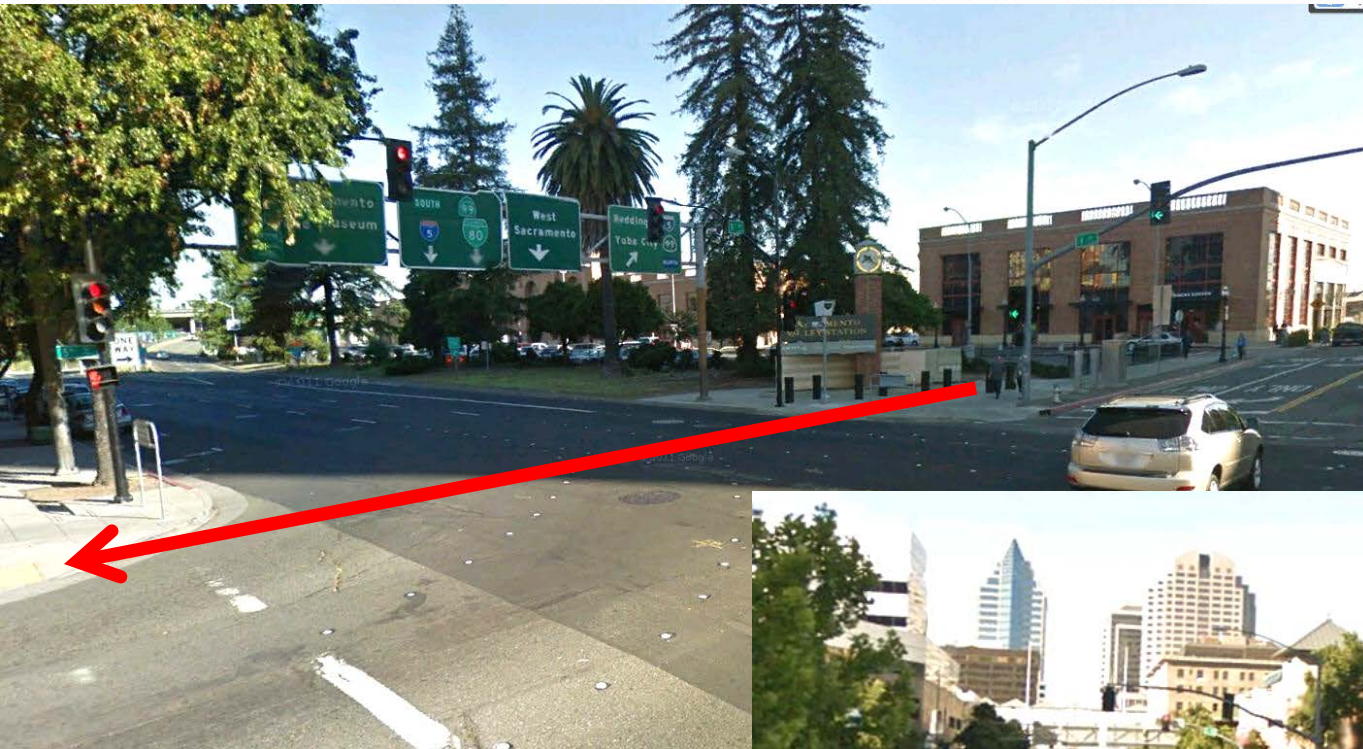
Figure 5 Percent violators dashing across rails during each condition

