



# I-84 HARTFORD PROJECT

# Public Meeting Presentation

## West Hartford, CT

October 22, 2015



# Presentation Overview

1. Project background
2. Alternatives overview
3. Alternatives screening process
4. Sample traffic analyses
5. Initial Alternatives Assessment
6. Lowered Highway Possibilities
7. Next steps



# Project Overview



# I-84 Project Background

- Rail line built in 1830s
- East-west expressway
- I-84 built in 1960s
  - Designed to avoid impacting rail
  - Prior to NEPA
- Soon realized effect on Hartford not all positive
- Now, have opportunity to rethink the previous design



*“The impact of the I-84 freeway upon the physical environments into which it was introduced has been both dramatic and overwhelming.” - 1970 CTDOT & FHWA*



# Where is the Project?





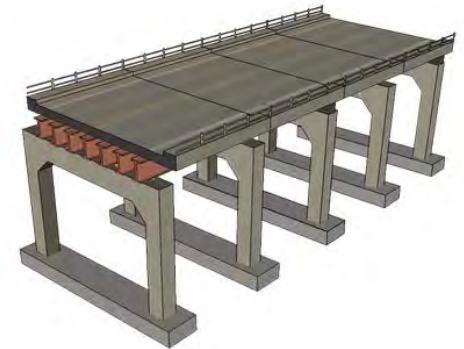


# I-84 HARTFORD PROJECT



# Why is it Needed?

- Bridge structural deficiencies
- Operational and safety deficiencies
- Mobility deficiencies





## Bridge Structures (Viaduct)

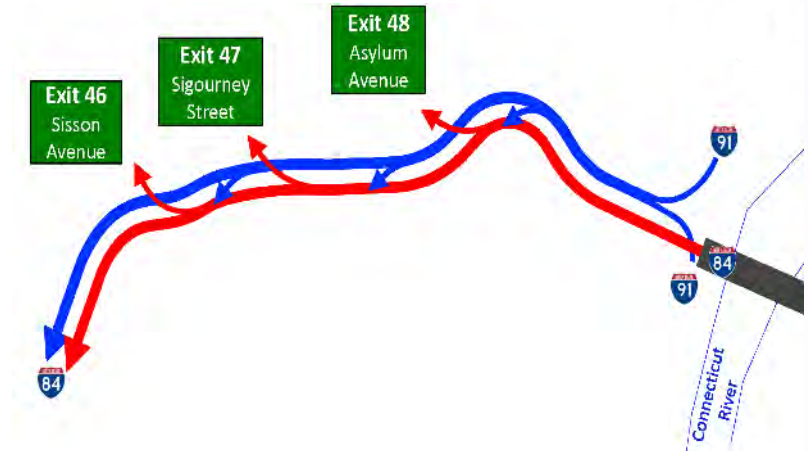
- Reaching end of lifespan
- Cost of repairs = \$60M since 2004
- An additional \$60M over next 5 years
- Bridges are safe; deterioration will continue





# Operations and Safety

- Eight full / partial interchanges
- Weaves
- Lane drops
- Sharp curves
- High crash rates





## Mobility: Moving People and Goods

- Designed for 55,000 vehicles per day
- Carries 175,000 vehicles per day
- Freight volumes are above national average





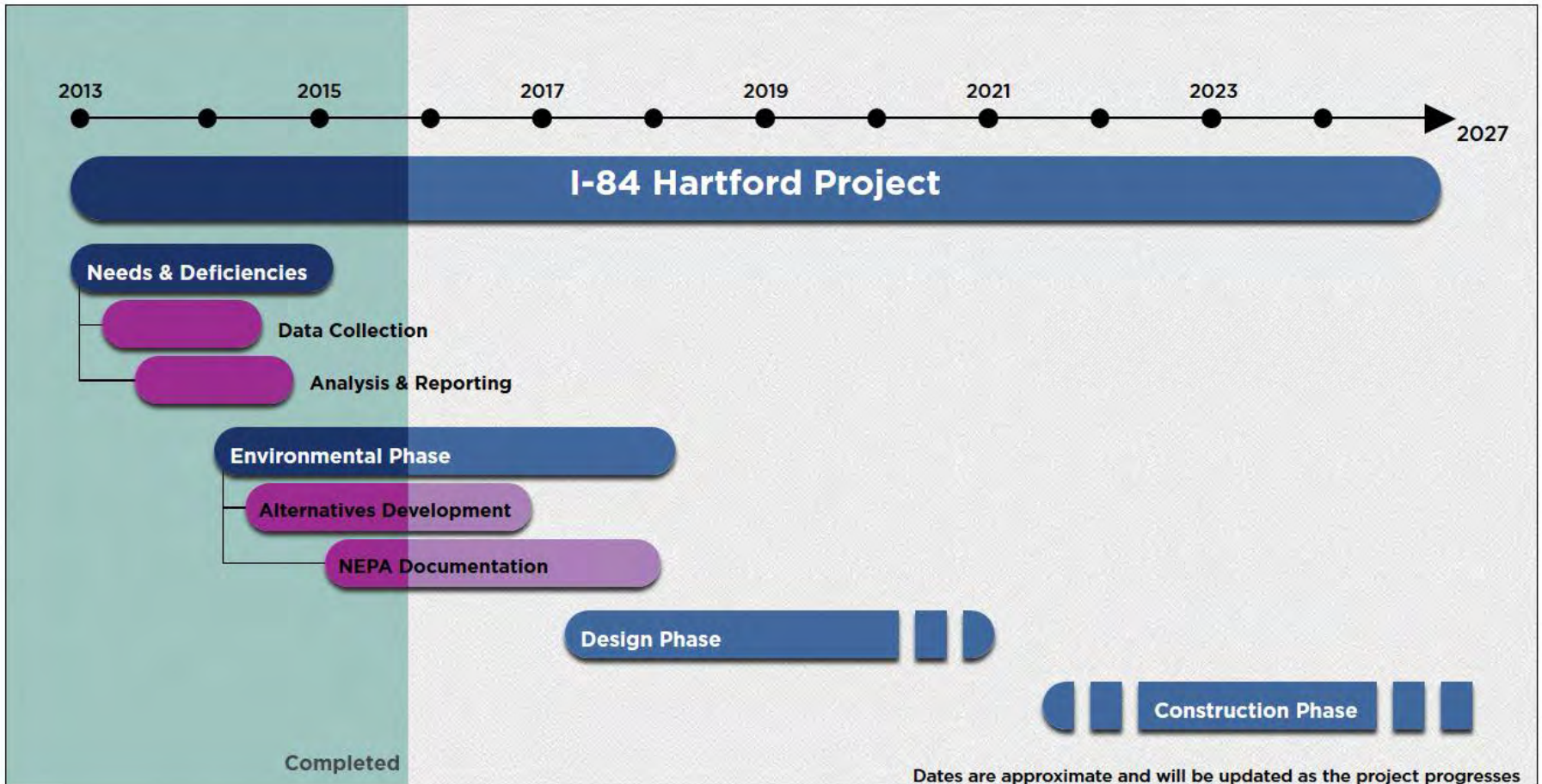
# Mobility: Moving People and Goods

- Improved pedestrian and bicyclist connections
- Transit, parking are also considerations





# Project Schedule



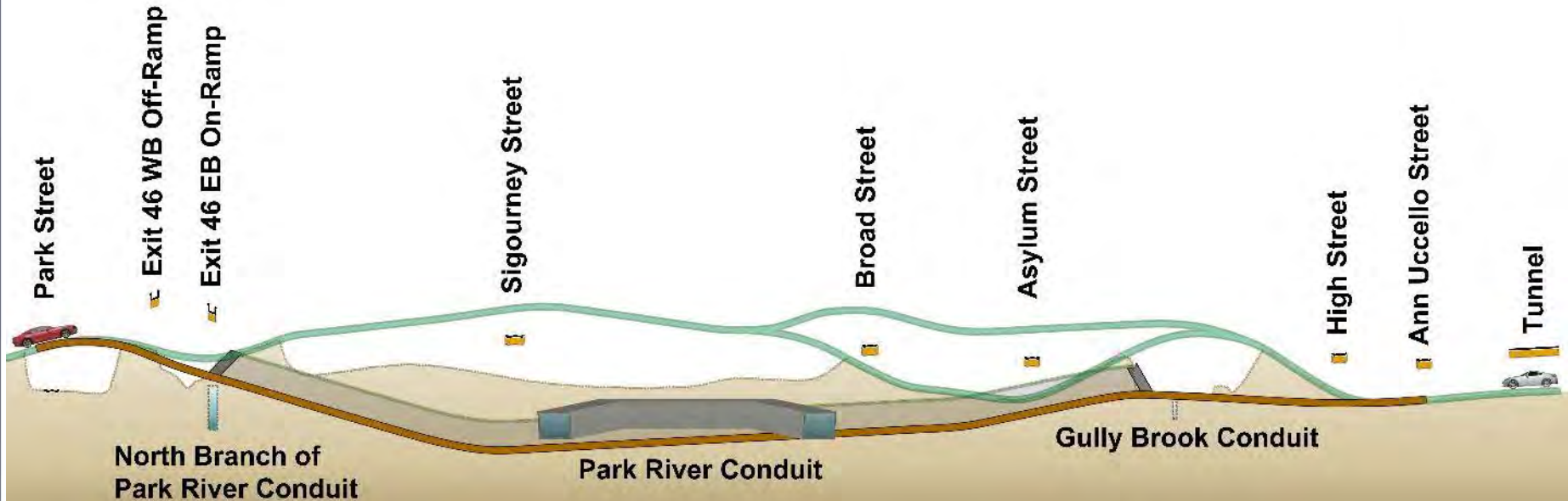
Dates are approximate and will be updated as the project progresses



# Alternatives Overview

# Mainline Alternatives





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





# Mainline Alternatives

### Legend

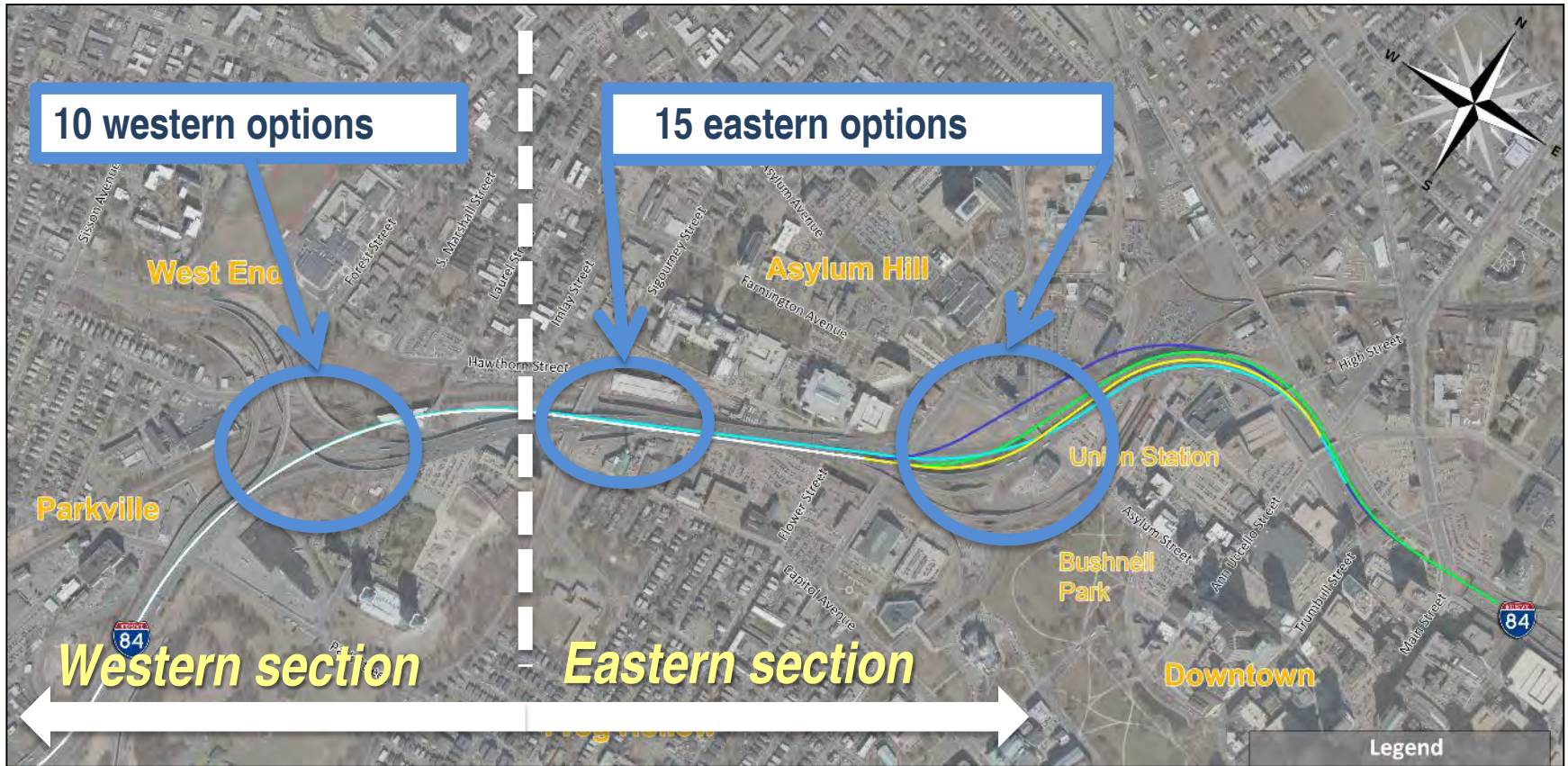
- Alternatives 2A/3A 
- Alternative 3B 
- Alternative 3C 
- Alternative 4C 





