Local Street Connectivity Working Session Follow Up Rebuilding a Better I-84 in Hartford

July 16, 2018



### **Meeting Purpose**

- Follow up on PAC and public concerns about I-84 and local road / neighborhood connectivity
  - Discuss current status and upcoming work
  - Present latest information on changes to local road





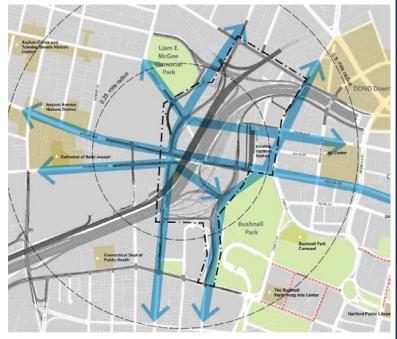
# 84 When We Last Met





## August 2017 Meeting

- Congressman Larson spoke
- Discussed Capital Gateway Master Plan goals
- Questioned local street concerns
  - Ramp options
  - Garden St connection
  - Trident / discontinuous Broad St

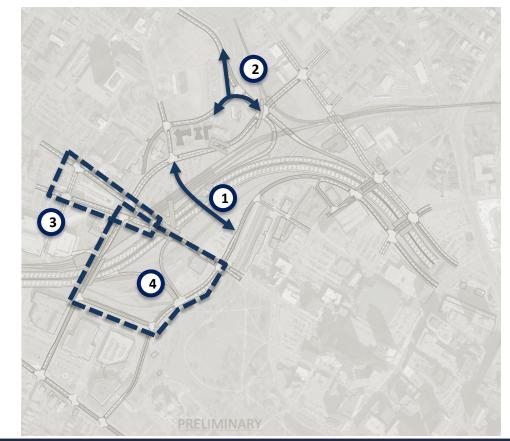




## October 2017 Meeting

*Capital Gateway Master Plan* four focus areas:

- 1. Garden St connection
- 2. Myrtle St realignment
- 3. The Trident area
- 4. Asylum south Bushnell west





# Program Update



## Since October 2017

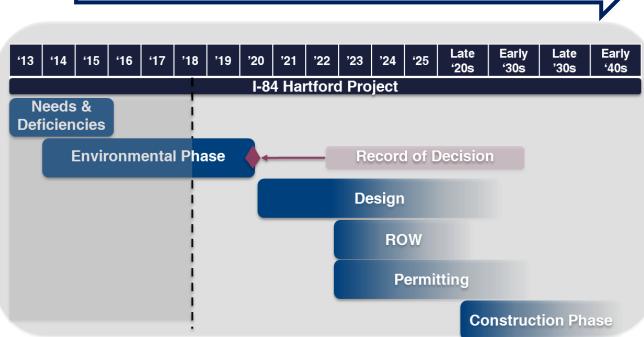
- Focus on defining multimodal station concept
- Adoption of Farmington Extension (Trident option)
- Level 3 screening
- Producing Draft EIS



## Program Schedule

- Draft EIS (early 2019)
- Public Hearing (spring 2019)

 Final EIS / Record of Decision (summer 2020)

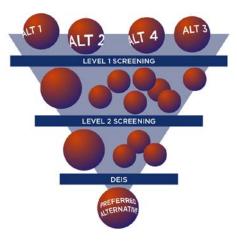


**Public Involvement** 



### **Screening Process**

- Level 1 2016
  - Eliminated Elevated and Tunnel Alternatives
- Level 2 2017
  - Reduced number of lowered interchange options
- Level 3 -2018
  - Finalized Lowered interchange configuration
  - CTfastrak, station, Trident area





# Traffic Analysis





#### **Tools / Assumptions**

- Background growth
- Demand models
  - Highway / ramps
  - Local roads
- Next steps for design





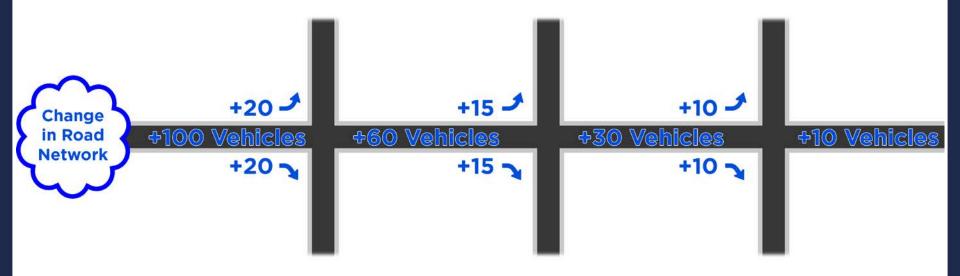
#### Lowered Highway Alternative

- Significant changes to the ramp network
- Analysis focused on identifying fatal flaws
- Additional local road capacity





