



# I-84 HARTFORD PROJECT

## Open Planning Studio #3

August 12, 2015





# Presentation Overview

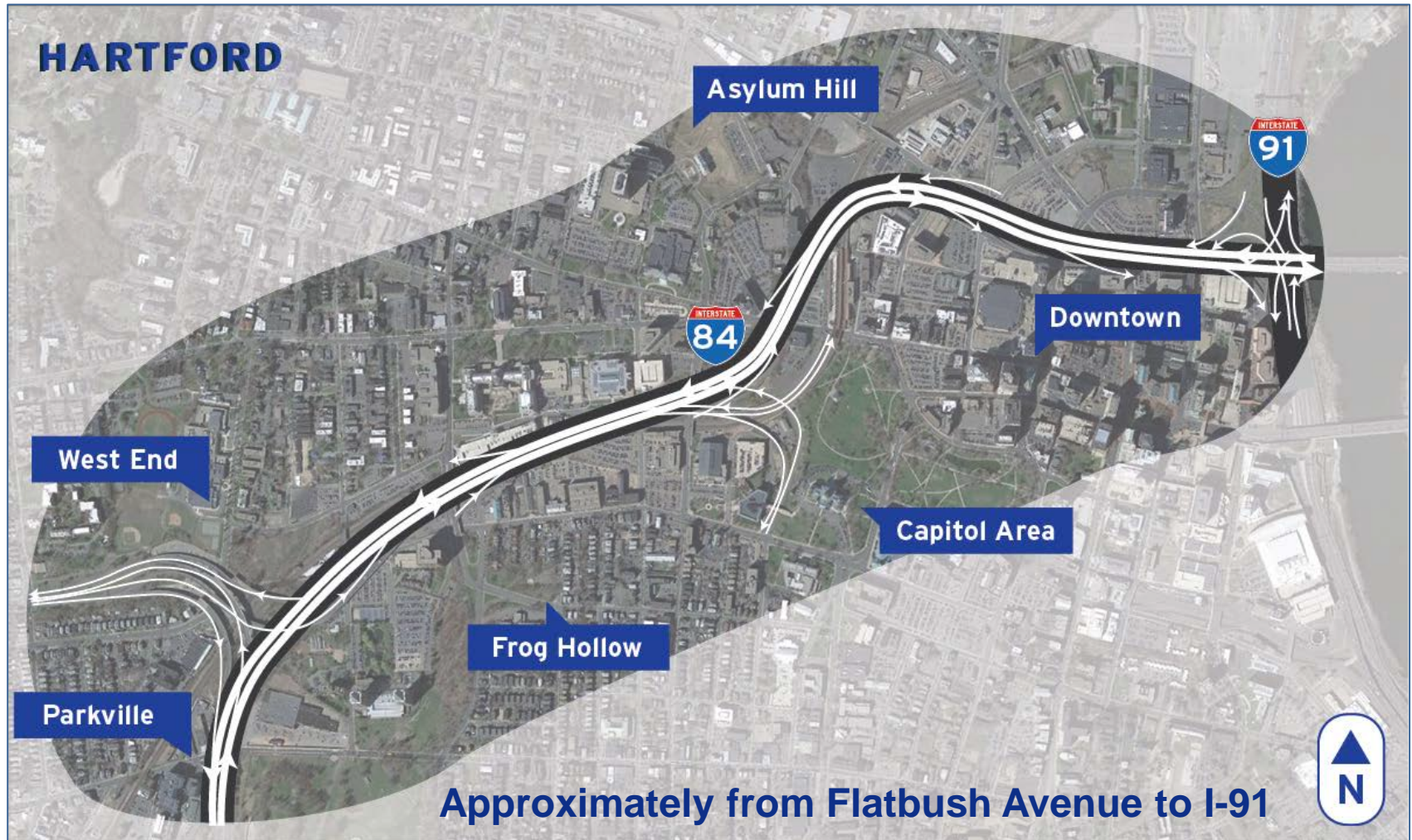
- Project introduction
- Open Planning Studios
- Alternatives and screening process
- Preliminary traffic analysis
- Update on tunnel alternative
- Next steps



# Project Introduction



# Where is the Project?







# 2010 HUB Study

- Identify corridor options
- Discuss I-84 and railroad interrelationship





# Purpose and Need Statement

- Bridge deficiencies
- Safety and operations
- Enhance mobility





# Bridge deficiencies

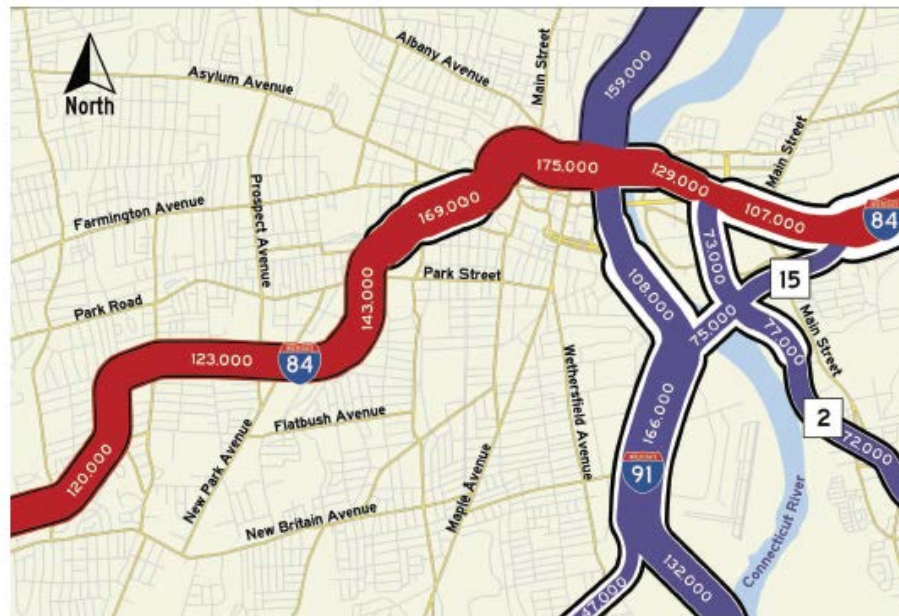
- Bridges reaching end of lifespan
- Cost of repairs = \$60M since 2004
- An additional \$60M over next 5 years
- Bridges are safe; deterioration will continue





# Safety and Operations

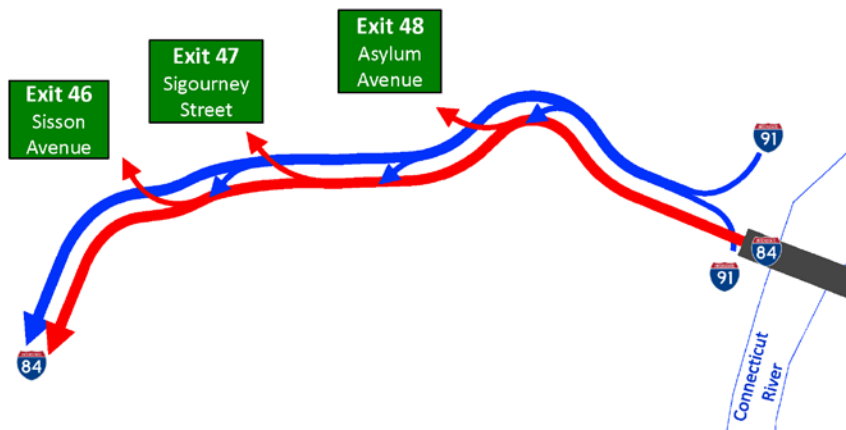
- Highest daily traffic volume in Connecticut
- 175,000 trips per day
- Eight full or partial interchanges





# Safety and Operations

- Weaves
- Lane drops
- Sharp curves
- High crash rates result



# Enhance Mobility: Move People and Goods

- Car and truck movement
- Transit integration
- Pedestrian and bicyclist accommodation
- Parking supply and management





## Enhance Mobility: A Balanced Approach

- I-84 - maximize safety and efficiency
- City streets - designed and operated to enable safe and comfortable access for all users (Complete Streets)





# Open Planning Studios





# What are Open Planning Studios?

- Series of day-long, open house events
- Scheduled in various locations through 2015
- Public invited to attend
- More info at [i84hartford.com](http://i84hartford.com)



# Open Planning Studios Serve to...

- Aid in communicating project complexity
- Offer many engagement opportunities
- Allow direct interaction with / learning from the public
- Provide regular project updates



# Updates Are Provided With...

- Project data
- Plans
- Graphics
- 3-D digital models



# OPS #1: Christ Church Cathedral

- Six days in April/May 2015
- 400 - 500 attendees
- Social media and press increased exposure
- Positive input and suggestions





# OPS #2: HPL: SAND/Ropkins Branch

- Project background information
- New data on preliminary traffic analysis
- Public comments on property impacts

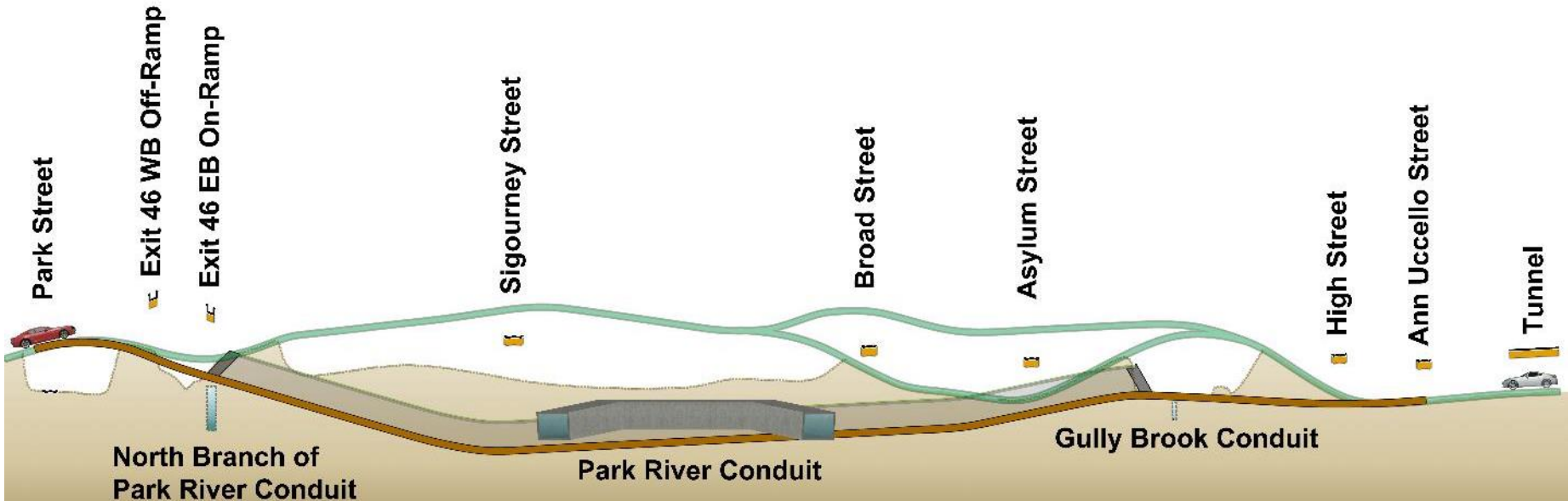




# Alternatives & Screening Process

# Mainline Alternatives





- Alternative 1: No-Build Green
- Alternative 2 (elevated) Blue
- Alternative 3 (lowered) Yellow
- Alternative 4 (tunnel) Brown