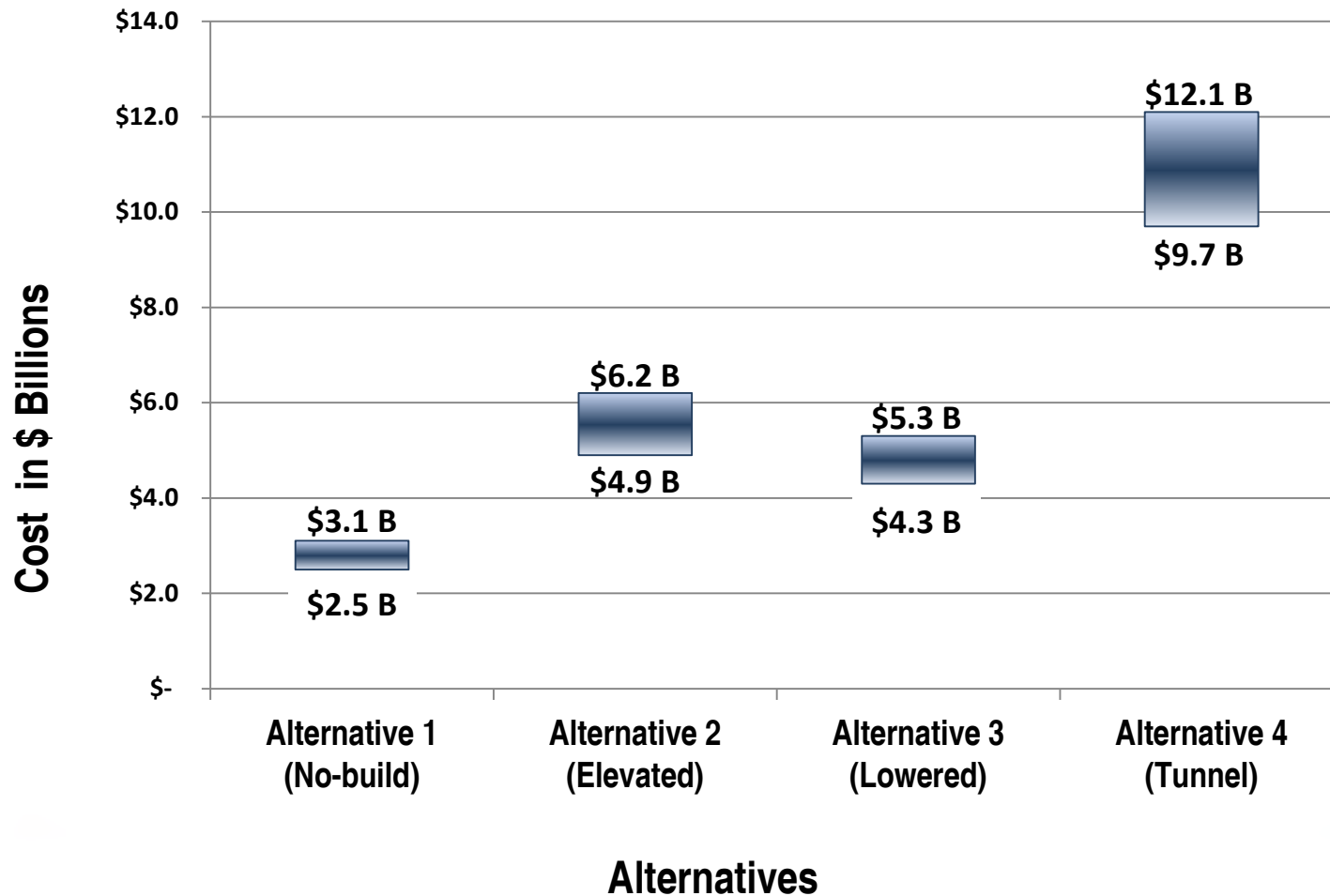


# Various Ramp Options





# Cost Estimates

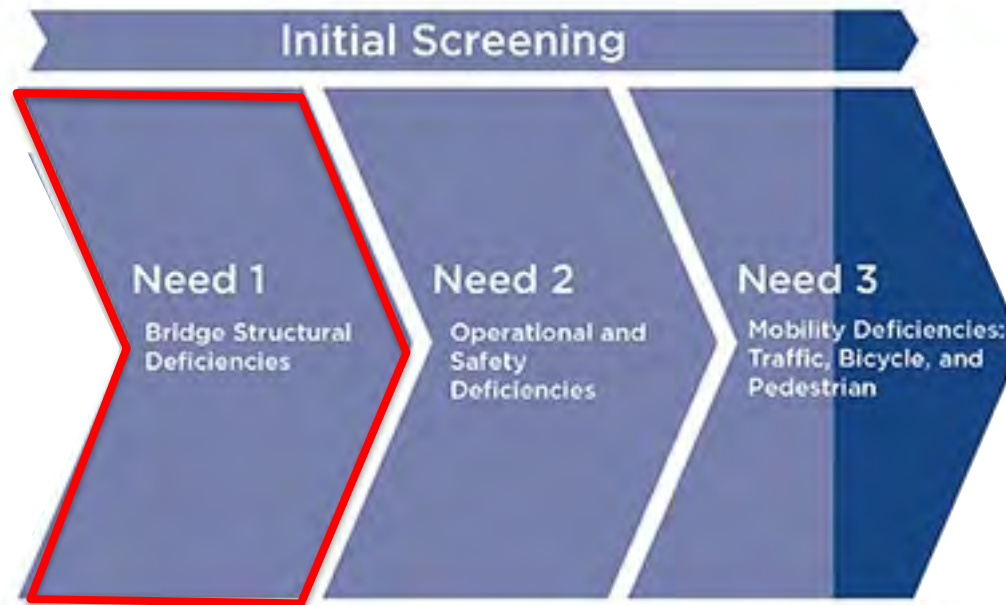




# **84 Alternatives Screening Process**

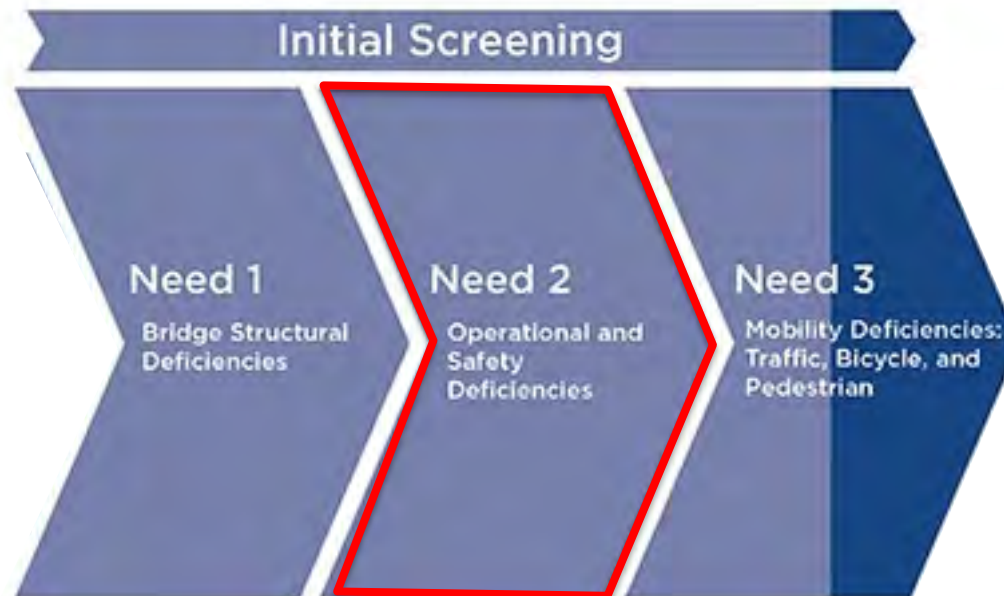
# Initial Screening

1. Does the option address ***bridge structure deficiencies***?



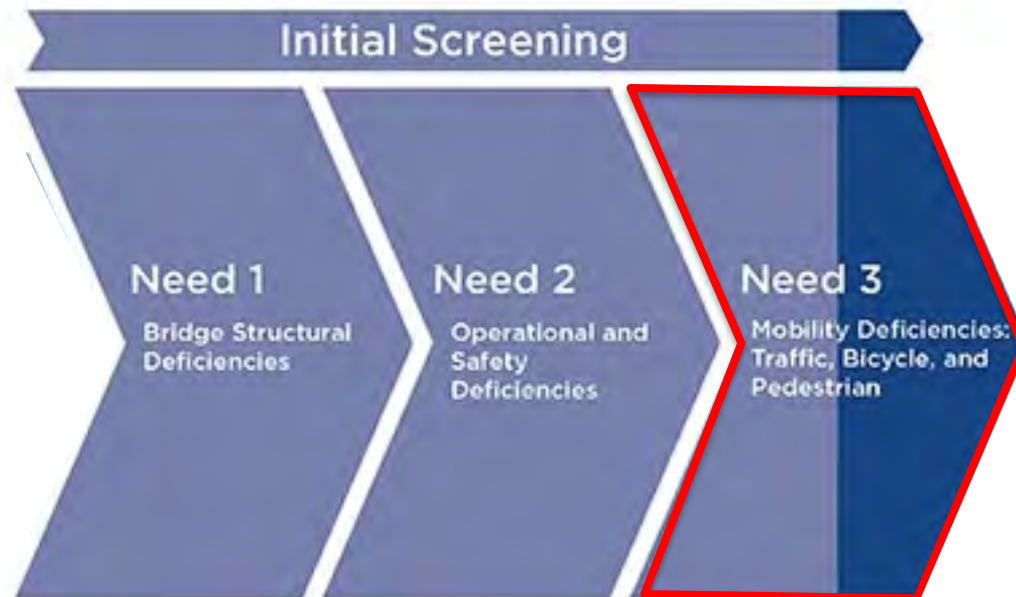
# Initial Screening

- Does the option address ***operational and safety deficiencies?***



# Initial Screening

3. Does the option address ***mobility deficiencies***, including ***traffic performance and bicycle and pedestrian accommodations***?





# Mobility: Traffic Performance

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



# Mobility: Bicycle / Pedestrian

- Collected information/usage patterns
- Continue to meet with stakeholders/users
- Incorporated data into the traffic model
- Balancing lanes with walkability / bikeability