#### **Traffic Dispersion**

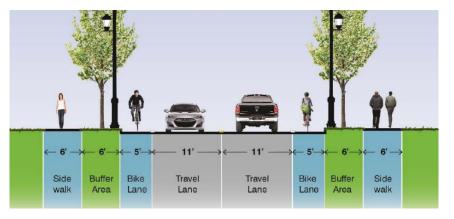




### **Other Guiding Principles**

- Complete Streets design
- I-84 is a freeway, not local road
- Ramp placement intended to optimize paths to highvolume destinations

#### Conceptual cross-section





#### **Other Guiding Principles**

- Character / speeds defines streets more than volume
- Strategies to minimize speeds / cutthrough volumes:
  - Narrowed vehicular lanes & added bike lanes
  - Colored / textured pavement at gateway intersections
  - Elevated "tabletop" intersections
  - Bump outs / neck downs
  - Chicanes / centerline zig-zag



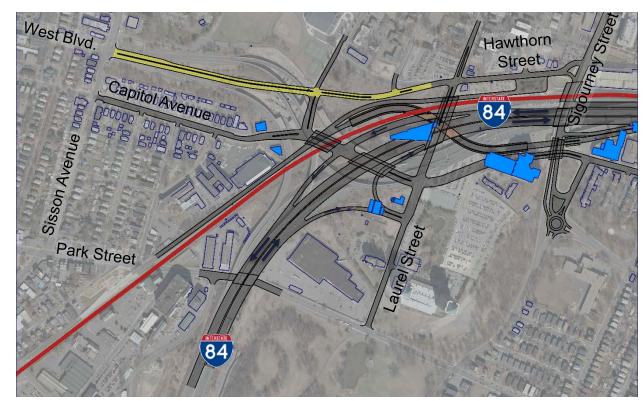


# Best Performing Western Option W3-3





# Best Performing Western Option W3-3





#### Western Areas for Discussion

- Laurel St ramps
  - Change in travel patterns to / from highway
  - Capitol Ave
  - Character of residential streets
- Hawthorn St alignment
  - Interaction with vacant parcel



#### Best Performing Eastern Option 3B-E5(S)





#### Best Performing Eastern Option 3B-E5(S)





#### **Eastern Areas for Discussion**

- New interchange travel patterns
- Trident area
- Asylum Hill
- Character of highway crossings
  - Sigourney St
  - Broad St
  - Farmington Ave
  - Asylum Ave
  - Garden St



#### **Topics for Another Time**

- Multimodal station
- CTfastrak
- Tunnels



# Western Interchange Area





#### Existing Sisson Ave Interchange Patterns (AM)





#### Proposed Laurel EB Off Patterns (AM)



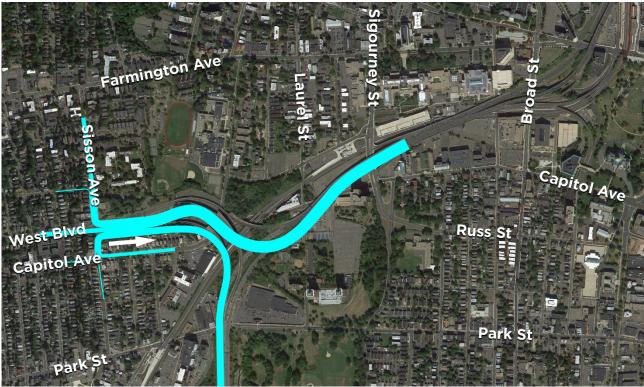


#### Proposed Capitol WB Off Patterns (AM)





#### Existing Sisson Ave Interchange Patterns (PM)





#### Proposed Laurel EB On Patterns (PM)





#### Proposed Capitol WB On- Patterns (PM)





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## What have we heard?