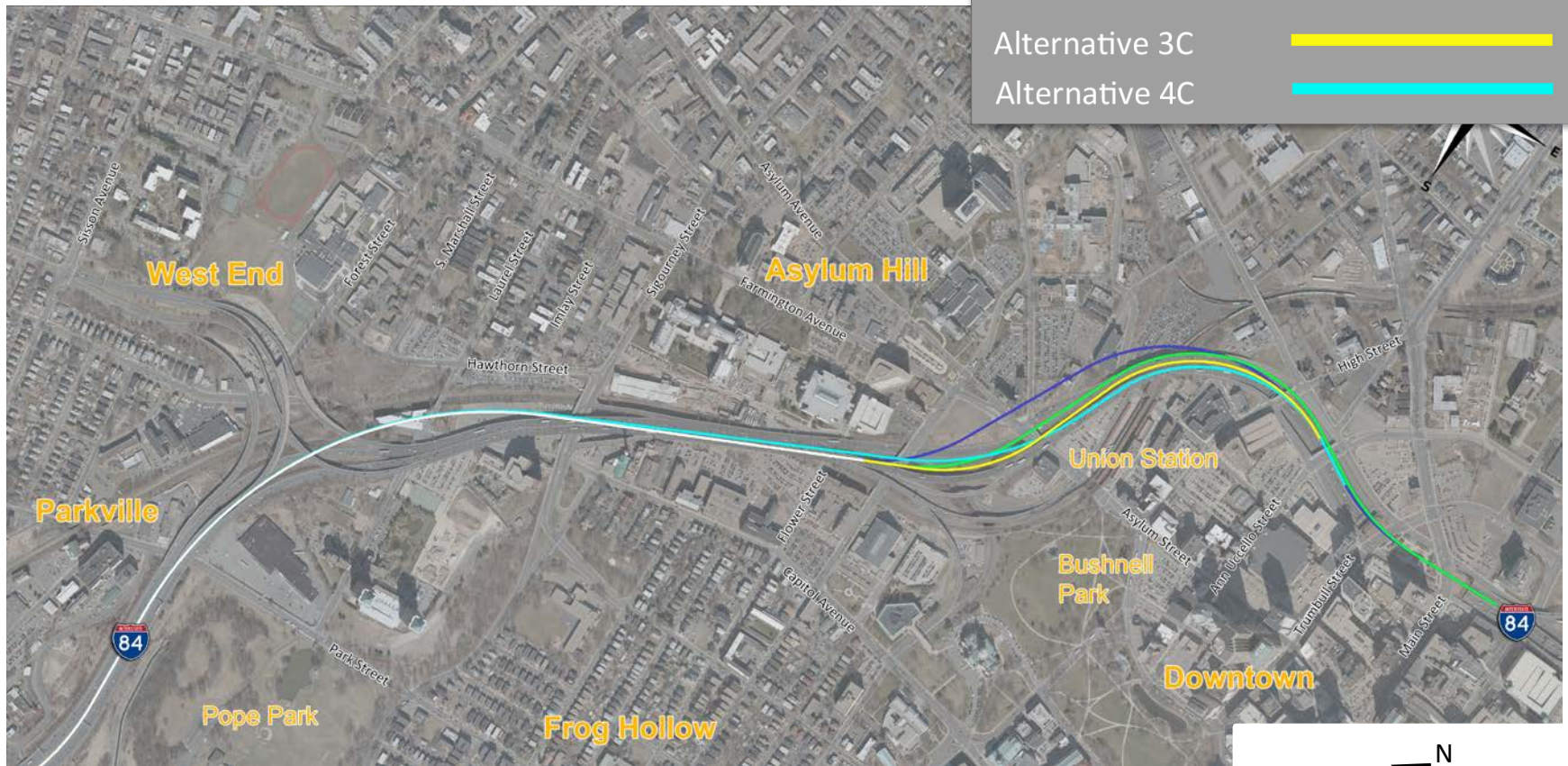




# Mainline Alternatives

**Legend**

- Alternatives 2A/3A 
- Alternative 3B 
- Alternative 3C 
- Alternative 4C 

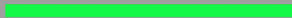





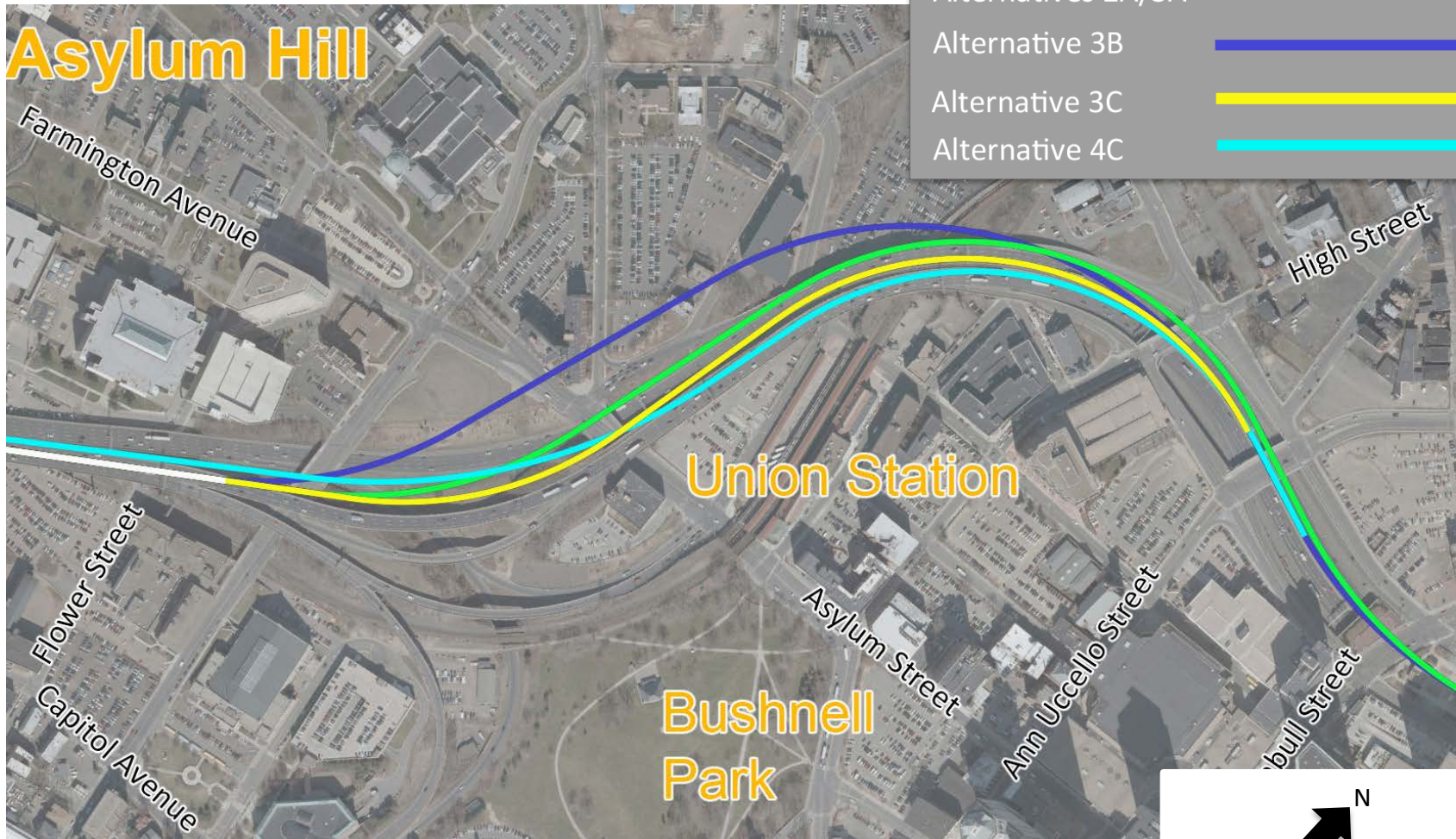




# Mainline Alternatives

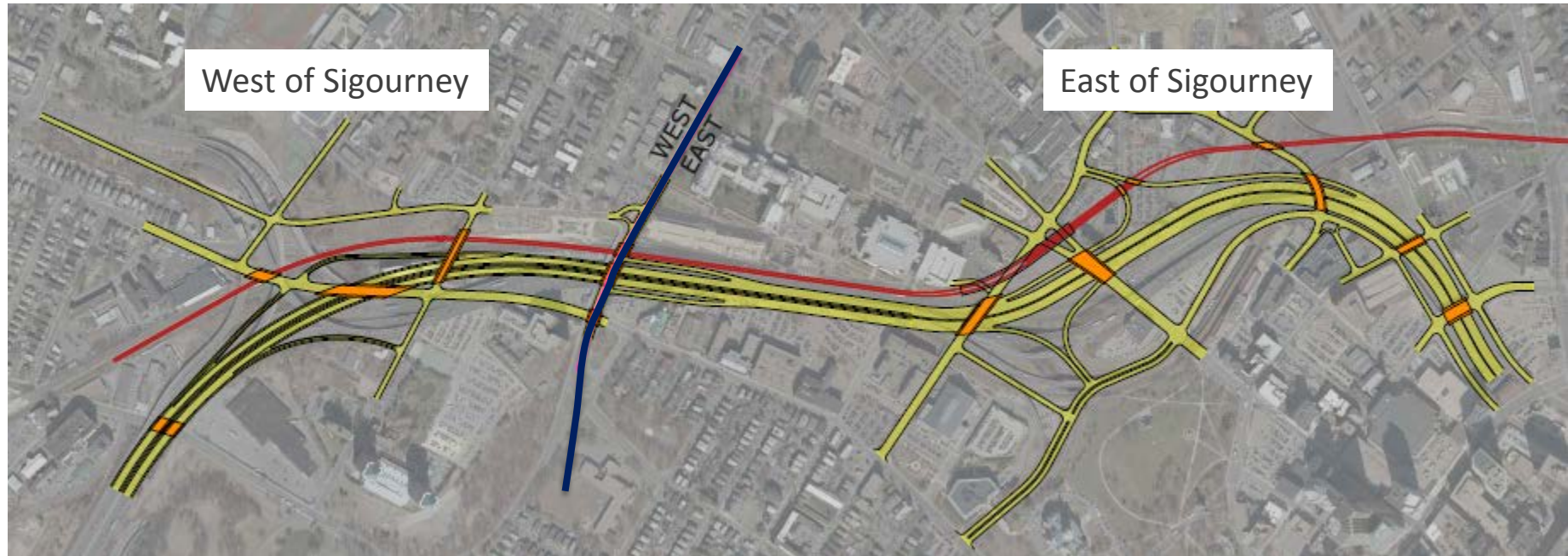
**Legend**

- Alternatives 2A/3A 
- Alternative 3B 
- Alternative 3C 
- Alternative 4C 



# Interchange Options

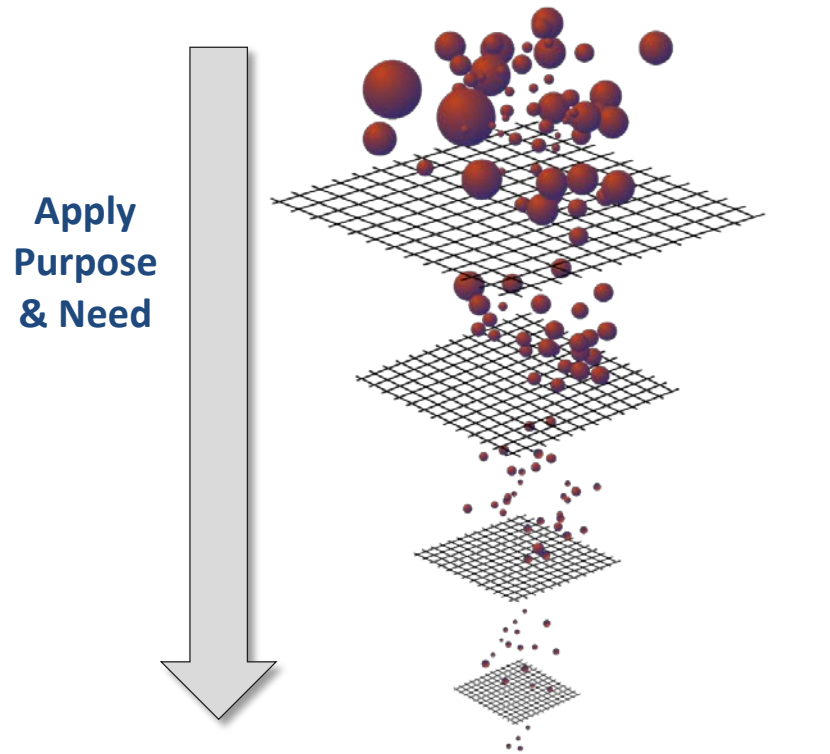
Alternative	Options west of Sigourney	Options east of Sigourney
2A (elevated)	9	3
3A, 3B, 3C (lowered)	9	12
4 (tunnel)	1	1





# Where Are We Now?

**100+ Alternatives Combinations**



**Preferred Alternative**



# West Options: Overview





## Option W1

West Boulevard to Park St  
Ramps at West Boulevard





## Option W2

West Boulevard to Capitol Ave  
Frontage Roads between West  
Boulevard and Sigourney







## Option W3-1

Capitol Ave Through Street  
Ramps at Laurel St





## Option W3-2

Partial Interchange (EB Off-Ramp to Laurel, WB Directional Split Diamond at Capitol) No EB On-Ramp, West Blvd to Hawthorn Connection