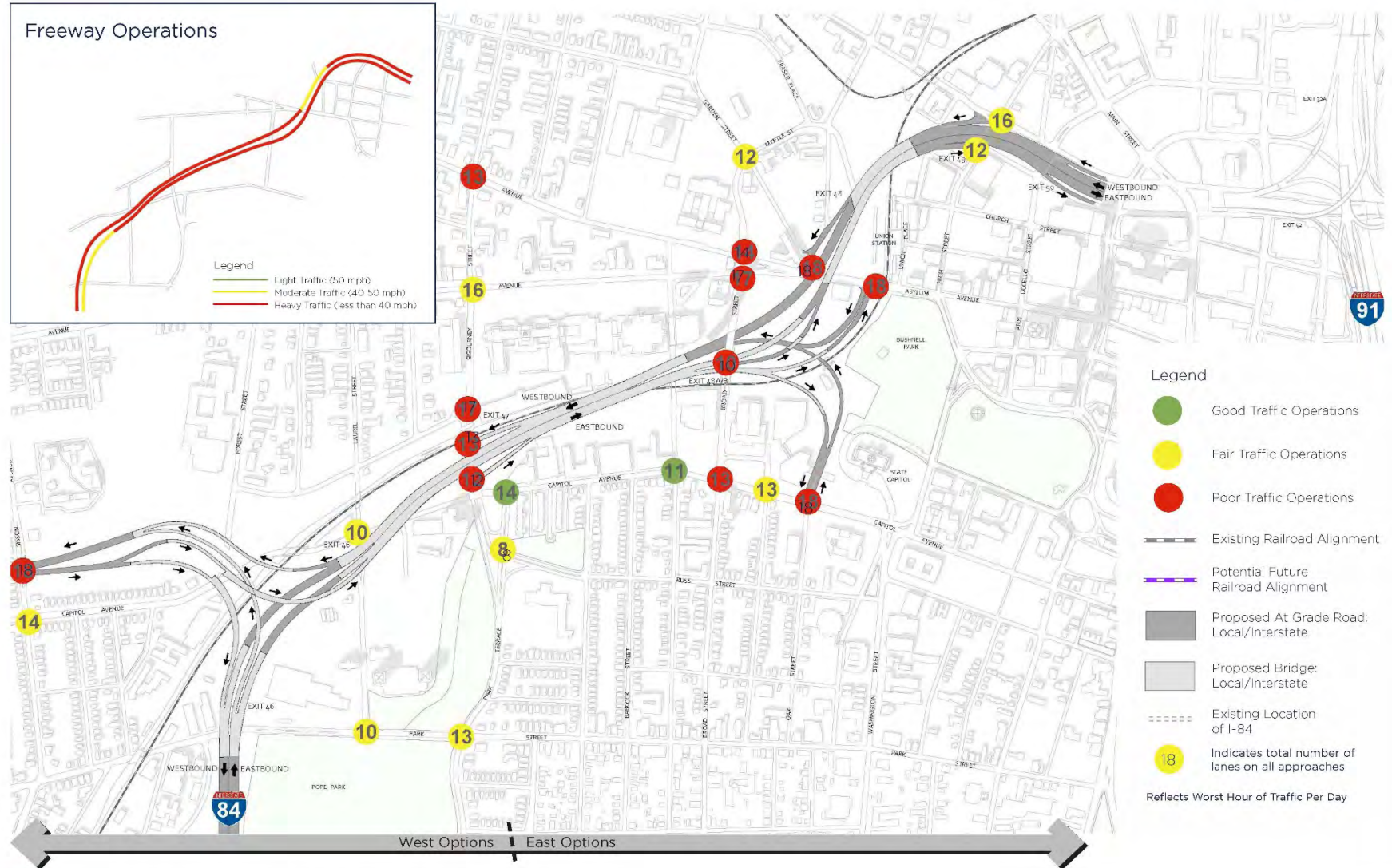
# 84 Sample Traffic Analyses



## EXISTING CONDITIONS

## Intersection Operation

### Freeway Operations



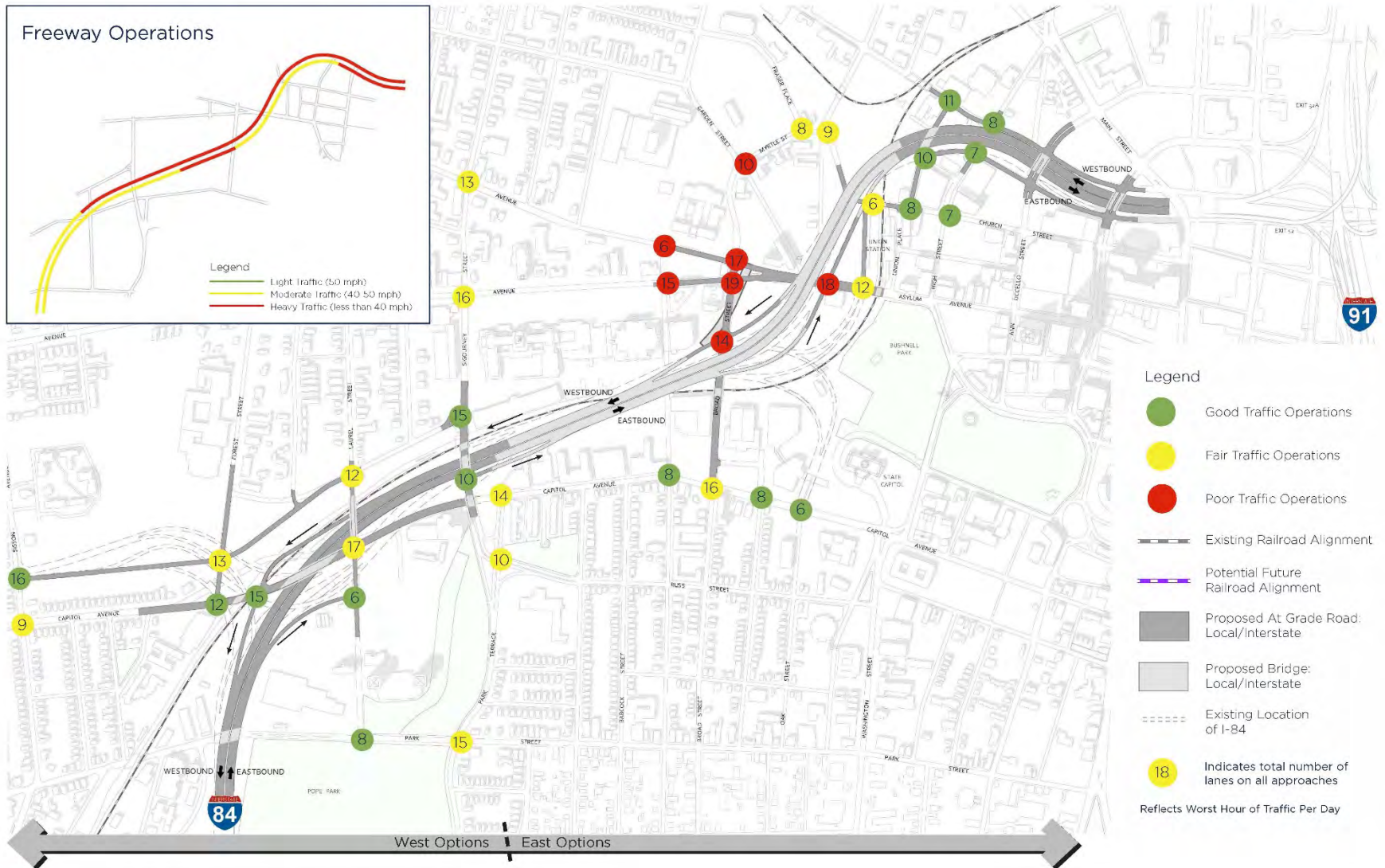


## ALTERNATIVE 2A: W3-2/E3

## Elevated

## Intersection Operation

### Freeway Operations



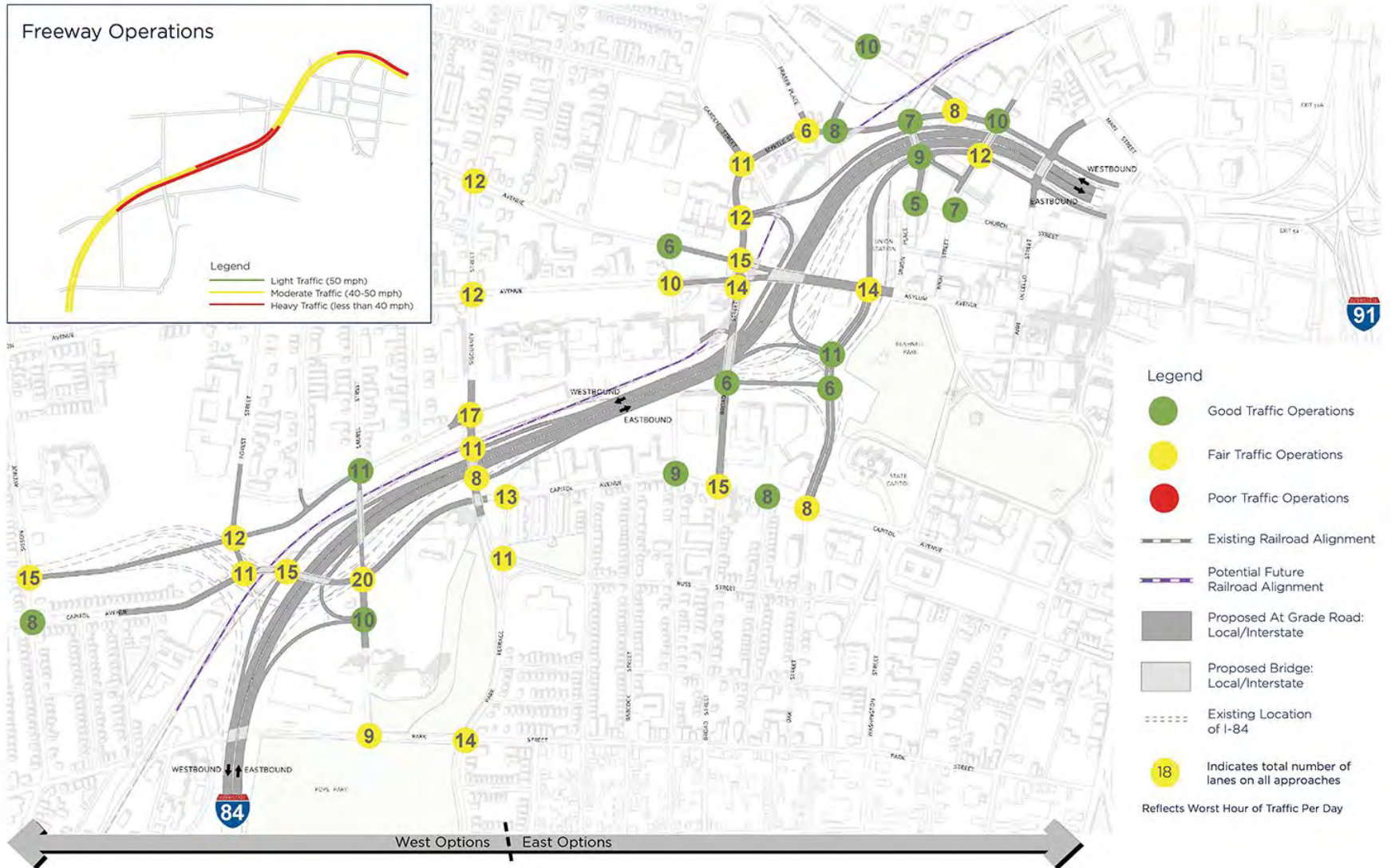
West Options | East Options



## ALTERNATIVE 3B: W3-3/E2 (S) Lowered

Intersection Operation

### Freeway Operations



- Legend
- Good Traffic Operations
  - Fair Traffic Operations
  - Poor Traffic Operations
  - Existing Railroad Alignment
  - - - Potential Future Railroad Alignment
  - Proposed At Grade Road: Local/Interstate
  - Proposed Bridge: Local/Interstate
  - Existing Location of I-84
  - 18 Indicates total number of lanes on all approaches
- Reflects Worst Hour of Traffic Per Day

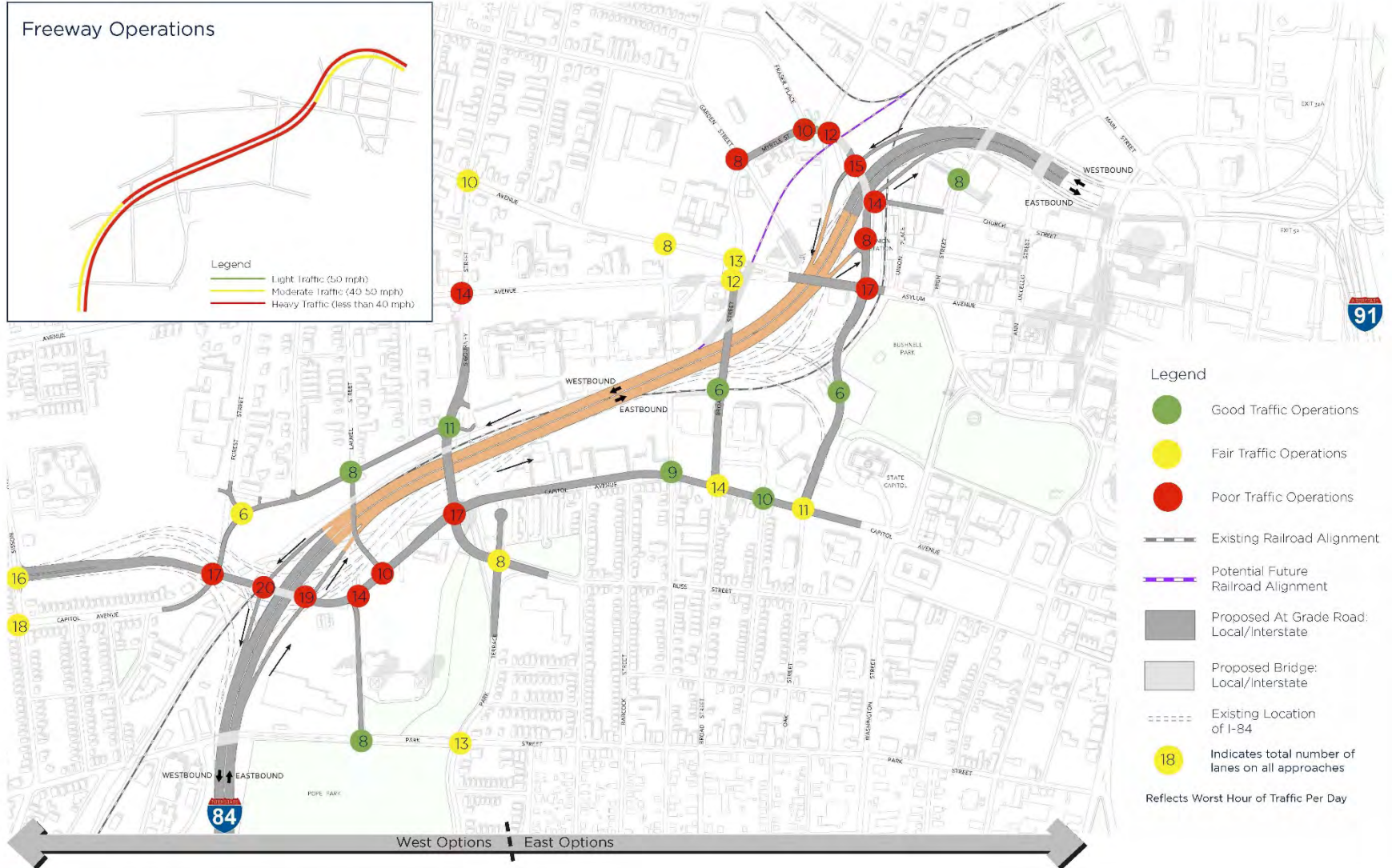
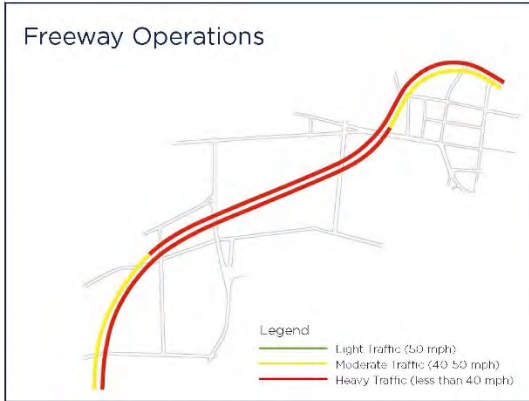
West Options | East Options