# Not surprising...





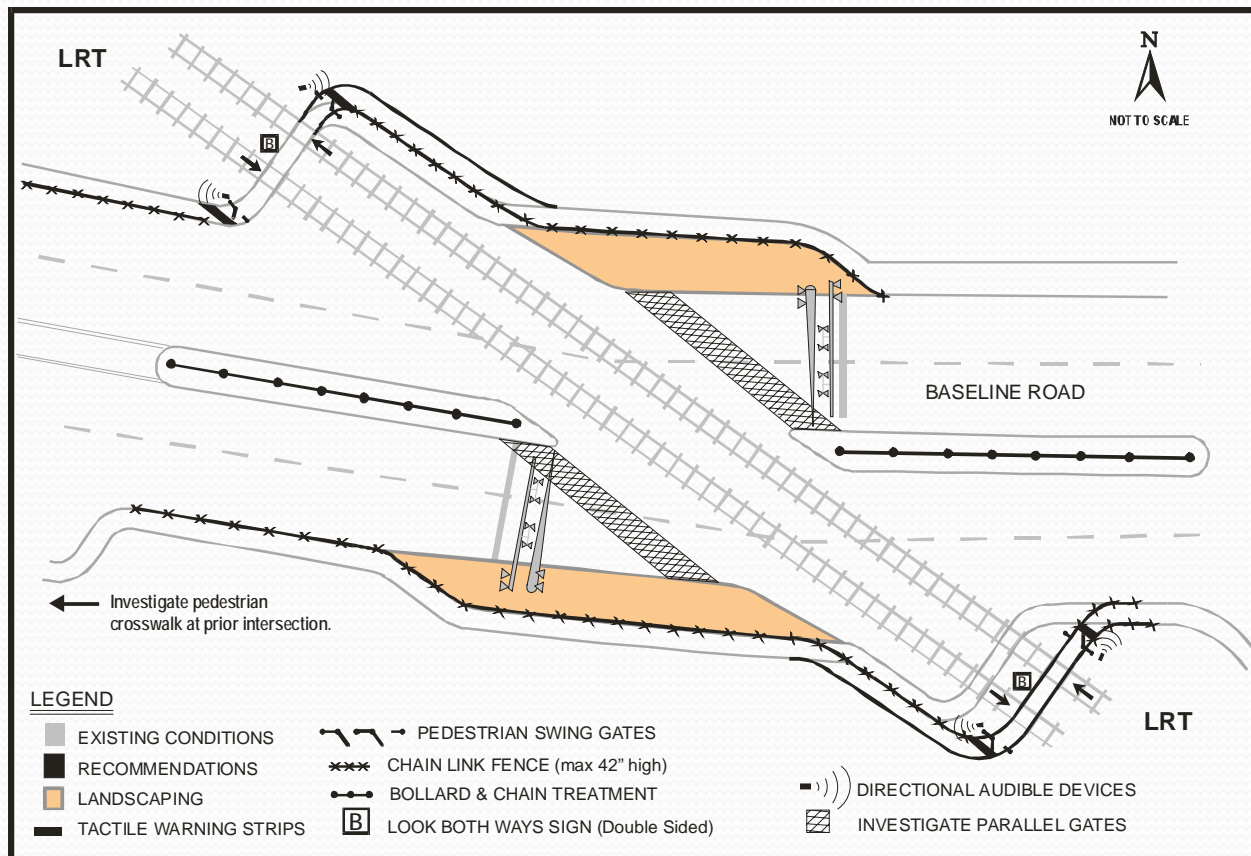
# Also not surprising...



# Pedestrian Safety Requirements

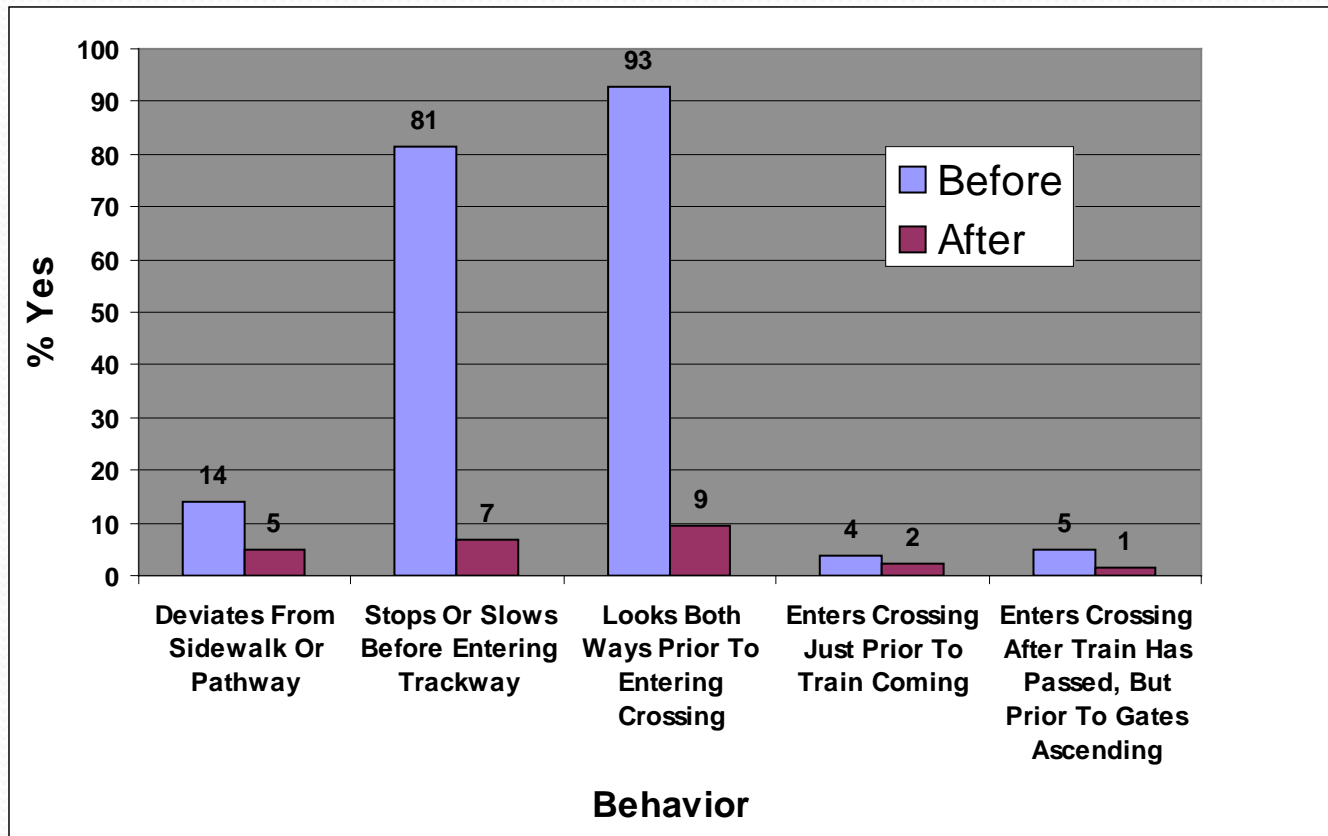
- Awareness of Crossing
- Control of Pedestrian Path
- Awareness of Approaching Train; Adequate Sight Distance
- Communicate an Understanding of Potential Hazards