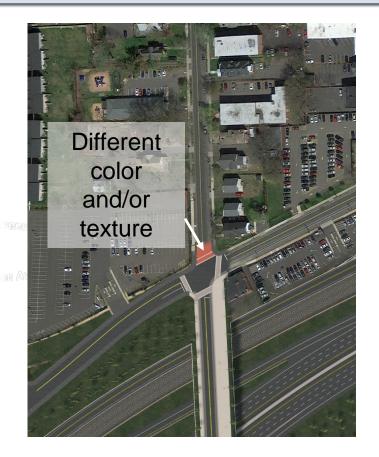
- Concern over potential increases to traffic volumes due to new EB ramp location
- What we know:
  - New Hawthorn St extension and ramps will increase volume at Hawthorn St / Laurel St intersection
  - Improved bicycle / pedestrian facilities on this corridor including East Coast Greenway
  - Traffic model does not show significant cut-through volume north of Hawthorn St



- Narrowing travel lanes and adding bike lanes
  - Encourages reduced speeds and greater use of active transportation
  - Relatively low cost



- Colored or textured pavement
  - Changes "feel" / appearance of street
  - Discourages through traffic
  - Requires maintenance / occasional replacement



- Raised intersection
  - Encourages slower speeds through intersection
  - Increases pedestrian comfort crossing intersection
  - Requires maintenance
  - Drainage and plowing can be challenges

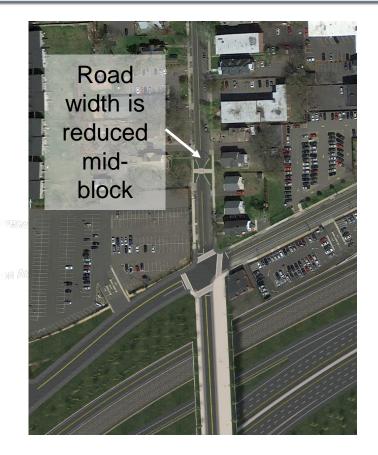




- Intersection bump-outs
  - Narrower entry discourages
    through traffic
  - Shortens pedestrian crossing distance
  - Creates opportunities for green space / landscaping
  - Can be challenging for plows / trucks



- Mid-block bump outs
  - Limits throughput and speeds
  - Creates mid-block pedestrian crossing opportunity
  - Must be carefully designed
  - Difficult for plows
  - Could remove some on-street parking





- Chicanes with bump outs
  - Reduces speeds and discourages through traffic
  - Creates opportunities for green space
  - Must design around driveways
  - Challenging for trucks / plows
  - Removes some on-street parking



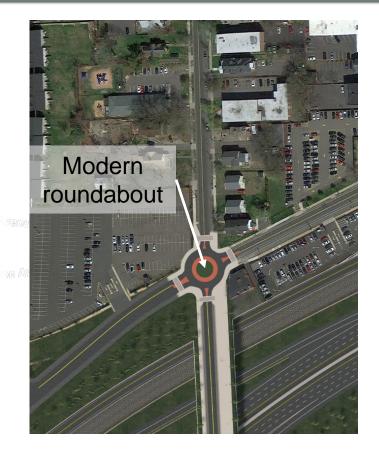


- Chicanes with paint only
  - Less expensive to install than bump outs
  - Same speed reduction / through traffic minimization
  - Drivers may disobey markings
  - Removes some on-street parking



I-84 HARTFORD PROJECT

- Roundabout
  - Proven to reduce speeds and increase safety
  - Provides gateway / neighborhood transition
  - Implementation limited by traffic volumes
  - Relatively expensive to install and maintain



I-84 HARTFORD PROJECT

- "Living street"
  - Removes all markings and signs
  - Uncommon in US, would be trial implementation
  - Inexpensive to implement
  - Complicates enforcement