## ALTERNATIVE 4C Tunnel

## Intersection Operation

### Freeway Operations





## **Traffic: What we've learned...**



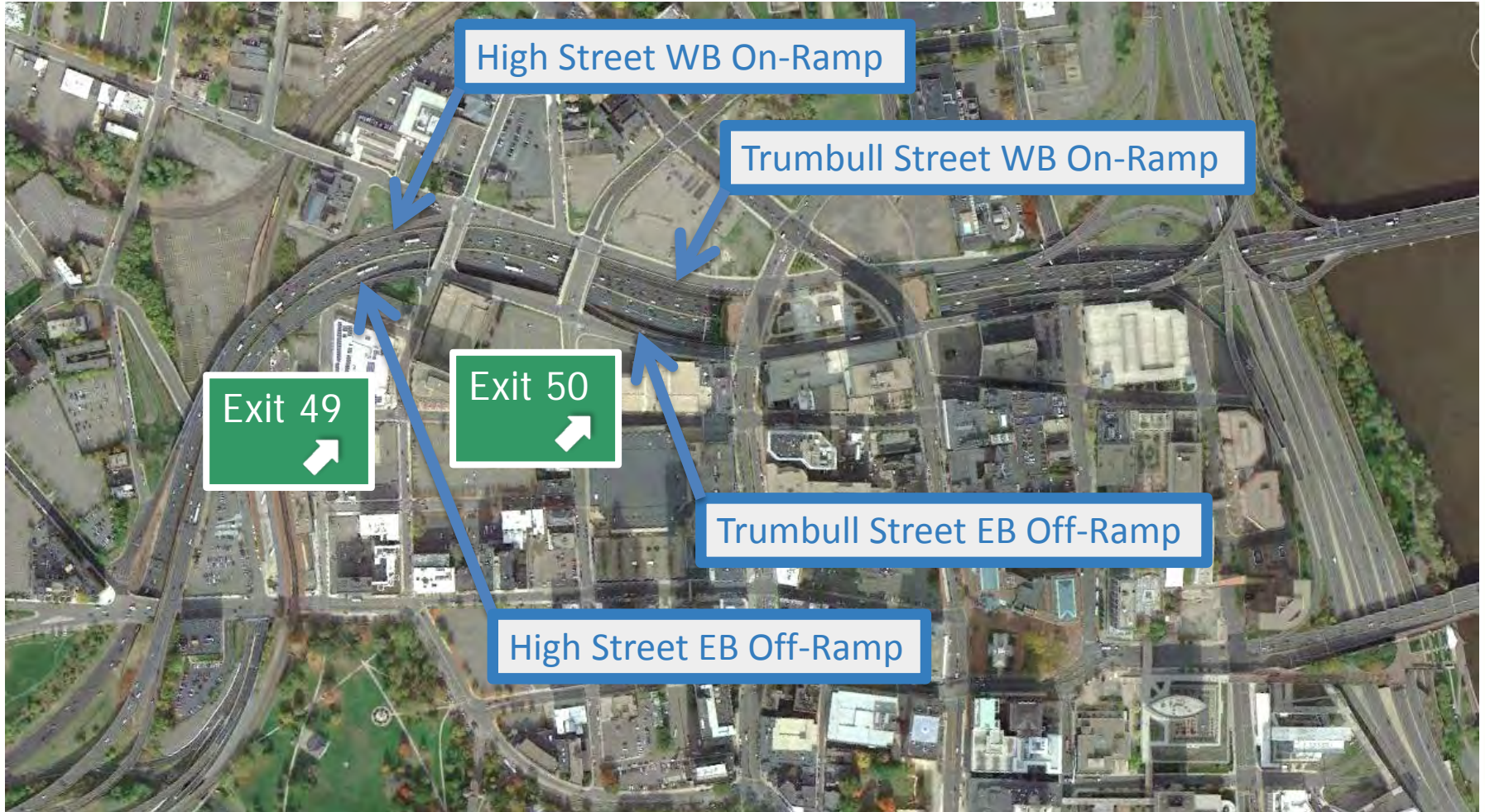
# Analysis of existing I-84

- Corridor has too many ramps
- Left-hand on-ramp and left-hand off-ramp
- Multi-lane weaves
- Poor intersections affect mainline





# Proposed Ramp Closures





## Intersection analysis tells us:

- Sigourney St. ramps are needed
- Create new roads to add redundancy
- Remove ramps from Broad St. and Asylum St.
- Improved bike/ped corridors can be achieved
- Improved mainline = Improved intersections





# **Initial Alternatives Assessment**

# How do the alternatives and interchange options address...

- **Structure** deficiencies?
- **Safety** and **operational** deficiencies?
- **Mobility** deficiencies?

Ability to Meet Purpose and Need	
Meets P&N	
Moderately Meets P&N	
Does Not meet P&N	
Critical Flaw	
More Analysis Needed	



# How do the alternatives and interchange options address...

- **Other Considerations**, such as
  - Impacted Buildings
  - Construction Costs

Other Considerations	
Good	Green
Fair	Yellow
Poor	Red
Critical Flaw	Black
More Analysis Needed	White



# Initial analysis shows...

Criteria	EASTERN OPTIONS													WESTERN OPTIONS										TUNNELED HIGHWAY						
	N-B ALT 1	ELEVATED HWY ALT 2A			LOWERED HIGHWAY ALT 3A						ALT 3B				ALT 3C		ELEVATED / LOWERED HIGHWAY ALT 2J										ALT 4			
		E1	E2(S)	E3	E1-1	E1-2	E2(S)	E3	E4	E3(S)	E1(S)	E2(S)	E3(S)	E4(S)	E1(S)	E2(S)	W1	W2	W3-1	W3-2	W3-3	W4	W5	W6-1	W6-2	W7	4A	4B	4C-1	4C-2
<b>Purpose &amp; Need</b>																														
Bridge Structure Deficiencies																														
Mainline Traffic Performance																														
Safety Considerations																														
Local Road Traffic Performance																														
Bike/Ped Accommodations																														
<b>Goals &amp; Objectives</b>																														
Rail Accommodations																														
Multi-Modal Connectivity																														
Cost Effectiveness																														
Neighborhood Connections																														
Viewsheds																														
Opportunities for Land Development																														
<b>Other Considerations</b>																														
Changes to Travel Patterns																														
Permit Feasibility																														
Impacted Buildings																														
Construction Costs																														

- Options unique to the elevated highway perform poorly
  - Poor traffic operations

## Initial analysis shows...

Criteria	EASTERN OPTIONS														WESTERN OPTIONS											TUNNELED HIGHWAY			
	N-B	ELEVATED HWY			LOWERED HIGHWAY							ELEVATED / LOWERED HIGHWAY							TUNNELED HIGHWAY										
	ALT 1	ALT 2A		ALT 3A			ALT 3B				ALT 3C			ALT 2J							ALT 4								
	E1	E2(S)	E3	E1-1	E1-2	E2(S)	E3	E4	E3(S)	E1(S)	E2(S)	E3(S)	E4(S)	E1(S)	E2(S)	W1	W2	W3-1	W3-2	W3-3	W4	W5	W6-1	W6-2	W7	4A	4B	4C-1	4C-2
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Impacted Buildings																													
Construction Costs																													

- Options unique to the elevated highway perform poorly
  - Poor traffic operations
  
- Tunneler highway options perform poorly
  - Poor traffic operations or significant property impacts
  - High Cost





# We need your help!

Please review the preliminary analysis and give us your feedback

*What are your thoughts?*







# **Lowered Highway Possibilities - West**

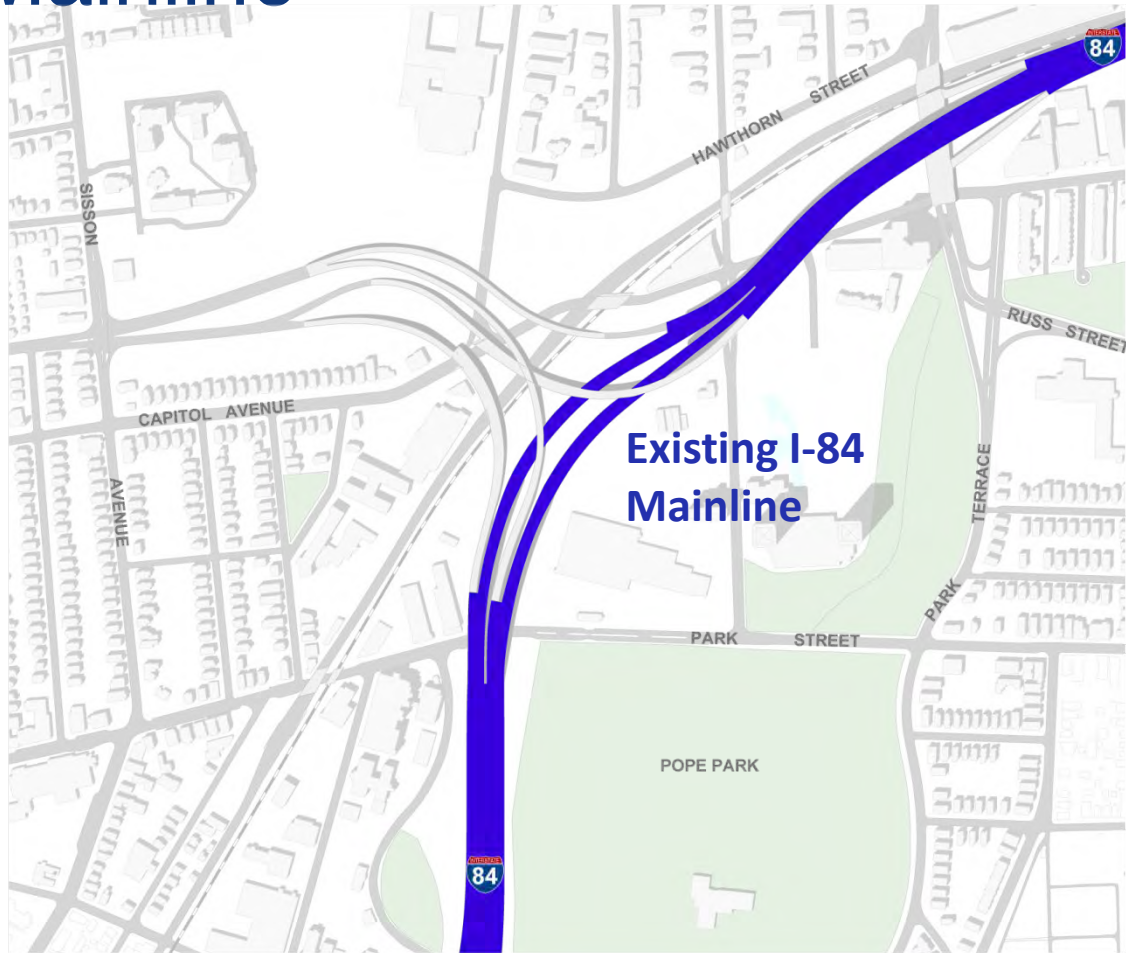


# Existing Conditions



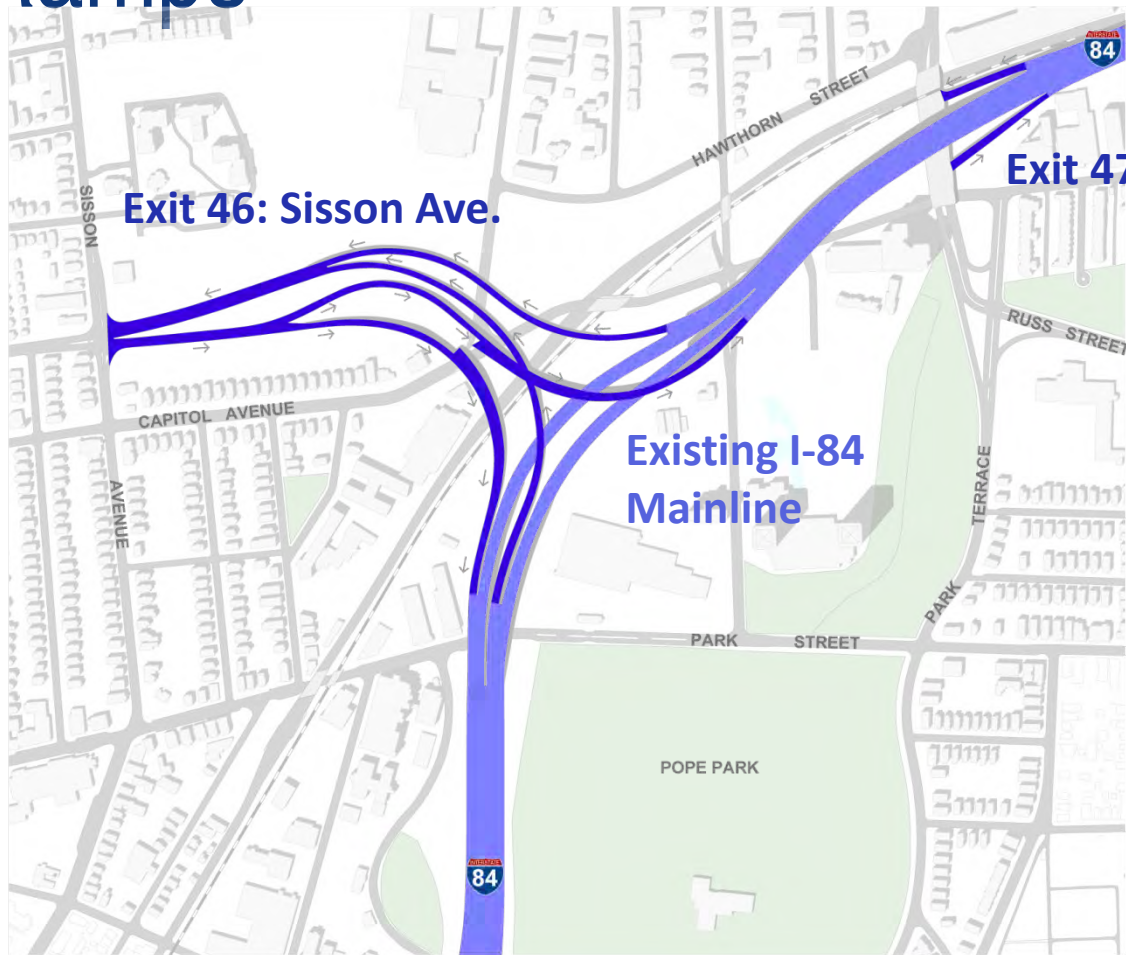


# Existing Mainline





# Existing Ramps



Exit 46: Sisson Ave.