## Option W4

West Boulevard to Capitol Ave  
Ramps at West Boulevard and Laurel St





## Option W5

West Boulevard to Laurel St  
Ramps at West Boulevard







## Option W6-1

West Boulevard to Capitol Ave  
Ramps at West Boulevard





## Option W6-2

Full Diamond at West Blvd/Capitol Extension, At-Grade intersections at Capitol/Forest and Laurel







## Option W7

Full Interchange at Sisson Avenue and West Blvd



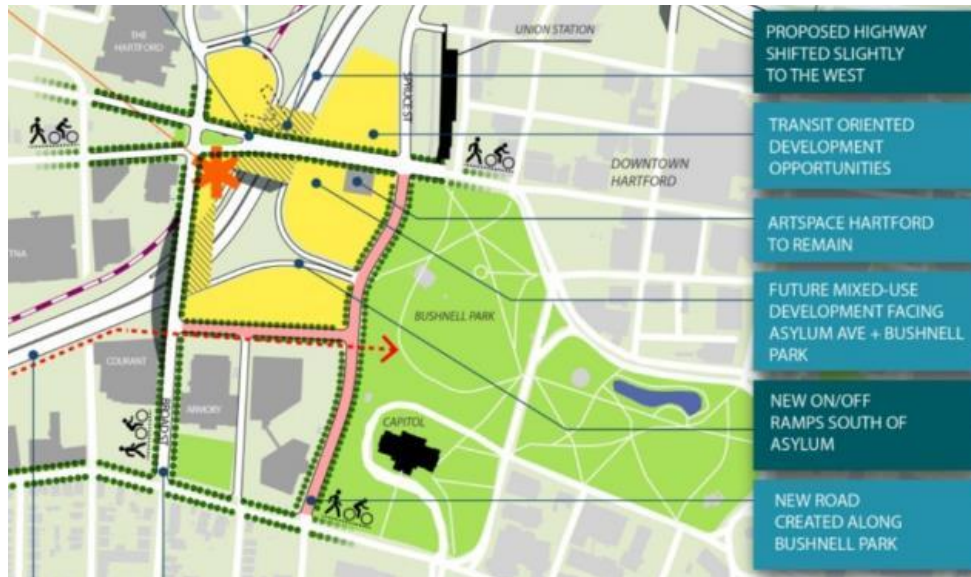


# Preliminary Traffic Analysis



# Process Overview

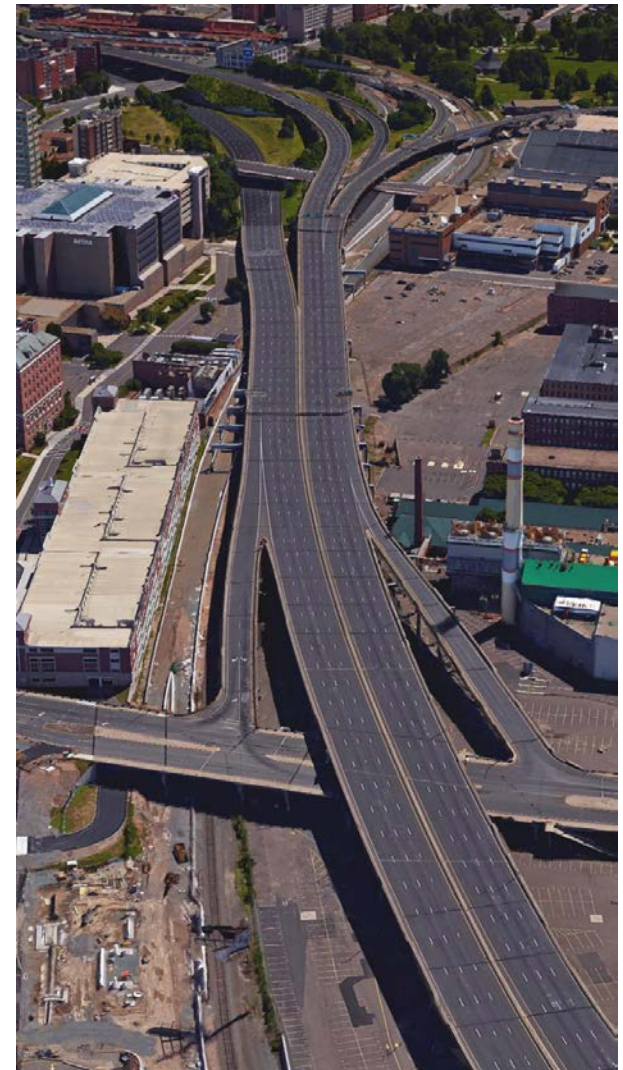
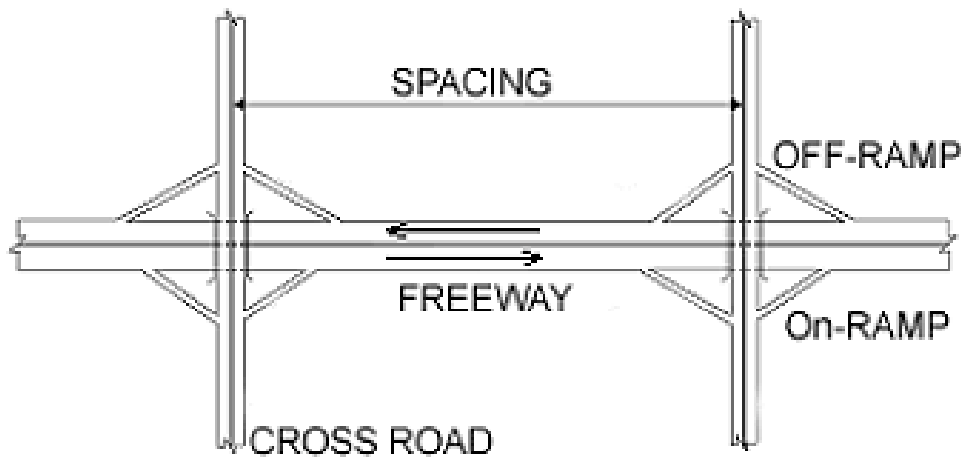
- Perform I-84 mainline analysis
- Analyze local road intersections





# Mainline Analysis

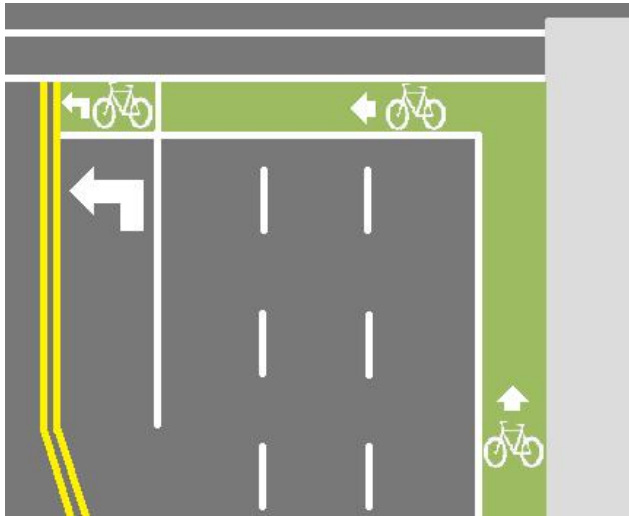
- Interchange spacing
- Lane balance and continuity
- Weave distances





# Preliminary Intersection Analysis

- Minimize roadway widths
- Optimize signal operations
- Pedestrian / bicyclist-friendly
- Good / fair / poor