## 84 Hawthorn St





# Sigourney St Travel Patterns





## Existing Sigourney WB Off- Patterns (AM)





#### Proposed Sigourney WB Off- Patterns (AM)





## Existing Sigourney EB On- Patterns (AM)





#### Proposed Sigourney EB On- Patterns (PM)

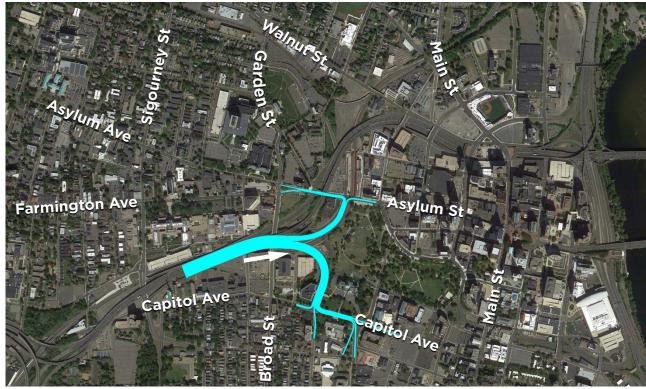


## 84 Eastern Interchange Travel Patterns



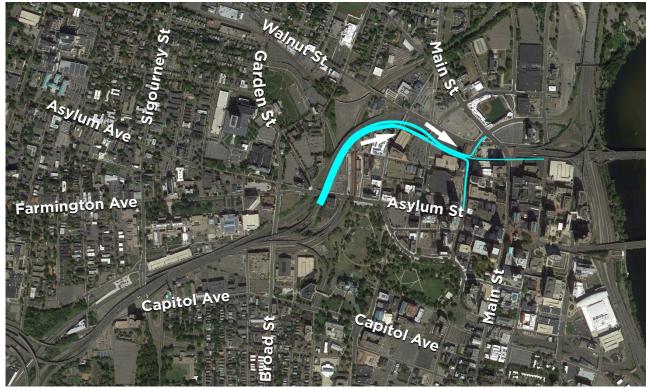


## Existing Capitol / Asylum EB Off- Patterns (AM)





#### Existing Trumbull EB Off- Patterns (AM)



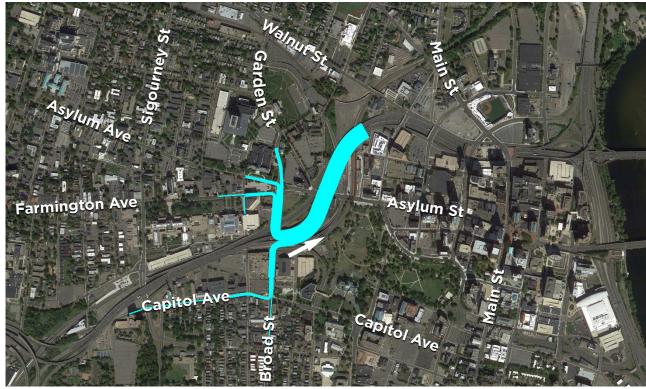


#### Proposed Road A EB Off- Patterns (AM)



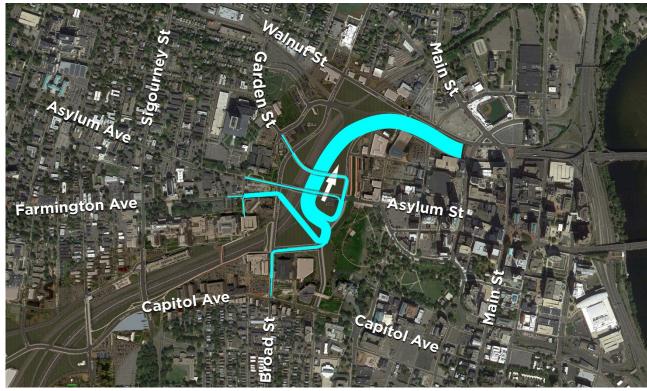