Exit 47: Sigourney St.

Existing I-84  
Mainline



Option W3-3

# Proposed Mainline



**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option W3-3

# Ramp Closures



Sisson Avenue Ramps Closed

Sigourney Street Ramps Reconfigured

**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option W3-3

# Capitol Ave. Realignment



**Realigned  
Capitol Avenue**

**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option W3-3

# Proposed Ramps



**Preliminary**

*Subject to change based upon ongoing analysis and design*





Option W3-3

# Proposed New Local Roads



**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option W3-3

# Summary of Improvements



**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option W3-3



# New and Reconstructed Roads



**Preliminary**

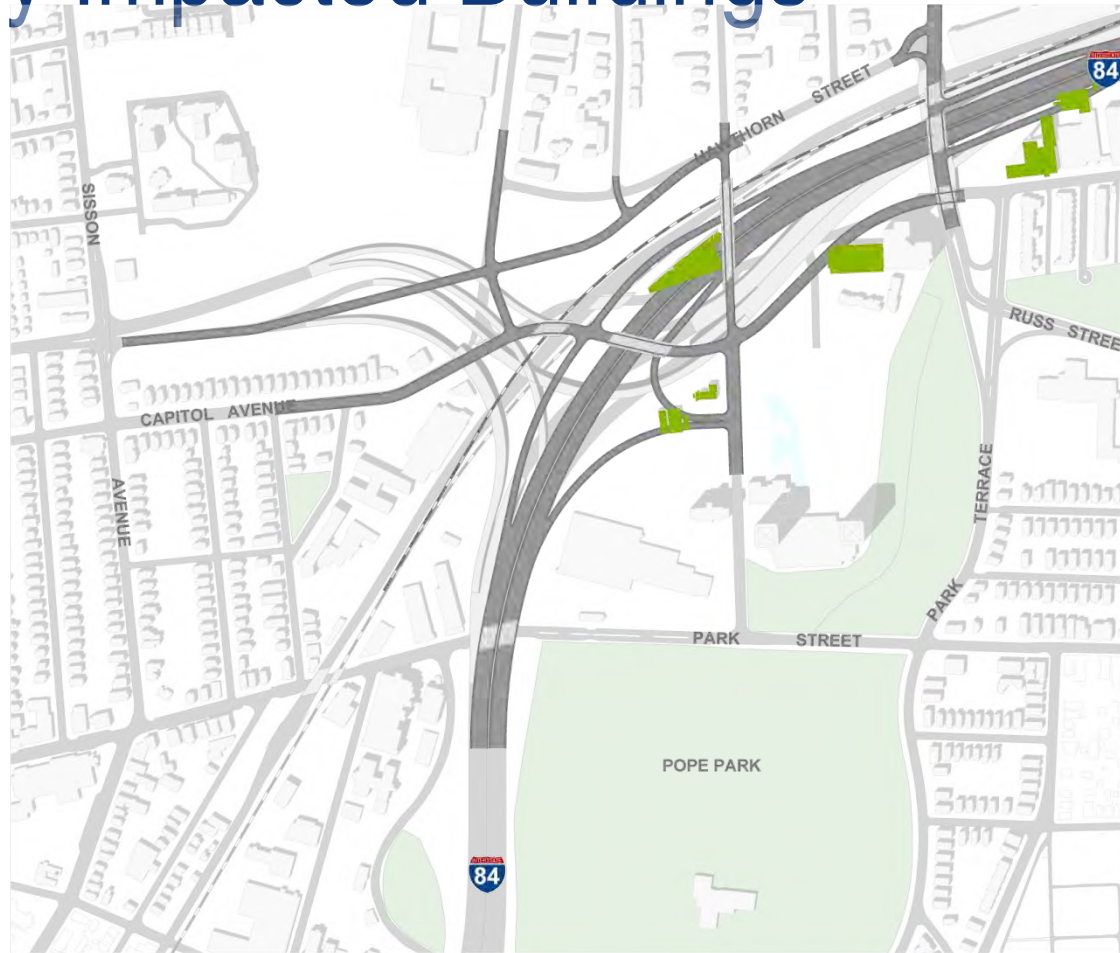
*Subject to change based upon ongoing analysis and design*



Option W3-3



# Potentially Impacted Buildings



**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option W3-3

# Current Bike Routes



Existing or Proposed  
Bike Lane



East  
Coast Greenway

**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option W3-3

# Proposed Complete Streets



**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option W3-3

# Potentially Available Land



**Preliminary**

*Subject to change based upon ongoing analysis and design. Actual location and limits may vary.*



Option W3-3

# Greenway & Streetscapes



**CONCEPTUAL - FOR ILLUSTRATIVE PURPOSES ONLY**

*Subject to change based upon ongoing analysis and design. Streetscapes restricted to actual limits of necessary roadway infrastructure improvements.*