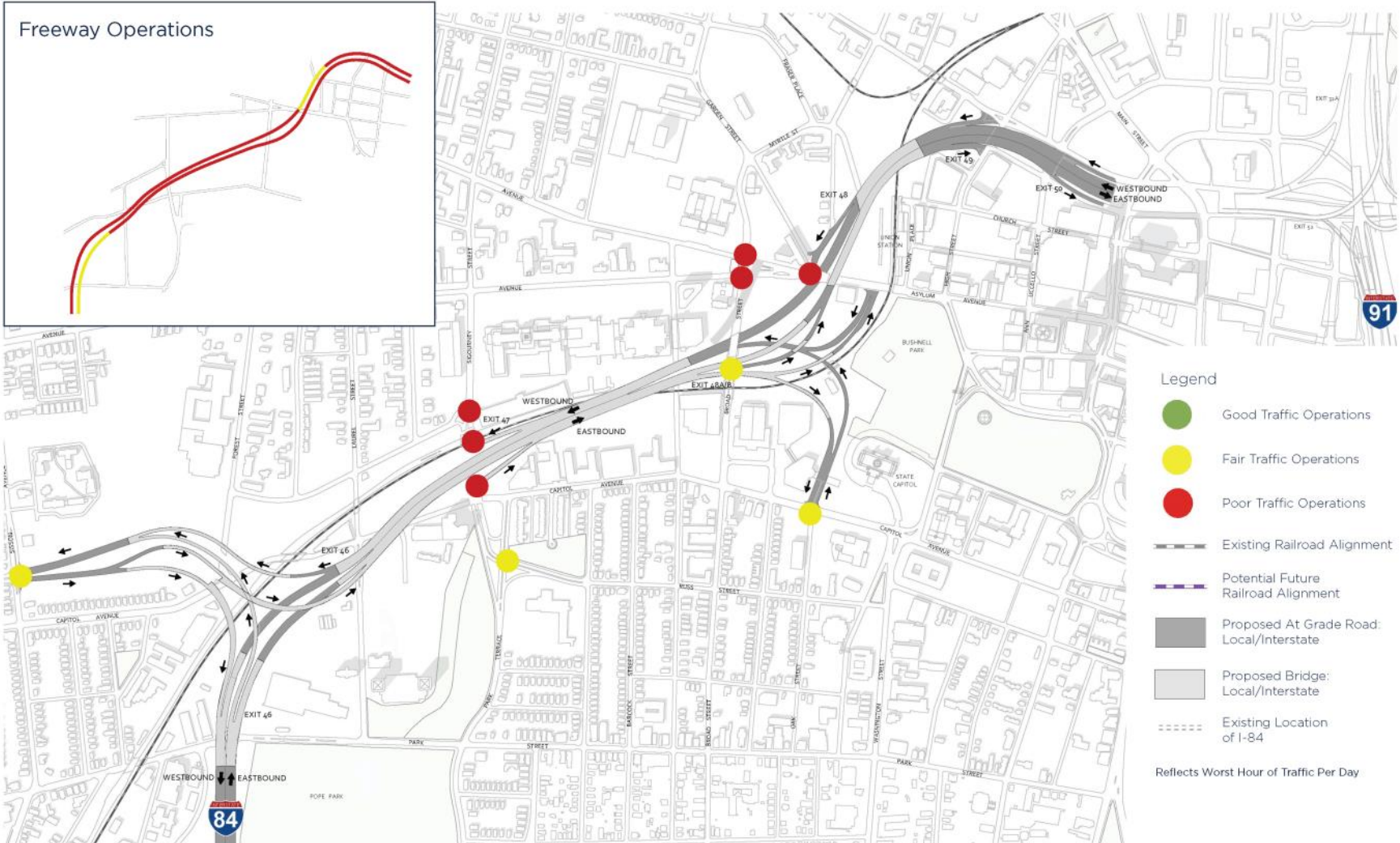


# PRELIMINARY TRAFFIC ANALYSIS

## EXISTING CONDITIONS

## Intersection Operations

Freeway Operations



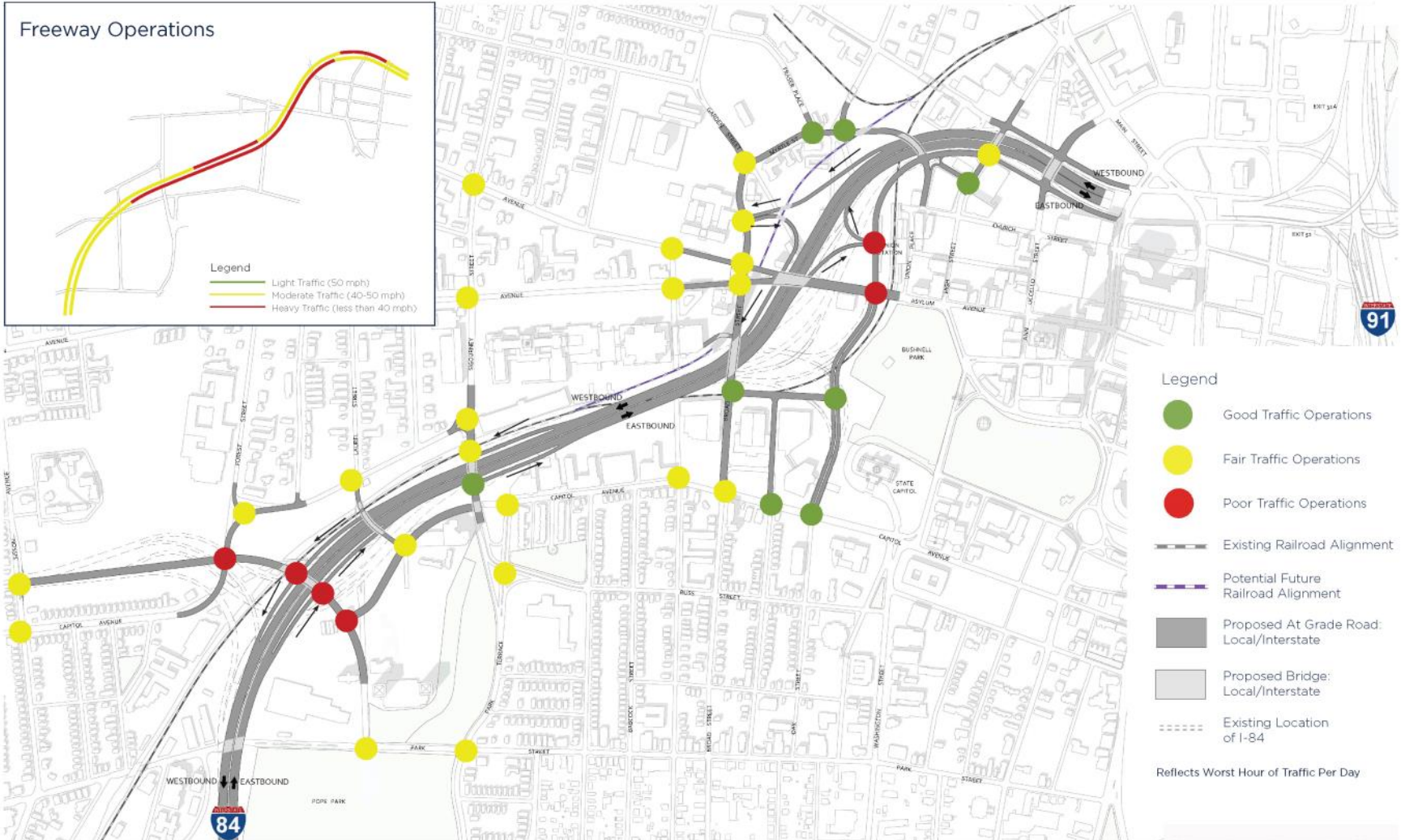




# PRELIMINARY TRAFFIC ANALYSIS

## ALTERNATIVE 3B: W1/E4 (S)

### Intersection Operations

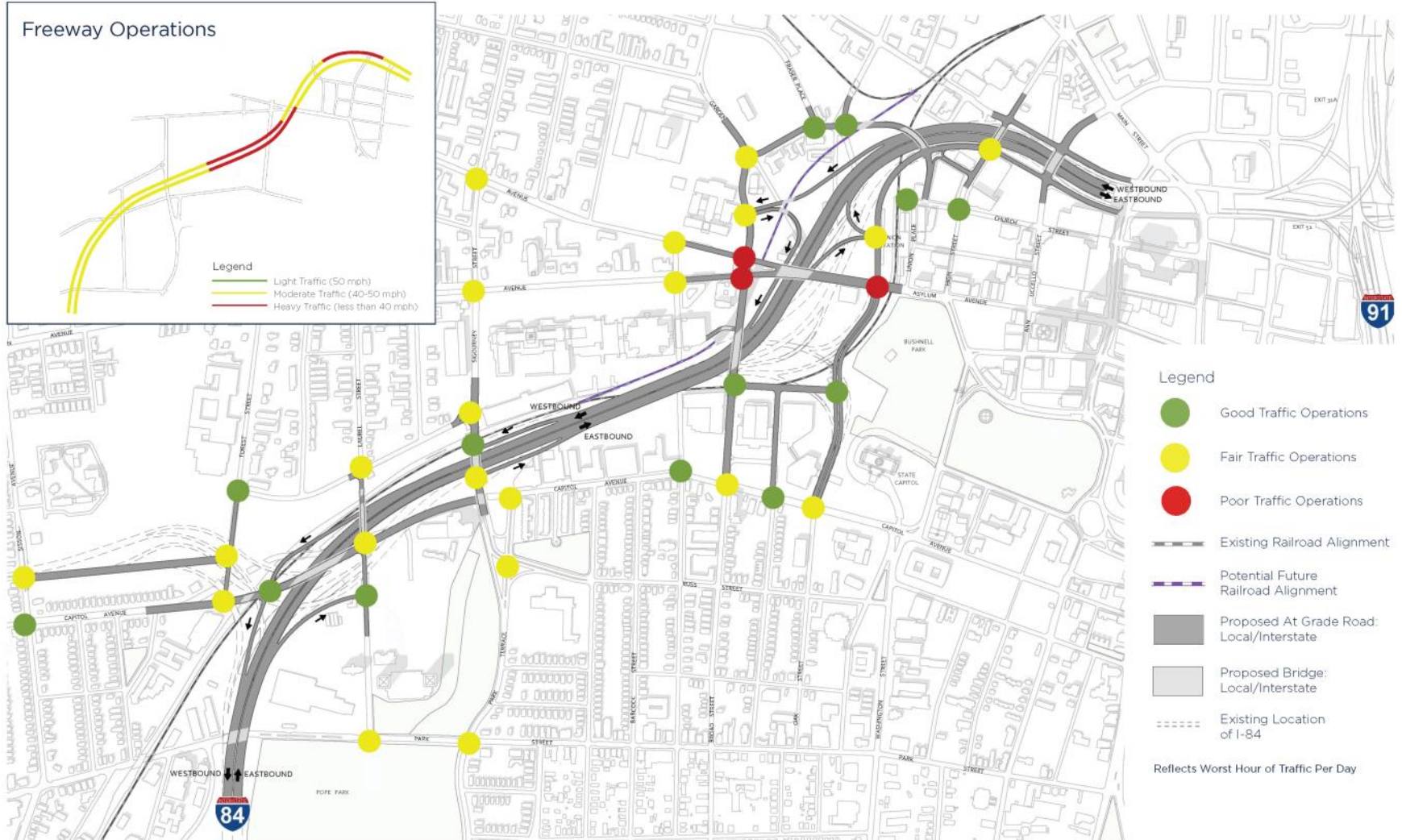




# PRELIMINARY TRAFFIC ANALYSIS

## ALTERNATIVE 3B: W3-1/E4 (S)

### Intersection Operations





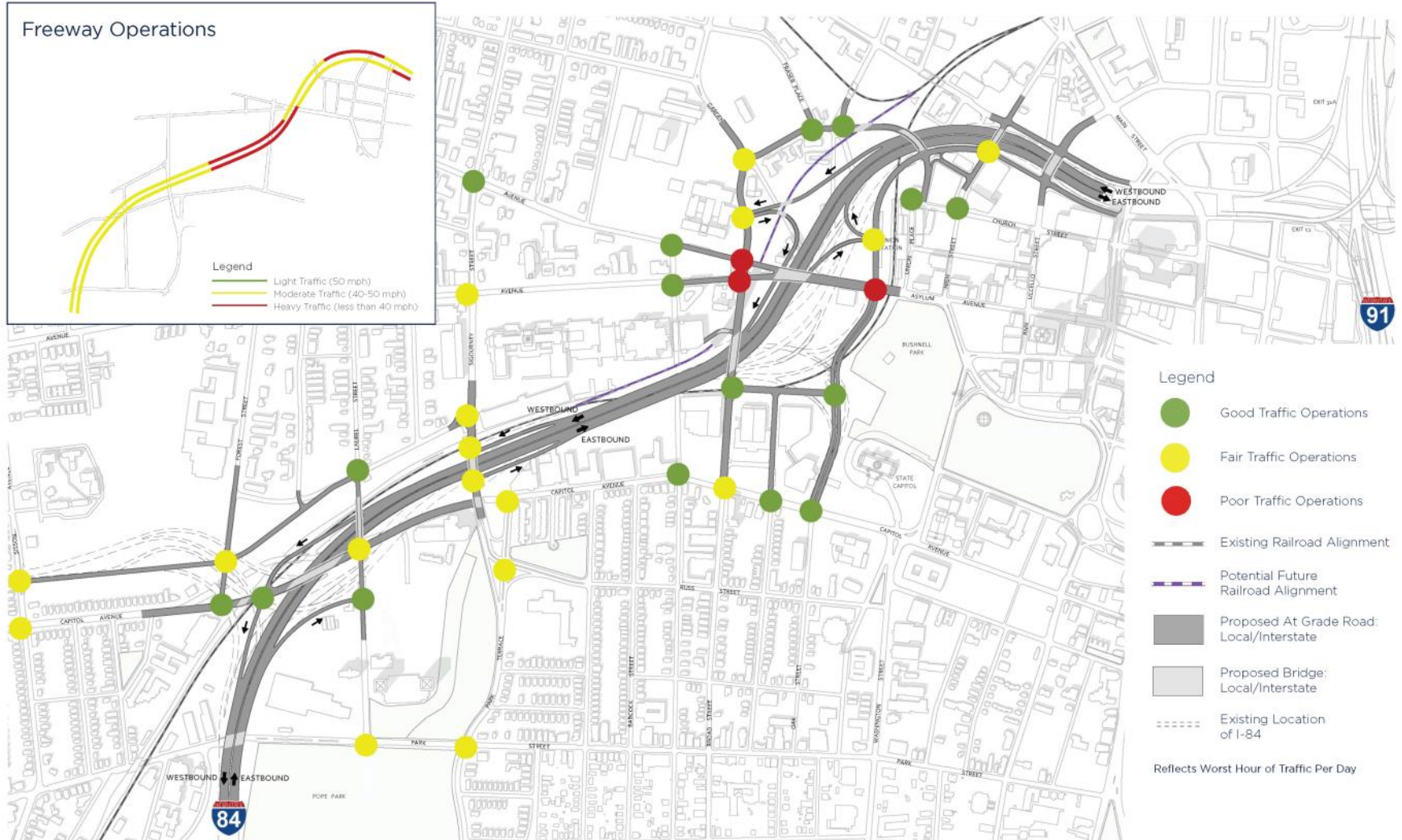


# PRELIMINARY TRAFFIC ANALYSIS

## ALTERNATIVE 3B: W3-2/E4 (S)

### Intersection Operations

#### Freeway Operations



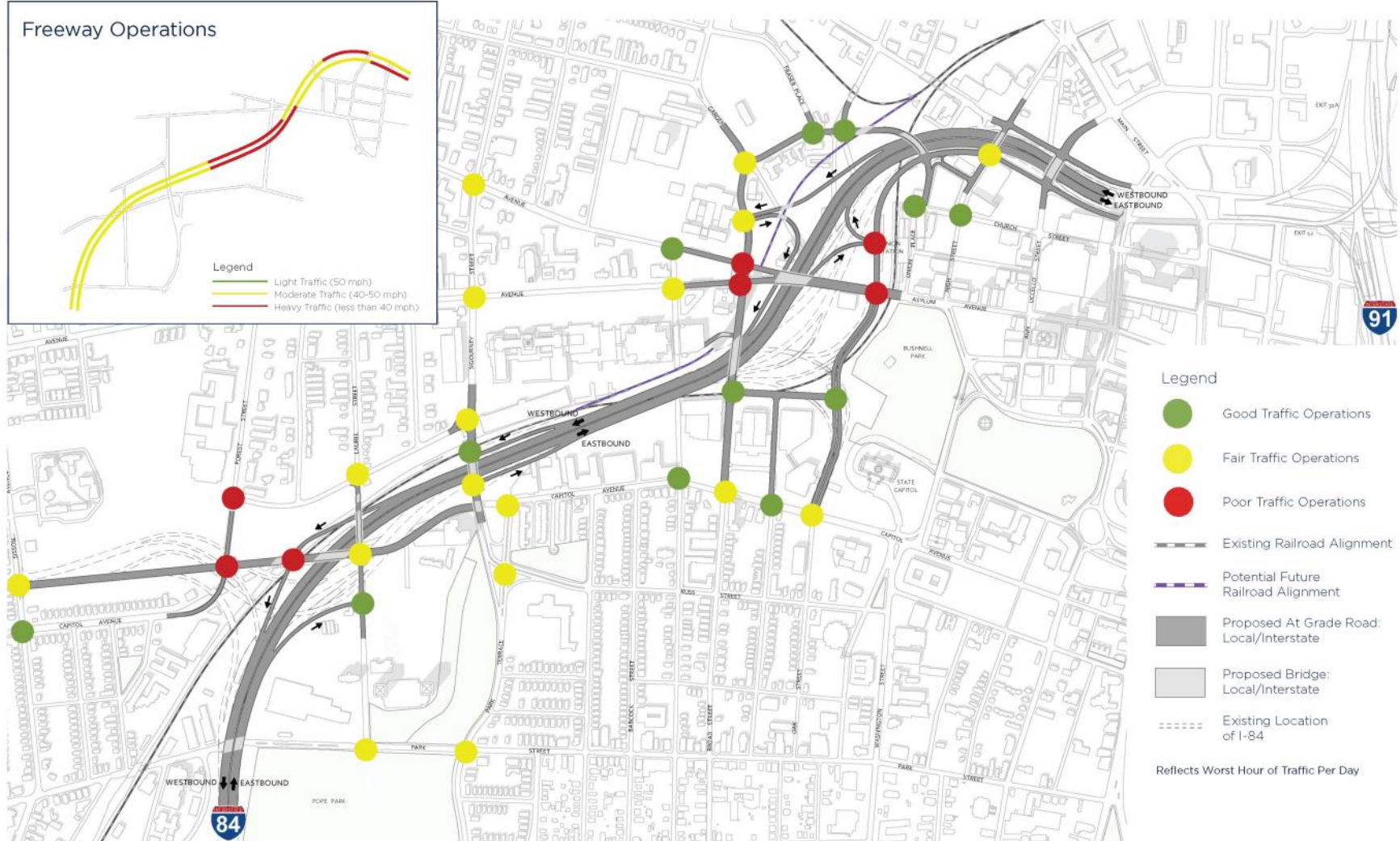