#### Existing Broad EB On- Patterns (PM)



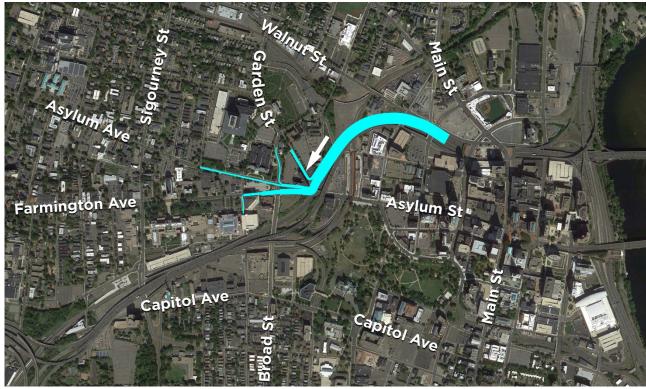


#### Proposed Road A EB On- Patterns (PM)



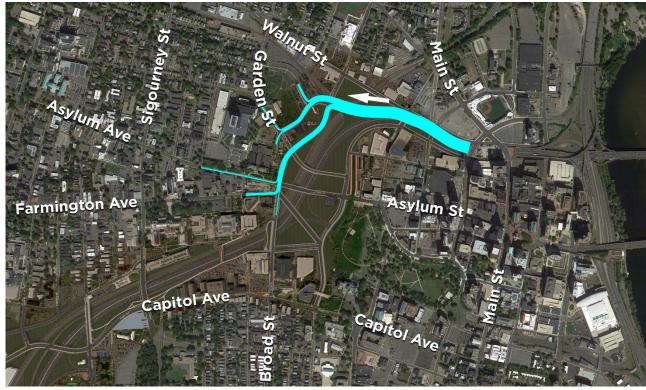


## Existing Asylum WB Off- Patterns (AM)



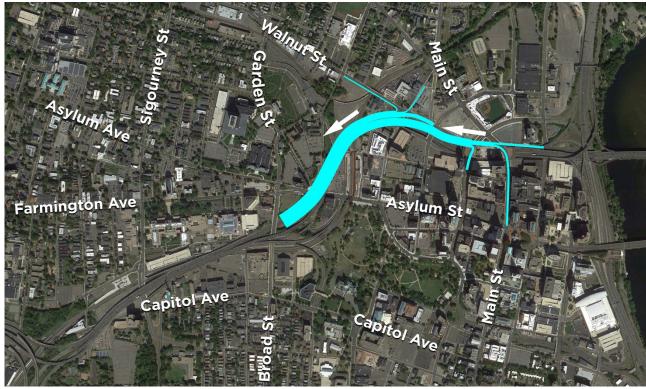


#### Proposed Edwards WB Off- Patterns (AM)





## Existing Trumbull WB On- Patterns (PM)





## Existing Capitol / Asylum WB On- Patterns (PM)





#### Proposed Edwards WB On- Patterns (PM)





## 84 The Trident Area

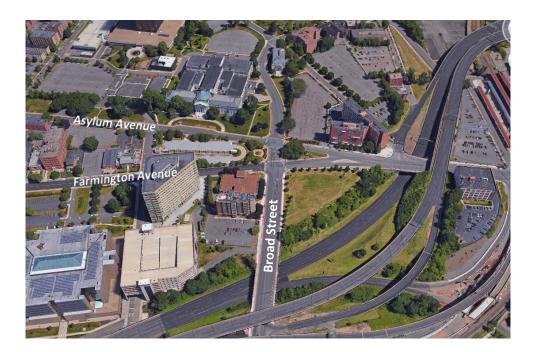




## The Trident Area

#### Opportunities:

- Reimagine street character
- Improve mobility
- Enhance pedestrian and bicycle mobility