# Sisson Ramps

*Existing aerial view looking north*





# Sisson Ramps

*Potential aerial view looking north*





# Realigned Capitol Avenue

*Existing street view looking east*





# Realigned Capitol Avenue

*Potential street view looking east*





# **Lowered Highway Possibilities - East**



# Existing Conditions - East



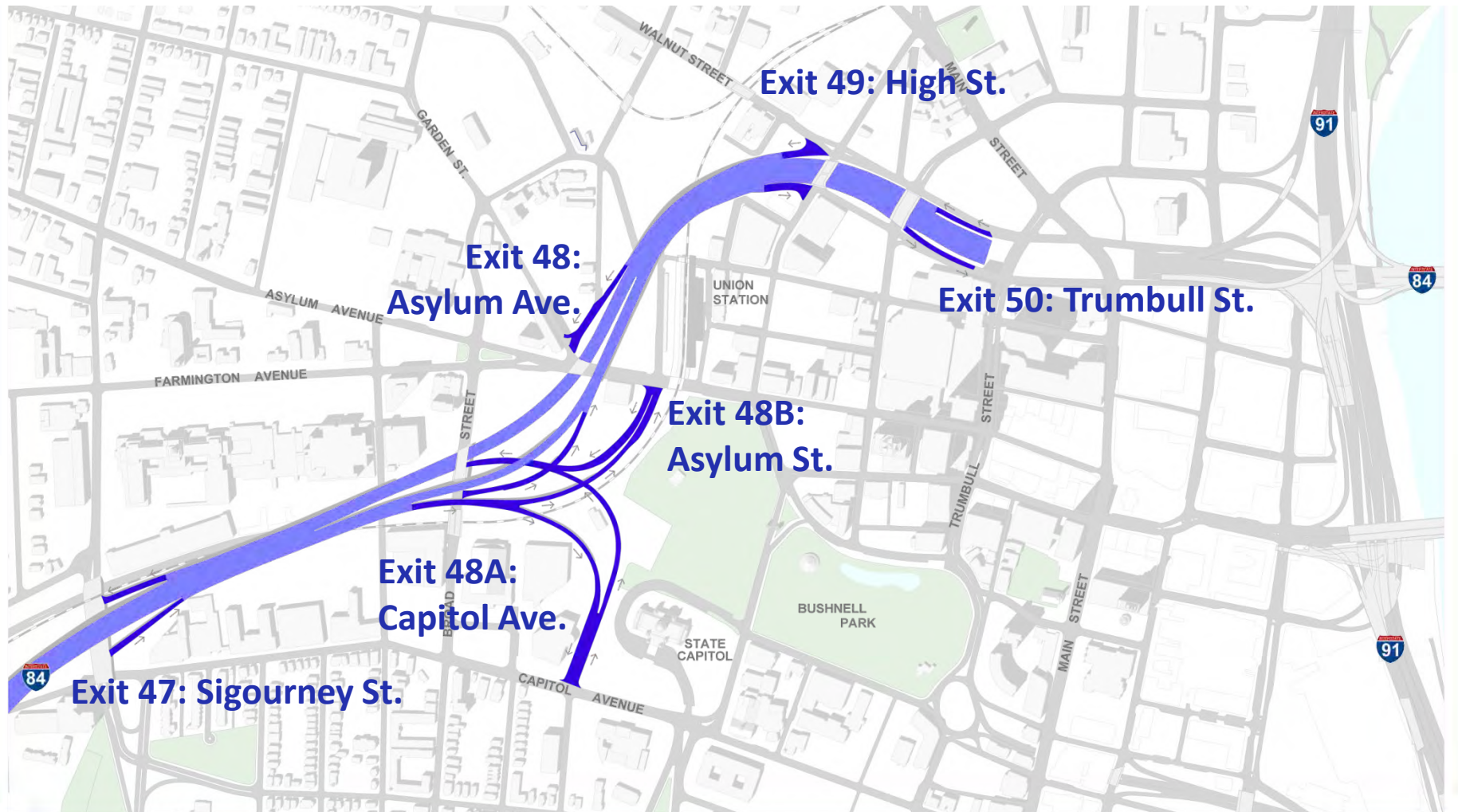


# Existing Mainline





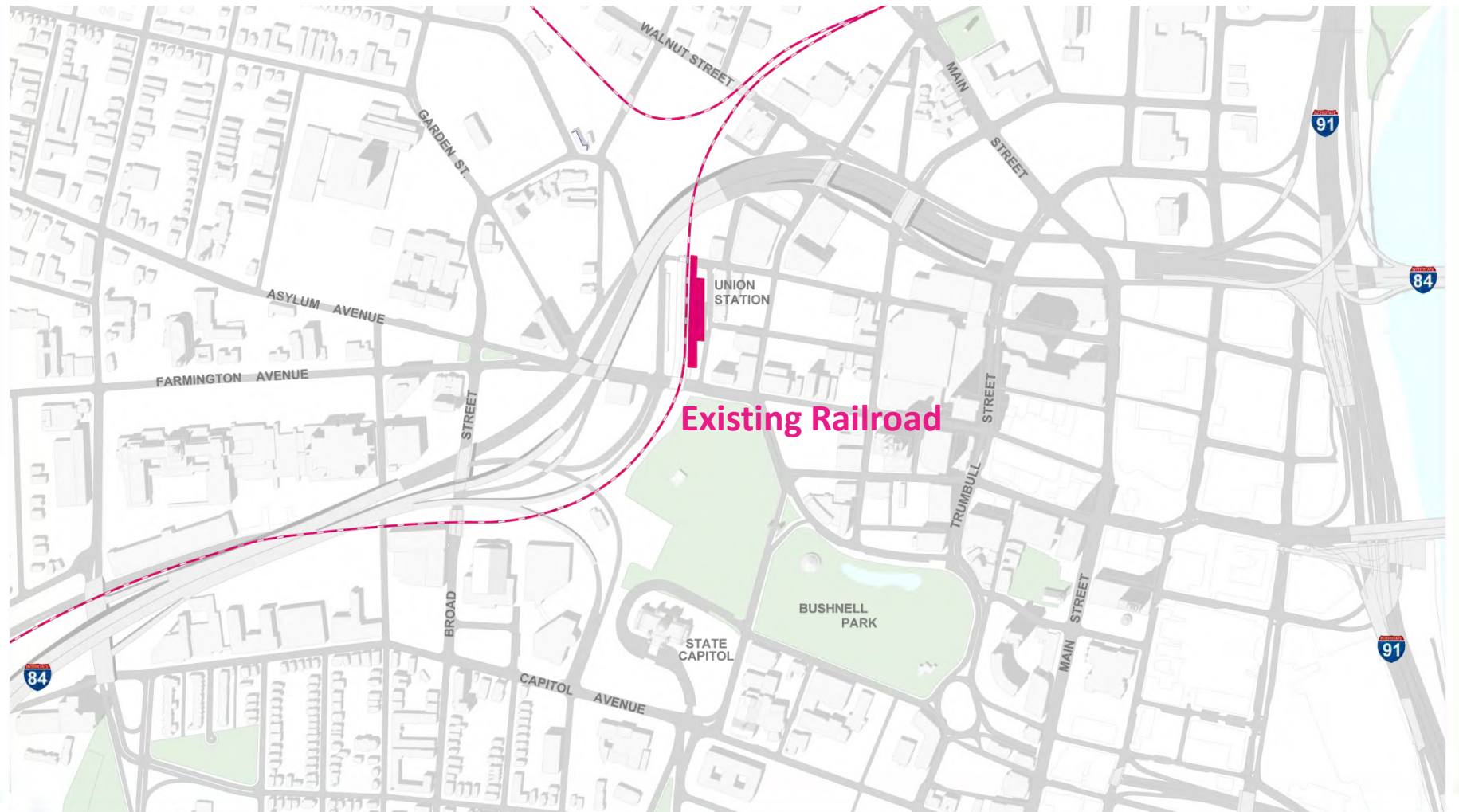
# Existing Ramps







# Existing Railroad

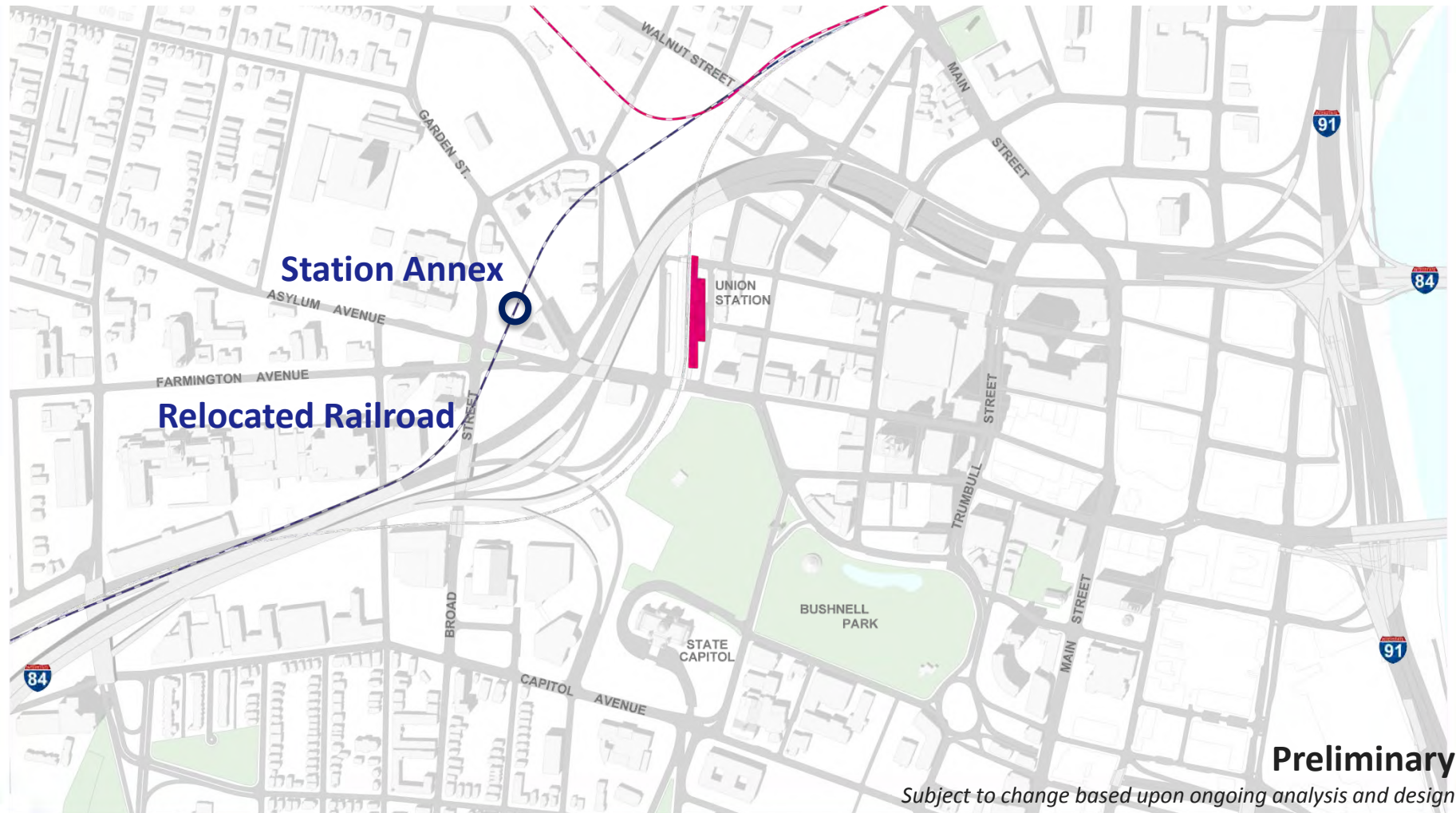




Option 3B E2(S)



# Relocated Railroad & New Annex



**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option 3B E2(S)

# Proposed Mainline



**Preliminary**

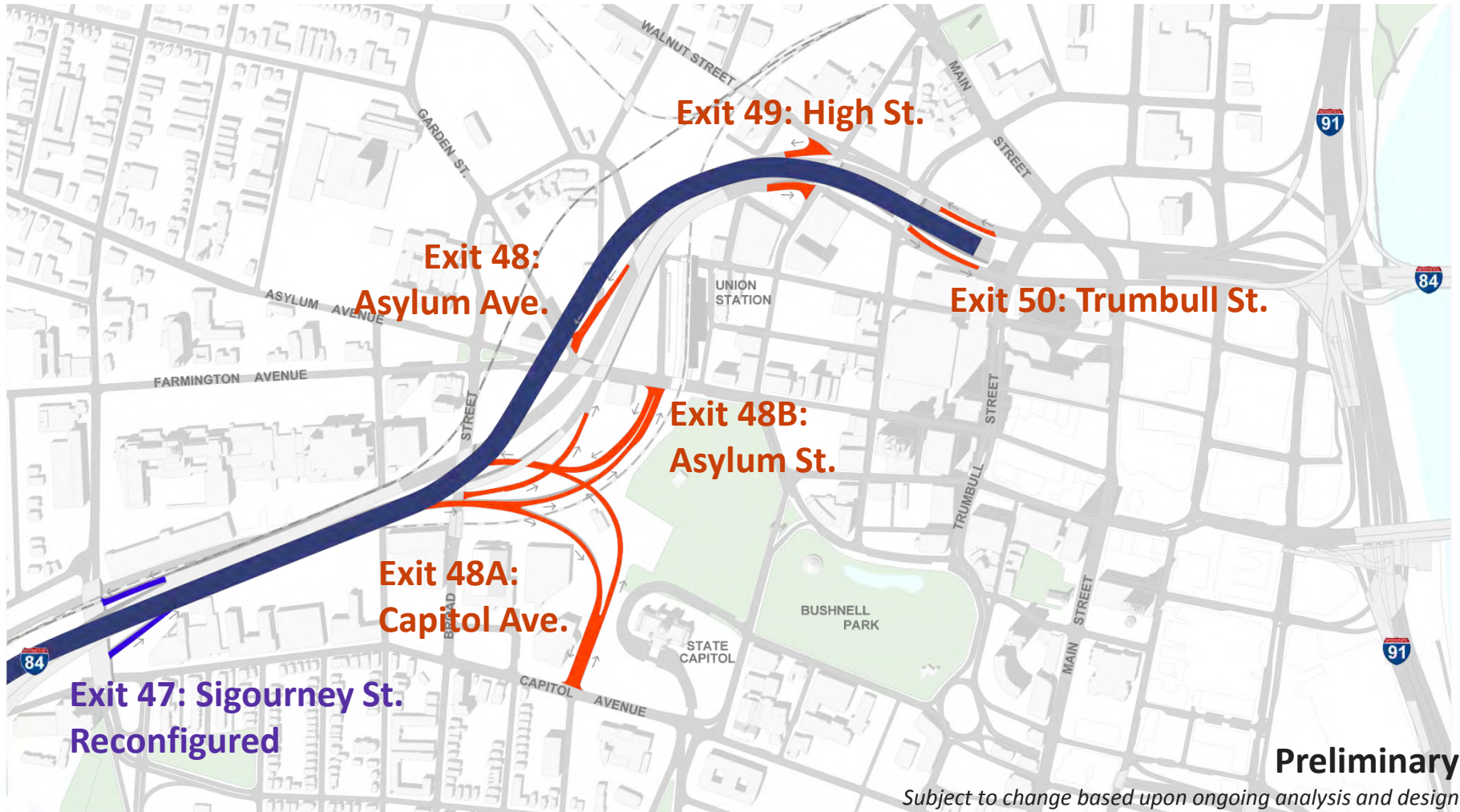
*Subject to change based upon ongoing analysis and design*



Option 3B E2(S)



# Proposed Ramp Closures

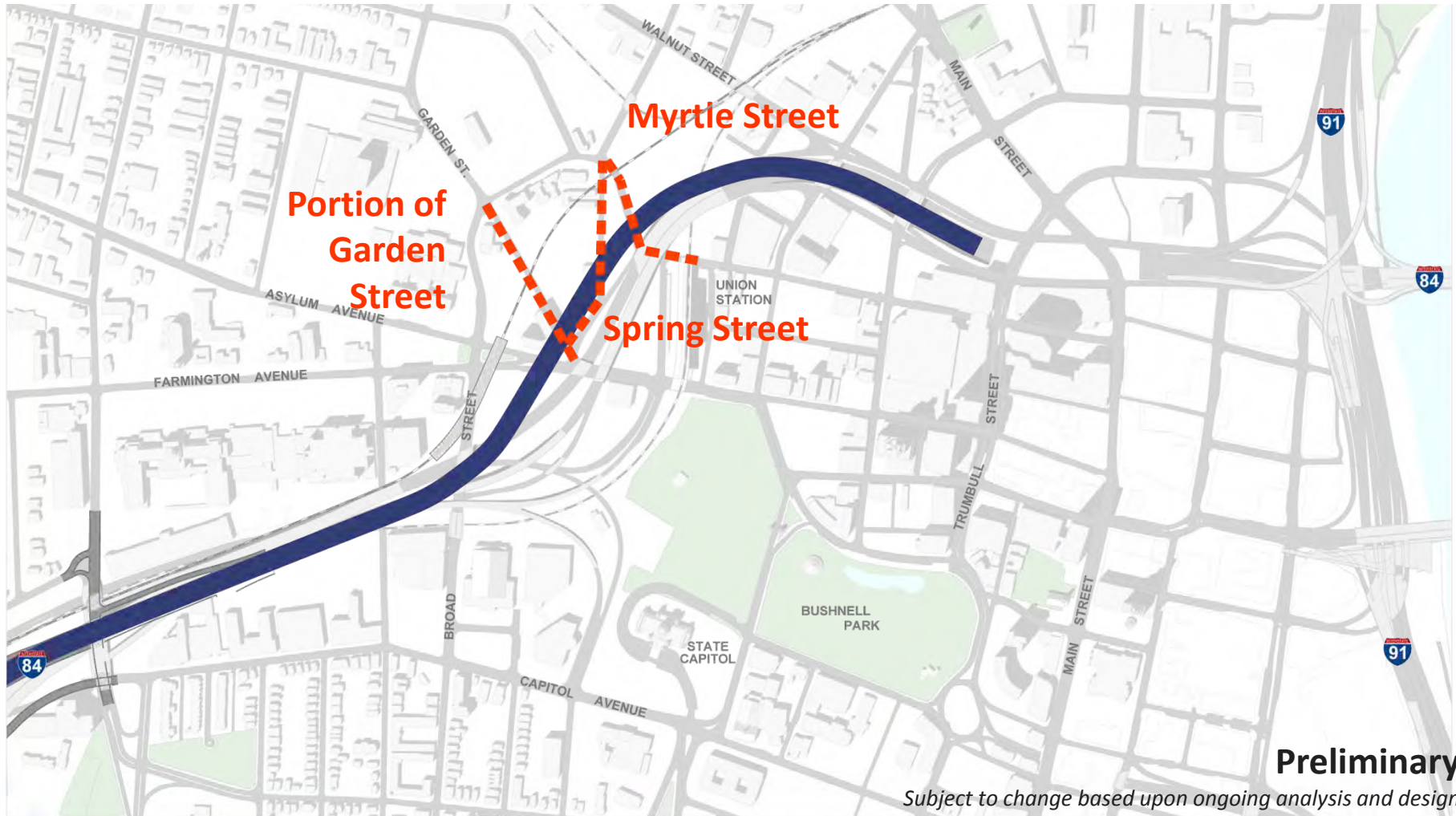




Option 3B E2(S)



# Proposed Roads Closed



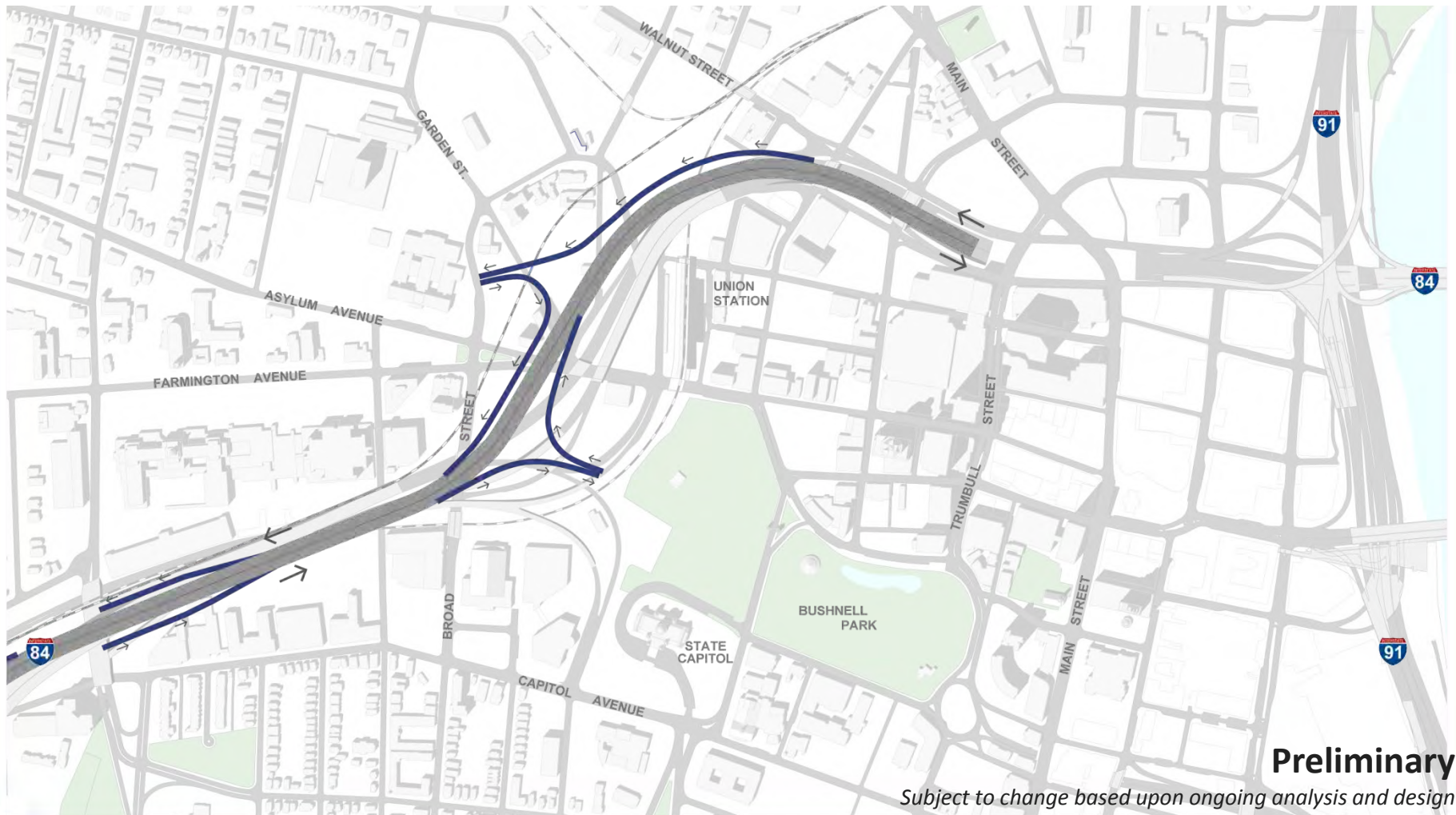
**Preliminary**

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Option 3B E2(S)