# PRELIMINARY TRAFFIC ANALYSIS

## ALTERNATIVE 3B: W4/E4 (S)

### Intersection Operations

#### Freeway Operations



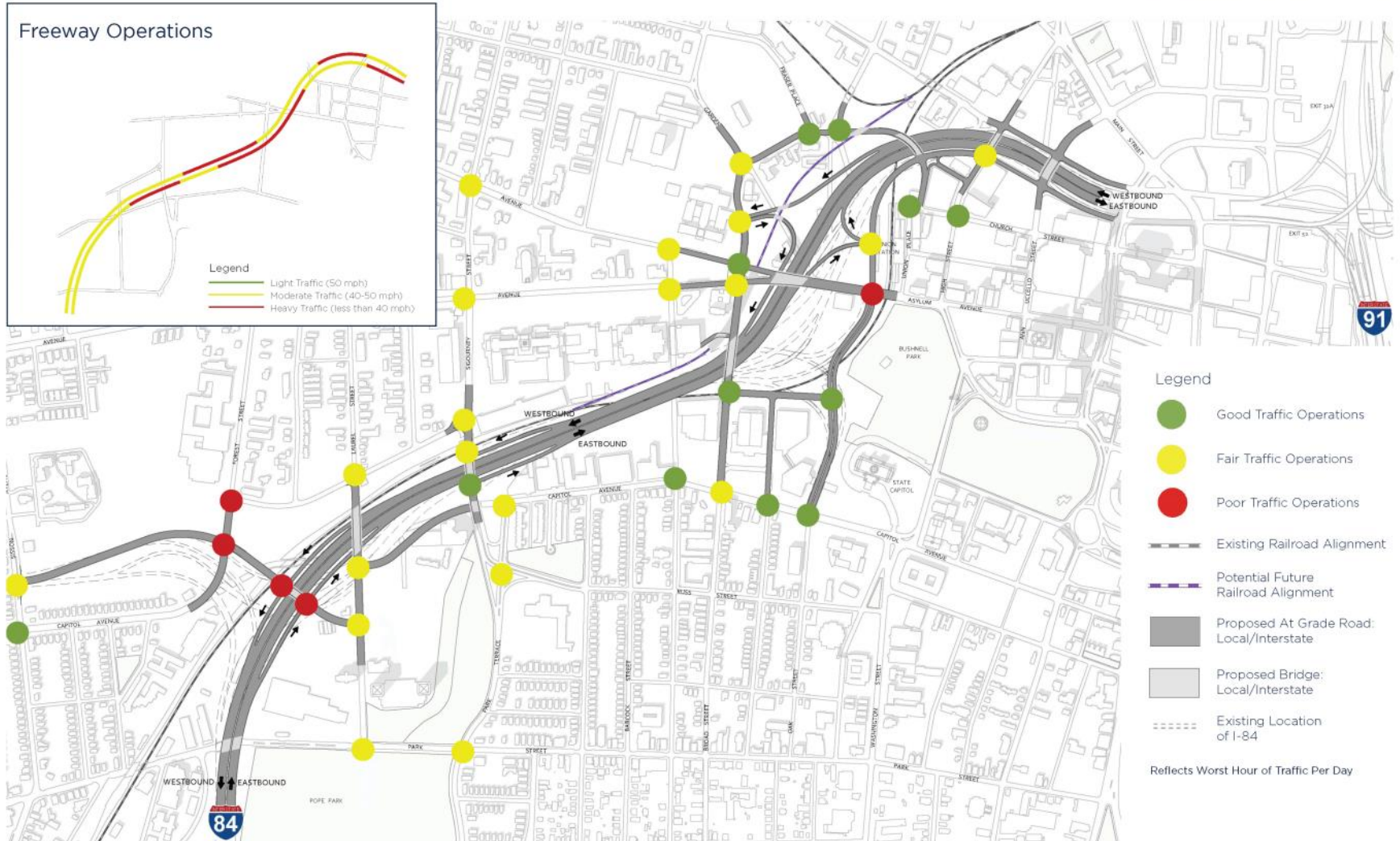




# PRELIMINARY TRAFFIC ANALYSIS

## ALTERNATIVE 3B: W5/E4 (S)

### Intersection Operations





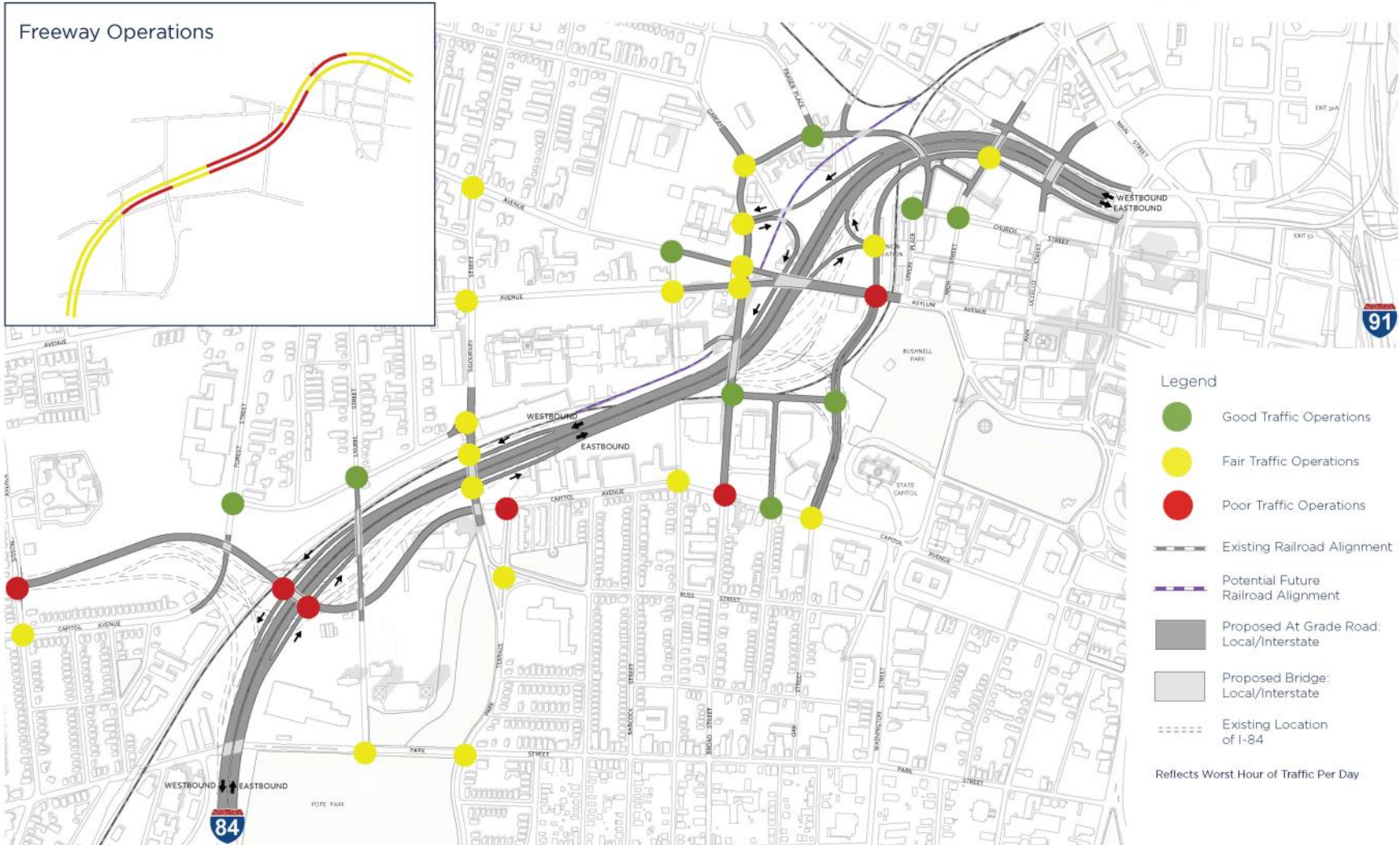


# PRELIMINARY TRAFFIC ANALYSIS

## ALTERNATIVE 3B: W6-1/E4 (S)

### Intersection Operations

#### Freeway Operations





# PRELIMINARY TRAFFIC ANALYSIS

## ALTERNATIVE 3B: W6-2/E4 (S)

### Intersection Operations







# Park Street Interchange







# Sisson Ramps

Existing aerial view looking north







# Sisson Ramps

Potential aerial view looking north



# Potential Developable Area

- West of Sigourney Street: 10 – 24 acres +/-
- East of Sigourney Street: 5 - 20 acres +/-



- PROPOSED HIGHWAY SHIFTED SLIGHTLY TO THE WEST
- TRANSIT ORIENTED DEVELOPMENT OPPORTUNITIES
- ARTSPACE HARTFORD TO REMAIN
- FUTURE MIXED-USE DEVELOPMENT FACING ASYLUM AVE + BUSHNELL PARK
- NEW ON/OFF RAMPS SOUTH OF ASYLUM
- NEW ROAD CREATED ALONG BUSHNELL PARK