## Many Concepts Considered





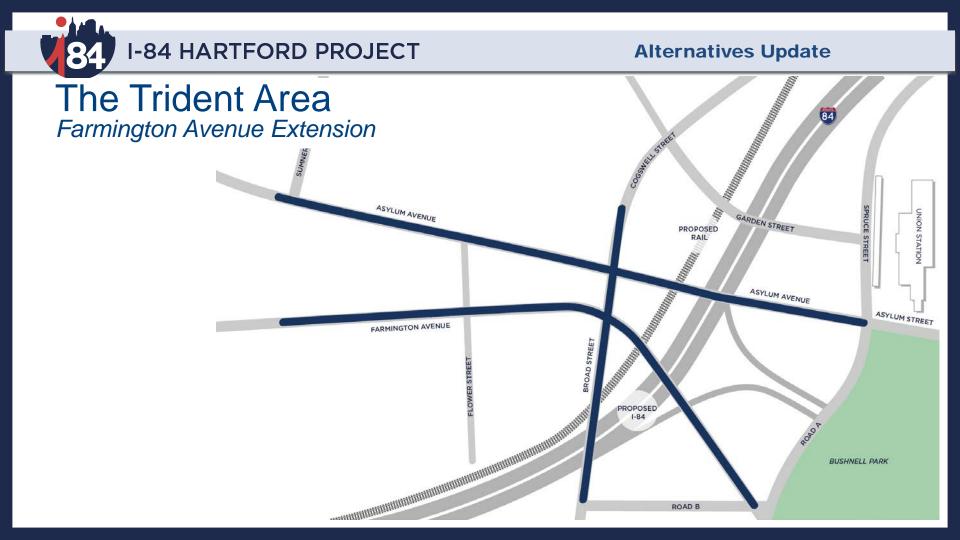
## **Options Analyzed**

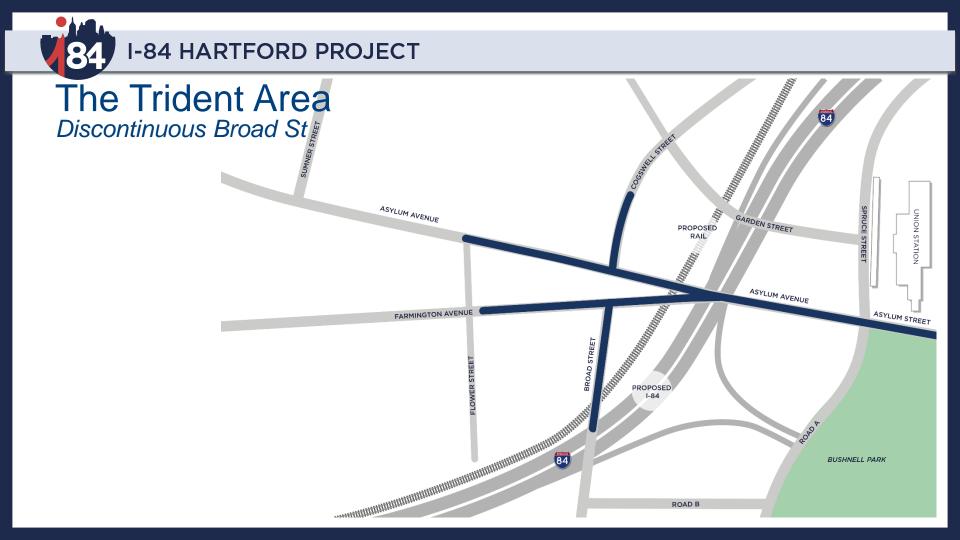


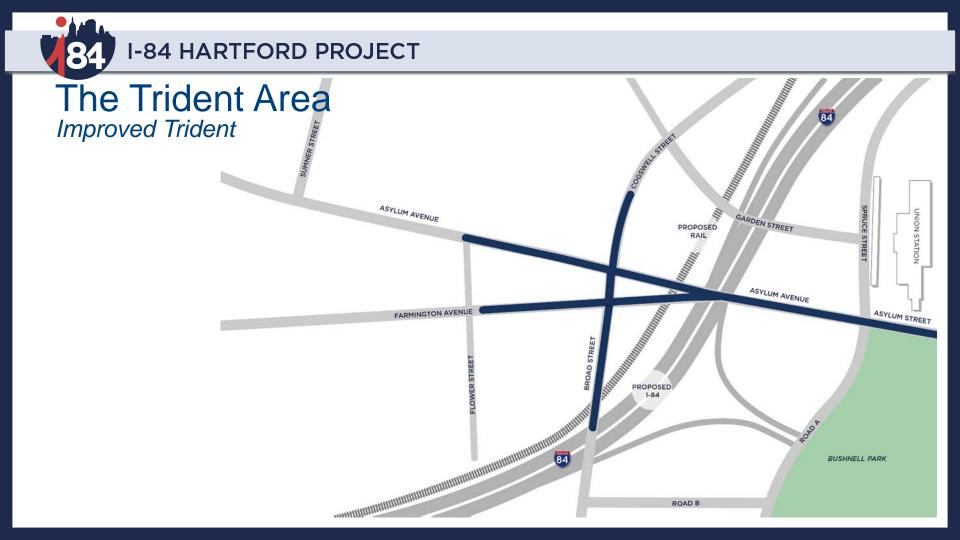
Roundabout

Western Shift

Farmington Ave Extension Discontinuous Broad St Improved Trident









## Recent Work

- Adoption and evaluation of Farmington Ave extension
- Continued evaluation of discontinuous Broad St
- Development of Level 3 Screening



# Asylum Hill



1-84 HARTFORD PROJECT

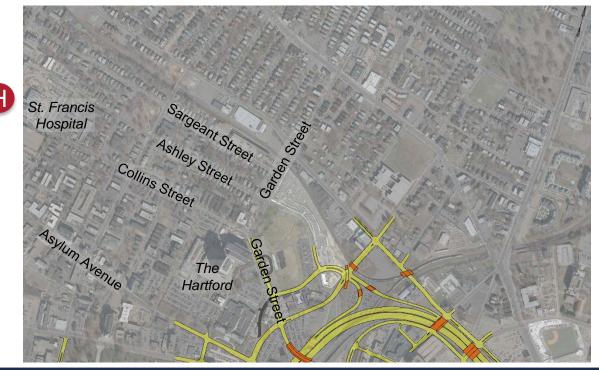
#### Third Focus Area Asylum Hill Travel Patterns – Original 3B-E5(S)