# Proposed Ramps



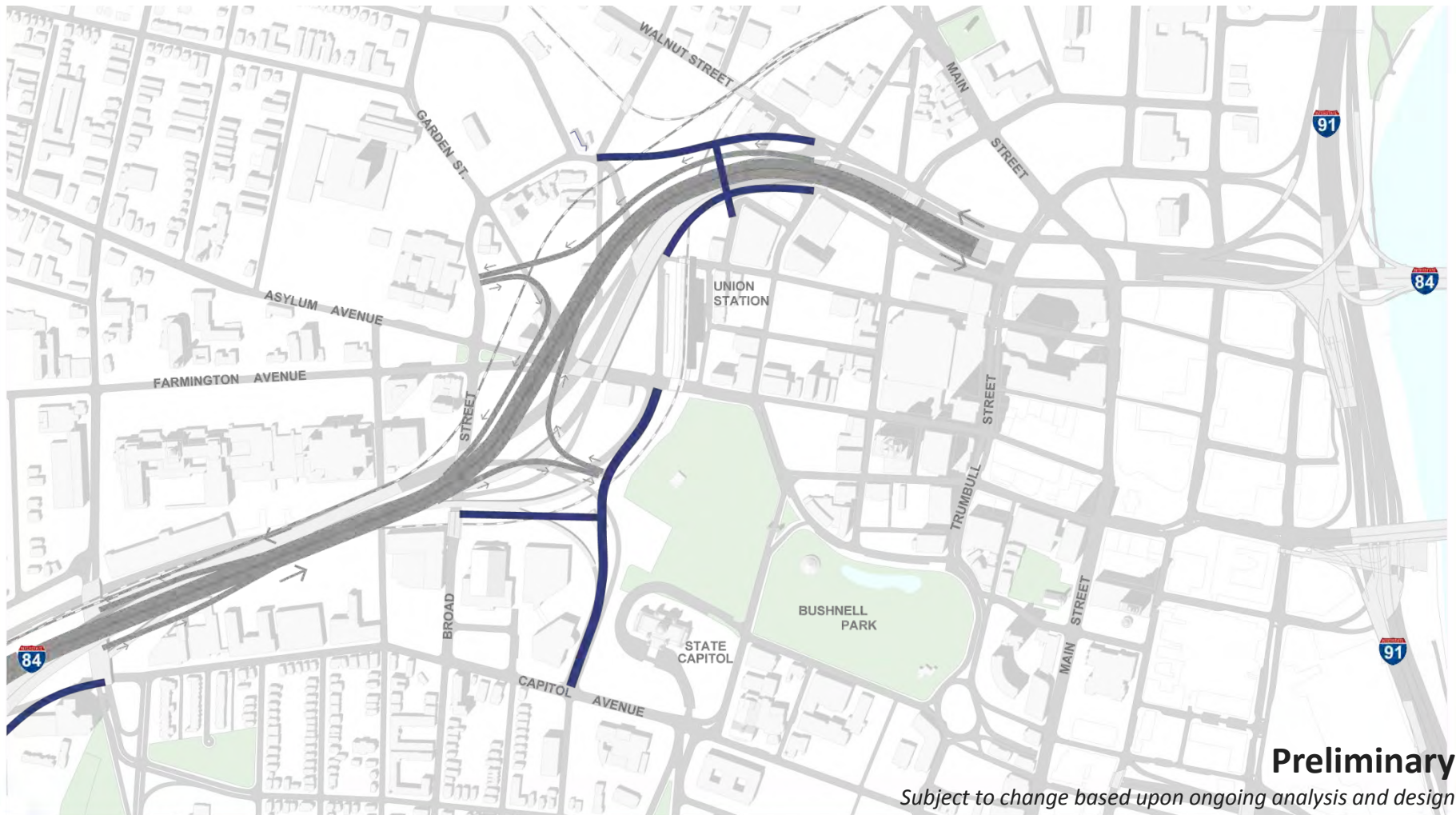
**Preliminary**

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Option 3B E2(S)

# Proposed New Local Roads



**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option 3B E2(S)



# Summary of Improvements



**Preliminary**

*Subject to change based upon ongoing analysis and design*

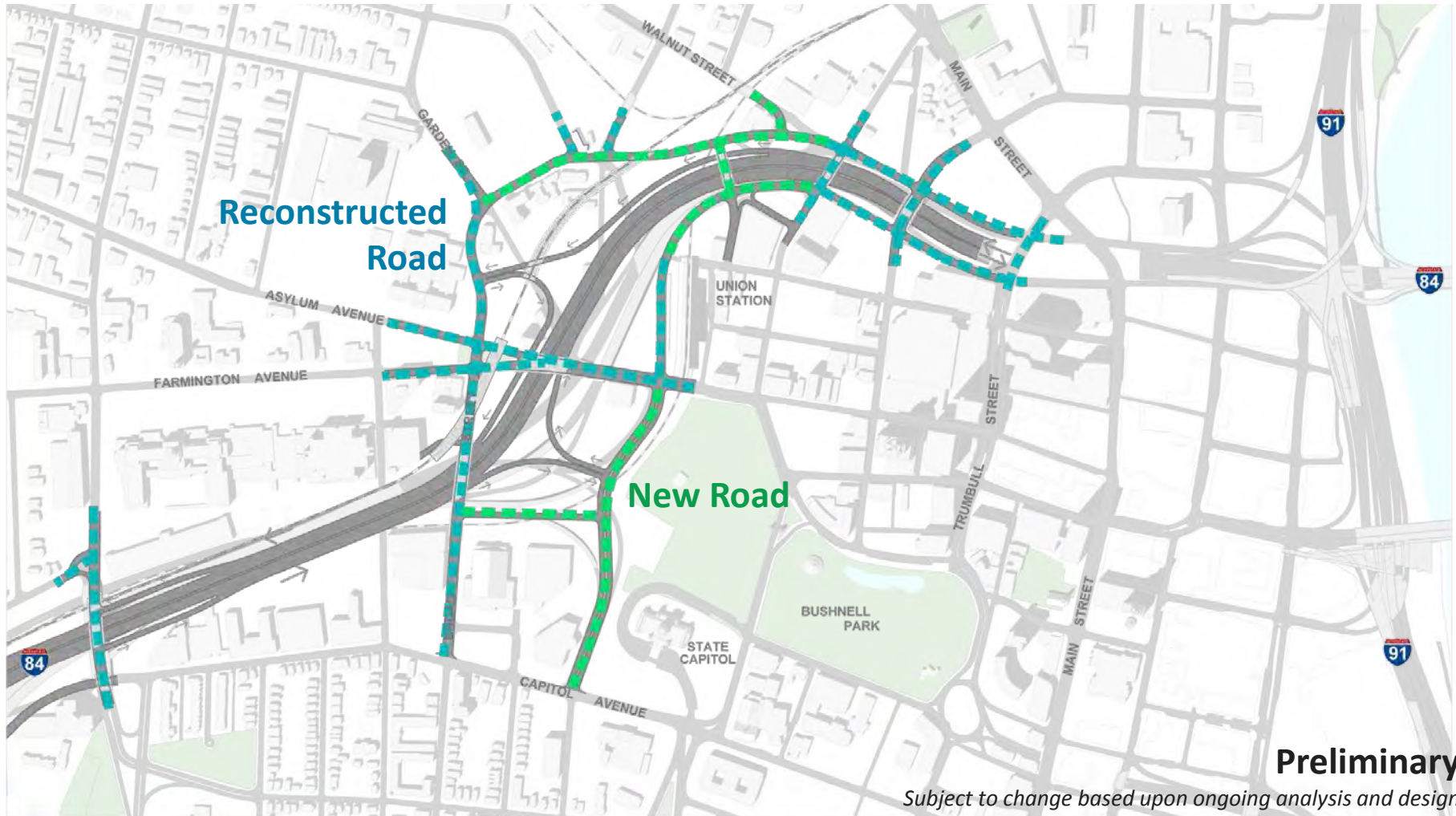




Option 3B E2(S)



# New and Reconstructed Roads



**Preliminary**

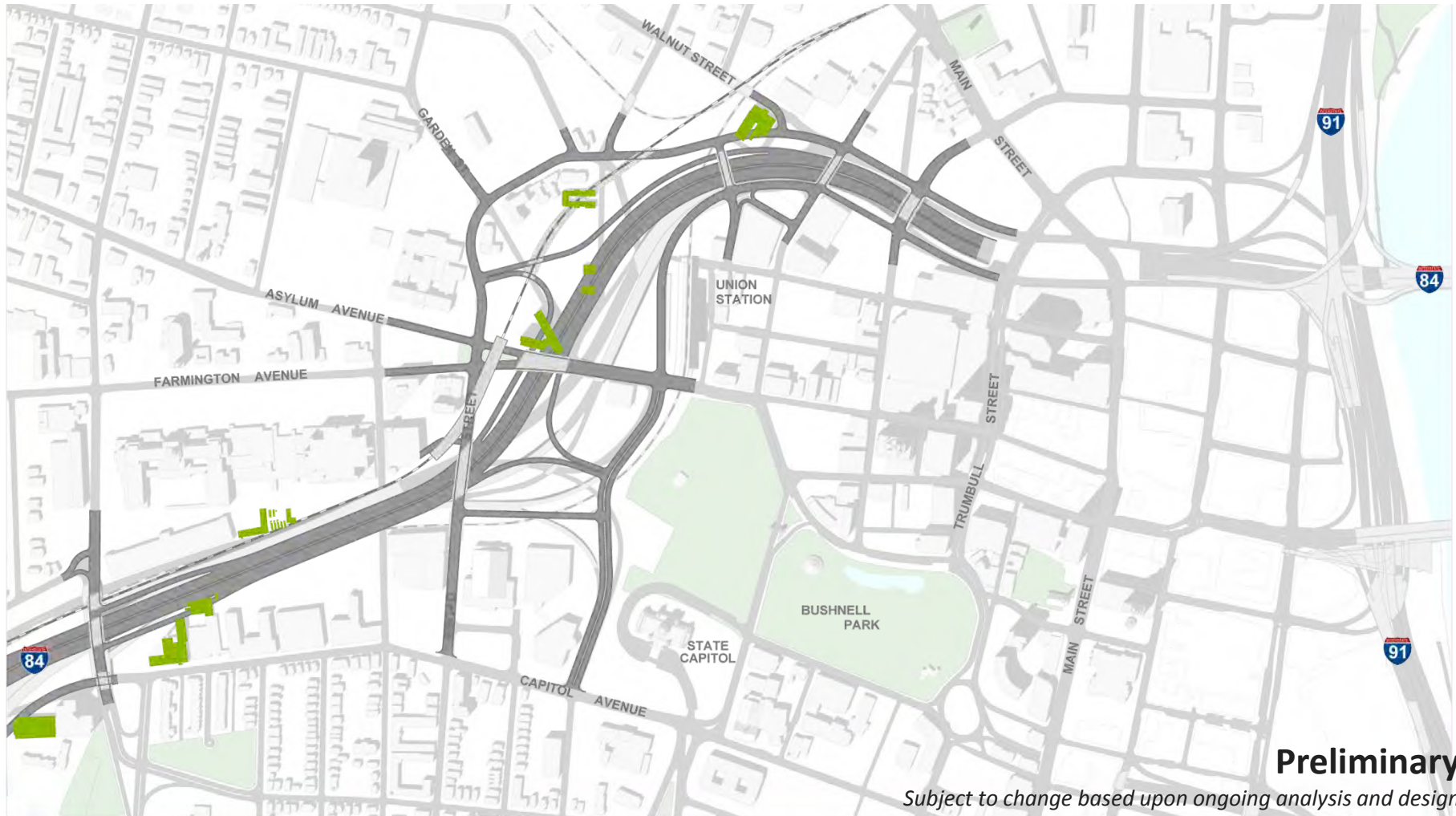
*Subject to change based upon ongoing analysis and design*



Option 3B E2(S)