# Successful Treatments





# Demonstrated Results



# Edmonton Rail with Trail

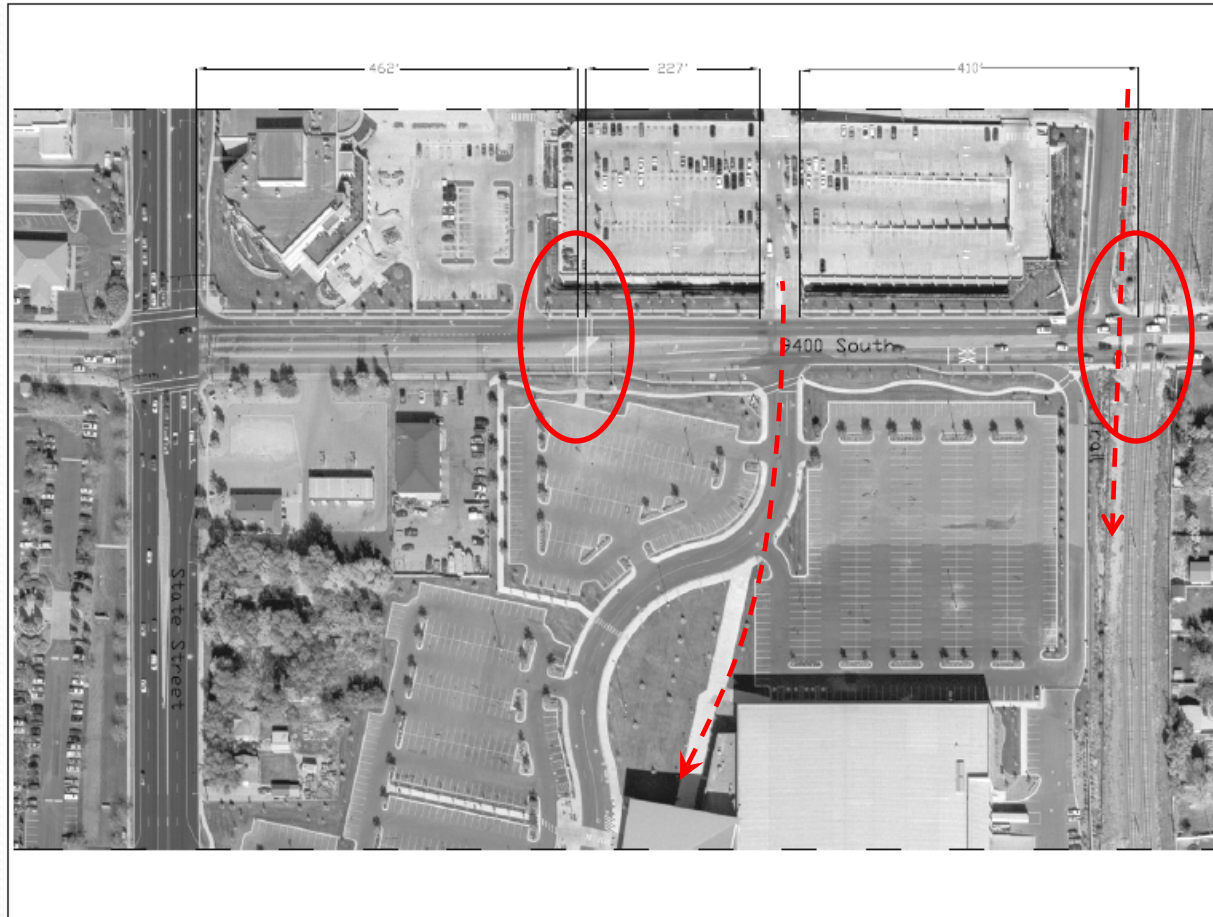


# Edmonton Crossing Operation

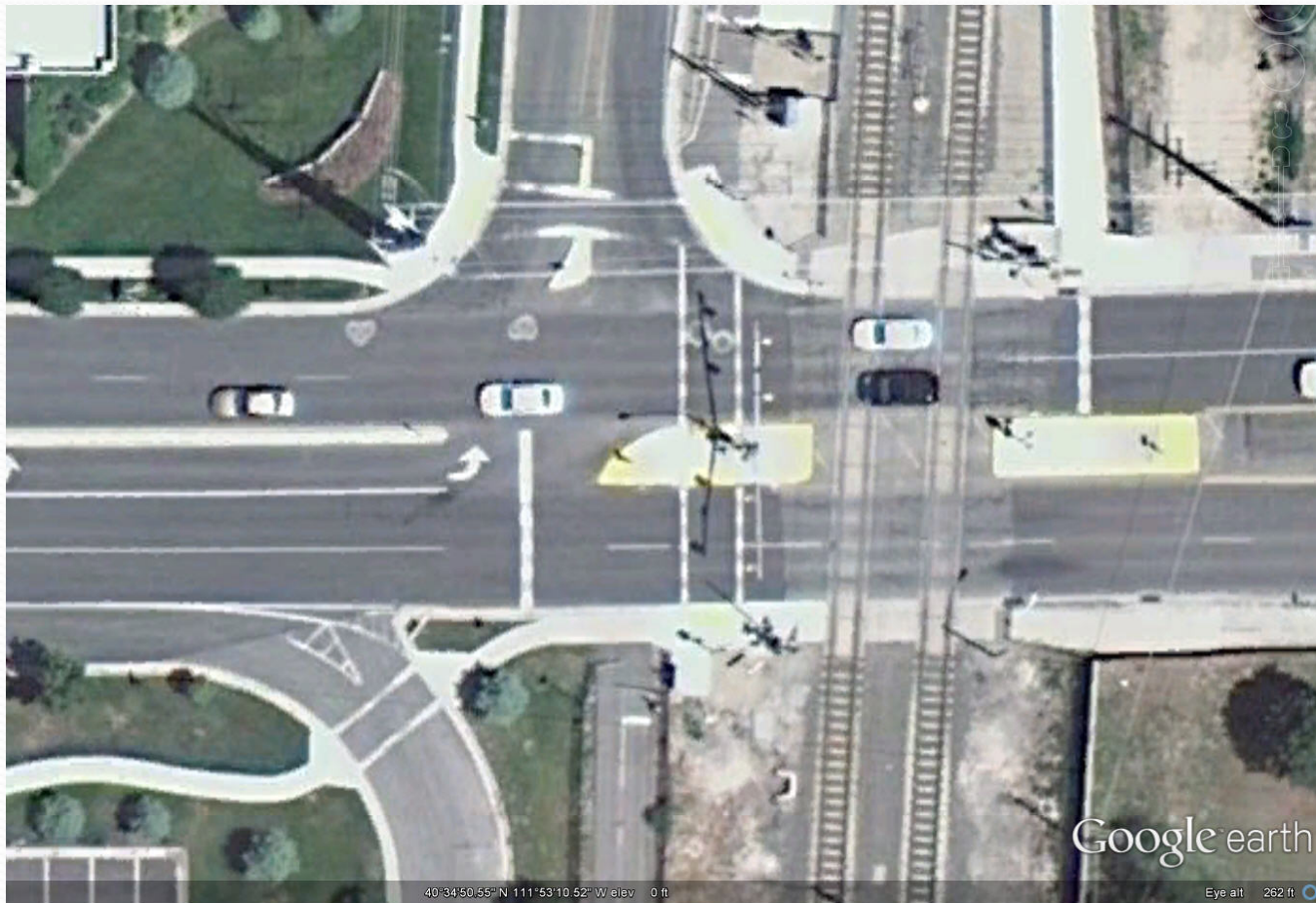




# Salt Lake City Context



# Salt Lake City as Built





# Edmonton Underpass



# Questions?

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