## **Third Focus Area**

Asylum Hill Travel Patterns – Potential Reconfiguration



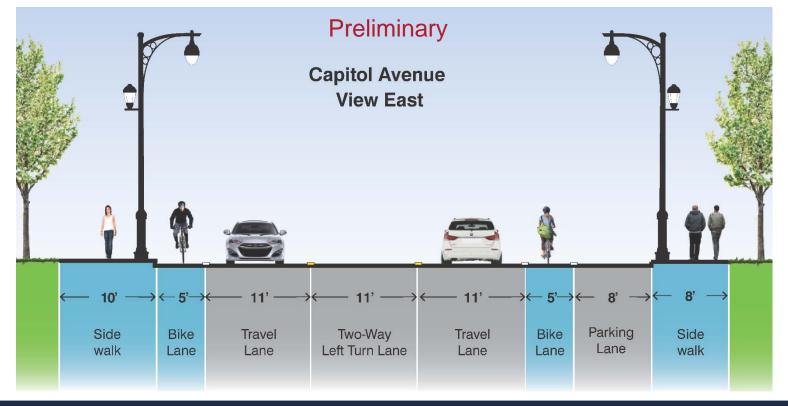


# **84** Local Street Typical Sections



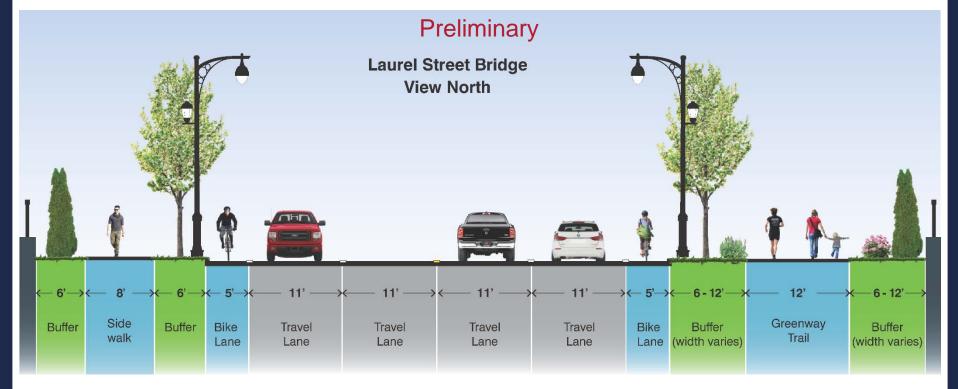


## **Capitol Avenue**





## Laurel Street



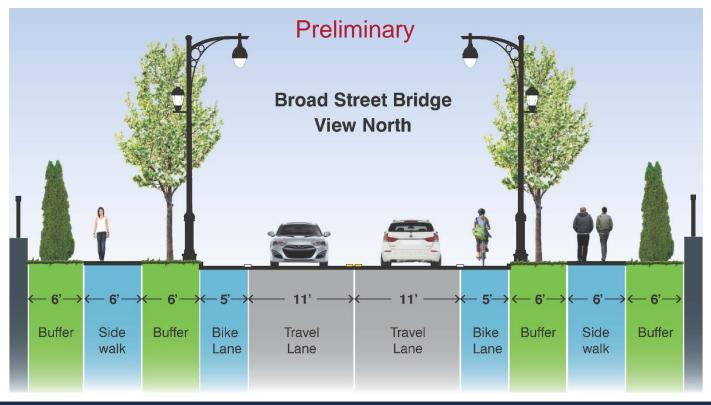


#### I-84 HARTFORD PROJECT

#### **Sigourney Street** Preliminary **Sigourney Street View North** Shoulder 2'min. 6' 10' 2,3) 6' 6' 6' $11^{\circ}$ Shoulder Side Two-Way Buffer Side Travel Travel Travel Travel Buffer walk Cycle walk Lane Lane Lane Lane Area Area Track