# Potentially Impacted Buildings

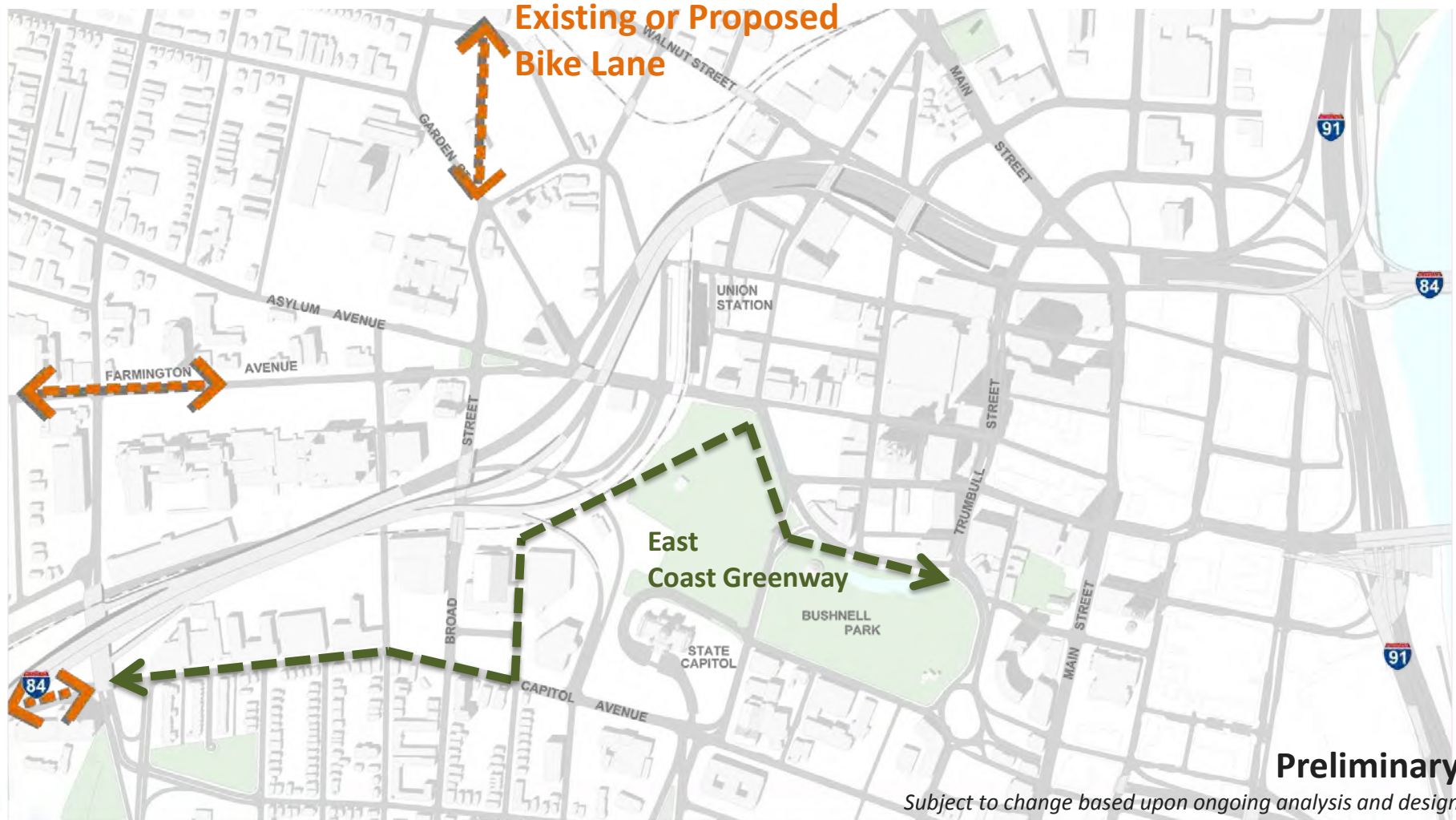


**Preliminary**

*Subject to change based upon ongoing analysis and design*



# Current Bike Corridors



**Preliminary**

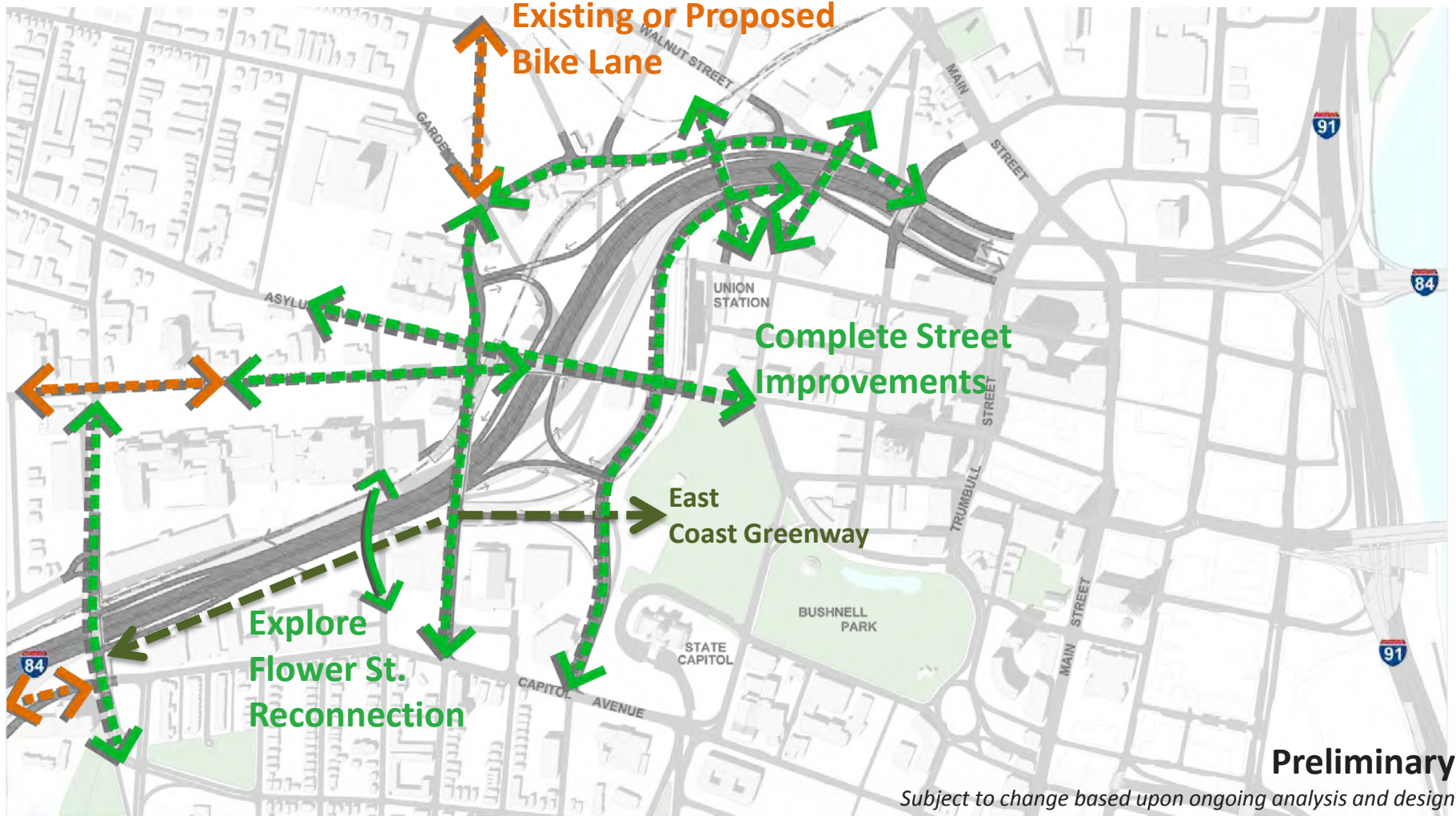
*Subject to change based upon ongoing analysis and design*



Option 3B E2(S)



# Potential Complete Streets



**Preliminary**

*Subject to change based upon ongoing analysis and design*



Option 3B E2(S)



# Potential Available Land



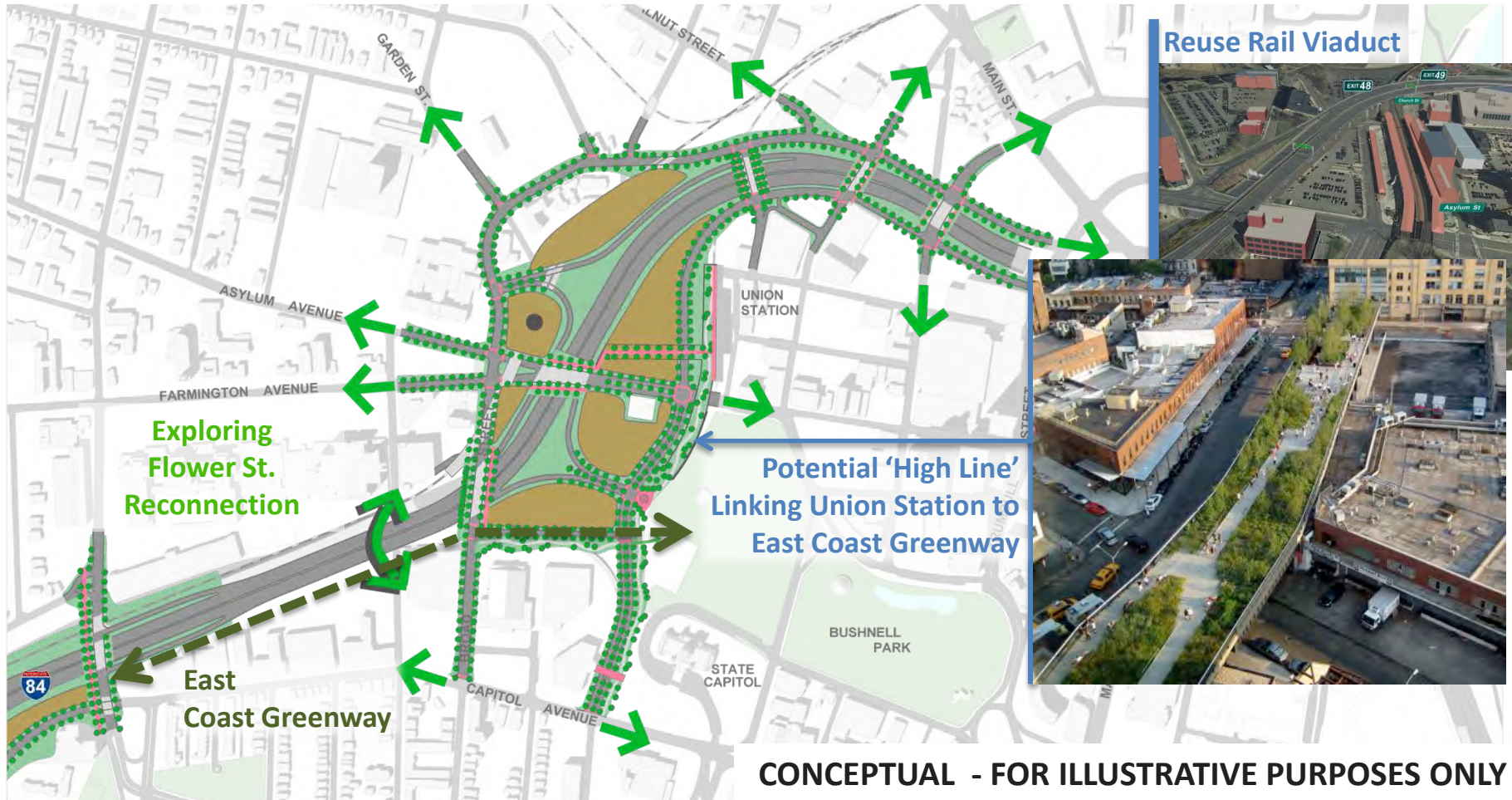
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Option 3B E2(S)

# Greenway & Streetscapes



**CONCEPTUAL - FOR ILLUSTRATIVE PURPOSES ONLY**

*Subject to change based upon ongoing analysis and design. Streetscapes restricted to actual limits of necessary roadway infrastructure improvements.*



# Asylum Avenue

*Existing view looking east towards Downtown*





# Asylum Avenue

*Potential view looking east towards Downtown*







# Intermodal Opportunities



**CONCEPTUAL - FOR ILLUSTRATIVE PURPOSES ONLY**

*Subject to changed based upon ongoing analysis and design*



# Intermodal Opportunities



**CONCEPTUAL - FOR ILLUSTRATIVE PURPOSES ONLY**

*Subject to changed based upon ongoing analysis and design*



# Intermodal Opportunities



Source of Concepts:

**Hartford Rail Alternatives Analysis**

State Project No. 170-3196

**CONCEPTUAL - FOR ILLUSTRATIVE PURPOSES ONLY**

*Subject to changed based upon ongoing analysis and design*



# Intermodal Opportunities



Source of Concepts:

**Hartford Rail Alternatives Analysis**

State Project No. 170-3196

**CONCEPTUAL - FOR ILLUSTRATIVE PURPOSES ONLY**

*Subject to changed based upon ongoing analysis and design*



## **Next Steps**



# Public input is crucial!

*With your help, we'd like to narrow down the number of options for further consideration.*





# Open Planning Studios

- Series of day-long, open house events
- Scheduled regularly in various locations
- More info at [i84hartford.com](http://i84hartford.com)





# Interactive Alternatives Webpage

- View and assess the alternatives
- Provide feedback, ask questions
- [www.i84hartford.com](http://www.i84hartford.com)

The screenshot displays a web interface for the I-84 Hartford Project. It features several map panels showing different highway alignment alternatives (e.g., Alternative 2/3 W2, W3-1, W4) and a central 3D model of the highway alignment. The 3D model shows the highway crossing over the North Branch of Park River Conduit, Park River Conduit, and Gully Brook Conduit. Street names like Sigourney Street, Broad Street, Asylum Street, High Street, and Ann Uccello Street are visible. A legend for 'Highway Alignment' includes Elevated, Lowered, and Tunnel options. Other considerations like 'Avoid property loss', 'Minimize property loss', and 'Maximize safety' are also listed. The interface includes navigation and feedback icons.

**Interactive Alternatives Analysis:  
Evaluating the Alternatives**

- OPEN PLANNING STUDIO**  
View materials from our August 12th event.
- INTERACTIVE ALTERNATIVES ANALYSIS**
- HARTFORD TIMELINE**  
Read a brief history of transportation in Hartford.
- RELATED PROJECTS**  
View map and descriptions of other projects related to I-84.
- 3D INTERACTIVE MODEL**  
Explore the project area.





# Thank You!

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

*Sincerely,*

*Your I-84 Hartford Project Team*