# Capitol Avenue

Existing view looking east towards Sigourney Street





# Capitol Avenue

Potential view looking east towards Sigourney Street







# Asylum Avenue

Existing view looking east towards Downtown

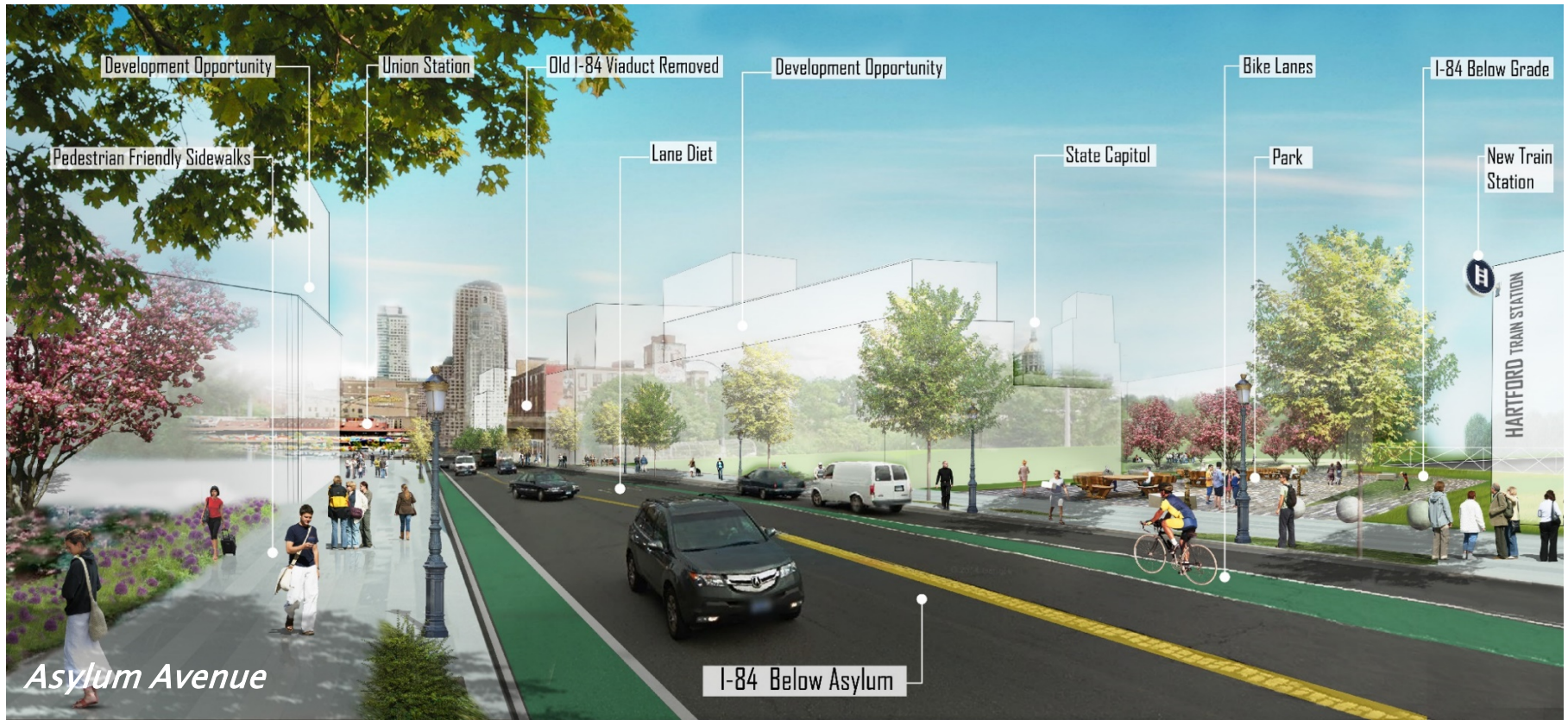






# Asylum Avenue

Potential view looking east towards Downtown





# Broad Street

Existing view looking south towards Armory







# Broad Street

Existing view looking south towards Armory







# Sigourney Street

Existing view looking south to Park Terrace





# Sigourney Street

Potential view looking south to Park Terrace



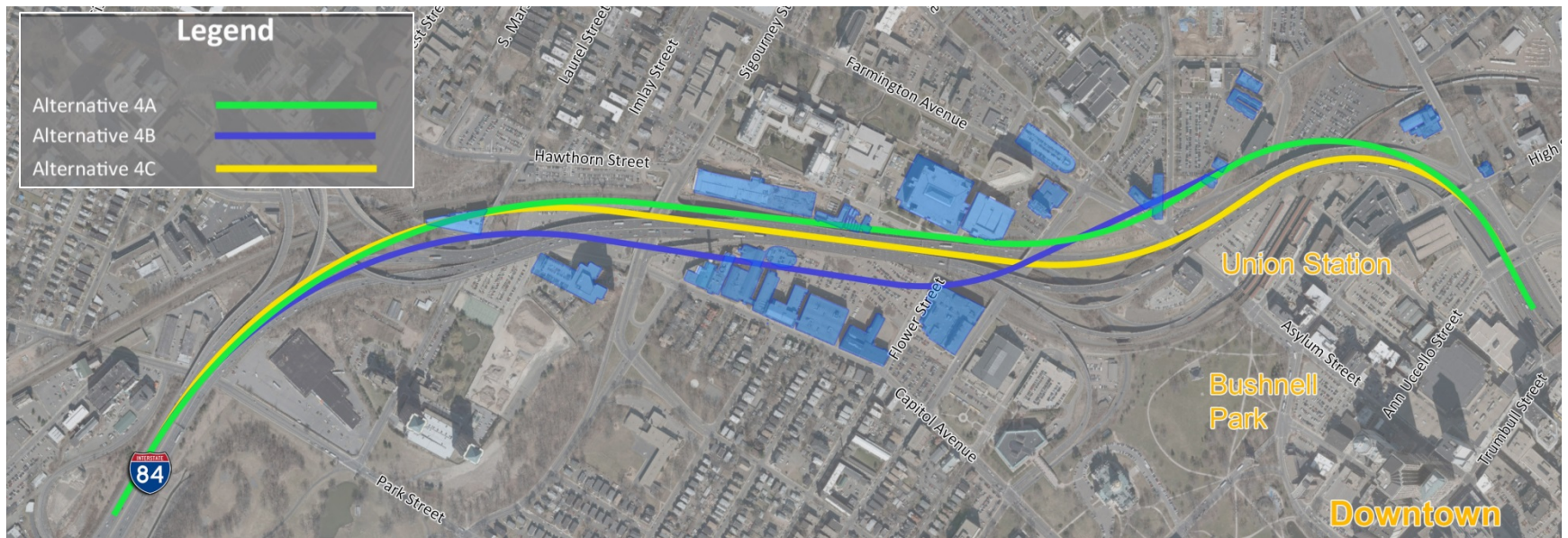




# Tunnel Alternative Update

# Three Tunnel Alignments Considered

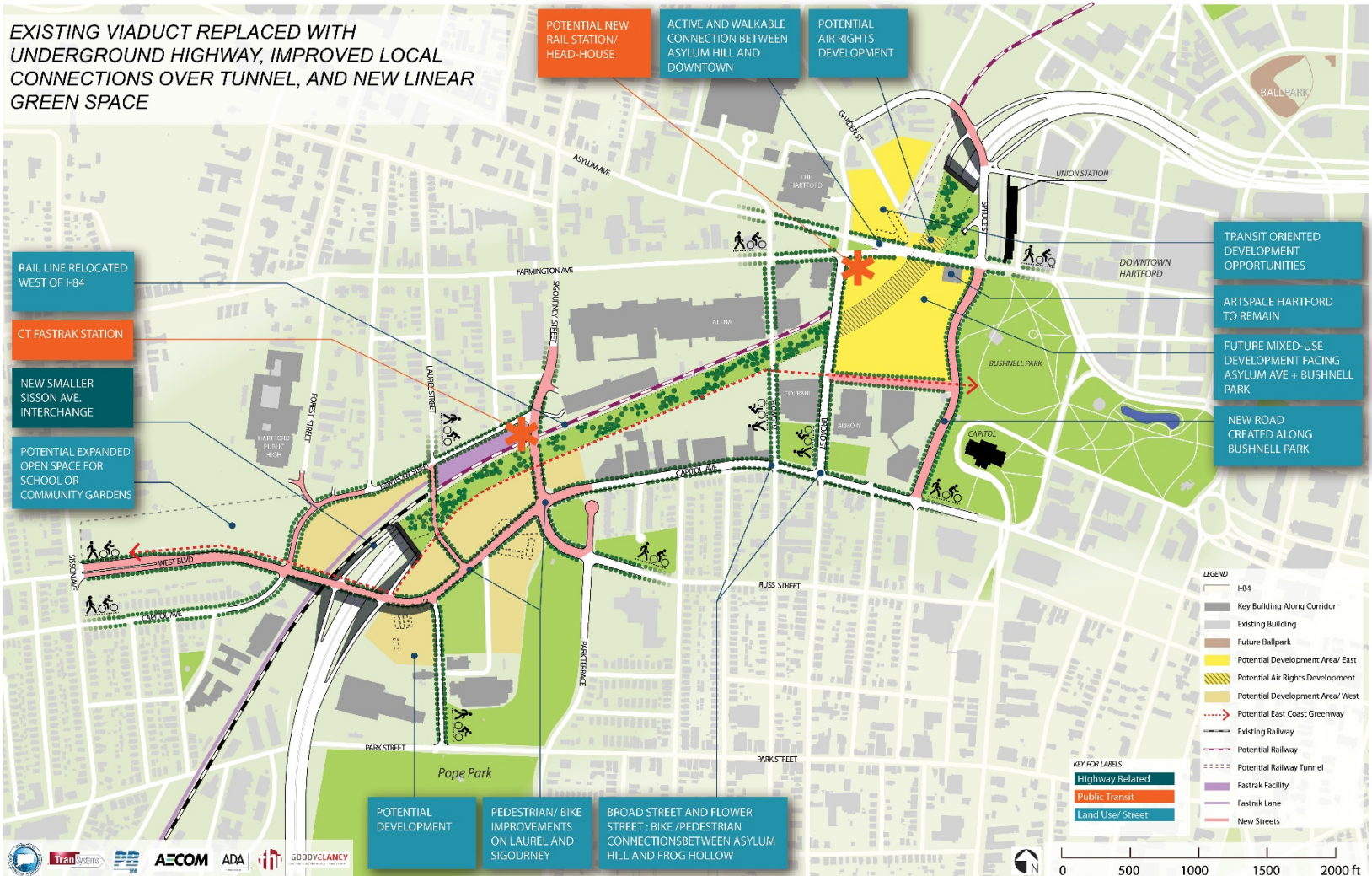
- 4A and 4B have significant property impacts
- 4C alignment advanced
  - Build on existing footprint