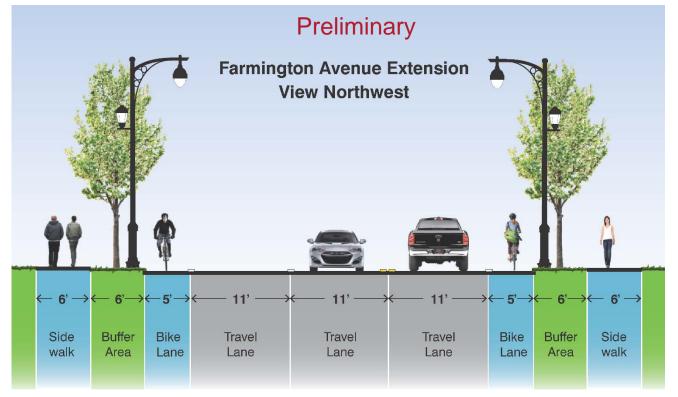


## **Broad Street**



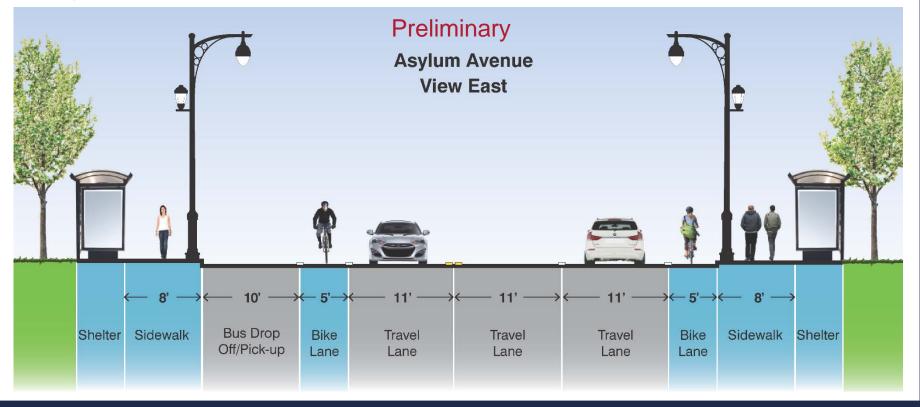


## Farmington Avenue Extension





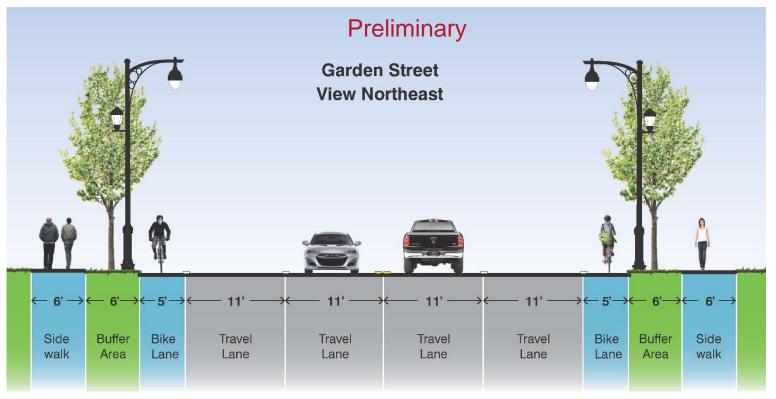
## Asylum Avenue





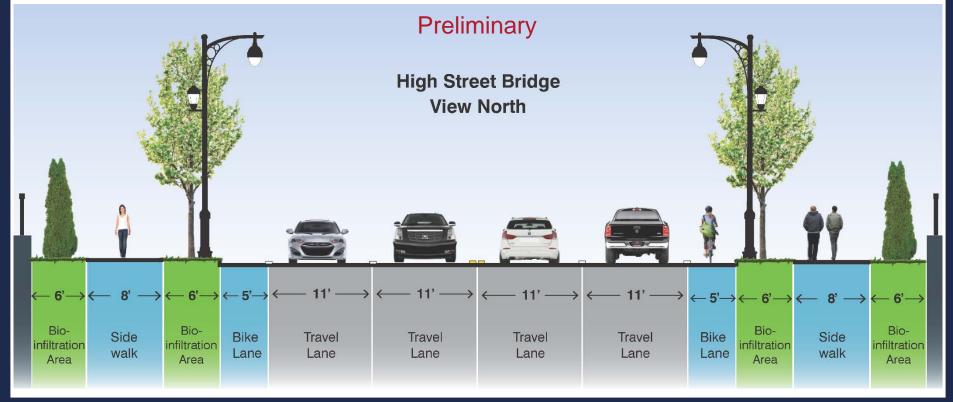
#### I-84 HARTFORD PROJECT

## **Garden Street Extension**





## High Street





## Ann Uccello Street