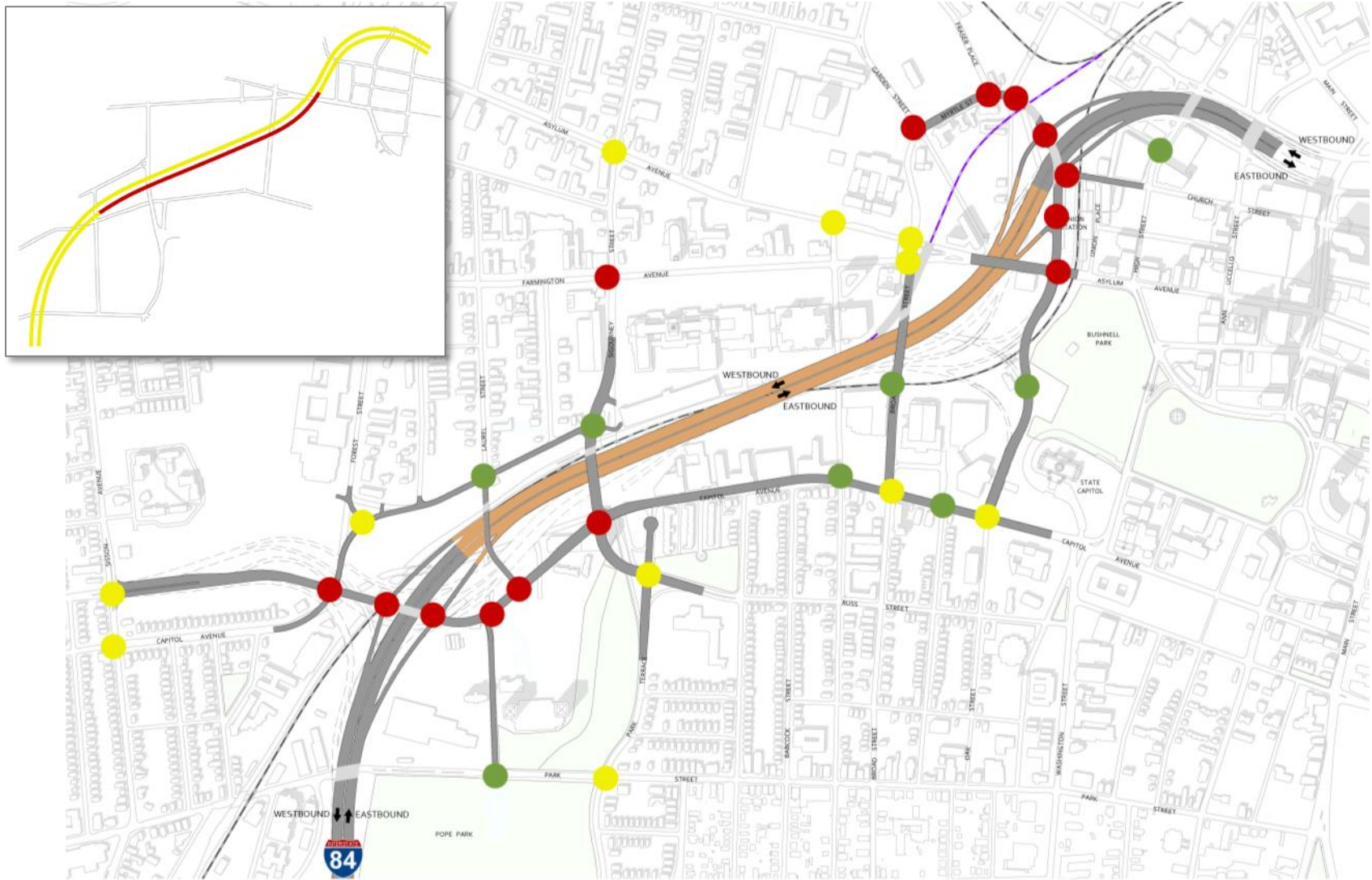
## Tunnel

EXISTING VIADUCT REPLACED WITH UNDERGROUND HIGHWAY, IMPROVED LOCAL CONNECTIONS OVER TUNNEL, AND NEW LINEAR GREEN SPACE





## Tunnel Traffic Operations





# Underpinning Requirements

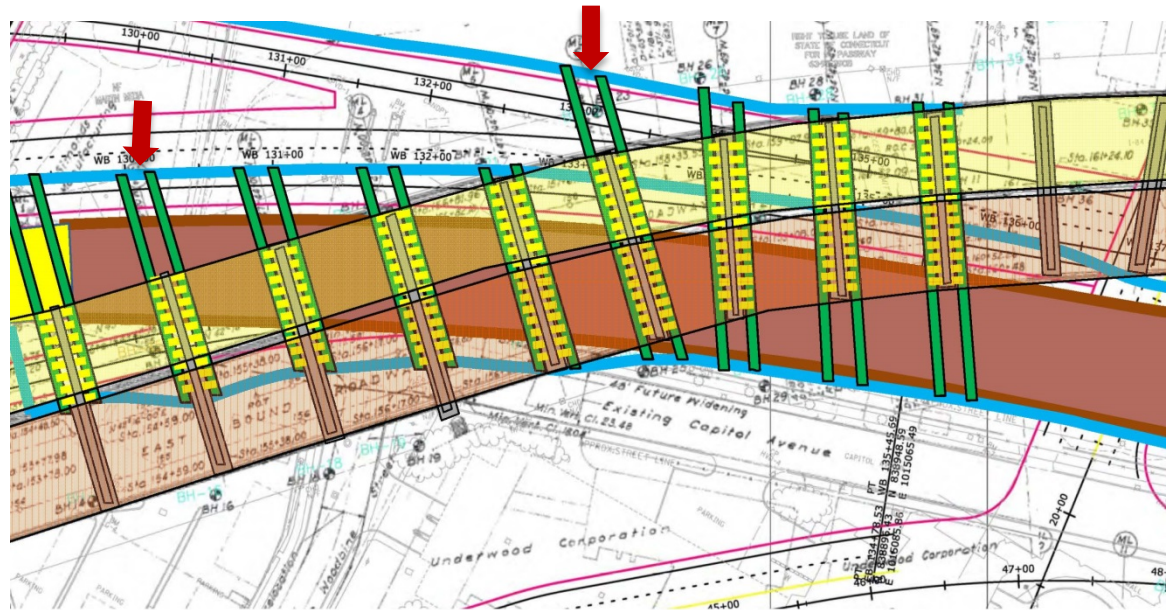
- Temporarily support existing bridges
- Allows construction underneath
- Maintains traffic during construction



CTfastrak



Temporary underpinning



Preliminary engineering for I-84 tunnel underpinning

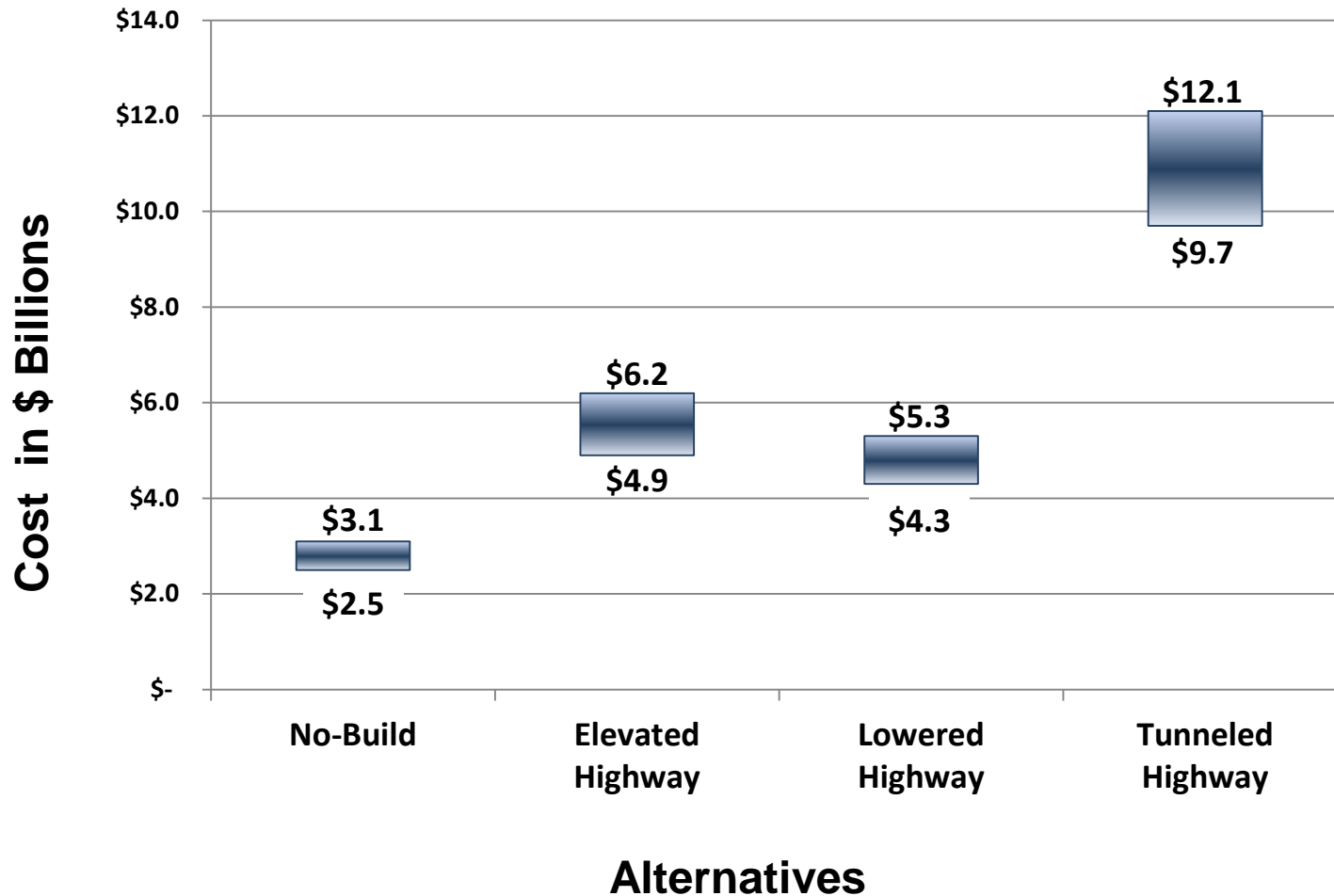


## Preliminary Cost Comparison





# Cost Estimates: August 2015



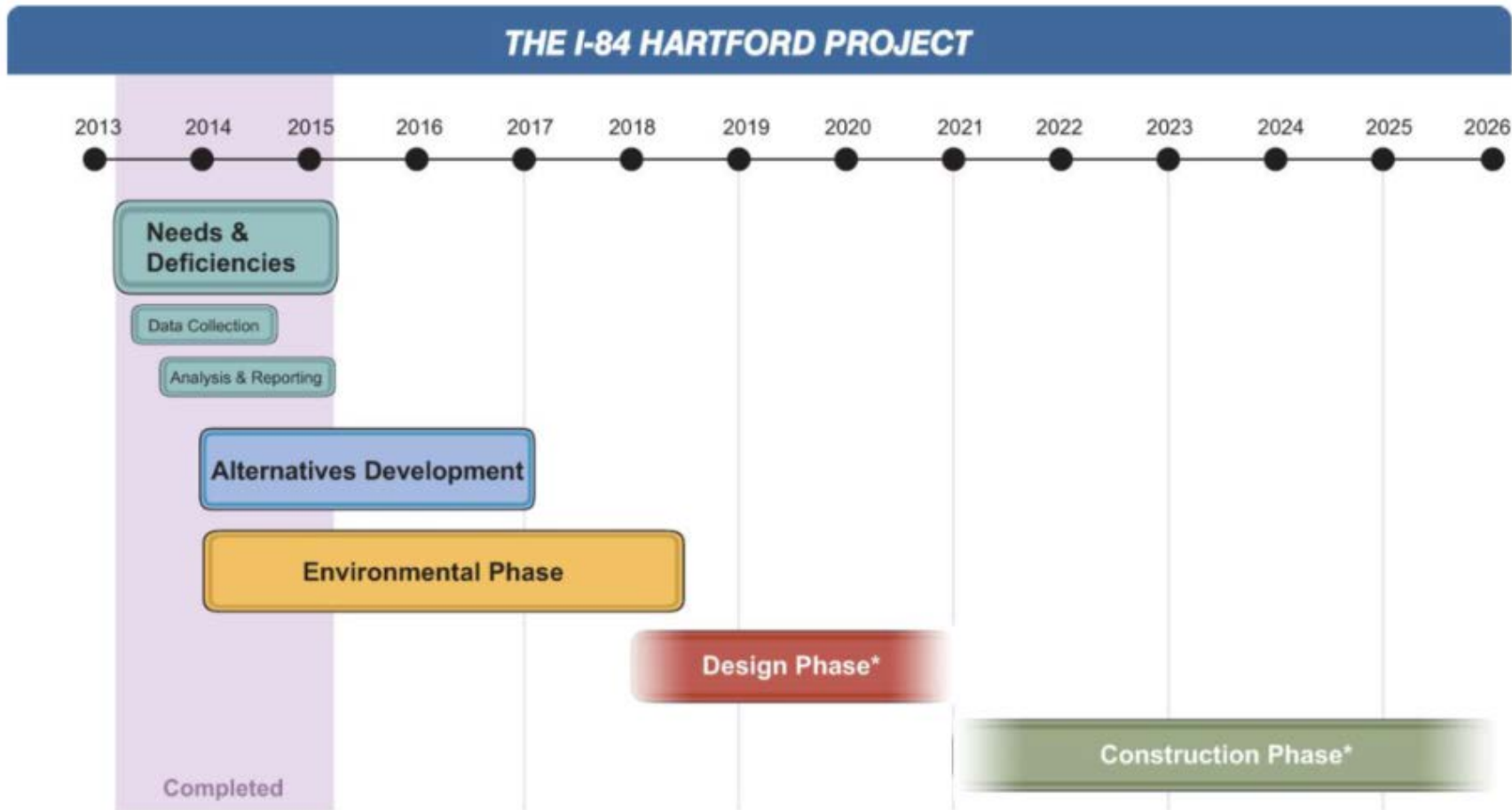


What's Next?





# Project Schedule



\*Actual schedule of these phases contingent upon preferred alternative and availability of funding.

## More meetings scheduled...

- Monthly Studios thru 2015
- Public meetings
- Summer pop-up events
- Stakeholder meetings





# Thank You!

Thank you for your time. We deeply appreciate your time and your commitment to helping us reach the best possible solution for the State of Connecticut, the Capitol Region, and the City of Hartford.

***Your I-84 Hartford Project Team***